

KANUKU MOUNTAINS PROTECTED AREA PROCESS COMMUNITY RESOURCE EVALUATION



PARISHARA VILLAGE REPORT

August 17—27, 2002

COMMUNITY RESOURCE EVALUATION

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Acknowledgement

"Thank you"

This report is the record of work that was done in Parishara 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 the Senior Councillor, John Johnson, the other members of the village council and the Community Coordinator, Justino Andrew all of whom worked together to make the CRE a success

The acting Head Teacher, Jean Ng-A-Fook who allowed for the use of the school building and assisted the workshop by providing blackboards, tables and benches.

We would also like to thank Elizabeth, Dora and Chawlyn 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.

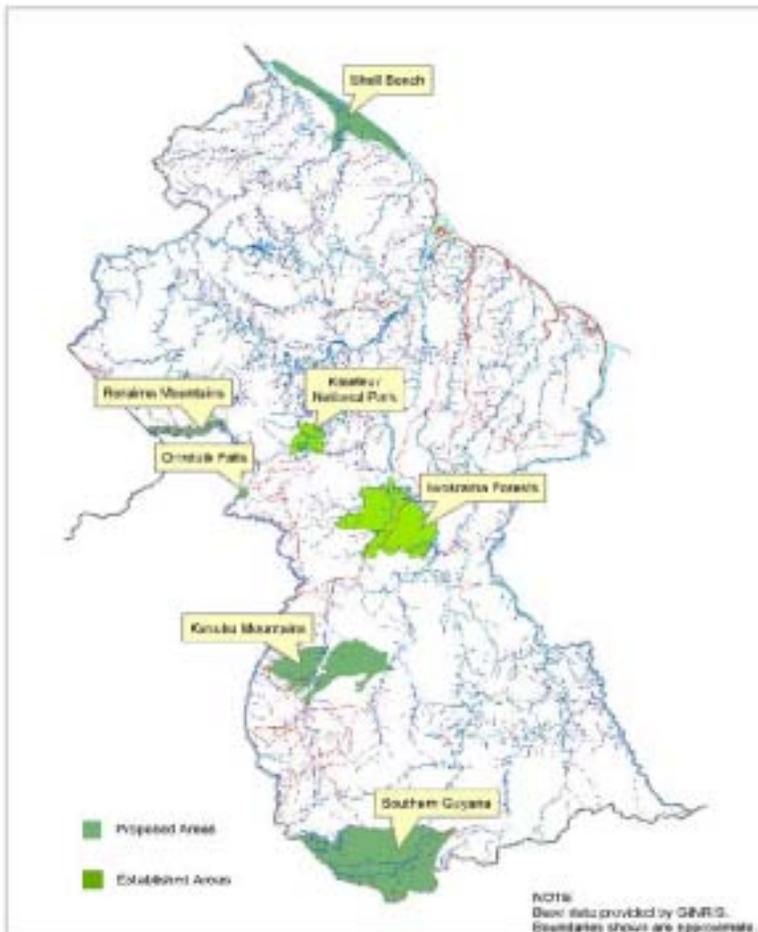
CI has been active in Guyana since 1990 and has led research expeditions, media events and educational activities. The strategic plan of CI Guyana (CIG) is to promote the conservation of biodiversity and the protection of critical ecosystems, through a process comprising scientific research based on 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.

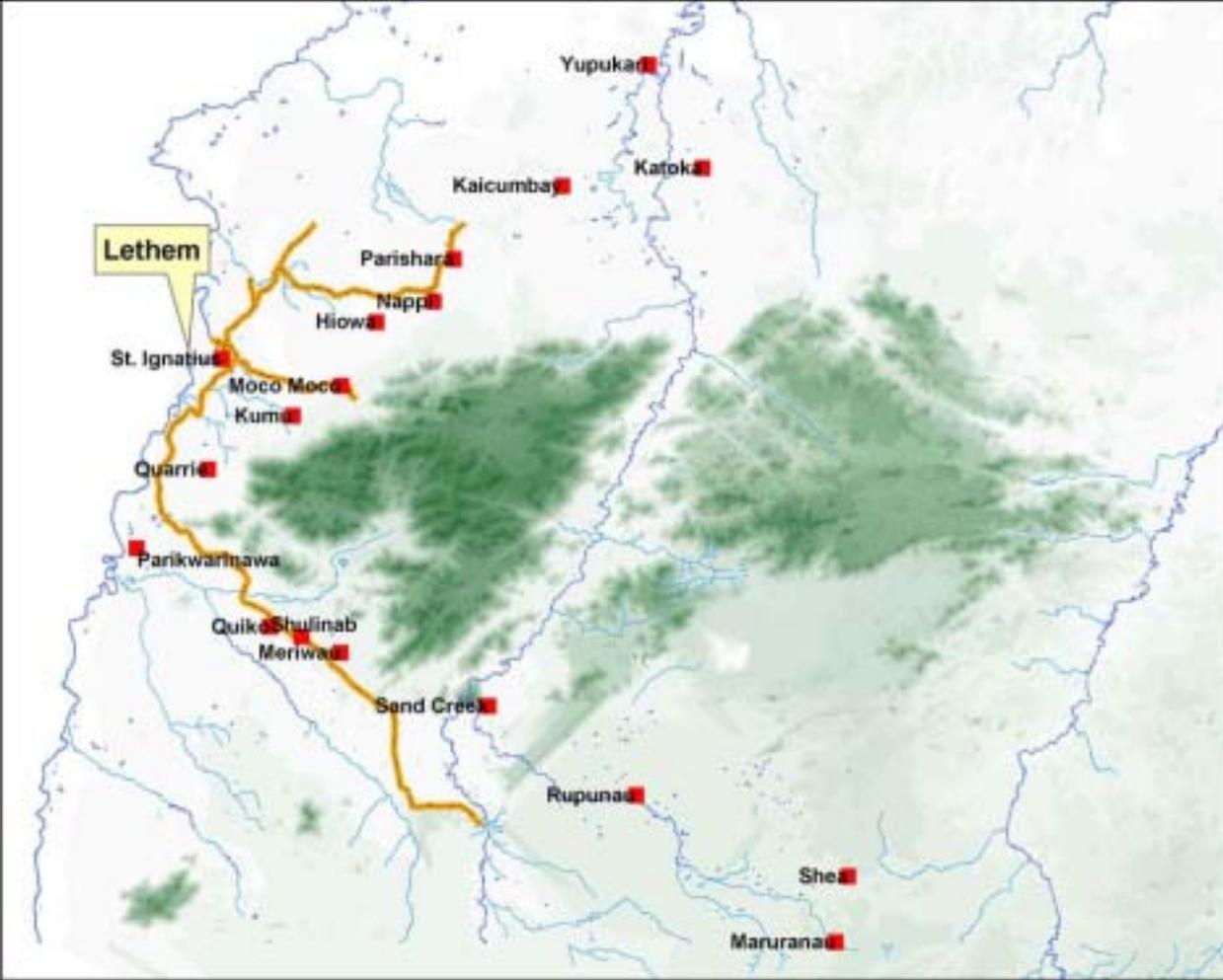
The Kanuku Mountains Proposed Protected Area (KMPA) is one of five areas in Guyana that have been identified by the Environmental Protection Agency (EPA) for conservation efforts. These areas are selected because of their beauty, landscape or richness in biodiversity.



