

KANUKU MOUNTAINS PROTECTED AREA PROCESS COMMUNITY RESOURCE EVALUATION



SAINT IGNATIUS VILLAGE REPORT

October 23 - November 2 2002

COMMUNITY RESOURCE EVALUATION

ST. IGNATIUS VILLAGE REPORT October 23 – November 2, 2002

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Acknowledgement

"Thank you"

This report is the record of work that was done in St Ignatius Village by the participants who represented their community and the members of the Conservation International team during the Community Resource Evaluation workshop.

All of the work in this report is result of the dedication and hard work of these persons who gave their time and shared their knowledge.

We would therefore like to thank each of the participants for taking time out from their lives to be part of the workshop.

The workshop would not have been possible without the help and support of Touchau Wilson Laurentino, the other members of the village council and the Community Coordinator, Rosalind Fariás, all of whom worked together to make the CRE a success and for allowing the use of the Benab.

We would also like to thank Delores, Georgina and Hourí for working tirelessly to provide the workshop with meals.

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LIST OF ABBREVIATIONS

CI -	Conservation International
CIG -	Conservation International Guyana
CRE -	Community Resource Evaluation
EPA -	Environmental Protection Agency
GCF -	Global Conservation Fund
GoG -	Government of Guyana
GPS -	Global Positioning System
ISV -	Initial Site Visits
KMPA -	Kanuku Mountains Protected Area
NAG -	National Advisory Group
NGOs -	Non-Governmental Organizations
NPAS -	National Protected Areas System
PA -	Protected Areas
PRA -	Participatory Rural Appraisal
RAG -	Regional Advisory Group
USAID -	United States Agency for International Development

INTRODUCTION

The Kanuku Mountains are considered to be one of the most biologically diverse areas in Guyana. In addition to the numerous eco-systems and unique flora and fauna found there, the Kanukus also support the livelihood, culture, and history of eighteen villages peopled by two of Guyana's Indigenous tribes, the Macushi and the Wapishana. As a result, the Government of Guyana has identified the Kanuku Mountain Region as an important area for conservation.

This report is the result of a Community Resource Evaluation (CRE) exercise that was conducted from May to December 2002 in eighteen communities that directly use the resources of the Kanuku Mountains. The purpose of the CRE was to determine the resource use patterns of these villages. For a period of eight months a group of ten CI researchers collaborated with members of each community to determine resource use in the area through workshops, discussions, fieldwork, and surveys.

This Village Report documents the quality and intensity of the resource use of the community in its interaction with the Kanuku Mountains, and also explores the community's perceived threats to that use. The Community Resource Evaluation (CRE) focused on the resource use categories of farming, hunting, fishing, and gathering.

The CRE report provides the resource use information set required for developing a proposal for a Protected Area in the Kanuku Mountains (KMPA). It is a tool to enable the community to record and communicate its resource use information to key government decision makers and other stakeholders in the process of proposing a protected area.

The information presented in this report was collected during a ten-day workshop in which a Conservation International research team collaborated with community participants to create tools to gather information on the resource use of the village. The CI team included members from the subject communities, who served as advisors, interpreters, and facilitators in the planning and implementation of the workshops.

The results of the CRE workshop are presented in three sections. The first records the research tools created by the participants: the resource list, the seasonal calendar, and resource use sketch maps. The second section presents the results of the data shared by the participants and collected during field observation in the mountains and in the village. In the final section, the results of the tool creation and the field observation are assessed to provide a profile of the way the community uses the resources of the Kanuku Mountains.

The CIG field team members included:

Andrew Demetro	Indigenous Knowledge Advisor
Richard Wilson	Indigenous Knowledge Advisor
Nial Joseph	Global Information Systems Technician
Vitus Antone	Forest Resource Advisor
Margaret Gomes	Wapishana Interpreter
Natalie Victoriano	Macushi Interpreter
Lloyd Ramdin	Agricultural Advisor
Sebastian Tancredo	Field Team Leader
Esther McIntosh	Facilitator
Susan Stone	Project Manager/Facilitator

The entire series of CRE workshops was implemented from CIG's Lethem office with the support and assistance of:

George Franklin	Regional Coordinator
Patricia Fredericks	Education and Awareness Officer
Julie Kanhai	Database Coordinator
Wendy Leandro	Education and Awareness Assistant
Margaret Kahn	Accounting
Vibert James/Stewart Charles	Transportation
Annie Charles	Meals

This study was initiated by the Government of Guyana (GoG) under the auspices of the Environmental Protection Agency's National Protected Areas Secretariat.

WORDS AND PLACE NAMES

In the writing of this report we have made every attempt to use the names of places and resources most commonly known in the region. Both Macushi and Wapishana are oral languages in their original form. Projects are now underway to create a written form of both languages. During such a transitional period, it can be difficult to find agreed upon for word usage and spellings.

The resource lists and seasonal calendars are reproduced largely as the participants recorded them. When the same resource item was spelled in different ways, the most commonly known spelling was used. This was assisted by the feedback from the participants during the Results Feedback Workshops held in each community, and by the Macushi and Wapishana members of the CRE team.

The spelling of place names was standardized in the text of the Village Reports, again using the most commonly recognized spelling, as best it could be determined. In the list of the geo-referenced resource use sites, the place names are shown as the team members recorded them.

In addition to the community and CRE team members, we have relied on the “Scholars Dictionary and Grammar of the Wapishana Language-Tominpainao Ati’o Wapichan Paradan Parada-karu na’iki Paradauzo-kara kaduzu”, as compiled by the Wapishana Language project in cooperation with Wapichan Wadauniinao Ati’o. The Wapishana language Project, Rupununi, Guyana (August 2000) and “Makusipe Komanto Iseru: Sustaining Makushi Way of Life, edited by Janet Forte, commissioned by the Iwokrama Rainforest Program, copyright by North Rupununi District Development Board, 1996. These works provided valuable guidance in common names, word usage and spellings.

CONSERVATION INTERNATIONAL

Conservation International (CI) is a global leader in conservation – working to preserve threatened ecosystems in more than thirty countries on four continents.

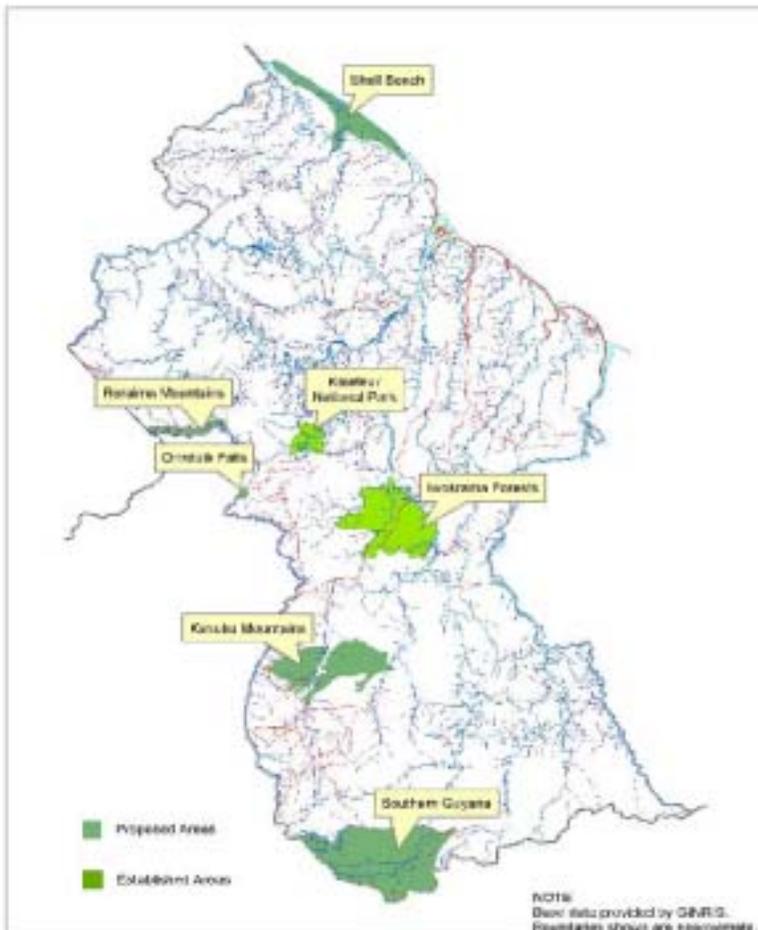
CI has been active in Guyana since 1990 and has led research expeditions, media events and educational activities. The strategic plan of CI Guyana (CIG) is to promote the conservation of biodiversity and the protection of critical ecosystems, through a process comprising scientific research based on priority setting, collaboration with partner NGOs and state agencies, and consultation with communities and other stakeholders.

In 2000, the Government of Guyana, through the Environmental Protection Agency, invited CI Guyana to perform the role of lead agency in the process of establishing a protected area in the Kanuku Mountains, one of the five priority sites identified for conservation. CI Guyana is committed to a process that involves and seeks participation of all stakeholders at the national, regional, and community levels.

PROJECT LOCATION

The Kanuku Mountains are located in the Rupununi Savannas of Region Nine of southwestern Guyana. The mountains are approximately 100 km east-to-west and 50km north-to-south and are divided by the Rupununi River into eastern and western ranges with peaks up to 1,000 meters.

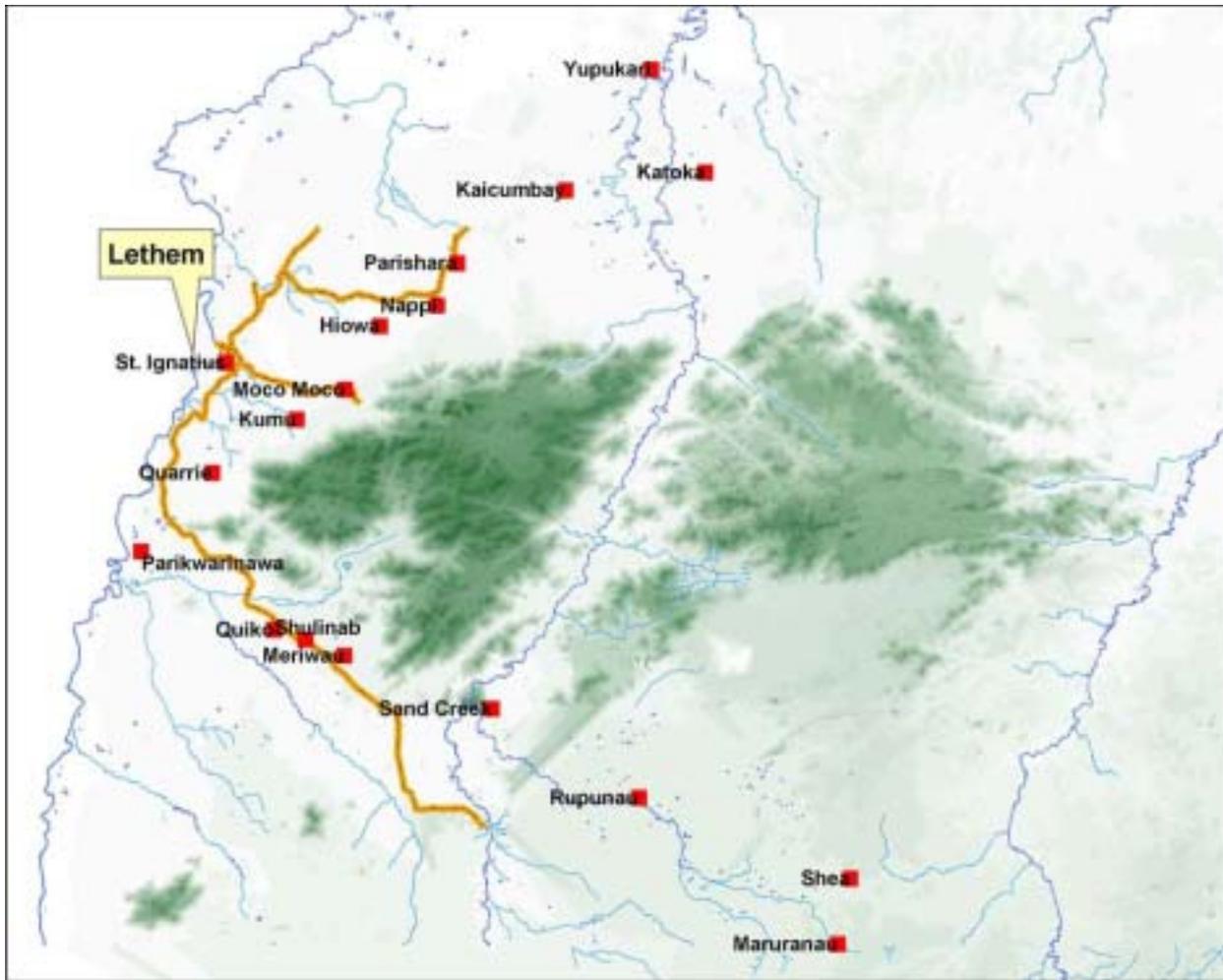
The Kanuku Mountains Proposed Protected Area (KMPA) is one of five areas in Guyana that have been identified by the Environmental Protection Agency (EPA) for conservation efforts. These areas are selected because of their beauty, landscape or richness in biodiversity.



Map Showing Five Priority Sites in Guyana

The Kanuku Mountain Range was identified because it is one of the most biologically diverse areas in Guyana. Approximately 350 species of birds, or about half of all the bird species so far identified in Guyana can be found in the Kanuku Mountains. Eighteen of these species are unique to the lowland forests of the Guianas. The Kanuku Mountains are also home to two of Guyana's nine Amerindian tribes: the Wapishana and the Macushi.

The eighteen villages that were studied use the resources of both the western (13) and eastern (5) ranges of the Kanukus. The riverain communities of Sand Creek, Katoka, and Yupukari access resources on both sides of the Rupununi River, their activities taking them into both ranges of the Kanukus.



Map showing 18 Communities that directly use the Kanuku Mountains

PROJECT OVERVIEW

Conservation International has a long-standing presence in Region 9, which began in 1991 with the filming of the Harpy Eagle for National Geographic. In 2000 Conservation International Guyana was asked by the Government of Guyana (GoG), through the EPA to be the Lead Agency in guiding the process leading up to the declaration of a Protected Area in the vicinity of the Kanuku Mountains.

In pursuing this mandate CI's work has been divided into two main areas: gathering information and engaging stakeholders.

The participation of stakeholders has been identified as being critical to the process. Therefore between April 2000 and April 2001, consultations were held with Regional and National stakeholders. Advisory committees were formed at both levels, the Regional Advisory Group (RAG) and National Advisory Group (NAG).

The RAG includes representation from local government institutions, Village Captains (Touchaus) and members of their Councils, the Touchaus Council, Women and Youth Groups, Indigenous Advocacy Groups and other interest groups functioning in Region 9.

Significant contributions of the RAG include:

- The identification of the eighteen (18) communities to be directly involved in the consultation process;
- The identification of two (2) Indigenous Knowledge Advisers to the consultation teams to ensure that culturally appropriate processes were followed, through which community members were able to express their views;
- The identification of two (2) interpreters - one (1) Macushi and one (1) Wapishana, to accompany the consultation teams;
- The endorsement of the principle of one (1) person from each of the communities functioning as a Community Coordinator. The appointment of the Community Coordinator was made by the communities and his/her role was to:
 - a. Provide a continuous presence in the villages after the consultation teams had left;
 - b. Explain during the period that the consultation teams were away from the villages, those concepts that might not have been clear to them during the meetings or for which additional information was needed; and
 - c. Function as a liaison between their community and CIG.
- The endorsement of the programme of consultations, and also the representation of the regional stakeholders on the National Advisory Group.

The RAG also made recommendations for:

- a. Improvement in the proposed programme of consultations, education and awareness engagements and training; and
- b. The scheduling of consultations.

The National Advisory Group was comprised of representatives of the natural resources sectors, other relevant agencies of GOG, the Human Rights Association, all Indigenous Advocacy Groups, other environmental NGOs, opinion leaders and Parliamentary Opposition Political Parties, among others.

Significant contributions of the NAG include the:

- Recommendations to improve the proposed programme of consultations, education and awareness engagements and training;
- Endorsement of the final programme for consultations;
- Identification of the natural resources sectors which were to be more directly involved in the consultations;
- Recommendation of the datasets to be made available for the design of the protected area; and
- Provision of a forum for the concerns of the representatives from the RAG to articulate the views and concerns of the stakeholder groups that they represented.

Initial Site Visits (ISVs) were conducted in all of the eighteen communities to provide information on Conservation International, the protected area process, and the proposed Community Resource Evaluation. Recognizing the need for an informed stakeholder group, workshops were held for community leadership (Touchau, Village Council, Teachers and Community Coordinators). The CRE activity represents a continuation in efforts to engage a wide stakeholder group.

In the area of information gathering several complementary studies were carried out. These included, digital over flights, scientific research for biological data (CI Rapid Assessment Program in 1993, 2001) and a CI commissioned Socio-Economic Survey (Gordon Forte, 2001). The Government of Guyana's 1992 *Country Study of Biological Diversity* informed these later activities. The information obtained from the CRE represents the final set of data that is required to inform the management objectives leading to the proposal of the appropriate type of protected area in the vicinity of the Kanuku Mountains.

CRE OVERVIEW

The overall purpose of the Community Resource Evaluation (CRE) is to work together with the community to understand the extent and intensity of resource use by the eighteen villages that directly use the resources of the Kanuku Mountains. By involving the community in the research the CRE also provides an avenue for the community to communicate its resource use to key decision makers and stakeholders in the process of establishing a protected area

The CRE is an informal data collection exercise to gather information on resource use patterns in the Kanuku Mountains. The study seeks to record what resources are used, the extent of use (where the communities hunt, fish, farm and gather) and local perceptions of resource availability and threats.

Some of the methods that were used in the CRE have been adapted from the Participatory Rural Appraisal (PRA) research methodology used to gather information in rural areas. It stresses a participatory approach to development and learning from the local people.

One of the main strengths of the CRE is that the community, by selecting twenty-five to thirty villagers to participate in the research, has been engaged directly. The participants took part in the exercise, received training, shared knowledge, and were able to successfully contribute to the data collection.

METHODOLOGY

The tools used in the CRE were designed to be simple and to allow for maximum participation. To ensure effective communication and understanding, sessions and discussions were conducted in the local language whenever necessary. The Community Coordinator served as part of the CI team, assisting in interpretation, logistics, and leading bush or village teams. The approach is a learning process; to this end all the participants and the CI team members are simultaneously learners and teachers.

Through discussion, spatial data exercises and field observation, a common frame of reference is created to enable the community to effectively communicate its patterns of resource use to the government and non-government agencies involved with them in the protected areas process.

At the beginning of each CRE a public meeting is held to inform the community about the exercise and to provide information. Twenty-five persons are selected by the community to represent them in the CRE. The selections are made independently, with the criteria that all community groups are represented, (including women, youths, and a range of age groups) and that persons with knowledge of the forests and trails are included.

DESCRIPTION OF TOOLS

The following tools form the basis of the CRE:

- 1. Focus Groups**
- 2. Resource List**
- 3. Seasonal Calendar**
- 4. Resource Sketch Maps**
- 5. Field Observation**
- 6. Surveys**
- 7. Mini lectures**

1. Focus Groups

The twenty-five participants work with the CRE team throughout the evaluation exercise both in large and small group discussions. During the first day's activities, this group self-selects into three focus groups of eight-nine persons to work in the resource categories of

a.) Farming; b.) Hunting & fishing; c.) Gathering. Their decision is based on their knowledge of the focus group topic. The large group serves as a unit to discuss the results of the focus group sessions, and to provide feedback and broader consensus on the information recorded.

2. Resource List – “The What”

The resource list is created first, and forms the basis for the other tools. Participants list all of the resources in the category that are actively used by their community. The names of resources are listed in English and, where possible, in the local language.

3. Seasonal Calendar – “The When”

The seasonal calendar is a participatory tool used to explore seasonal changes and the activities of the village during the year in each resource use category. The creation of the seasonal calendar begins with the listing of the twelve months of the calendar year. This forms the basis for a group discussion among the entire participant group. The participants list the main seasons, wet and dry, as they occur throughout the year. The intermittent showers and dry spells are also included. Because the seasons are closely linked to the movement of the stars and other natural events, these milestones are also included. Once the seasonal comparison is completed, the large group then breaks into the three focus groups and individually lists the activities in the resource category that are done throughout the year. The groups then reconvene in the large group and present their work for validation and correction.

4. Sketch Mapping

The core of the methodology is the use of informal sketch mapping. This tool is used to create a visual, spatial representation of village resource use areas. This traditional Participatory Rural Appraisal technique is modified to exclude the use of boundaries in the mapping exercise. The goal is to have the community create a spatial record of resource use, without regard to boundaries, whether actual or perceived, and without regard to land ownership. The focus is the area of actual use wherever it occurs. This approach allows the community to focus their feedback on the primary goal of the CRE exercise - communicating and understanding where and how resources are used – with emphasis on the extent and intensity of use into the Kanuku Mountains.

In order to create a spatial frame of reference for the recording and discussion of use, participants are asked to sketch out a skeleton or base map of the significant features of the community – village center, roads, trails, waterways, that are essential to accessing and using resources. Participants draw the skeleton map on a large chalkboard from each resource group. The entire participant group must come to consensus that the base map created adequately represents the village. The skeleton map is then copied by all the groups onto separate cardboard sheets, which are used, by each focus group to record the specific resources used in the areas identified during their discussions. The maps are then presented to the larger group for input as to content and accuracy. These maps are also taken into the field so that the information can be verified through observation, and the furthest points of use as indicated can be visited, observed and geo-referenced.

When all of the individual Resource-Use Sketch Maps have been created, the resource information is combined and recorded on the chalkboard skeleton map resulting in a complete visual and spatial profile of the type and location of resource use in the community. The entire group must again come to agreement that the

combined representation accurately depicts the resource use of the village. The information is then transferred from the chalkboard onto plywood board using paints in a variety of colors to create a permanent community resource use record.

All the maps are digitally photographed to preserve the data for analysis. The originals of the Resource-Use Sketch Maps and the Master Resource-Use Map remain in the community as their record of the Community Resource Evaluation exercise. A copy of the master resource map is drawn for the records of the CRE team.

5. Field Observation

After the basic tools are completed, the participants are divided into two groups: the “bush team” of approximately fifteen persons, focusing on field observation, and the “village team” of ten persons, focusing on the village survey interviews and student interactions.

The “bush team” meets as a group to study the sketch maps and to decide on the routes to be taken to observe important resource use areas, and to reach the furthest points of use. The group then divides into three groups, each assigned to a different route. The community participants lead the team, with a CI team member facilitating the work. The purpose of the fieldwork is to work together with the community participants to:

- a. Verify information on location and extent of resource use as discussed and recorded in the focus group and sketch mapping activities, using the Resource Use Sketch Map from each individual category, as the basic reference tool
- b. Record information about each site visited on a field data form.
- c. Locate and geo-reference the sites visited, including the points of furthest use in the furthest areas of use

6. Village Surveys

During the four-day period the “bush team” is in the field, the remaining participants on the “village team” conduct informal interviews with the wider community. This is done using a survey with simple questions about resource use in the same categories addressed by the focus groups:

- A mini-lecture is given on information gathering and surveying techniques
- The participants then undergo a mock interview exercise for practice
- The community participants draw an informal sketch map of the village on which all households are placed. The group selects potential interviewees based on representation of village areas and the different social groups within the village.
- The participants go out to the homes of those who have been identified to seek permission for the interview
- The interviews are conducted

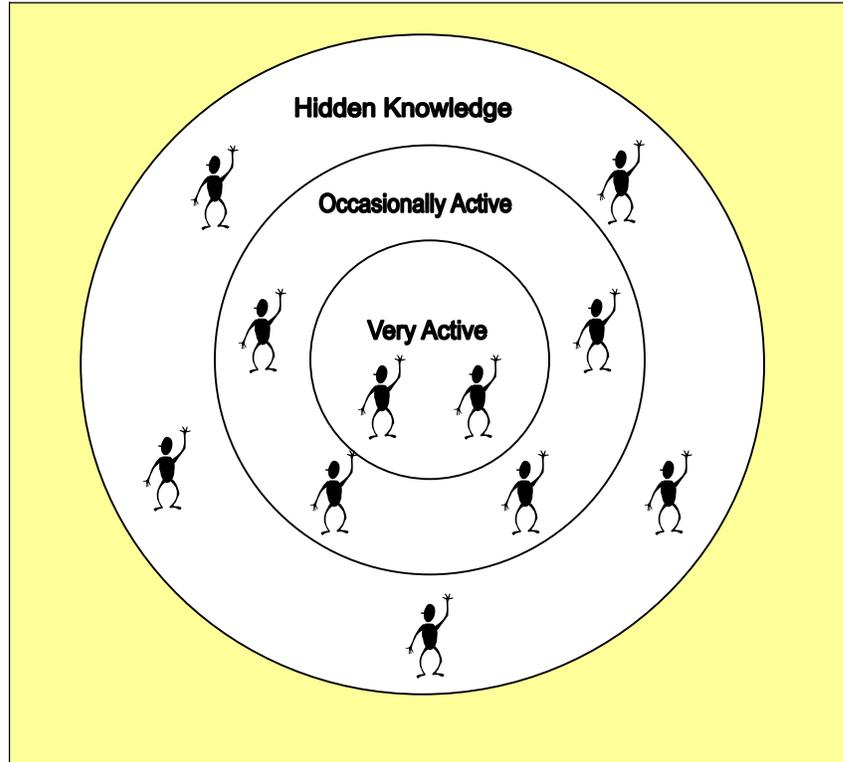
- A sample of the results of the survey are compiled and studied

7. Mini Lectures

A number of short lectures are used throughout the exercise to build upon the education and awareness aspect of the consultation process. Topics include those which were presented in the Initial Site Visits.

1. Protected Areas
 - The categories of Protected Areas
 - The steps to establishing a Protected Area
2. Conservation International and its role as a lead agency
3. Levels of Community Participation (see diagram below)
4. Where am I on the face of the Earth
 - Informal versus formal mapping
 - Geo-referencing/GPS training – a tool to record resource site location.
5. Survey methods and techniques

LEVELS OF COMMUNITY PARTICIPATION EXERCISE



Very Active participation refers to persons that are always involved in community activities. This group of people is very informed and active in the village. An example of this type of person would be the Touchau, Councillors, Parents Teachers Friends Assn. (PTFA), teachers and community health worker (CHW).

Occasionally Active participation refers to persons who are sometimes involved in community activities, because they have an interest in one or more area, for example attendance at the PTFA or church meeting. These persons would only be part of these meetings when the topic affects them.

Hidden Knowledge refers to those persons who seldom attend community meetings. Because these persons frequently live far from the village center, they may not attend church services (where most announcements about community events are made) and are not really a part of the activities in the village. These persons often have a broad knowledge about resources and their environment, but as they do not have an opportunity to share what they know, it remains “hidden” from the community.

For the purpose of the CRE everyone is important and has an important role to play in the exercise.

TYPICAL CRE ACTIVITY TIMELINE

CRE ACTIVITY	Day 1	Day 2	Day 3	Day OFF	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10
Village Council Meeting										
Public Meeting										
Resource List										
Seasonal Calendar										
Resource Maps										
Field work Preparation										
Field Work										
Student Interactions										
Surveys										
Closing Public Meeting										

For a brief activity schedule see Appendix 1.

Community Resource Evaluation Village Report

ST. IGNATIUS

ST. IGNATIUS VILLAGE REPORT

The Community Resource Evaluation (CRE) was conducted at St. Ignatius from October 23rd to November 2nd, 2002. The purpose of the CRE, as outlined in the first section of the report, was to work along with the community to understand their resource use patterns in the Kanuku Mountains.

The CRE engaged a wide range of participants including village councillors, women and church group leaders, youths and elders. The group included persons having a vast knowledge of various aspects of their resources from which the activity greatly benefited.

The CRE was able to successfully meet its objectives in collecting information from the community, geo-referencing the furthest points of resource use and reaching out to members of the wider community.

The information contained in this St. Ignatius Village Report is divided into three main sections. The first section provides information on the village including demographics and a list of the participant group. The introduction is followed by a section, which lists the results of the workshop tools i.e. resource lists, seasonal calendar and sketch maps. The second section also includes the results of the fieldwork done in the mountains and in the village. The third and final section provides a resource-use profile of the village, which is an analysis of the patterns of resource use as observed and documented during the CRE.

VILLAGE DESCRIPTION

The housing area of St. Ignatius is separated from Lethem by the Moco Moco Creek. The community is approximately 10 miles due northwest to the Kanuku Mountains. The main road to the south savannahs, crossing the Moco Moco Creek higher up and passing by the end of the village provides reliable access to St. Ignatius in any weather.

Good vehicle roads lead from the village across the main road toward the Kanukus, providing fast access to Kumu and Quarrie, villages administered by St. Ignatius to St. Ignatius farmlands. Kumu is about five miles and Quarrie about eight miles from the center of St. Ignatius at 3.35894°N and 59.79633°W.

Farming is done to a lesser extent than in other communities since basic needs are readily met in shops and stores in Lethem and St. Ignatius proper, and many of the village residents are employed.

DEMOGRAPHICS

There are approximately 239 households in the village. The majority of which are Macushi speakers. The population totals six hundred and twenty four (614) persons with three hundred and twenty seven (327) of that figure being male and two hundred and eighty seven (287) being female.

Population structure

Age Group	Male	Female	Total
< 1 yr	6	3	9
1 – 4 yrs	38	34	72
5 – 14 yrs	99	76	175
15 – 19 yrs	126	127	253
20 – 44 yrs	48	40	88
45 – 60 yrs	10	7	17
Total	327	287	614

It is unclear whether these figures include the students of the regional secondary school, with an enrolment of 353 students aged 12 to 16 years out of a total number elsewhere reported for the village of 682, of whom males were 345 and 337 female.

Administration

The village of St. Ignatius includes three members representing Quarrie and five representing Kumu. The following persons were elected to the Village Council on March 16, 2002:

- **Wilson Laurentino (Captain)**
- **Mark Carrington**
- **Dennis Baretto**
- **Stella George**
- **Roland Joseph**
- **Rema Jameer**
- **Peter Joseph**

PARTICIPANT GROUP PROFILE

The participant group represented a wide range of persons from all parts of the village.

In total there were twenty-six persons. Of the entire group six (6) women and twenty (20) men participated.

In addition to representatives of the Village Council – including the Touchau Wilson Laurentino, – there were members of the Church, a rural constable, former village captain and youths. The group included active farmers, hunters, fishermen and gatherers who brought a wealth of knowledge to the workshop.