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:

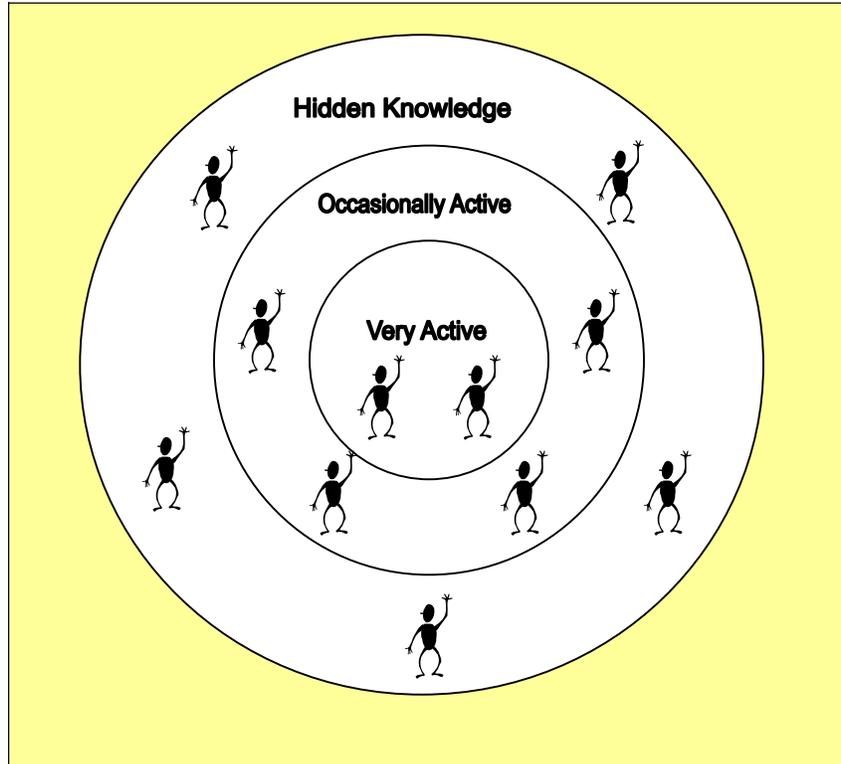
- A mini-lecture is given on information gathering and surveying techniques
- The participants then undergo a mock interview exercise for practice
- The community participants draw an informal sketch map of the village on which all households are placed. The group selects potential interviewees based 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

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

PARISHARA

PARISHARA VILLAGE REPORT

The Community Resource Evaluation (CRE) was conducted at Parishara from August 17 to 27th, 2002. The purpose of the CRE, as outlined in the first section of this 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 Parishara 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

Parishara is predominantly a Macushi community situated on a hilly area in the savannah on the West Bank of Nappi Creek that runs north from Nappi Mountains.

Although the settlement of Parishara is officially in the village of Nappi, it is considered as a separate community for most purposes except external relations. The membership of Nappi Village Council is made up of three blocs of members elected to represent the settlement. Parishara has its own schools, health center and church.

The center of Parishara is about four miles north of Nappi center; on a good trail branching northeast from near Nappi on the Lethem-Nappi trail. The majority of homes lie on either side of the trail centered within half a mile of the sports ground and market building at 3.46264°N and 59.55511°W. The Nappi-Parishara trail extends through Mountain Point to intersect the old Yupukari trail, which runs from the main Lethem-Kurupukari road, about four to five miles south of Pirara Ranch, westerly through Marakanata.

The main activities are farming and small scale lumbering for commercial purposes.

DEMOGRAPHICS

Population structure

AGE GROUP	Male	Female	Total
< 1 yr	6	3	9
1 – 4 yrs	37	30	67
5 – 14 yrs	49	53	102
15 – 19 yrs	16	26	42
20 – 44 yrs	51	42	93
45 – 64 yrs	9	6	15
≥ 65 yrs	7	8	15
Total	175	168	343

There are 56 households including one isolated about a mile east at Pywagada. Practically all families are Macushi.

Administration

The following persons were elected to the Village Council on March 10, 2002

- **Edna King**
- **Dannival Milliano**
- **Beverley Fiedtkou**
- **John Johnson**
- **Edward Buckley**

These councillors serve as part of the main administrative council of Nappi, Parishara and Hiowa, led by George Tancredo, who was elected Touchau by all three villages.

PARTICIPANT GROUP INFORMATION

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

In total there were twenty-five persons. This group includes representatives of the village council, church, youth and women. There were nine (9) women and sixteen (16) men who participated.

There were representatives of the village council, including the Senior Councillor John Johnson. In addition to church leaders and representatives of the women’s group. The participants were also active farmers, hunters, fishermen and gatherers who brought a wealth of knowledge to the workshop.

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

Annie Albert
 Matthew David
 Patrick John
 Loraine Alfred
 Maurice Joseph
 Edna King
 Elias Nazarene
 Brutis Stephen
 Jean Ng-a-fook

Joanita Andrew
 Magnus David
 Lionel John
 Stephen Buckley
 Aubrey Joseph
 Alvin Leandro
 Godfrey John
 Gilbert Stephen

Glen Andrew
 Evelyn Joseph
 John Johnson
 Noela Carlos
 Alan Joseph
 Mark Malcolm
 Melissa Malcolm
 Eunice Stephen

Justino Andrew (Community Coordinator)

Participant Age Profile

AGE	15 - 28	29 - 40	41 – 55	Above 55	Not Stated
No. of persons	5	7	8	1	4

For a profile of the CRE team see Appendix 2. The CI team consisted of:

- Susan Stone** – Program Manager
- Margaret Gomes** – Wapishana Translator
- Wendy Leandro** – Resource Assistant, Education and Awareness
- Lloyd Ramdin** – Agriculture Resource Advisor



CI Team: Susan, Wendy, Margaret and Lloyd in front.



How Parishara Got Its Name

Many, many years ago there lived a group of people who were called 'Praweyang' meaning fast runners. These people were not living in one place because of the 'Cuzha' (warriors) who attacked and killed them. The Praweyang celebrated their feasts and festivals by drinking kari, paiwari, et cetera and were very active in the Parishara dance.

One day, they were having a feast, their custom, when the Cuzha approached, attacked and killed some of them. Some of the Praweyang managed to escape and ran across the Ireng River. The Praweyang continued on their journey towards the Kanuku Mountains to escape their enemies.

It is said that some of the Praweyang fell into a pool in Nappi Creek and disappeared and to this day that pool is called 'Parishara Pool'. One of them passed the pool and continued to head towards the Kanuku Mountains. He came to this place where he decided to live secretly.

After a long lonely life, a kind family of Macushi people traveling to the Kanuku Mountains met him and decided to make a living with him. After a good conversation they decided to give their daughter to him and after getting to know that he was one of the Parishara dancers, he was selected to be the Parishara dance leader. So because of his position his name was called Parishara. He was the first person to live and die in this area. This place is still named after him.

As told By Lionel John, Parishara Village

CRE WORKSHOP RESULTS

CREATION OF THE TOOLS



Participants copying the base map onto cardboard

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



Resource discussion group

the help of the whole group.



Creating the resource use sketch map

Participants created three tools to help communicate Parishara'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 thirty different types of crops that are actively used by the community. The list includes, vegetables, peanuts, ground provisions, tobacco, and paddy.

The group also noted the major soil types in which particular crops are grown.

Crops			
1.	Bitter Cassava (major) *ox√	16.	Yams (major) *x
2.	Sweet Cassav *ox√	17.	Pine Apple (major) ox*
3.	Corn (major) *ox√	18.	Paddy (major) √
4.	Watermelon o	19.	Pepper (major) *ox√
5.	Banana (major) *x√	20.	Sweet Potatoes (major) ox*
6.	Plantain (major) x	21.	Cotton ox*
7.	Peanut (major) *x	22.	Crawa ox*
8.	Pumpkin ox√	23.	Pop Corn x√
9.	Sugar cane *x√	24.	Papaw ox*
10.	Eddoe (major) x√	25.	Citrus *ox√
11.	Coconut ox√	26.	Anato √o
12.	Conani x√	27.	Peas (major) ox*
13.	Vegetables ox√	28.	Passion Fruit x√
14.	Arrow Cane *x√	29.	Tobacco oX
15.	Barley ox*	30.	Pear x√

Soil Types:

- Sandy – *
- Red Loam – x
- Black Loamy –
- Gravel – o
- Loamy (a mixture of sand, silt and clay) – √

Kinds of Crops:

- Bitter Cassava – 3mths, 6mths, 8mths, 1yr and 2yrs. Cassava can stay in the soil for up to 2 years but can be ready for harvesting.
- Sweet Cassava - 3mths, 6mths, 8mths and 1yr.
- Corn – 40 days, 1mth, 3mth and 4mths.
- Banana – 9mths and 1yr.
- Plantains – 1yr.
- Peanuts – 3mths, 5mths.
- Eddoes – 3 species: Tania, Dashin

- Yams – 10 species
- Paddy – 5 species
- Pepper – 10 species
- Cotton – 3 species
- Barley – 2 species
- Peas – 8 species
- Tobacco – 2 species

HUNTING & FISHING

The hunting and fishing group produced an extensive list of game and fish that are actively used by the community. In total fifty-five (55) different types of game were listed, which included: armadillo, labba, birds and caterpillars. Forty-nine (49) types of fish were listed and which included: crabs, alligator, eels and flounder.

Hunting				Fishing			
1.	Tapir	29.	Toucan	1.	Plicotomas	24.	Arapaima
2.	Bush deer	30.	Macaw	2.	Mountain Fish	25.	Haimara
3.	Savannah deer	31.	Powis	3.	Monica Fish	26.	Tiger Fish
4.	Bush Hog	32.	Maam	4.	Sou Sou	27.	Zip Fish
5.	Labba	33.	Marudi	5.	Catabat	28.	Banana Fish
6.	Agouti	34.	Trumpet Bird	6.	Mangi	29.	Houri
7.	Adouri	35.	Whissy Duck	7.	Yakatu	30.	Yarrow
8.	Labba	36.	Mascavy Duck	8.	Dari	31.	Patwa
9.	Armadillo	37.	Teal Duck	9.	Arawana	32.	Lukunani
10.	Giant Armadillo	38.	Quail	10.	Sword Fish	33.	Perai
11.	Land Turtle	39.	Jabiro	11.	Fox Fish	34.	Hassar
12.	Watrash	40.	Parrot	12.	Juruparie	35.	Biara
13.	Monkey	41.	Hawk	13.	Piaba	36.	Sun Fish
14.	Iguana	42.	Pigeon	14.	Cassie	37.	Basha
15.	Salipenter (bush motorcycle)	43.	Dove	15.	Cuti	38.	Button Fish
16.	Jaguar	44.	Tawa Tawa	16.	Shedau	40.	Logo Logo
17.	Puma	45.	Carao	17.	Crabs	41.	Needle Fish
18.	Caterpillar	46.	Duck La	18.	Alligator	42.	River Otter
19.	Acoushi Ants	47.	Humming Bird	19.	Water Turtle	43.	Cat Fish
20.	Anteater	48.	Yellow Bird	20.	Sting Ray	44.	High Water Fish
21.	Sloth	49.	Spur Wing	21.	Flounder	45.	Boots Fish/ Imiri
22.	Ant bear	50.	Cock-of-the-rock	22.	Electric Eel	46.	Quan
23.	Fox	51.	Bell bird	23.	Mud Eel	47.	Shrimps
24.	Bush Master	52.	Blue Sackie			48.	Parvaw
25.	Bat	53.	Tropial			49.	Himiri
26.	Raccoon	54.	Kiskadee				
27.	Spider	55.	Muruida				
28.	Mountain Chicken						

GATHERING

The gathering group recorded sixty-one different types of materials that are gathered by the community. The list includes various poisons, herbs, wild fruits and precious stones.

Materials			
1.	Wattles	31.	Conani
2.	Cocorite Leaves & fruit	32.	Hiari
3.	Ete Leaves, fruit & bark	33.	Wild Cassa
4.	Turo Lu	34.	Sheikana (poison)
5.	Locust	35.	Pyshi
6.	Plum	36.	Tipuri King
7.	Bullet wood	37.	Jackass Balls –poison for fish
8.	Awara	38.	Puwa
9.	Aruwa	40.	Wild Garlic
10.	Wild Cashew	41.	Manicole Root
11.	Brazilian Nut	42.	Suckle Berry
12.	Ginep	43.	Granny Backbone/vine (back pains)
13.	Whitey	44.	Wild Caiambay (ringworms)
14.	Wild Guava	45.	Lama Cherry
15.	Wild Sour Sop	46.	Peabba
16.	Manicole Fruit	47.	Congo Pump
17.	Wild Pawpaw	48.	Crab Seed
18.	Ton Ping	49.	Gold & Diamond
19.	Bitter Tree/cedar	50.	Beads
20.	Contar	51.	Nibi
21.	Pawpaw Root	52.	Leopard Wood
22.	Kapadula	53.	Phraysha Wood/Frezor
23.	Turtle Cherry	54.	Muckru
24.	Wild Passion Fruit	55.	Wild Cane
25.	Manicole Heart	56.	Caramani
26.	Caramani	57.	Cider
27.	Incense	58.	Frazer Wood
28.	Grater Paste	59.	Ete Bally
29.	Curare	60.	Housing Materials
30.	Fish Poison	61.	Silver Bally

SEASONAL CALENDAR

“The When”

The seasonal calendar was created using the entire participant group. The group’s first task was to outline the main seasons of the year, as they know them.