CRE participants

The majority of participants had been involved in a workshop before.

The names of the participant group are as follows:

Victor Ambrose	Ivan Andrew	Sandra Buckley	Marcos Carrington
Joe Francis	Yonette Joseph	Rose Jacobs	Aaron Joseph
Eva Joseph	Daxton Parks	Batson Lorentino	Wilson Lorentino
Billy Mc Donald	Kenneth Mc Donald	Terrence Parks	Harry Pedro
Jaime D’Aguiar	Louisa D’Aguiar	Aaron Tacoordeen	Elvis Rodrigues
George Joseph	Peter Joseph	Maxwell Francisco	
Dianne Martin	Andrew Mc Donald	Lilian Pereira	

Community Coordinator – Rosalind Farias

Participant Age Profile

AGE	15 - 28	29 - 40	41 – 55	Above 55
No. of persons	12	6	4	1

The CI team consisted of:

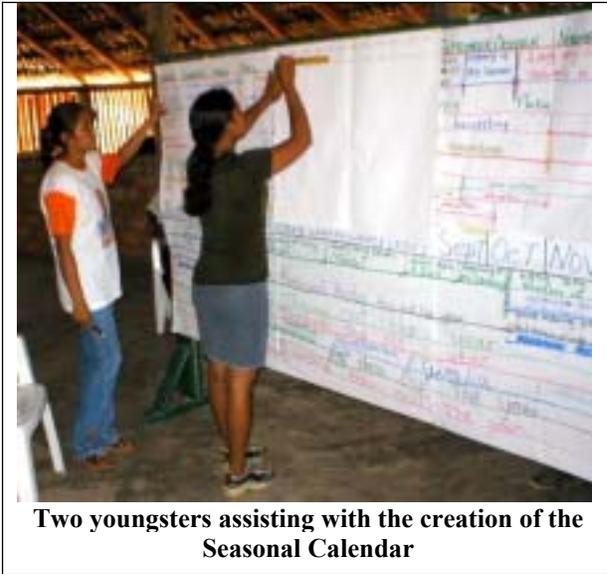
Richard Wilson – Indigenous Knowledge Advisor
Wendy Leandro – Resource Assistant, E&A
Margaret Gomes – Wapishana Translator
George Franklin – Regional Coordinator
Lloyd Ramdin-Agricultural Advisor
Patricia Fredericks – Education & Awareness Coordinator



From left: Richard, Wendy, Lloyd, Margaret and George.

CRE WOKSHOP RESULTS

CREATION OF THE TOOLS



Two youngsters assisting with the creation of the Seasonal Calendar

The creation of the tools for the workshop took approximately three days. The participants divided themselves into three focus groups to produce the tools in the different resource use areas: farming, hunting/fishing and gathering.

After each tool was complete, the group reported on the work. This allowed contributions and agreement from the whole group for each resource area. Each group created a resource list and sketch map. The seasonal calendar was done with the help of the whole group.

Participants created three tools to help

communicate St. Ignatius's resource use:

- Resource list – “what” resources the community uses
- A Seasonal Calendar – “when” the resources are used
- Sketch Maps – “where” the resources are found

In this section the results of each of the resource focus groups will be examined individually. The information is presented in the following order: farming, hunting, fishing, and gathering.

RESOURCE LISTS

“The What”

FARMING

The farming group listed a number of crops (thirty-three) in total that are used by the community. This list includes: fruits, ground provisions, cotton and coffee.

Crops			
1.	Bitter Cassava	18	Citrus
2.	Sweet cassava	19.	Pear
3.	Banana	20.	Crawa
4.	Plantain	21.	Ginger
5.	Eddoe	22.	Vegetables
6.	Yam	23.	Calabash
7.	Potato	24.	Coconut
8.	Pine	25.	Peanut
9.	Sugar cane	26.	Sorrel
10.	Corn	27.	Cunani
11.	Paddy	28.	Tobacco
12.	Pumpkin	29.	Barley
13.	Papaw	30.	Benah
14.	Pepper	31.	Elephant grass
15.	Cotton	32.	Arrow cane
16.	Peas	33.	Watermelon
17.	Coffee		

HUNTING & FISHING

The hunting and fishing group listed twenty-three different types of game and twenty-five different types of fish.

Fishing is done in the Takatu River, The elder people said that there was never arapaima there but now there are.

Hunting		Fishing	
1.	Labba	1.	Arapaima
2.	Deer – savannah, bush	2.	Bacha
3.	Bush cow	3.	Lukunani
4.	Acouri	4.	Sun fish
5.	Bush hog	5.	Patwa
6.	Watrash	6.	Piab
7.	Armadillo –bush, savannah	7.	Water turtle
8.	Spider monkey	8.	Crab
9.	Land turtle	9.	Tiger fish
10.	Powis	10.	Boots fish
11.	Marudi	11.	Arawana
12.	Duck	12.	Perai
13.	Maam	13.	Koyo koyo
14.	Macaw	14.	Mangi
15.	Toucan	15.	Hassar
16.	Adouri	16.	Houri
17.	Warcabra	17.	Pacou
18.	Iguana	18.	Banana fish
19.	Anteater	19.	Cat fish
20.	Yarrie- s/r/m	20.	Sardine fish
21.	Baboon	21.	Mata mata
22.	Bush turtle	22.	Sting ray
23.	Mountain chicken	23.	Sand soca
		24.	Sword fish
		25.	Cuti

GATHERING

The gathering group listed a number of materials that are used by the community. In total fifty-eight different types of materials that are gathered. The group further divided their list to reflect a number of sections: house materials, lumbering, craft materials, medicinal herbs & roots, minerals and fruits. In St. Ignatius there are several small enterprise initiatives including brick burning and cashew nut processing.

Materials			
	House Materials:		Lumbering:
1.	Yari Yari (fish rod)	26.	Boards
2.	Bush rope	27.	Coals
3.	Runners	28.	Fire wood
4.	Rafters	29.	Green heart
5.	Posts –house and fence	30.	Cedar, water and bitter
6.	Manicole	31.	Purple heart
7.	Leaves – cocrite and ete	32.	Cedar wood
8.	Wattles 10 straps	33.	Bullet wood
	Clays:		Medicinal herbs & roots:
9.	Local ornament	34.	Barks
10.	Colored clay	35.	Leaves
11.	Goblets	36.	Vines
12.	Bricks	37.	Cunani
13.	Pots	38.	Hiari
	Craft Materials:	39.	Capadula
14.	Axe handle	40.	Incense (moru ye gu)
15.	Arrows	41.	Cassava leaves
16.	Balata	42.	Cocrite worms (for face)
17.	Bamboo		Fruits:
18.	Leopard wood	43.	Wild papaw
19.	Muckru	44.	Whitey
20.	Nibi	45.	Turo
21.	Crawa (bow string)	46.	Lou
22.	Bow woo (letter wood)	47.	Awara
23.	Arrawa shoot	48.	Pear
24.	Aquero	49.	Locust
	Minerals:	50.	Wild ginie pap
25.	Precious stones	51.	Balata fruit
26.	Gold	52.	Wild cherries
27.	Diamond	53.	Cocorite
		54.	Ete
		55.	Plum
		56.	Cashew nut
		57.	Priko
		58.	Merishii fruit

SEASONAL CALENDAR

“The When”

The group identified two main seasons, the dry and the wet season. These seasons were then written down in the month (s) of the year in which they occur. As can be seen in the table the group identified a number of shorter intermittent spells of wet and dry weather that also occur within the year.

These seasons are sometimes given names based on a particular activity that occurs in nature that has evolved into a milestone, such as “Cashew Rains” shown in October.

Once the seasons were established and agreed to by the entire group, the participants proceeded to look at each resource category (farming, hunting & fishing, and gathering) and to list the activities that occur in those seasons. The information that follows is a description of the results of the completed seasonal calendar.

FARMING

Site selection and land preparation is concentrated mainly in the first three months of the year. As the calendar shows this is followed by planting and reaping of crops.

HUNTING & FISHING

Fishing is done throughout the year. As the calendar shows the community catches a wide variety of fish including yakatu, hassar and patwa. Hunting like fishing, is done throughout the year. The community engages a wide variety of methods; bow and arrows, traps, hunting dogs, guns, shovels, cutlasses and knives.

GATHERING

Gathering occurs throughout the year in the village. The materials that are listed include craft materials, lumber, leaves, clay, wild fruits, oil and incense.

Revised Seasonal Calendar for Saint Ignatius

January	February	March	April	May	June	July	August	September	October	November	December		
Long Dry Season with showers at the end of each month			Beginning of Rainy Season		Heavy Rains (Floods)		Short rains with sun in between	Beginning of Dry season	Cashew Rains (October) Long dry season with showers in between			Season	
Site Selection			Planting 3 and 9 mths cassava		Crop maintenance		Reaping 3 mths cassava& Planting					Cycle	
Reap 9 mths Cassava Cut and burn				Planting		Crop Maintenance		Harvesting					FARMING
Corn, Paddy, banana, plantain, yams, pepper				Planting		Crop Maintenance							
Maintenance				Harvesting									
Preparation of site for peanut				Planting	Crop Maintenance			Harvesting					
Preparation of site for pea					Planting	Maintenance		Harvesting					
Preparation of site for cotton			Planting	Crop Maintenance				Harvesting					
Mangi, Yakatu, Biara, Hassar, Houri, Sardine fish, Yarrow, Pacou								Patwa, cassie, Houri, Yarrow, Dog Fish					
				Boots fish, tiger fish, mangi, cassie, high water fish, cat fish, pine fish – setting fish line, boat, hook				Piab, Dari – fish rods, cast nets, stop off				FISHI	
Tapir, bush deer, bush hog, agouti, watrash, powis, armadillo, labba, land turtle				Savannah deer, hogs, watrash, armadillo		Tapir, hog, agouti, watrash, armadillo, labba, iguana, anteater, duck						HUNTING	
 <p style="color: brown; text-align: center;">Land turtle, hogs, agouti, bush deer, armadillo</p> <p style="color: brown; text-align: center;">Method: bow and arrows, traps, hunting dogs, guns, shovels, cutlass, knives, tangle seine</p>													
Fire wood, ete, craft materials, lumber, mining, medicinal herbs, oil, incense, cassava leaves, cocrite seeds, ginie pap, wild fruits like plum, cherries, Cocrite and balata fruits, wattles, fishing rods												GATHERING	
House materials, brick making, pots and goblets, Leaves, rafters, posts, runners, boards, collect									House materials, bush ropes, rafters, leaves, posts, runners, boards				

SKETCH MAPS

“The Where”

The sketch maps were the last tools that were created. A group of participants most knowledgeable about the community’s resource areas was selected to draw a base or skeleton map on a chalkboard, noting major features such as rivers, creeks, trails and the mountains. After the entire group viewed and agreed to the accuracy of this representation, the base map was copied onto separate cardboards. These were then used by each focus group to record the resource locations. In total three sketch maps were created in the three resource group categories of farming, hunting & fishing, and gathering. The keys of each resource map show the main resources that the participants selected to be included on the map.

The sketch maps were used by each of the field research teams to choose their routes. The maps show all the major resources in each resource category as prioritized by the participants.

The main river identified on the map is the Takatu River and several of its tributaries. The village also shows the main road, trails, and mountains.



Group work in creating the resource sketch map

Farming Resource Use Sketch Map

The farming areas of St. Ignatius village are found in primarily two areas. These are, along a small tributary of the Moco-Moco creek, Kumu creek, Luke Water and the Jawarie areas.

Both of these areas are close to the Kanuku Mountains and are also shared with Kumu village since it is closer to that area.



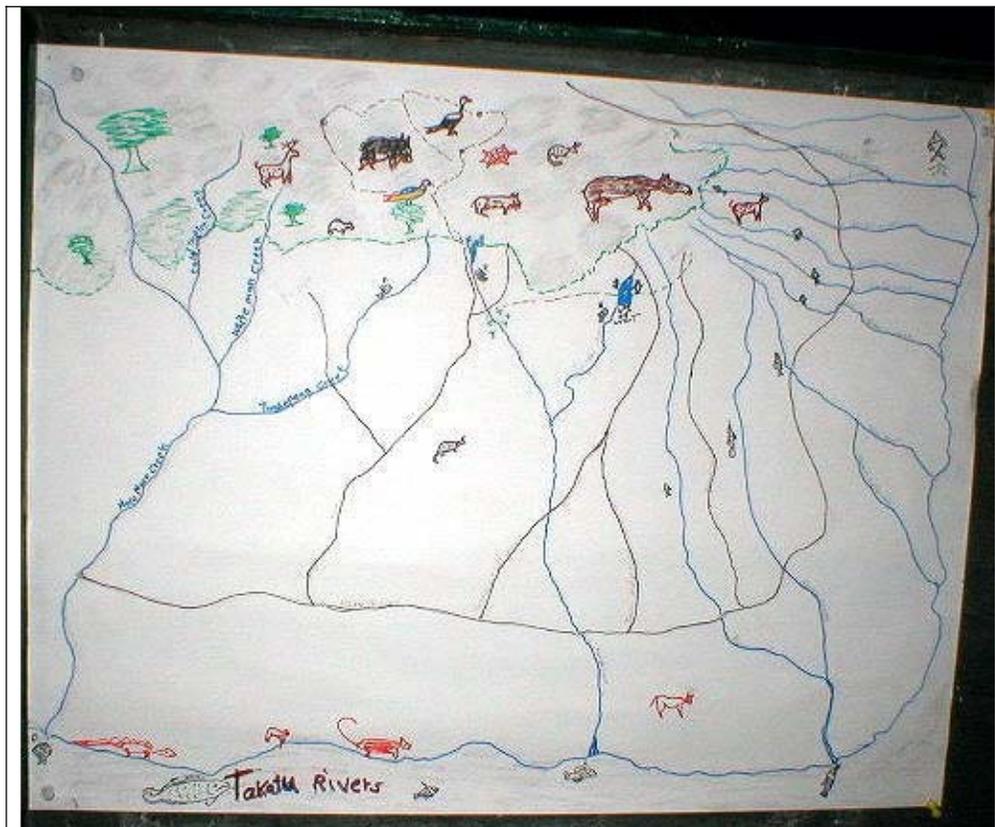
St. Ignatius Farming Map

Hunting And Fishing Resource Use Sketch Map

As is shown on the map fishing is concentrated along the Takatu River. Hunting is mostly done in the areas from the bush mouth through to the Mountain Foot. Some hunting is also done along the Takatu River.

Both of these areas are close to the Kanuku Mountains and are also shared with Kumu village since it is closer to that area. The species that are fished include; piab, basha, haimara, lukunani, pacou and biara.

The game that is hunted includes labba, deer, hogs, capybara and alligator.