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 or dry that occurs within a larger season such as “Cashew Rains” between November and December.

The group also listed a number of local names for the seasons, including Weami (February – March) and Jonami (May – July).

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

As can be seen on the calendar the community is occupied with land preparation from January - February. These activities include: under bushing, cutting down of trees, burning, drying and clearing. Planting of crops follows, which takes place from April and continues throughout the year. Reaping and replanting takes place throughout the year, at various times suited to the crop.

HUNTING & FISHING

Fishing is done throughout the year. The calendar shows that the season determines where fishing is done - for example from June – August the creeks and rivers are used while from September to December it is largely the ponds and rivers. The calendar also shows the variety of methods that are used to catch fish.

Hunting is also done throughout the year. As shown on the calendar the community hunts for a variety of game using several methods. Hunting is also a major part of festivities, as identified on the calendar (Heritage Month and Christmas Hunt).

GATHERING

Gathering is an activity that engages the village at all times of the year. The gathering of materials is determined by need. The calendar shows the wide variety of materials that are harvested by the community. The materials include: seeds, poisons, medicines, fruits, and house materials.

Revised Seasonal Calendar for Parishara

January	February	March	April	May	June	July	August	September	October	November	December	Season		
Showers	Dry Seasons & Hot Sun 'Weami'		Short Rain Beatle Season	Long Rainy Season & Floods 'Jonami'			Stormy Rains & Breezy/Windy	Short Dry		Short Rains/Cashew Rains Short rains/hot suns between				
Farming – Maiden Bush													FARMING	
Under Bushing & Cutting Down		Allow to Burn & Dry	Clear & Plant		Weeding & Taking care of farm			Reaping Crops and Replanting						
Reaping pepper		Plant: Corn, paddy, eddoe, cassava, pea- nut, banana Plantain, watermelon,	Plant: peppers	Plant dry pea	Reap 3mth Cassava, green pea & corn		Reap Peanut & plant cassava sticks		Reap Eddoe and other Ground Provisions					
				Reap watermelon			Reap dry pea, 1 st & 2 nd crop							
						Extension of Farms		Burning & Renlantiing						
											Reap Penners			
← <i>Banana & Plantain (After 1 year), Pineapple</i> →														
Fishing														FISHING
← Houri, Yarrow, Patwa, Lukanani, Perai, Sun Fish, Button Fish, Mangi, Dari, Shedau, Cassi, Juruparie, Alligator →														
Hassar, houri – using hand in ponds					Banana Fish, Biara, Basha, Yakutu, Arawana, Cuti, Crabs, Sting Ray			Piah		Water Turtle Eggs				
								Alligator Eggs						
					Fish March (Spawn)			Heritage fishing		Arapaima, Tiger Fish, Logo Logo, Hassar, Haimara, Water Turtle				
								Tiger fish						
								Creeks and River Fishing –hooks, bottles, lines, diving, stop off line				River Fishing –hooks, bow & arrows, seine, line, diving Pond Fishing –hooks, cast nets, bow & arrows, poison		

Seasonal Calendar for Parishara continued

January	February	March	April	May	June	July	August	September	October	November	December			
Hunting												HUNTING		
Agouti, Labba, Adouri, Labba Rat, Watrash, (capybara, fox, <i>Birds: Pigeon, Quail, Mamm, Marudi, Trumpet Birds</i>														
				<i>Bush Hog (Bush Islands), Savannah Deer, Armadillo, Red Land Turtle, Tapir (Bush Cow, labaria)</i>				<i>Heritage Hunt – savannah deer</i>					<i>Bats, Christmas Hunt: Svnh Deer, Labba,</i>	
<i>Bush Hog (Bush Islands), Savannah Deer, Armadillo, Red Land Turtle, Tapir (Bush Cow), Labaraia, Iguana</i>														
<i>Jaguar, Puma (coming to water holes)</i>						<i>Monkeys (protecting corn)</i>								
				<i>Bats protect fruits using sticks & rods</i>				<i>Powis Crowing Season, Mascovy Duck, Whissy Whissy Duck, Teal Duck</i>						
<i>Powis Crowing Season</i>					<i>Duck eggs are collected</i>									
<i>Scarlet Macaws are tranned</i>														
<i>Toucans are tranned in the village when iamoon is in season</i>														
Gathering													GATHERING	
<i>Whitev Ete</i>						<i>Crab wood seeds, Brazilian nuts</i>				<i>Poison Materials, Cashew nuts</i>				
<i>House Materials, Minerals, Canoe Materials, Monkey Bridge Materials</i>									<i>Minerals, Locust</i>		<i>Poison materials, cashew nuts</i>			
<i>Plum, wild ginep, guinea pop</i>								<i>Balata bleeding, fruits, poison, rubber, jackass ball, wild cassava, hiari, cunani, sheikana, pishi, Eipiriking</i>						
<i>Awara, Cow wood, Insence, Logging, Craft materials, Caramani, Mucru, Medicine, Arrow shafts, house materials, leaves</i>														
<i>Turo & Lou</i>														
<i>← Awara, Cow wood, Insence, Logging, Craft materials, Caramani, Mucru, Medicine, Arrow shafts, house materials, leaves →</i>														

Comment * Labbaria are plentiful during the rainy season that is July and August.

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 major river (Rupununi River) is identified on the maps along with the main tributaries. The maps also include the village, the main trails, ponds, and waterfalls.



Gathering group of Parishara with their map

Farming Resource Use Sketch Map

The farming grounds of Parishara are widely dispersed. The bigger plots are found on the banks and main rivers like Nappi Creek, Kamarapa River and the Rupununi River.

Other smaller farming areas are located along the tributaries of the main creek. Many of the present farming grounds are in old farming areas, indicated by the presence of many large fruit trees. Most of the soil types at these locations are clay and in some places sandy to gravelly loam.