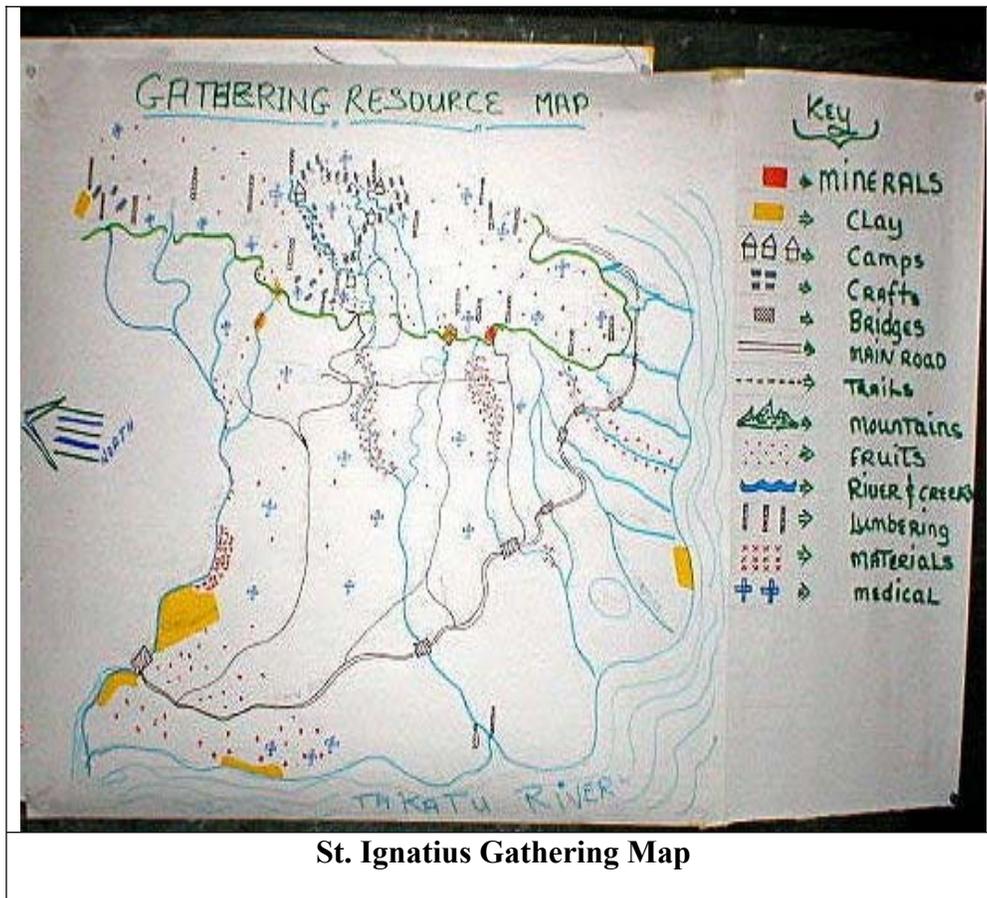


St. Ignatius Hunting and Fishing Map

Gathering Resource Use Sketch Map

The map below represents the resources gathered and the areas where these are located as identified by the participants of the CRE exercise.

The resources are located away from the mountains as well as in the mountains. As represented on the map there are three main areas identified as areas of abundant resources. Two patches of areas away from the mountains are mostly used for gathering house materials example; wood and leaves and up mountain for logging, medicines, and mineral also craft material e.g. muckru, nibi and others. There are trails also represented to show that there are uses of the resources in the mountains.



St. Ignatius Gathering Map

FIELD OBSERVATION

INTRODUCTION

The fieldwork that was conducted in St. Ignatius was coordinated with that done in Kumu and Quarrie. A meeting was held in St. Ignatius to decide the routes, the composition of the teams and to ensure that all the areas of used would be covered. In total six teams were sent out. Two of the teams departed from St. Ignatius.

Before the fieldwork began the members of the “bush team” received training on:

- How to use a GPS unit
- How to complete data forms



St. Ignatius bush team at Kumu Falls, a tourist attraction

There were approximately six persons on each team. Both teams observed and geo-referenced areas found along the way in each of the resource categories: farming, hunting & fishing and gathering. A CRE team member led both teams but all members of the team actively contributed to the information that was collected.

The reports that follow reflect observations and information gathered from the entire group. The information is presented individually, for each team including, who was on the team, the areas that were covered and general observations.

TEAM A

**Lloyd Ramdin (C.I.)
Aaron Joseph
George Joseph
Victor Loyola
Elvis Rodrigues
Maxwell Francisco**

AREAS COVERED

The furthest point visited in the mountain was **Bush Cow Mountain**, which is 12 miles away from the village. Other areas covered were:

- **Kumu Falls**
- **Bread Mountain**
- **Warmanie Mountain**
- **Jawarie Ranch**

OBSERVATIONS



**St. Ignatius team members a top
Bush Cow Mountain**

Along the way to Jawarie Ranch the team visited the farm of a villager, Mr. Peter Joseph who plants mainly cassava. The soil type at the farm was: sand, silt, clays and Pegasse. As the team moved



View from Bush Cow Mountain

northeast of Kumu Mountain over Bush Cow Mountain, it was observed that the forest was of a virgin type. These forests grow on very steep mountains on loams and sandy soils mostly.

Up the mountains, the resources were observed to be in a pristine state. The gathering and hunting resources for example are in abundance, some of the species collected there are; wine wood, axe handle, muckru, wild fruits, medicinal plants, balata, turtles, labba, deer, powis, bush hogs and tapir.

As the team passed through the Jawarie farming areas, located at the foot of the mountains, it was observed that these farms are predominantly planted with cassava and peanuts and in some cases mixed with both. The soil type was brown sand, clays, loams and in places Pegasse.

All the resources are in excellent condition, since the people in the community very seldom use these areas. One of the reasons given was the proximity to Lethem where basic needs can be met so the need to travel such far distances is reduced.



George Joseph farm camp in the Jawarie area

TEAM B

Richard Wilson (CI)
Jaime D'Aguiar
Louisa D'Aguiar
Kenneth McDonald
Sandra Buckley
Dianne Martin

AREAS VISITED

The community of St. Ignatius uses two main areas for gathering:

- White Rock Mountain areas
- Moco Moco areas

The furthest area visited by the team is up the mountain, **White Rock Mountain** areas, 03.17279°N, 059.78704° W. In the **Moco Moco** area the furthest point was at a place called **Dragon Falls**, 03.30477° N, 059.63142° W. This lies in the Cruza Creek, a tributary of the Moco Moco creek.

Other areas covered along the way to White Rock were:

- **Areas at the bush mouth**
- **Areas at the mountain foot**
- **Areas at the middle mountain**

Other areas covered on the way to Cruza Creek were:

- **Cruza Creek Entry (Yam Bay)**
- **Aruwa Bush Hill**

OBSERVATIONS

Three communities are using the White Rock Mountain areas: St. Ignatius, Lethem and Parikwarinawa.

Gathering is heavily done from the bush mouth to the mountain foot; the people of Lethem and Parikwarinawa do lumbering there. The villagers of St. Ignatius use the area mainly for gathering of housing materials.

The areas mid-way to the mountaintop are untouched and rich in lumber and housing materials etc. The resources were observed to be in excellent condition.

The same is for the Moco Moco areas where the villagers of St. Ignatius and Moco Moco use for hunting & fishing, gathering and to a lesser extent farming.

The furthest resource use area is Dragon Falls where the community fishes and gathers materials. The materials were observed to be in excellent condition, muckru especially is found in great quantities. These areas are usually visited 1 – 2 times a year.

In the areas that were visited by the team there were no threats that were observed or reported by the group.

DATA RESULTS

INTRODUCTION

Over a four-day period the fieldwork was conducted in the areas that were identified on the Resource Use Sketch Maps. A description of each of these trips was reported under the Field Observation section. The purpose of the exercise in addition to observation was to geo-reference the areas of furthest use this was done using a Global Positioning System (GPS) unit and a data form, which is described below.

The entire participant group was given training on how to use the GPS units and the bush teams received additional training in addition to that received by the group. The bush teams were also shown how to record data on the data forms. The information presented in this section is therefore the result of the work of that which was recorded by the “Bush teams”.

The results of the geo-referencing exercise are presented in this section of the report. The information is presented in the forms of bar graphs. The graphs are used to show the main threats to the area visited, the intensity and quality of use in the areas that were visited.

DATA SUMMARY

In total thirty-three (33) waypoints were taken. The following is a summary of all the waypoints that were taken in each category

- **Farming** **3**
- **Hunting** **10**
- **Fishing** **2**
- **Gathering** **18**

FARMING DATA RESULTS

QUALITY

The soil type in the majority of farming areas visited was sandy (1) gravelly (1) and loamy (1).

The crops planted on the farms are exclusively cassava (3).

INTENSITY

The farms that were visited are concentrated at the mountain foot (2) and up the mountain (1). All of the farms are actively used.

The farms are mainly 2-5 acres (2) and more than five acres (1) in size. At all of the farms the crops were used for domestic use only.

THREATS

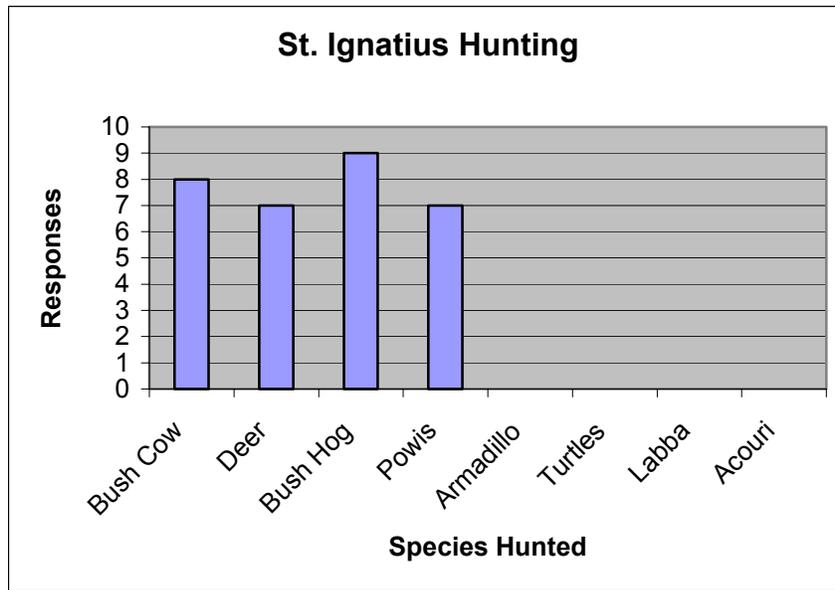
There was only one threat recorded at one of the sites, wildlife. Several pests affect the crops: hogs (2) deer (1) and acoushi ants (1).

HUNTING DATA RESULTS

QUALITY

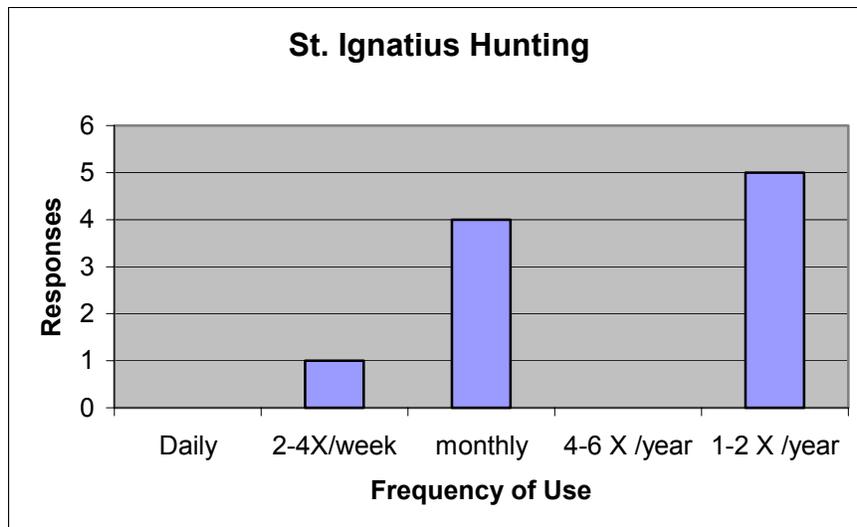
The quality of the hunting resources is mainly considered to be either excellent (8) or good (2).

The game that are hunted were entered as bush hog (9), bush cow (8) deer (7) and powis (7).



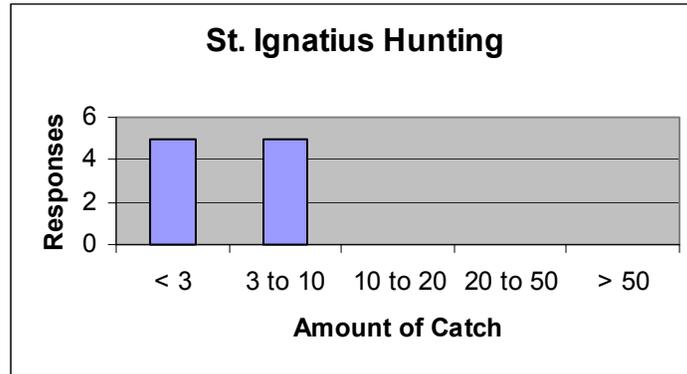
INTENSITY

The areas that were visited are concentrated up the mountain (10). All of the sites that were visited are actively used. Hunting is done in these areas mostly 1 – 2 times a year (5) and monthly (4) see graph



Hunting is done using mainly modern methods, guns (10) and to a lesser extent, traditional methods: bow and arrows (7) and hunting dogs (1).

The number of game is mainly less than three (5) and between 3 – 10 game (5). The sites are used for domestic use only.



THREATS

There were no threats recorded at any of the sites.

FISHING DATA RESULTS

QUALITY

The condition of the fishing resources was considered to be mainly good (2).
The resources that are caught are houri (1) patwa (1), piab (1) and kassi (1).

INTENSITY

Waypoints were collected mainly in the mountain foot area (1) and up the mountain (1).
All of the sites visited were active.

One method was recorded, hook and line (2). Most fishing at the sites is done once a month (1) or 4 – 6 times a year (1). The catch is usually between less than three (1) or 20 – 50 (1).

All of the sites are used for domestic use only (2).

THREATS

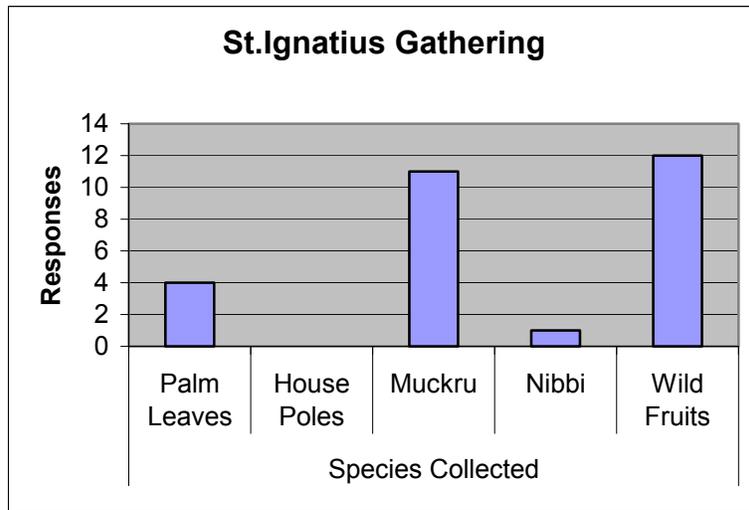
There were no threats recorded at any of the sites.

GATHERING DATA RESULTS

QUALITY

The gathering resource condition was recorded as being entirely “excellent” (14) and “good” (4).

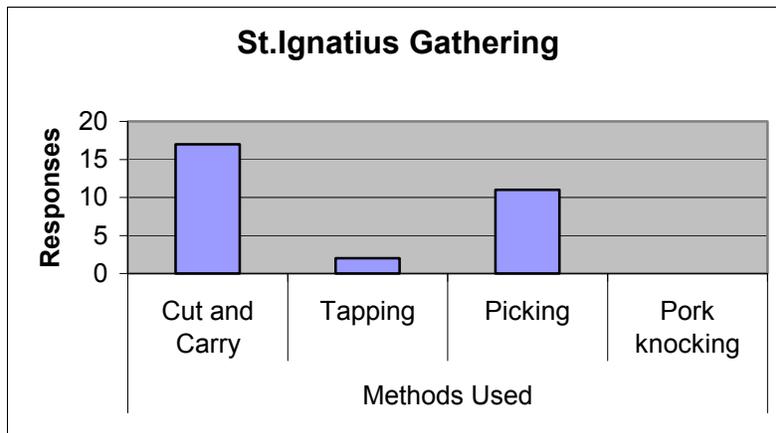
The resources collected are wild fruits (12) muckru (11) and palm leaves (4). See graph

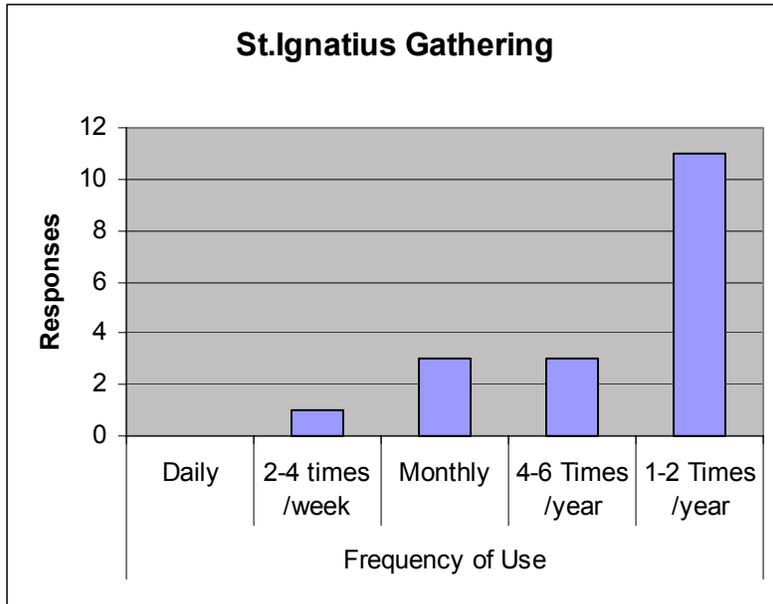


INTENSITY

The gathering sites that were geo-referenced were concentrated up the mountain (12) and at the mountain foot (5). All of the sites that were visited are active.

Cut and carry (17) picking (11) and tapping (2) see graph are the methods that are mainly used. Gathering is done mainly 1-2 times per year (11) and monthly (3). See graph. Fifteen of the entries were used for domestic purposes only and three (3) were for sale and domestic use.





THREATS

There was only one threat that was recorded at all of the sites, logging (3).



The story about the Mega coop bird (Talaran)

Long ago there was a big pond where the talaran use to fish. He uses to fly all the way there with his wife. But something strange always happened when they got to the pond. On every visit there was always a fox with them when they got to the pond. When they would ask, how he got there, he would always say, oh you didn't see me coming behind you, running all the way.

When they would return home, the fox would be there too, and when they asked how he'd got there with them, he would always say, oh you didn't see me coming behind you, running all the way.

Now before every trip to the pond, the fox would get into the basket the Talarams would use to put their fish in. So that is how he would get to the pond with the Talarams.

One day he was caught, they had suspected something, so the one with the basket flew at the bottom and the other at the top.

So the one at the top was able to see him in the basket, with his nose in the air.

They decided to kill the fox by throwing him on a rock; the fox begged the rock to disappear so that he won't be killed. But they throw him on to the rock from way up in the air and he was killed instantly.

Story from: Angelina Francis

VILLAGE SURVEYS

INTRODUCTION

The village fieldwork was done over four days during the same period that the “bush teams” were doing field observation of resource use sites. The fieldwork focused on two main exercises-collecting surveys and conservation stories. The questions in the surveys were based on three specific areas (1) **threats** (2) **the quality** and (3) **availability of resources** in the village.



Village team members compiling the village survey data

The participants were greatly involved in every aspect of the village survey. The exercise began with a mini lecture on surveying methods. This was followed by the creation of a village sketch map from which the participants selected households to be interviewed. Each household was informed the day before and given the option to take part in the survey. The exercise ended with the compilation of the results that were gathered in the field.

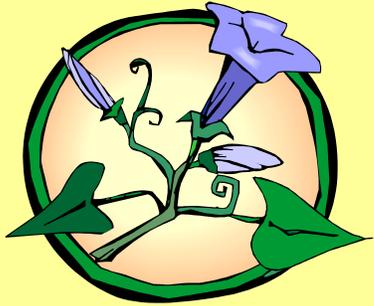
The conservation stories that were collected were local stories, which had a conservation theme. The purpose of these was highlight traditional story telling methods that were used to conserve resources. These stories are used where possible in the report.

For the completion of these exercises the participants worked in teams each of which was headed by a CI staff member or a Community Coordinator.

In addition the village work had several other objectives:

- To provide general information to a *wider* representation of the village.
- To allow villagers to ask questions related to the CRE, Protected Areas or CI and have them answered
- To involve the school in an activity during the CRE

The Village Team



**Margaret Gomes (CI), Lillian Pereira
& Marcos Carrington
Wendy Leandro (CI), Peter Joseph &
Yonette Joseph
Patricia Fredericks (CI) Eva Joseph,
Daxton Parks & George Joseph
George Franklin (CI), Rose Jacob &
Batson Laurentino**

INTRODUCTION

The Village Team's work benefited from a very well organized and talented group. The map was easily created and the houses identified.

The participants went out themselves to notify the villagers whom they had selected. The group divided themselves into four teams.

St. Ignatius is a very large community and as such every effort was made to reach out to as many persons as possible. In total 46 households were interviewed.

OBSERVATIONS

Some people who were identified by the participants were unable to be interviewed because of work. Two persons said that they did not want to

be interviewed.

The interviewees were found to be a generally very well informed group, knowledgeable not only about the mountains but also issues and concerns that are occurring in the region. Some of this is due to the close proximity to Lethem and Brazil.

There were quite a few people who did not know the areas of resource use or the names of the resources. In general villagers were very receptive and welcoming and wanted to have more information.



**Sharing information about
conservation issues with the villagers**

Questions/Comments:

- Will the local people still be allowed to use their resources if a Protected Area is established or will they be restricted?
- A lot of negative information is being spread about CI and Protected Areas
- Saint Ignatius is fortunate to be close to Lethem where job opportunities are concerned
- There are a lot of advantages to the new methods to harvest resources

The participants learnt how to compile the results of the survey and commented on how important the information is. They also saw the importance of the information to the community, which they showed at the Public Meeting. The participants were very comfortable with the presentations.

VILLAGE SURVEY DATA RESULTS

INTRODUCTION

Over a two-day period the fieldwork was conducted for the village survey. The village survey was an informal information gathering exercise. The households that were identified on the village sketch map by the participants were visited and surveyed

PROFILE
THE ARTISTS WHO CREATED THE MASTER RESOURCE USE

Whilst the “Village Team” was out doing surveys and collecting stories from the village, Daxton created the Master Resource Use Map.

He first used pencils to draw on all the resources, roads and the village and then they painted it with water paints.

This map, like all the others, will remain in the community.



For many people in the community, it was the first time that they had taken part in a Resource Use survey of this type. As a result they were asked to respond to questions and sections with which they felt most comfortable. In some cases, for example, women did not feel comfortable to answer questions as related to

hunting even though they may accompany their husbands and actively hunt. Therefore the number of responses in some sections may vary.

The results of the village survey exercise are presented in this section of the report. The information is presented in the forms of tables. The tables are used to show the main threats, the intensity and quality of the resources.

Each table is followed by a description of the information that is represented on the table. The information is presented in the three resource use categories, farming, hunting and fishing and gathering.

VILLAGE SURVEY DATA SUMMARY

In total thirty-seven (37) surveys were collected. The following is a summary of all the data that was collected in each of the three resource categories:

- **Farming** 33
- **Hunting** 4
- **Fishing** 26
- **Gathering** 30

FARMING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
4	5	15	9

Gender

Male	Female
18	15

INTENSITY

During the village survey, most people who were interviewed said that they farm at the mountain foot (13). Farming is also done in the savannah (9), in the deep bush (5), at the bush mouth (6), up the mountain (3) and in the bush (1). **See table** It was also commented that not many people farm as in the past because they have jobs and can get their necessities from shops. Villagers also tend to plant cash crops.

Where is your farm?

Savannah	Bush	Bush Mouth	Deep Bush	Mountain Foot	Up the Mountains	Other
9	1	6	5	13	3	1

Most people said that they visit their farms weekly (17). **See table**

How often do you visit your farm?

Daily	2 x Week	3 x Week	Weekly	Monthly	2 x Monthly	Other
3	2	1	17	2	3	2

Farms were said to be mainly 1>2 acres (12) and 2-4 acres (11). To a lesser extent farms are less than 1 acre (6) and 5 and more acres (3). **See table** The majority (20) of the produce from these farms is for both domestic and sale purposes. Ten persons said that their produce is used for domestic use only.

How big is your farm?

< 1 Acre	1>2 Acre	2-4 Acre	5 Acre and more	Other
6	12	11	3	1

THREATS

Wild animals (20) and acoushi ants (19) were felt to be the main threats to farm crops. Disrespect for others property (10), the weather (8), domestic animals (3), caterpillar (2), and monkeys (1) were also listed. **See table**

What are the threats to your crops?

Wild animals	Acoushi ants	Weather	Caterpillar	Disrespect for others property	Monkey	Domestic animals	Other	No Response
20	19	8	2	10	1	3	4	1

HUNTING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
1	1	0	2

Gender

Male	Female
3	1

QUALITY

Three (3) persons who were interviewed said that they felt that they had to go further to hunt than they did in the past. Four (4) persons responded that there had been a change in the availability of resources while one (1) said that there had not been a change. Some people commented that this was due to the increase in the population, the new methods that were being used and the fact that Brazilians also use the same areas for hunting.

Has there been a change in the availability of resources?

Yes	No
4	0

INTENSITY

Hunting is done in several areas: the bush, at the mountain foot, in the savannah and up the mountain (1) each. **See table**

Hunting is done using bow and arrows and guns (1) and is weekly (2) and monthly (1). The game that is caught is used for both domestic use and for sale (2) domestic use only (1) and sale only (1).

THREATS

The main threats to hunting sites were felt to be fire (1) the introduction of new methods and over hunting (1).

What are the threats to your hunting resources?

Over-Hunting	Mining	Weather	New Methods	Fire	Population
1	0	0	1	2	0

FISHING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
2	3	13	8

Gender

Male	Female
16	10

QUALITY

Seventeen (17) persons who were interviewed during the survey said that they felt that they had to go further to hunt than they had done in the past. Twenty-four persons (24) felt that there had been a change in the availability of fish. It was commented that this was because Brazilians also used the same areas to fish and that the amount of fish had reduced.

Has there been a change in the availability of resources?

Yes	No
24	2

INTENSITY

It was listed that fishing is concentrated mostly in the savannah (24). People used the following methods to fish: hook and line (23), seine (18) and cast nets (7), and to a lesser extent bow and arrows (6). Fishing is done regularly, either weekly (6) or daily (6). **See table** The fish that is caught is mainly used for domestic use only (13) and both domestic and sale purposes (12).

How often do you go fishing?

Daily	2 x wk	3 x wk	4 x wk	Weekly	2 x Monthly	Other
6	3	4	1	6	0	6

THREATS

The major threats to fishing sites were given as the use of new methods (8) and the increase in the population (6). Disrespect for others property (2) each, and over fishing and poison (1) each were also listed.

What are the threats to your fishing resources?

Over fishing	Poison	Population	New Methods	Other	Disrespect for others property
1	1	6	8	2	2

GATHERING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
4	3	16	7

Gender

Male	Female
19	11

QUALITY

Nineteen (19) persons who were interviewed said that they felt that they had to go further to gather materials than they had done on the past. Sixteen (16) persons said that there had been a change in the availability of resources while thirteen (13) persons felt that there had not been a change.

Has there been a change in the availability of resources?

Yes	No	No Response
16	13	1

INTENSITY

Gathering is done mainly up the mountain (8) and in the savannah (6). To a lesser extent it is done at the mountain foot (4), in the deep bush and in the bush (2) **See table**

Where do you gather?

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	No Response
6	0	2	4	8	2	8

Gathering is done at various times. As the table below shows people gave varying answers: including seasonally (5), yearly (4) and daily (3). **See table**

How often do you gather?

Daily	Weekly	3 x month	Monthly	Yearly	Every 5 Years	Seasonally	Other	No Response
3	1	1	1	4	4	5	9	2

THREATS

There were a number of threats that were stated: new methods (6) increase in the population (5), over harvesting, fire, the use of resources by outsiders (3) and over lapping of resources with other communities (1).

What are the threats to your gathering resources?

Over-Harvesting	Outsiders	Population	Fire	Over lap of resources	New methods	Other	No Response
3	3	5	3	1	6	12	2

CLOSING ACTIVITIES

The CRE concluded with a series of activities. The first such activity was a presentation that was made by the village team participants to the school children. This presentation was done to explain to the older school children the work that was done during the workshop it included:



CRE certificate presentation

- The resource lists
- The seasonal calendar
- The sketch map
- The results of the village survey



Presenting the bush photographs

It was also an opportunity for the participants to share the knowledge that they had with their students, which included the local names of some resources and stories.

On the last day of the workshop the bush and village teams met after being apart for four days. At this last meeting the two teams used the time together to tell each other of their experiences during the village survey and field observation exercises.

The workshop was closed with a village public meeting. The public meeting was an opportunity to share with the other villagers the work that they had done, their experiences and their knowledge of the mountains, of their resources and of the seasons of resource use. This knowledge was often a real learning experience for other members of the community who may not have been aware.

The final meeting was done mainly in the local language and the participants themselves did all of the presentations using photos to communicate their experiences.

The participants were also presented with certificates of participation.

RESOURCE USE PROFILE

The resource use profile is an outline of how the village uses the resources based on the information that was collected during the CRE in the **resource discussions, data forms, village surveys** and in the **field observation**. The purpose of the resource use profile is to show:

- **The main areas that are used by the community**
- **The factors that affect the use of the resources**

The village is about twelve miles west of the Kanuku Mountains. It was geo-referenced at 3.35894°N and 59.79633°W. It is a large community and is adjacent to Lethem and across the river border from the Brazilian town of Bon Fim. This close proximity to the two communities makes basic needs readily available and contributes to St. Ignatius being a fairly developed community. Many of St. Ignatius residents are employed, as Lethem is the regional center for government and business services. Therefore dependence on the Kanukus for farming and other resources is less intense than in other communities. However, the mountains are still actively used for farming and other resources by many of the villagers, especially those who do not have outside sources of income.

This report takes into consideration, all the areas that were identified by the community and, particularly the areas that were visited by the “Bush Teams”, in a collaborative effort involving the village participant group and members of Conservation International Guyana team. The participant group related their resource use via the tools created during the workshop in the areas of:

- Hunting
- Fishing
- Farming
- Gathering

RESOURCE USE “ZONES”

All the communities are located in the savannahs with some situated closer to the mountains than others. Use occurs in different areas with specific characteristics from the savannah to the mountains known by the communities as follows:

SAVANNAH

The savannah areas are the wide-open grasslands with scattered bushes dominated by the characteristic sand paper tree (*Curatella Americana*). There are low land savannahs and high land savannahs that are found in the mountain valleys.