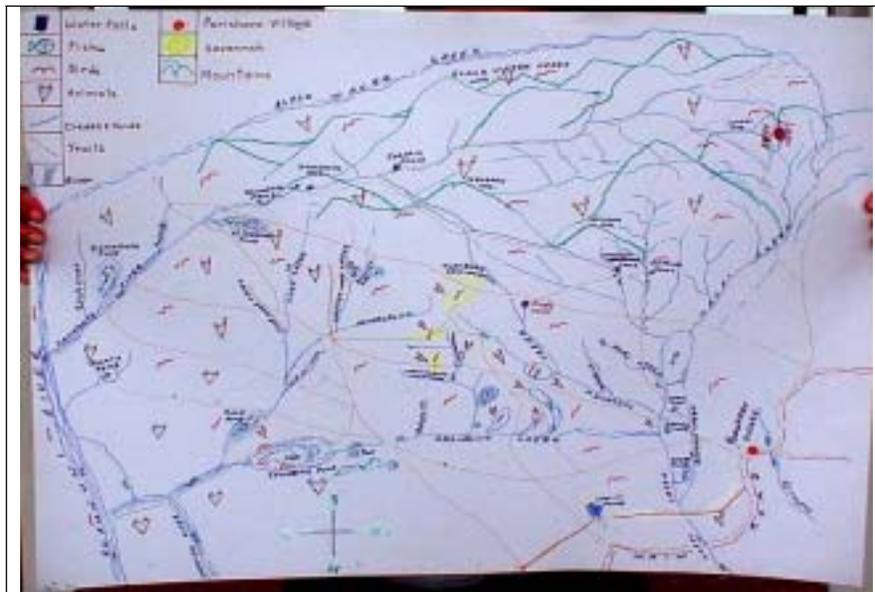


Parishara Farming Map

Hunting And Fishing Resource Use Sketch Map

This map represents the areas where the community of Parishara hunts and fishes. The area extends from the Wamakaru River to Nappi Mountain area. As one can observe when the map is seen the resources are shown in abundance, with many species indicated. Game hunted includes: deer, tapir, powis, hogs, labba, armadillo, and capybara, turtle. Species fished are: lukunani, basha, houri, patwa, piab, hassar, and catfish.

Most fishing is done in ponds and hunting in the savannahs and bush areas.



Parishara Hunting and Fishing Map

Gathering Resource Use Sketch Map

The map below represents the resources gathered by the community and the areas of use as identified by the participants of the CRE.

Most of the gathering resource areas are located right into the mountains up to the Kamarapa also known as Wamakaruru River. These are mainly wild fruits, craft materials especially nibbi, bow material, balata etc. mineral, lumber trees and others. The map depicts a wide range of forest resources. The main trails represented head all the way into the mountains.

The map also shows that many resources exist in the bush areas closer to the communities.



Parishara Gathering Map



Eunice Albert, Parishara Village

Once my mother went fishing with a little boy. Eunice was small at that time. Her mom did not know that a dragon was in the water. She saw bubbles, and then she saw huge eyes of the dragon.

She did not want to scare the boy, so she did not say anything to him. All she said was that it was time to get home.

They were a good way off from the pond, when the dragon splashed water. This caused her mother's ears to be blocked. They both fell down, for a while they couldn't hear anything, suddenly the ground became soft, they had to leave.

When she got home with the boy. On arrival, she told a woman who was there that she was feeling bad. They went to sleep, when they woke up, they were both sad.

FIELD OBSERVATION

INTRODUCTION

The fieldwork in Parishara was done over a period of four days. Before the fieldwork began the members of the “bush team” received training on:

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



Verifying resource use areas in the Maipaima Falls area using the sketch map

In total there were three teams, with approximately five persons on each team. The teams were grouped according to the areas that had to be covered. Each team 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 each team but all members of the team actively contributed to the information collected. In the case of Parishara, the coordinator Justino Andrew received additional training on the GPS prior to the beginning of the CRE and was able to successfully lead a team.

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

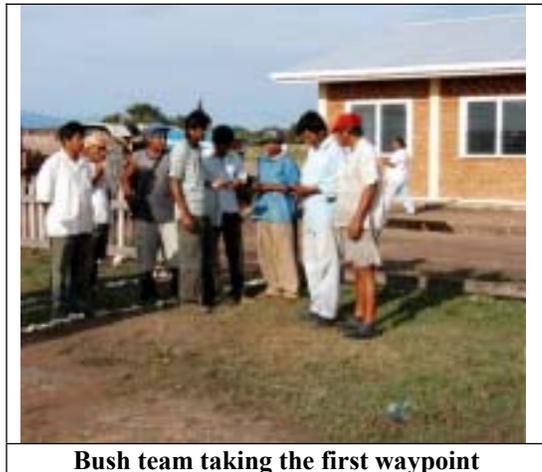
Lloyd Ramdin (CI)
Elias Nazarene
Matthew Nazarene
Patrick John
Glen Andrew

AREAS COVERED

The furthest point that the team visited was down **Wamakaru River**, which is twenty-six (26) miles away. Other areas covered by the team include **Nappi landing, Pima Falls, Caiman Pond, Cocorite Point, Bush Cow pond** (there is a spring found there).

OBSERVATION

Most of the farming is done in the Bush Cow Pond area since the land is elevated (as the land is usually flooded during the rainy season) and the soil type is of good productive quality (clay/loam – sand/gravel loam) Other resources such as house materials, which include, Cocorite palm, rafters, wattles etc. are in abundance.



Bush team taking the first waypoint

Deeper into the forest the resources are diverse and plentiful. This is as a result of distance from the village, which makes visiting the area difficult, and the lack of proper trails to the areas. From Elias's farm through to the river the forest is basically untouched except for the bleeding of balata, collecting of muckru and some degree of hunting. Species hunted there include; tapir, labba, hogs, deer and powis. Species fished included, haimara, houri and piab.

There were no threats to the areas that were observed or reported by the team.

TEAM B

**Justino Andrew
Mark Malcolm
Stephen Buckley
Godfrey John
Brutus Stephen**

AREAS COVERED

The furthest area visited by the team was **Jordan Falls upper Wamakaru River**, approximately fifteen miles from the village. Other main resource use areas were farming grounds in the **Maipaima, Houri Creek** and **Shikmi** areas and a special gathering area called the **Bank of Guyana**.

OBSERVATION

All the resource areas visited appear to be in excellent condition. The farming grounds in Houri and Maipaima Creek are old farming grounds that farmers are returning to use again. These are vast areas, which have recovered, and the soil is once again fertile. The main crops planted here are cassava, banana and peanuts. It was also observed that the yam plant is growing wild in these areas. This is due to the fact that these plants grow from any part of the edible stem/corn and bears small yam seeds at the nodes.

Gathering resources are still in excellent condition. The furthest areas are visited to collect caramanni, nibbi and some bit of mining. Gathering of these materials are not regularly done and only occurs once or twice a year.

The game found in these areas is bush hogs, deer, and labba. The Wamakaru areas are visited about six times a year specifically for fishing (especially haimara).

The only major threat is chainsaw logging at the bush mouth. This is because power saws were obtained by some of the villagers who are using them to do commercial logging.