BUSH MOUTH

The community describes this area as where the main savannah land ends and the bush or the forest begins, extending approximately one mile into the bush. The vegetation of this area is typically secondary growth with the majority being fallow lands or old minabs, as the villagers call them. This term ‘bush mouth’ is used commonly when relating to the activities done within this particular area. For example, if a villager has a farm in this

area, he would always refer to it as his/her bush mouth farm. So bush mouth areas generally do not have names unless they are close by a creek or some other natural feature. **White Rock**

BUSH

The term bush relates to the area between the end of the bush mouth and where the mountain foot area begins. The extent of the bush size varies in each community, depending on the amount of forested area between the bush mouth and the mountains. In communities with extensive bush the far areas are referred to as the ‘deep bush’. The deep bush is not usually farmed, but is used for hunting, gathering or fishing activities. The vegetation of the bush is mainly primary forest with minimum canopy opening due to minimal human impact.

MOUNTAIN FOOT

This area lies within a mile range before the mountain slopes. The mountain foot areas are very fertile with a cooler climate and very favorable for crops. Communities that are located closer to the mountains prefer to use mainly these areas for farming. From the farms access is gained to the surrounding areas as well as up the mountains for resource use. Access to the mountains requires passage through the mountain foot. **Kumu Falls, Jawarie Falls, Cruza Creek, Dragon Falls and Aruwa Mountain** were observed and geo-referenced by the bush teams.

UP THE MOUNTAIN

This refers to all the areas beyond the mountain foot, up and into the mountains. All mountain areas are very rich for resources such as nibbi, caramanni, balata, medicine and game due to the forest being untouched. Hunting is the primary activity up the mountain due to the abundance of game animals with some amount of gathering carried out at the same time. Areas geo-referenced up the mountain included: **Bread Mountain and White Rock Mountain.**

Main activities are generally carried out in the following areas:

- **Farming – bush mouth, bush, creeks banks**
- **Hunting – main rivers, creek, mountains**
- **Gathering – mountains**
- **Fishing – main rivers, creeks**

QUALITY

The results from the data forms and bush reports show that resource use areas are considered to be excellent or good condition. This was especially so for up the mountain areas such as **Dragon Falls and Bush Cow Mountain**. The forested areas observed were in its pristine state. Resources such as muckru, wild fruits, etc. are in abundance. The soil types in farms were ideal for cassava and peanut growth. Most of the farms are located on old sites or “minabs” as they are locally known. Game such as bush hogs, tapir, deer and powis may be found in large quantities up the mountain.

INTENSITY

Use Zone

Saint Ignatius	Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain
Farming	0	0	0	2	1
Hunting	0	0	0	0	10
Fishing	0	0	0	1	1
Gathering	0	1	0	5	12

The above table shows the areas or “zones” the bush team visited, and the number of geo-referenced points recorded in each one.

The areas visited during the CRE at St. Ignatius are located at the mountain foot and up the mountain areas. Basically farming activities are done in two areas, Kumu and Moco-Moco. The farms located in the Kumu areas at **Kumu Falls** are closer to the mountains than the farms along the Moco-Moco creek. The people of Kumu also farm the mountain foot in the Kumu area. It was observed that the farms are not large, ranging between 2-5 acres. Produce is used basically for home use. When at the farms in Kumu in the area of the falls, the creek is use for fishing and gathering of materials for every day use such as firewood. Some amounts of fruits are also gathered such as kuruyu, a palm fruit that is widely eaten. All house materials like leaves, and wood are generally gathered along the mountain foot.

Another area along the mountain foot that was mentioned as being heavily used is the **White Rock** area at **Mountain Point** close to Parikwarinawa. The communities of Lethem, St. Ignatius and Parikwarinawa do lumbering for commercial purposes in the White Rock area. This has put a great demand on the timber resources of the area that has partially depleted the forest.

Up the mountain areas are also visited for multi purpose resource use and the resources are generally considered to be in good condition. This is due to the rough terrain making the resources less accessible. This area is only used 1-2 times per year. Trips are made to gather nibbi, muckru, and special medicinal plants that are rare below the mountain.

THREATS

Wildlife was the main threat reported chiefly hogs, deer, and acoushi ants affecting the farms. Logging was mentioned as a great threat to all the resources since it is not done in any systematic manner that will allow for future harvesting. Also some of the new introduced methods of resource use like guns and seines have contributed to overuse and a decline in resource availability.

SITE GEO-REFERENCE POINTS

The table below shows the sites observed and geo-referenced during the CRE Bush Team fieldtrips. The readings were taken with Global Positioning Units (GPS). Heavy clouds or tree cover can make it difficult to get a perfect reading, so all geo-references should be considered approximate, generally within 25 meters. This is part of the information recorded by the participant team members while observing resource use sites. The site names are spelled in the table, as the team recorded them, so there is sometimes more than one spelling for the same site. The following information is listed:

- **Site Type**-this allows what type of resource use happens at this site. Some areas are multiple use, that is, more than one type of resource is used, so this type of site is listed for each resource use checked on the data form
 - **F = Farming**
 - **H = Hunting**
 - **FS= Fishing**
 - **G = Gathering**
- **Village** – location of site.
- **North** – the North or latitudinal reading. This number is shown in “decimal degrees”, or how many degrees North of the Equator (0°) the site is located.
- **West** – the West or longitudinal reading. This number is given in “decimal degrees” showing how many degrees west of the Prime Meridian (0°) the site is located
- **Area Name** – the name of the site as recorded by the teams on the data form. When the site had no specific name this line is left blank.
- **Site Zone** – the “zone” or geographic location of the site. At times one site name applies to several zones, as a creek that may flow from a site “Up the Mountain” all the way out into the savannah.
 - **Savannah**
 - **Bush mouth**
 - **Bush**
 - **Mountain Foot**
 - **Up the Mountain**

Site Type	Village	° North	° West	Area Name	Zone
G	ST	3.16279	59.79348	White Rock	Bush Mouth
F	ST	3.2655	59.73171	Jawarie Fall	Mountain Foot
F	ST	3.26505	59.72326	Kumu Falls	Mountain Foot
FS	ST	3.30474	59.63142	Dragon Falls	Mountain Foot
G	ST	3.3052	59.63141	Arrura Mountain	Mountain Foot
G	ST	3.30599	59.64721	Cruza Creek	Mountain Foot
G	ST	3.30477	59.63142	Dragon Falls	Mountain Foot

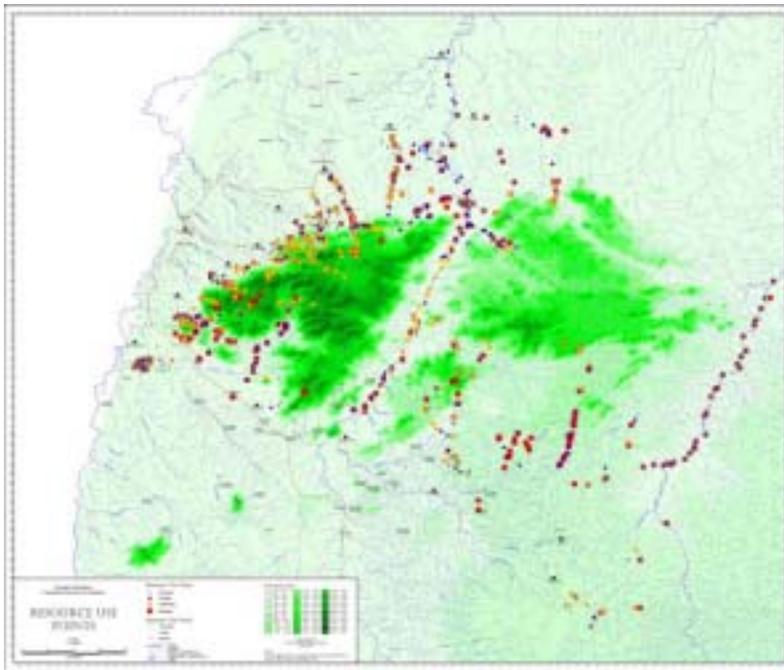
Site Type	Village	° North	° West	Area Name	Zone
G	ST	3.17558	59.7899	White Rock/Yarrow creek	Mountain Foot
G	ST	3.30195	59.6404	Wild Yam Bay	Mountain Foot
F	ST	3.26512	59.72329	Kumu Falls	Up the Mountain
FS	ST	3.21012	59.70061	Arrow Creek	Up the Mountain
G	ST	3.21012	59.70061	Arrow Creek	Up the Mountain
G	ST	3.22433	59.68637	Bamboo Point	Up the Mountain
G	ST	3.25081	59.70731	Bread Mountain	Up the Mountain
G	ST	3.24114	59.71189	Bread Mountain	Up the Mountain
G	ST	3.26484	59.72296	Kumu Falls (up)	Up the Mountain
G	ST	3.26402	59.71696	Matapi Creek	Up the Mountain
G	ST	3.17042	59.78606	White Rock/Quata Mountain	Up the Mountain
G	ST	3.17279	59.78704	White Rock/Quata Mountain	Up the Mountain
G	ST	3.2546	59.71541		Up the Mountain
G	ST	3.23938	59.71114		Up the Mountain
G	ST	3.25854	59.72724		Up the Mountain
G	ST	3.25842	59.72646		Up the Mountain
H	ST	3.21012	59.70061	Arrow Creek	Up the Mountain
H	ST	3.22433	59.68637	Bamboo Point	Up the Mountain
H	ST	3.25081	59.70731	Bread Mountain	Up the Mountain
H	ST	3.24114	59.71189	Bread Mountain	Up the Mountain
H	ST	3.26484	59.72296	Kumu Falls (up)	Up the Mountain
H	ST	3.26402	59.71696	Matapi Creek Head	Up the Mountain
H	ST	3.2546	59.71541		Up the Mountain
H	ST	3.23938	59.71114		Up the Mountain
H	ST	3.25854	59.72724		Up the Mountain
H	ST	3.25842	59.72646		Up the Mountain

THE RESOURCE SITE MAPS

The following maps are digitized, or computer created, representations of the locations of the sites observed during the CRE fieldwork. The locations or “points” appear on a background that shows the area covered during these field trips in each village. This background is based on the official topographic map of Guyana published by the Guyana Lands and Surveys Department in 1964. The positioning of the rivers, creeks, and roads, and many of the place names come from this official map, which is now nearly 40 years old. This is the reason that some of the names on the map may be spelled differently than they are spelled today. Also some other features may have changed, such as the location of roads, or even smaller creeks, which may have changed direction or ceased to flow.

The readings or geo-reference points taken at each site with the Global Positioning Unit (GPS) are transferred to a computer, which also contains the sections of the official map with the information on the Kanuku Mountain area. A computer program called “ArcView” places the points on the map according to the position recorded by the GPS when the bush team members took the reading.

There is a separate map for each resource category as well as a combined map that has all the readings taken during the CRE. It is important to remember, when viewing the maps, that they represent only a record of sites observed during specific trips made during the CRE. These maps do not show every area a community uses, but show the sites along the routes chosen by the teams to reach, as far as was possible, the furthest areas of community use, and the most important use areas.

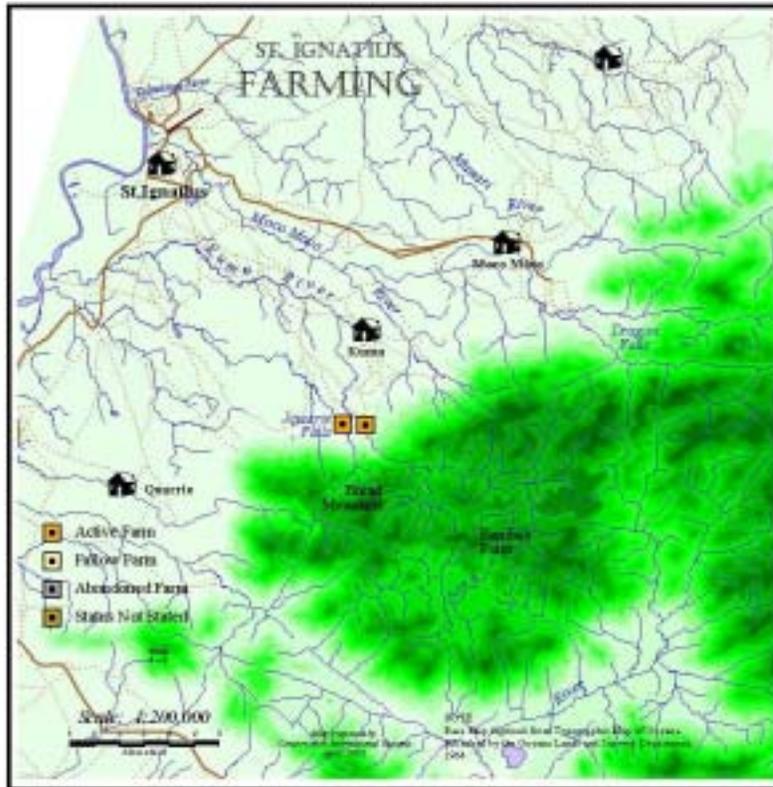


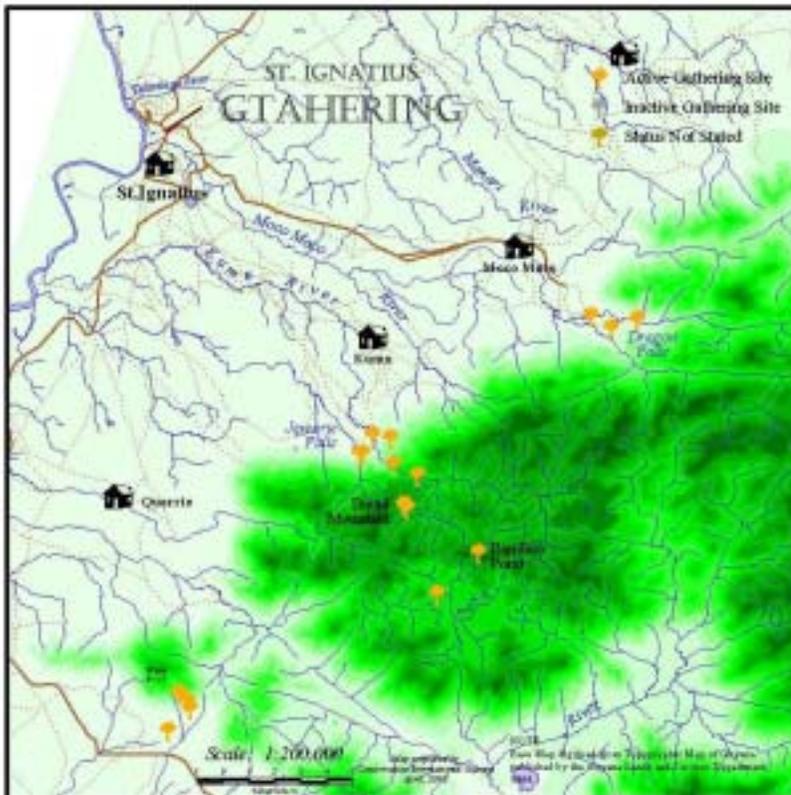
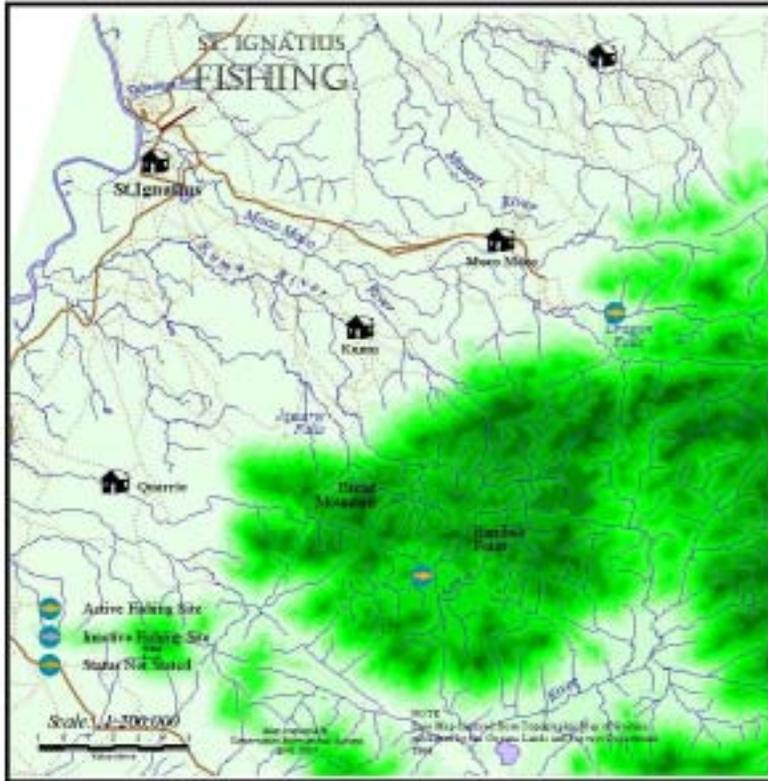
In some cases, flooding prevented access to some areas, especially those normally reached via creeks. In this case, readings were taken at a creek mouth, to record the area, while the use is described in the report.