TEAM C

**Sabastian Tancredo
Matthew David
Magnus David
Alan Joseph
Alvin Leandrew
Gilbert Stephen**

AREAS COVERED

The furthest point visited by the team is the **Wamakaru Mountains**, which is approximately 15 miles from the village. Other areas that were covered by the team include:

- **Maipaima Falls**
- **Caramanni Creek**
- **Wamakaru River**

OBSERVATION

Gathering is done for resources such as caramani, fruits, nibi, kupa, rubber, incense, mamouri and medicinal herbs. Most of these resources are found on the mountaintop (at the furthest point).

Hunting is also done in these areas; most of the game the team came across on the trail through to the furthest points was bush hogs.

The forest was intact and resources in all these areas visited were excellent. The areas were very mountainous and difficult to traverse. Visits to these parts were infrequent.

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 described 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, as well as the intensity and quality of use.

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

DATA SUMMARY

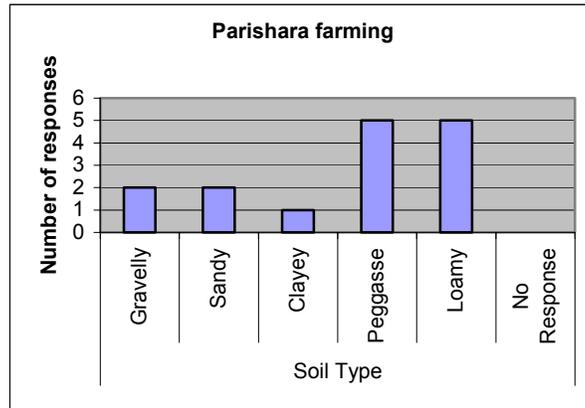
In total eighty (80) waypoints were taken. The following is a summary of all the waypoints in each category

- **Farming** **15**
- **Hunting** **24**
- **Fishing** **17**
- **Gathering** **24**

FARMING DATA RESULTS

QUALITY

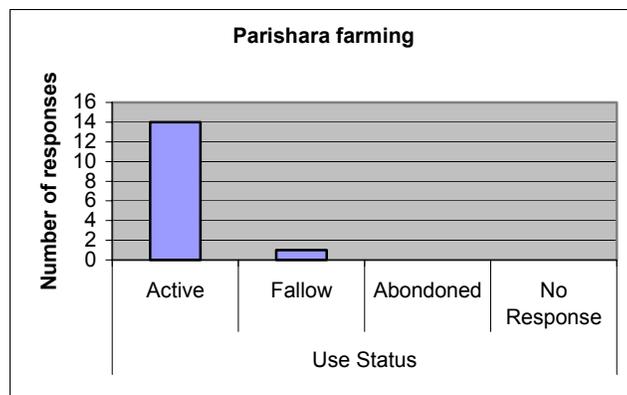
The soil type in the majority of farming areas visited was Peggasse (5), loamy (5) and to a lesser extent sandy (2) and gravelly (2).



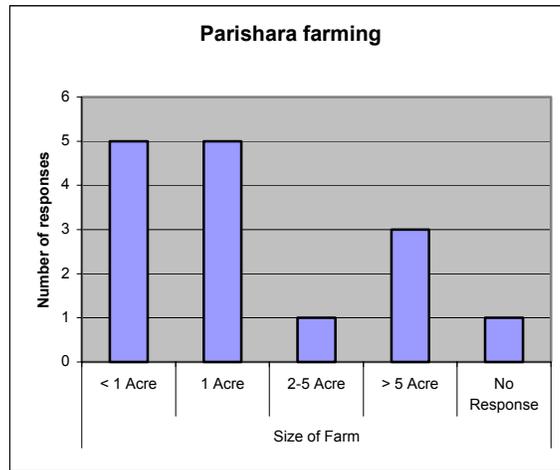
The crops planted on the farms are mainly mixed (12) and cassava (2).

INTENSITY

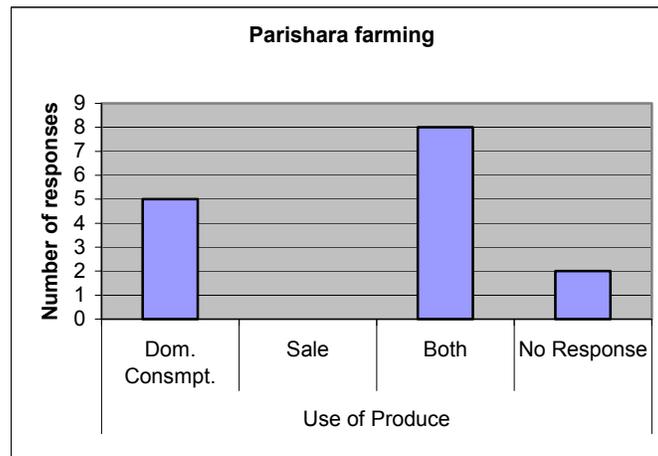
The farms that were visited are located primarily in the bush (11) and at the mountain foot (2). These farms are mainly active (14) with one farm being documented as fallow (4).



The farms are mainly less than one acre (5), 1 acre (5) or more than five acres (3).

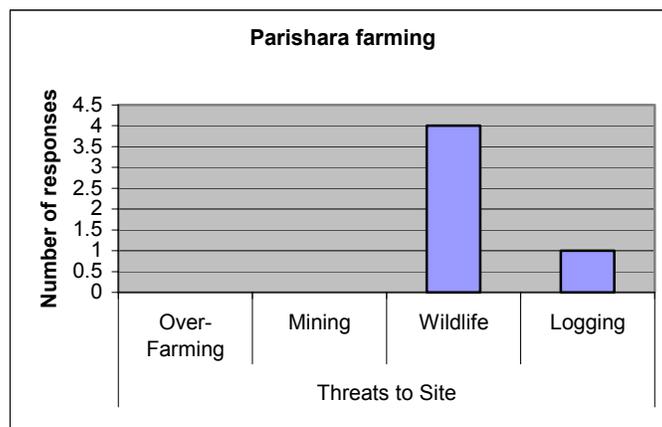
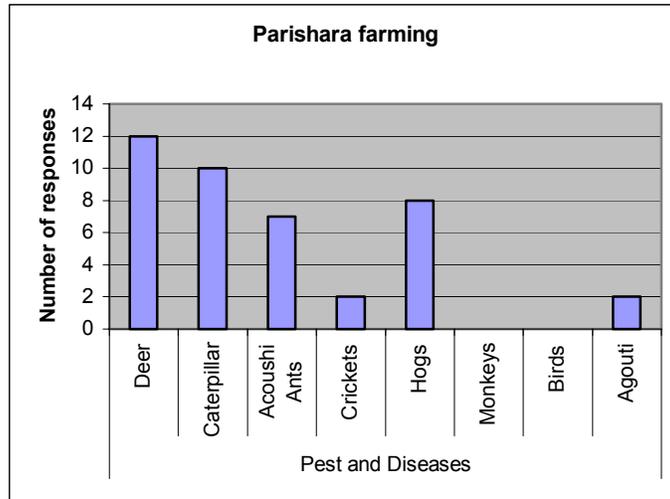


The majority (8) of the farms both sells and uses the produce for domestic consumption five farms use it for domestic consumption only.



THREATS

There were only two threats that were entered wild life (4) and logging (1). Several pests affect the crops: deer (12), caterpillars (10), hogs (8) and acoushi ants (7).

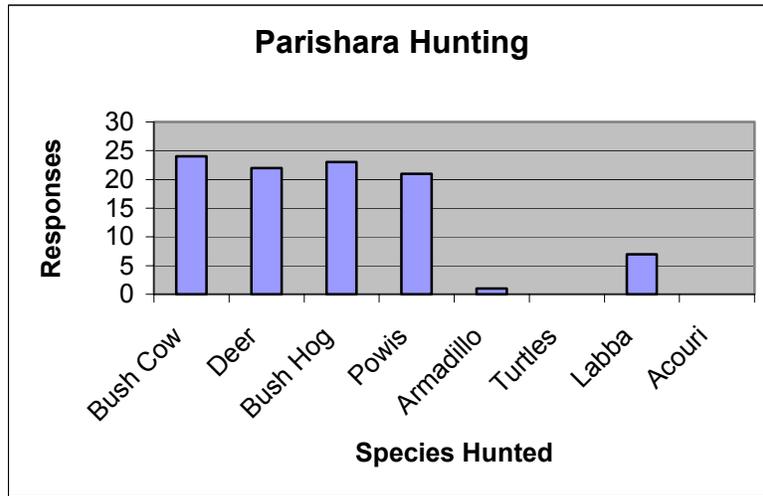


HUNTING DATA RESULTS

QUALITY

The quality of the hunting resources is considered to be either good (17) or excellent (8).

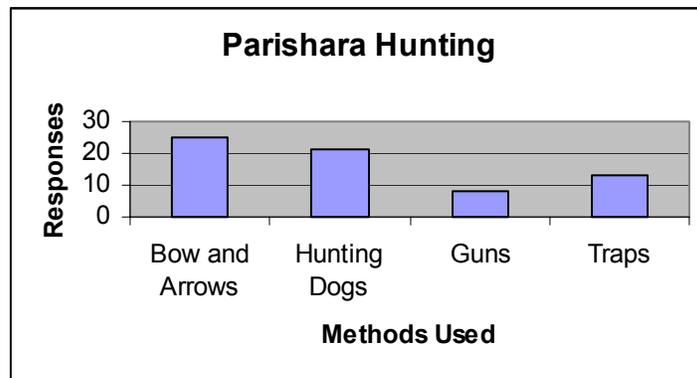
The game that is hunted was entered as bush cow (24), bush hog (23), deer (22) and powis (21).



INTENSITY

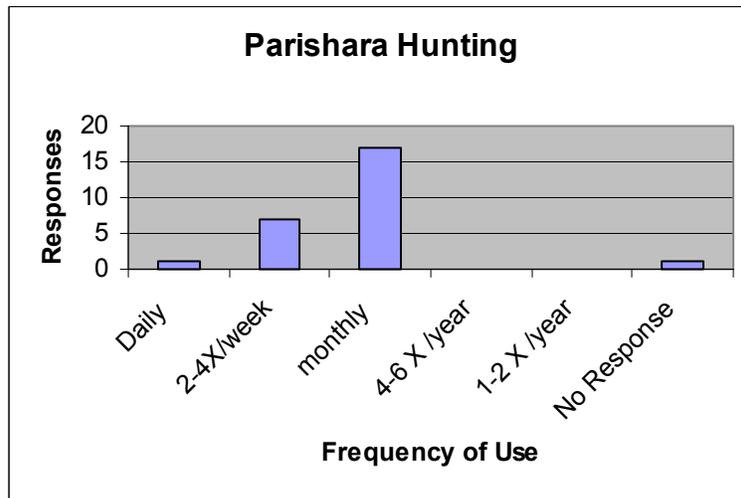
The areas that were visited are spread out between the bush (16) and up the mountain (6). Twenty-five of the sites were active.

Hunting is done using traditional methods, bow and arrows (25) hunting dogs (21) traps (13) and more modern methods such as guns (8). Hunting is mostly done in these areas on a monthly basis (17).



The number of catch in these areas is usually less than three (23). The game is used for domestic consumption (17) and for both sale and domestic consumption (9).

Hunting is usually done once a month. See graph.



THREATS

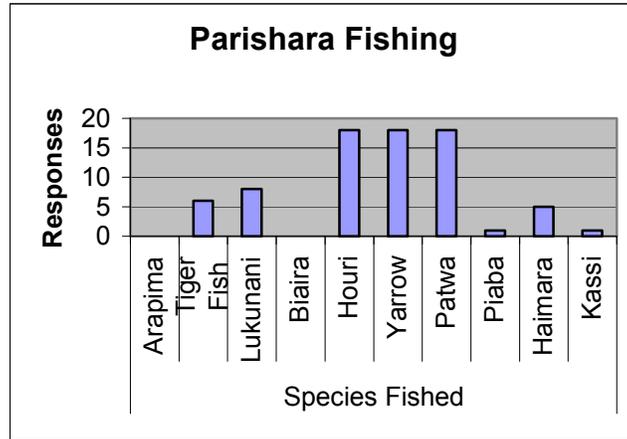
Poaching was recorded in one of the areas.

FISHING DATA RESULTS

QUALITY

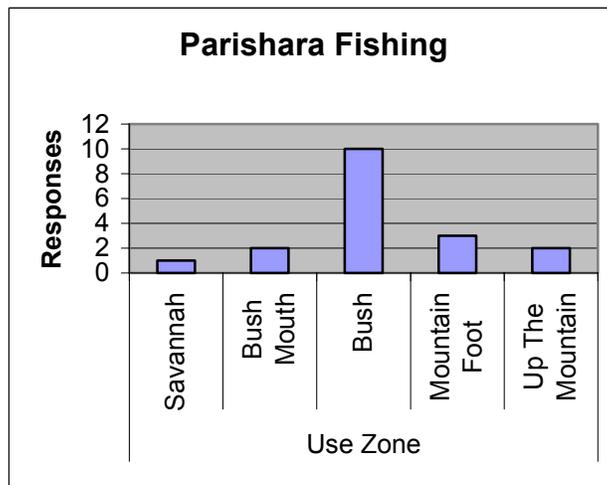
The condition of the fishing resources was considered to be mainly good (10) and excellent (8).

The resources that are caught are yarrow (18), patwa (18) houri (18), lukunani(8) and tiger fish (6).