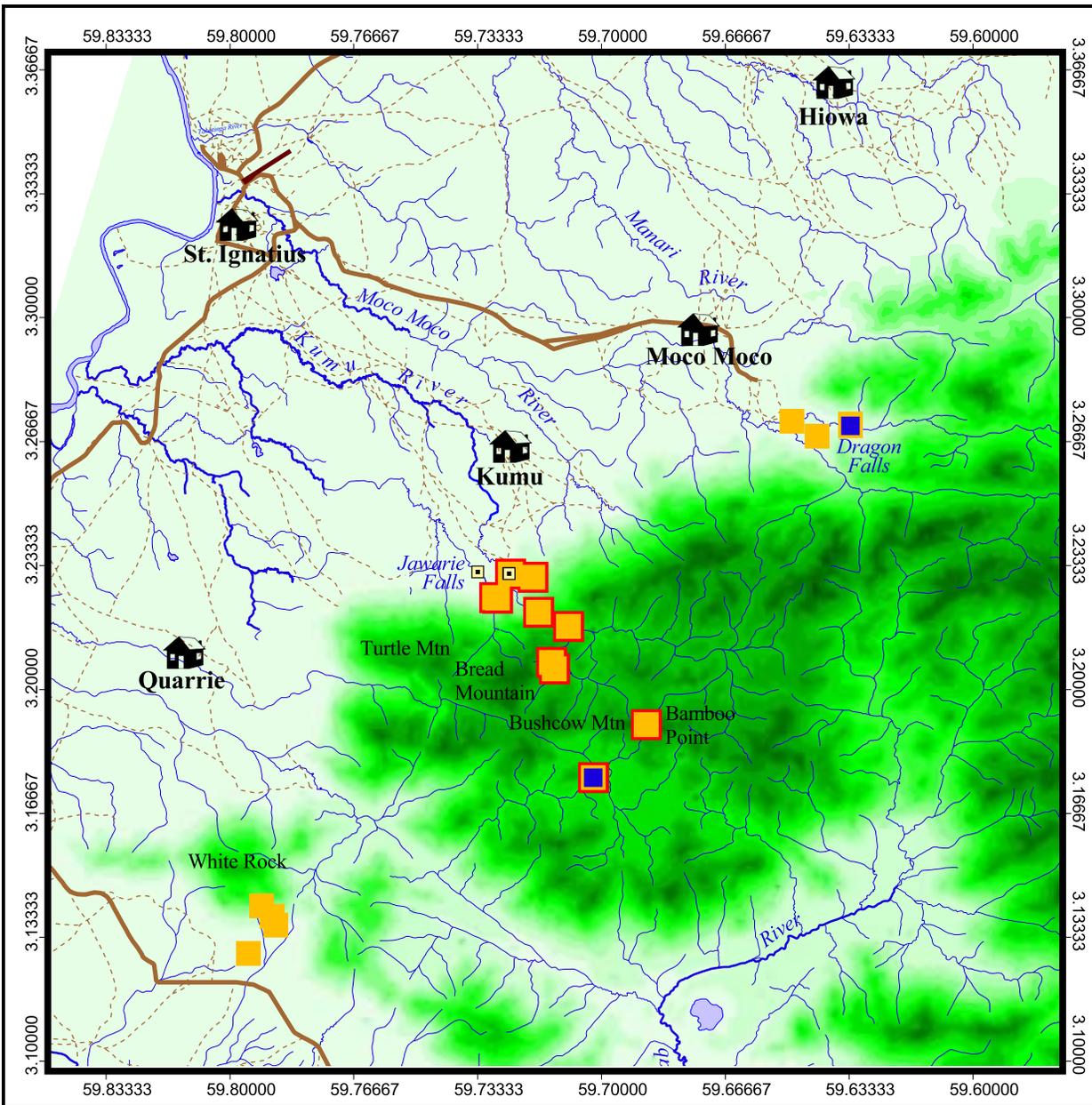
In order to have a complete understanding of the resource use areas, it is important to study the resource sketch maps along with the formal digitized maps. It is the sketch maps that show all the areas recorded by the

CRE participants as representing their resource use.

As part of the CRE project, a digitized map of the entire Kanuku Mountain Range was also produced in the same way that the individual village maps were produced. This map shows all the resource point readings (1, 376) taken during all the CRE workshops. Again is important to note that the Kanuku Mountains map is a record of the results of the 47 field trips made during the CRE's.







Kanuku Mountains Community Resource Evaluation

ST. IGNATIUS RESOURCE POINTS

	Farming
	Fishing
	Gathering
	Hunting

	Airstrips
	Trails
	Roads

	River
	Island
	Main Creek/River
	Secondary Creek/River
	Lake

Elevation (feet)

	200 - 300		1300 - 1400		2400 - 2500
	300 - 400		1400 - 1500		2500 - 2600
	400 - 500		1500 - 1600		2600 - 2700
	500 - 600		1600 - 1700		2700 - 2800
	600 - 700		1700 - 1800		2800 - 2900
	700 - 800		1800 - 1900		2900 - 3000
	800 - 900		1900 - 2000		3000 - 3100
	900 - 1000		2000 - 2100		3100 - 3200
	1000 - 1100		2100 - 2200		3200 - 3300
	1100 - 1200		2200 - 2300		3300 - 3400
	1200 - 1300		2300 - 2400		3400 - 3500

Scale: 1:200,000

Map prepared by
Conservation International Guyana
April, 2003

NOTE
Base Map digitised from Topographic Map of Guyana
published by the Guyana Lands and Surveys Department,
1964.

CONCLUSION



Reviewing the resource points on the small maps, Quarrie.

This information is now in a database, which is a computer program that organizes information in a way that it can be read and studied. This database of information will be used to help decide about the best type of protected area to propose for the Kanuku Mountains. It is also a valuable tool for the communities to use in communicating their resource use patterns.

This information is now in a



Explaining the results of the village survey data, Parikwarinawa.

In addition to this report, each village will receive a copy of all the data forms filled out on the bush trips, and all the surveys and evaluation forms completed during the CRE and Results workshops. The information will also be available to members of the communities at Conservation International's Lethem field office.

Copies of the village reports will be given to those government entities, and donor agencies involved in the protected areas process in Guyana including:

Environmental Protection Agency
Lands and Surveys Department
Forestry Commission
Minister of Amerindian Affairs
Regional Democratic Council
Office of the President
United States Agency for International Development (USAID)
The World Bank



Verifying the seasonal calendar, Rupunau.



Reading their CRE reports, Maruranau.

APPENDICES
APPENDIX 1
Typical Activity Schedule

<i>DATE</i>	<i>ACTIVITY(S)</i>
Day 1	<p><u>A.M</u> ✔ Arrival ✔ Meeting with Touchau/Council</p>
Day 2	<p><u>A.M</u> ✔ Public Meeting</p> <ul style="list-style-type: none"> • Defining Concepts • The Protected Area Process • Presenting the CRE <p>✔ Participant Meeting</p>
Day 3	<p><u>A.M.</u> ✔ Introductions ✔ Community Participation ✔ Creating Resource Focus Groups</p> <p><u>P.M</u> ✔ Creating Resource List: <i>The What</i></p>
Day 4	<p><u>A.M.</u> ✔ Seasonal Resource Use Calendar: <i>The When</i> ✔ The Village Resource Use Sketch Map: <i>The Where</i> ✔ Discussion: Resource Use Methods, Availability and Threats: <i>The How</i> ✔ Group Presentations</p>
Day 5	Activity Break
Day 6	<p><u>A.M.</u> ✔ Field Work Preparation</p> <ul style="list-style-type: none"> • Finishing of Maps • G.P.S. Training/ Where am I on the face of the Earth. • Discussion of goals and objectives of fieldwork • Identifying Teams • Mini-Lectures • Planning the fieldwork <p><u>P.M.</u> ✔ Bush Team: Prepare for Departure</p>
Day 7	<p>Village Team: <u>A.M.</u> ✔ Bush Team Departs ✔ Village Team</p> <ul style="list-style-type: none"> ○ Prepare for surveys ○ Create Village Map ○ Review survey
Day 8	<p><u>A.M.</u> ✔ Village Surveys and stories ✔ Video Show at school and quiz</p>
Day 9	✔ Continue with village surveys and interviews
Day 10	<p>✔ Bush Teams returns ✔ Village Team</p> <ul style="list-style-type: none"> • Compile Interview Results • Prepare Presentations

APPENDIX 2

Team Profile

Richard Wilson (Indigenous Knowledge Advisor):

Richard Wilson has worked with CI- Guyana for two years. He is originally from Rupunau Village where he was once a Touchau.

His role in the CRE included acting as an:

Interpreter
Facilitator
Bush Team Leader

Richie has completed 10 CRE's. His role on the team includes:

- Wapishana Interpreter
- Facilitator
- Bush Team Leader
- Focus Group Leader

Richie assists in logistics for launching the CRE activity. He provides interpretation CRE activities in Wapishana communities. As Bush Team leader, he assists in training participants in GPS use and data collection. Richie has lead 9 Bush Team trips covering approximately 440 miles over 37 days, training 46 participants. Richie has acquired skills in digital photography, GPS, and operation of audio/visual equipment.

Wendy Leandro:

Although part of the Education and Awareness team, Wendy has participated in the St. Ignatius and Parishara CRE's providing support in facilitation, survey activities, and photography. She has also assisted in Wapishana interpretation during these and the Quarrie CRE.

Margaret Gomes:

Margaret is originally from Aishalton and now lives in Sand Creek. Before joining CI she was very involved in the community, in the church, women's group, the PTFA and SCIPDA.

During the CRE her role was as:

Facilitator
Village Team Leader
Overall Purchasing Manager

Margaret has participated in 9 CRE's. Her role in the Team includes:

- Wapishana interpretation
- Facilitator
- Lead Facilitator Village Team Activities
- Focus Group Leader

- Kitchen Manager (supervising preparation of 300 meals during the activity)

Maggie is responsible for all supplies-food and stationery-for all CRE activities. She inventories, buys, distributes all supplies, manages and accounts for purchasing funds, and supervises all packing of supplies for both teams for each activity. During the CRE Activity, Maggie takes the role of lead facilitator for the Village 'Team activities, including:

- The village sketch map
- Village survey
- Preparation of participants for the student and public meeting presentations
- Student interactions

Maggie has acquired skills in purchasing and inventory management, use of calculator, bookkeeping and cash management. She also led a Bush Team during the Katoka Pilot CRE.

Patricia Fredericks (Education and Awareness Coordinator)

Patricia has been working with CI – Guyana for over two years. She is originally from the North West. During the CRE exercise in St. Ignatius her role was to:

- Facilitate
- Village team leader

George Franklin (Regional Coordinator)

George has been working with CI – Guyana for over ten years. During the CRE his role included the following:

- Facilitator
- Logistics
- Village Team Leader

Month <input type="text"/> Day <input type="text"/> Year <input type="text" value="2002"/> Date	Point Identification GPS Unit <input type="text"/> Village <input type="text"/> Feature <input type="text"/> Waypoint <input type="text"/> Code	Coordinates North <input type="text"/> West <input type="text"/>
Group <input type="text"/>	Area Identification Name <input type="text"/>	
Feature Codes: Farming=F; Hunting=H; Fishing=P; Gathering=G		
Use Zone Savannah <input type="checkbox"/> Bush Mouth <input type="checkbox"/> Bush <input type="checkbox"/> Mountain Foot <input type="checkbox"/> Up the Mountain <input type="checkbox"/>		

HUNTING

Type of Site	Site Use Status	Species Hunted	Methods Used	Frequency of Use
Feeding Area <input type="checkbox"/>	Active <input type="checkbox"/>	Bush Cow <input type="checkbox"/>	Bow & Arrow <input type="checkbox"/>	Daily <input type="checkbox"/>
Track <input type="checkbox"/>	Inactive <input type="checkbox"/>	Deer <input type="checkbox"/>	Hunting Dogs <input type="checkbox"/>	2-4 times/week <input type="checkbox"/>
Drinking Pond <input type="checkbox"/>		Bush Hog <input type="checkbox"/>	Guns <input type="checkbox"/>	Monthly <input type="checkbox"/>
Nesting Area <input type="checkbox"/>		Powis <input type="checkbox"/>	Traps <input type="checkbox"/>	4-6 times/year <input type="checkbox"/>
Other <input type="text"/>		Others <input type="text"/>	Others <input type="text"/>	1-2 times/year <input type="checkbox"/>
				Other <input type="text"/>

Amount of Catch	Use of Catch	Threats to Site	Condition of Resource	
Less than 3 <input type="checkbox"/>	Domestic Consumption <input type="checkbox"/>	Over-hunting <input type="checkbox"/>	Excellent <input type="checkbox"/>	Good <input type="checkbox"/>
4-10 <input type="checkbox"/>	Sale Outside of Village <input type="checkbox"/>	Mining <input type="checkbox"/>	Poor <input type="checkbox"/>	Very Poor <input type="checkbox"/>
10-20 <input type="checkbox"/>	Both <input type="checkbox"/>	Poaching <input type="checkbox"/>	Notes	
20-50 <input type="checkbox"/>	% Amount sold <input type="text"/>	Logging <input type="checkbox"/>		
More than 50 <input type="checkbox"/>	outside village	Other <input type="text"/>		

FISHING

Type of Site	Site Use Status	Species Fished	Methods Used	Frequency of Use
River <input type="checkbox"/>	Active <input type="checkbox"/>	Huri <input type="checkbox"/>	Hook and line <input type="checkbox"/>	Daily <input type="checkbox"/>
Creek <input type="checkbox"/>	Inactive <input type="checkbox"/>	Yarou <input type="checkbox"/>	Poisoning <input type="checkbox"/>	2-4 times/week <input type="checkbox"/>
Pond <input type="checkbox"/>		Lukunani <input type="checkbox"/>	Seine/ Cast Net <input type="checkbox"/>	Monthly <input type="checkbox"/>
Other <input type="text"/>		Patwa <input type="checkbox"/>	Bow and Arrows <input type="checkbox"/>	4-6 times/year <input type="checkbox"/>
		Others <input type="text"/>	Others <input type="text"/>	1-2 times/year <input type="checkbox"/>
				Other <input type="text"/>

Amount of Catch	Use of Catch	Threats to Site	Condition of Resource	
Less than 3 <input type="checkbox"/>	Domestic Consumption <input type="checkbox"/>	Over-fishing <input type="checkbox"/>	Excellent <input type="checkbox"/>	Good <input type="checkbox"/>
3-10 <input type="checkbox"/>	Sale Outside of Village <input type="checkbox"/>	Mining <input type="checkbox"/>	Poor <input type="checkbox"/>	Very Poor <input type="checkbox"/>
10-20 <input type="checkbox"/>	Both <input type="checkbox"/>	Poaching <input type="checkbox"/>	Notes	
20-50 <input type="checkbox"/>	% Amount sold <input type="text"/>	Poisons <input type="checkbox"/>		
More than 50 <input type="checkbox"/>	outside village	Other <input type="text"/>		

Month <input type="text"/> Day <input type="text"/> Year <input type="text" value="2002"/> Date	Point Identification			Coordinates	
Group <input type="text"/>	GPS Unit <input type="text"/>	Village <input type="text"/>	Feature <input type="text"/>	Waypoint <input type="text"/>	North <input type="text"/>
Area Identification					
<i>Feature Codes: Farming=F; Hunting=H; Fishing=P; Gathering=G</i>					
Name <input type="text"/>			Use Zone Savannah <input type="checkbox"/> Bush Mouth <input type="checkbox"/> Bush <input type="checkbox"/> Mountain Foot <input type="checkbox"/> Up the Mountain <input type="checkbox"/>		

GATHERING

Site Use Status	Species Collected	Methods Used	Frequency of Use	Amount Collected
Active <input type="checkbox"/>	Palm Leaves <input type="checkbox"/>	Cut and Carry <input type="checkbox"/>	Daily <input type="checkbox"/>	<input type="text"/>
Inactive <input type="checkbox"/>	Wild Fruits <input type="checkbox"/>	Tapping <input type="checkbox"/>	2-4 times/week <input type="checkbox"/>	
	Muckru <input type="checkbox"/>	Picking <input type="checkbox"/>	Monthly <input type="checkbox"/>	
	Medicine <input type="checkbox"/>	Pork-knocking <input type="checkbox"/>	4-6 times/year <input type="checkbox"/>	
	Others <input type="text"/>	Others <input type="text"/>	1-2 times/year <input type="checkbox"/>	
			Other <input type="text"/>	

Use of Collection	Threats to Site	Condition of Resource	
Domestic Consumption <input type="checkbox"/>	Over-Harvesting <input type="checkbox"/>	Excellent <input type="checkbox"/>	Good <input type="checkbox"/>
Sale Outside of Village <input type="checkbox"/>	Mining <input type="checkbox"/>	Poor <input type="checkbox"/>	Very Poor <input type="checkbox"/>
Both <input type="checkbox"/>	Poaching <input type="checkbox"/>	Notes	
%Amount sold outside village <input type="text"/>	Logging <input type="checkbox"/>		
	Other <input type="text"/>		

FARMING

Farmer's Name <input type="text"/>		Active <input type="checkbox"/>	Fallow <input type="checkbox"/>	Abandoned <input type="checkbox"/>	Age of Farm <input type="text"/>	Persons Fed <input type="text"/>
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Method of Extension	Size of Farm	Soil Type	Main Crops Planted
Shifting <input type="checkbox"/> Extension <input type="checkbox"/>	< 1 acre <input type="checkbox"/> 1 acre <input type="checkbox"/>	Gravelly <input type="checkbox"/> Sandy <input type="checkbox"/>	Cassava <input type="checkbox"/> Banana <input type="checkbox"/>
Rotation <input type="checkbox"/>	2-5 acre <input type="checkbox"/> > 5 acre <input type="checkbox"/>	Clayey <input type="checkbox"/> Peggasse <input type="checkbox"/>	Peanuts <input type="checkbox"/> Mixed <input type="checkbox"/>
Other <input type="text"/>		Loamy <input type="checkbox"/>	Other <input type="text"/>

Yield per Acre	Threats to Site	Pest and Diseases	Notes
<input type="text"/>	Over-farming <input type="checkbox"/>	Deer <input type="checkbox"/>	Notes
	Mining <input type="checkbox"/>	Caterpillar <input type="checkbox"/>	
	Wildlife <input type="checkbox"/>	Acoushi Ants <input type="checkbox"/>	
	Logging <input type="checkbox"/>	Hogs <input type="checkbox"/>	
	Other <input type="text"/>	Other <input type="text"/>	

Use of Produce	Threats to Site	Pest and Diseases
Domestic Consumption. <input type="checkbox"/>	Mining <input type="checkbox"/>	Caterpillar <input type="checkbox"/>
Sale Outside of Village <input type="checkbox"/>	Wildlife <input type="checkbox"/>	Acoushi Ants <input type="checkbox"/>
Both <input type="checkbox"/>	Logging <input type="checkbox"/>	Hogs <input type="checkbox"/>
% Amount sold outside village <input type="text"/>	Other <input type="text"/>	Other <input type="text"/>

Copy of Bush Data Results Summaries

Farming Summary

VillageST
Total Number of Points3

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
			2	1			

Use Status

Active	Fallow	Abandoned	No Response				
3							

Method of Extension

Shifting	Extension	Rotation	Other	No response			
	2	1	0				

Size of Farm

< 1 Acre	1 Acre	2-5 Acre	> 5 Acre	No Response			
		2	1				

Soil Type

Gravelly	Sandy	Clayey	Peggasse	Loamy	No Response		
1	1			1			

Main Crops Planted

Cassava	Banana	Peanuts	Mixed	Other	No Response		
3							

Use of Produce

Dom. Consmt.	Sale	Both	No Response				
3							

Threats to Site

Over-Farming	Mining	Wildlife	Logging				
		1					

Pest and Diseases

Deer	Caterpillar	Acoushi Ants	Crickets	Hogs	Monkeys	Birds	Agouti
1		1		2			

Hunting Summary

VillageST
Total Number of Points 10

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
				10			

Type of Site

Feeding Area	Track	Drinking Pond	Nesting Area	Combined			
9	1						

Use Status

Active	Inactive						
10							

Species Hunted

Bush Cow	Deer	Bush Hog	Powis	Armadillo	Turtles	Labba	Acouri
8	7	9	7				

Methods Used

Bow and Arrows	Hunting Dogs	Guns	Traps				
7	1	10					

Frequency of Use

Daily	2-4X/week	monthly	4-6 X /year	1-2 X /year			
0	1	4		5			

Amount of Catch

< 3	3 to 10	10 to 20	20 to 50	> 50			
5	5						

Use of Catch

Dom. Consumpt	Sale	Both					
10							

Threats to Site

Over-Hunting	Mining	Poaching	Logging				

Condition of Resource

Excellent	Good	Poor	Very Poor				
8	2						

Fishing Summary

*Village*ST

Total Number of Points²

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain					
			1	1					

Type of Site

River	Creek	Pond	Other						
	2								

Use Status

Active	Inactive								
2	0								

Species Fished

Arapima	Tiger Fish	Lukunani	Biaira	Hour	Yarrow	Patwa	Piaba	Haimara	Kassi
				1		1	1		1

Methods Used

Hook and Line	Poisoning	Cast Net/Seine	Bow and Arrows						
2									

Frequency of Use

Daily	2-4X/week	Month	4-6 X /year	1-2 X /year					
0	0	1	1	0					

Amount of Catch

< 3	3 to 10	10 to 20	20 to 50	> 50					
1			1						

Use of Catch

Dom. Consumpt	Sale	Both							
2									

Threats to Site

Over-Fishing	Mining	Poaching	Poisons						

Condition of Resource

Excellent	Good	Poor	Very Poor						
	2								

Gathering Summary

Village ST

Total Number of Points 18

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain		
	1		5	12		

Use Status

Active	Inactive					
18						

Species Collected

Palm Leaves	House Poles	Muckru	Nibbi	Wild Fruits		
4		11	1	12		

Methods Used

Cut and Carry	Tapping	Picking	Pork knocking			
17	2	11				

Frequency of Use

Daily	2-4 times /week	Monthly	4-6 Times /year	1-2 Times /year		
	1	3	3	11		

Use of Collection

Dom. Consumpt	Sale	Both				
15		3				

Threats to Site

Over-Harvesting	Mining	Poaching	Logging			
			3			

Condition of Resource

Excellent	Good	Poor	Very Poor			
14	4					

Age:
of dependants:
Gender:

Conservation International Guyana

COMMUNITY RESOURCE EVALUATION VILLAGE SURVEY

FARMING

- (1) How many farms do you have?
- (2) Where are your farm(s) located (savannah, bush mouth, up the mountain etc.)?
- (3) How big is your farm(s)?
- (4) How do you get to your farm (bicycle, walking, boat etc.)?
- (5) How far away is your farm (hours/minutes)?
- (6) How often do you go to your farm?
- (7) How much of your produce do you sell and where?
- (8) What are the threats that affect your farm?
- (9) What do you think is the biggest threat to your farm?
- 10) How do you solve these problems?
- (11) What has changed?

HUNTING AND FISHING

- (1) Where do you go to hunt / fish?
- (2) How often do you go there to fish/hunt?
- (3) What are the methods that you use (e.g. hook and line, seine etc.)?
- (4) Do you sell any of the fish or game that you catch (in the village, Lethem etc.) and how much of it do you sell?
- (5) What are the threats that affect your hunting/fishing resources?

- (4) Do you have to go further to fish or hunt than you did in the past?
- (5) How much further do you have to go (time)?

(6) Is the fish or game as available as it used to be in the past?

(7) Is there any animal/fish that is not there anymore?

(8) What has changed?

GATHERING

(1) Where do you go to gather materials?

(2) How often do you go to gather materials?

(3) Do you sell any of the materials that you gather (in the village, Lethem etc.) and how much do you sell?

(4) What are the threats to the resources that you gather?

(5) Are the resources that you gather, as available as in the past?

(6) Do you have to go further than you did before?

(7) How much further do you have to go (time/miles)?

(8) Is there any material that you used to gather that is not there anymore?

(9) What has changed?

Copy of Village Data Summaries

Farming Village Summary

Village Saint Ignatius
Total Number of Points 33

Age

No Response	15-28	29-40	41-55	Above 55			
0	4	5	15	9			

Gender

Male	Female	No Response					
18	15						

Number of Dependants

Average	Variance	Maximum	Minimum				
5.45	8.32	13	1				

Number of Farms

Average	Variance	Maximum	Minimum				
1.65	0.57	3	1				

Size of Farm

< 1 Acre	1>2 Acre	2-4 Acre	5 Acre and more	Other	No Response		
6	12	11	3	1			

Farming Zone

Savannah	Bush	Bush Mouth	Deep Bush	Mountain Foot	Up the Mountains	Other	No Response
7	1	4	5	12	3	1	

Methods of Transportation

Walking	Bicycle	Bullock Cart	Other	No Response			
20	18	2	2	1			

Frequency of Use

Daily	2 x wk	3 x wk	Weekly	2 x mth	Monthly	Seasonally	Other
3	2	2	17	3	2	1	2

Use of Produce

Dom. Consmt.	Sale	Both	No Response				
10		20	3				

Threats to Farms

Wild animals	acoushi ants	weather	caterpillar	domestic animals	Disrespect	other	No Response
20	19	8	2	3	10	4	

Biggest Threat

Wild animals	acoushi ants	weather	caterpillar	domestic animals	monkey	other	No Response
0	13	17	0	1	1	1	

Hunting Summary

Village Saint Ignatius
Total Number of Points 4

Age

No Response	15-28	29-40	41-55	Above 55			
	1	1		2			

Gender

Male	Female	No Response					
3	1						

Number of Dependants

Average	Variance	Maximum	Minimum				
4.25	1.58	6	3				

Frequency of Use

Daily	2 x wk	3 x wk	4 x wk	5 x wk	Weekly	Monthly	Other
					2	1	1

Methods Used

Arrow & Bows	Guns	Dogs	Other	No Response	Traps		
1	1			2			

Hunting Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
1		1	1	1			

Hunting Site

Feeding area	Track	Pond	Creek	Nesting area	Combined	No Response	
					3	1	

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
1	1	2					

Threats to Site

Over-Hunting	Mining	Weather	New Methods	Fire	Population	Tiger	Outsiders
1			1				2

Do you Fish Further?

Yes	No	No Response					
3	1						

Change In Resource availability

Yes	No	No Response					
4							

Extinct or Scarce Species

deer	amadillo	labba	turtle	bush hog	Powis	Other	
1					1	1	

Fishing Summary

Village Saint Ignatius
Total Number of Points 26

Age

No Response	15-28	29-40	41-55	Above 55			
0	2	3	13	8			

Gender

Male	Female	No Response					
16	10						

Number of Dependants

Average	Variance	Maximum	Minimum				
5.19	9.28	13	1				

Frequency of Use

Daily	2 x wk	3 x wk	4 x wk	5 x wk	Weekly	2 x mth	Other
6		3	4	1	6		6

Fishing Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
24							1

Fishing Site

River	Creek	Pond	Falls	Combined	No Response		
5	6		2	13			

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
13	1	12					

Methods Used

Hook and Line	Boats	Cast Nets	Bow and Arrows	Seine	New Methods	No Response	
23	3	7	6	18	8		

Threats to Site

Over fishing	Weather	Poison	Population	New_Methods	Outsiders	Disrespect	Other
1		1	1	11	2	2	2

Do you Fish Further?

Yes	No	No Response					
19	7						

Change In Resource availability

Yes	No	No Response					
24	2						

Extinct or Scarce Species

Tiger Fish	Big Fishes	Lukunani	Turtle	Hiamara	Manji/Mangi	Arawana	Other
5	1	5	2			4	5

Gathering Summary

Village Saint Ignatius
Total Number of Points 30

Age

No Response	15-28	29-40	41-55	Above 55			
0	4	3	16	7			

Gender

Male	Female	No Response					
19	11						
63%	37%	0%					

Number of Dependants

Average	Variance	Maximum	Minimum				
5.2	8.29	13	1				

Frequency of Use

Daily	Weekly	3 x mth	Monthly	Seasonally	Yearly	Every 5 yrs	Other	No Response
3	1	1	1	5	4	4	9	2

Gathering Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
6		2	4	8	2		8

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
15	3	10	2				

Threats to Site

Over-Harvesting	Population	Fire	Outsiders	Overlap res	New methods	Other	No Response
3	5	3	3	1	6	12	2

Do you Gather Further?

Yes	No	No Response					
19	10	1					

Change In Resource availability

Yes	No	No Response					
16	13	1					

Extinct or Scarce Species

House Materials	Red Heart	Bullet tree	Blood wood	ete	Other		
1	4	1	1	4	3		