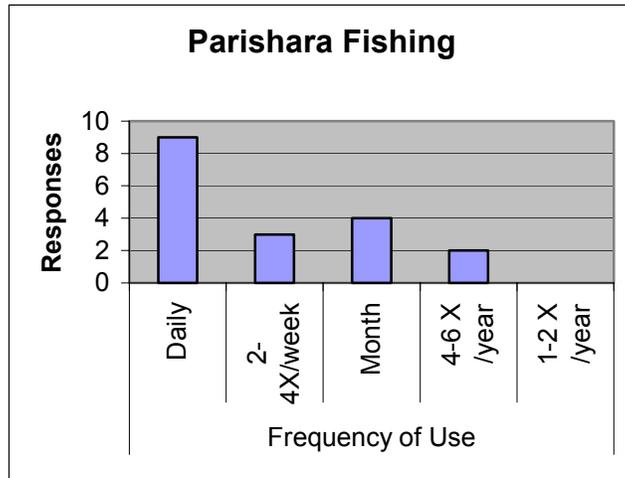


INTENSITY

Waypoints were collected mainly in the bush (10) **see graph**. All of the sites visited (18) were active.



The methods used were hook and line (17), bows and arrows (17) cast nets (12) and poisoning (3). Most fishing at the sites is done daily. **See graph**. The catch is usually between 10 to 20 fishes (9).



The catch is used mainly for domestic consumption (13) or for both sale and domestic consumption (5).

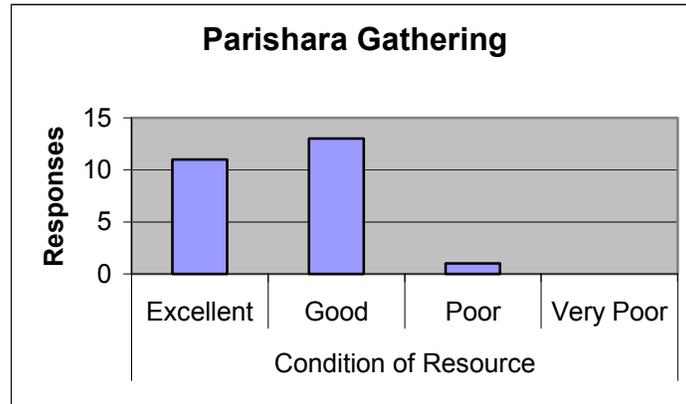
THREATS

There were two threats recorded at the sites visited poaching (2) and poisoning (2).

GATHERING DATA RESULTS

QUALITY

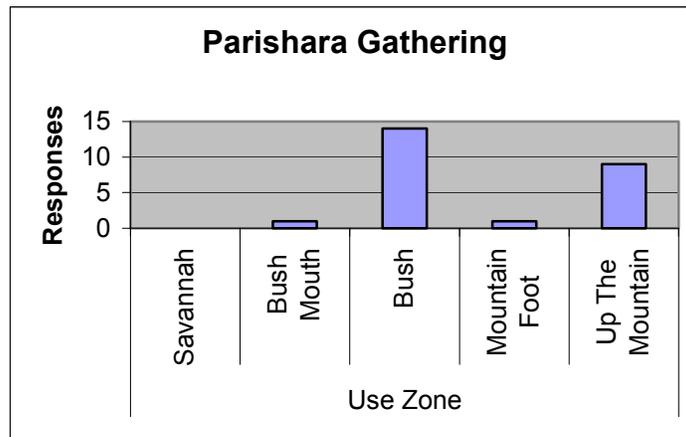
The gathering resource condition was recorded as being mainly “good” (13) and “excellent” (11). There was one site where the resource condition was considered to be poor.



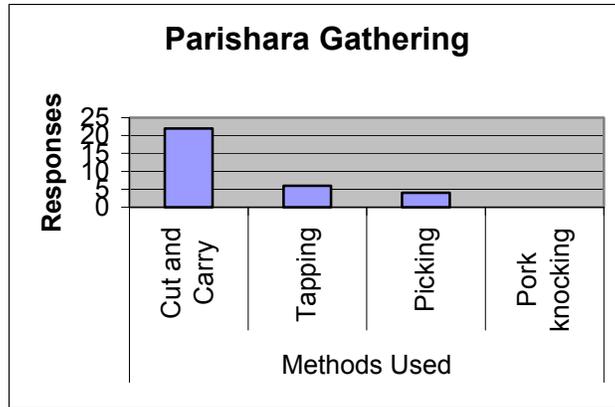
The resources collected are wild fruits (14), muckru (10), palm leaves and nibi (8).

INTENSITY

Most of the sites where gathering areas were geo-referenced were located in the bush (14) and up the mountain (9). All of the sites visited were actively used to gather materials.

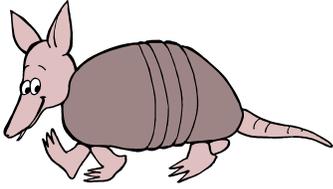


Cut and carry (22) tapping (6) and picking (4) are the methods that are mainly used. Gathering is done mainly 1-2 times per year (13) or monthly (10) and is mainly for domestic consumption (22). It was only in three cases that both sale and domestic use was recorded.



THREATS

There was one threat recorded at three sites and that was logging.



Labba and Armadillo

Labba was one of the animals that lived up the Kanuku Mountains and Armadillo was one that lived in the Savannah. One day, armadillo decided to take a trip to the Kanuku Mountains because he had heard that on the Kanuku Mountains there was lots of food to eat.

On that day labba was on its way to gather some food. They met each other and introduced themselves and talked about living in the mountains and savannahs. Labba spoke about the fruit and nuts he ate in the mountains while armadillo spoke about the worms he ate in the savannahs. After learning that armadillo's food was worms, labba invited him to a spot where he knew the worms were plentiful.

Armadillo collected as much worms as he could and in turn invited labba to come to the savannahs so that he could show him the fruits and nuts there. Labba went and in turn collected as much as he could. That day the two became friends. This is why today we find some labba in both the mountains and savannahs. They became so much friends that decided to exchange their flesh with each other. So today we can find both armadillos and labbas with each other's flesh - white and brown.

They were afraid that the tigers would come and attack them so armadillo decided to make a hole for both of them. So they began living in a hole unfortunately there was a snake, which was looking for food and came across the hole. Curious, snake pushed its tail into the hole. This made labba and armadillo so frightened that they jumped right out with labba running one way and armadillo the other. Today we can still find armadillo using the same road up the mountain.

As Told By Lionel John

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.

The participants were fully 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. Because the CRE was done during the school holiday it was not possible to have this last activity.

The Village Team



MARIGOLD
Margaret Gomes (CI)
Jean Ng – A - Fook
Maurice Joseph
Lorraine Alfred

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 three teams, Marigold, Laughing Group and Macaw.

Most of the houses in the village are spread out so effort was made to visit households that were far away. The village teams were able to obtain 34 surveys. This figure is the result of the hard work and enthusiasm of the group.

OBSERVATION

It was observed that the village was very well informed. The coordinator, Justin Andrew had done a lot of work prior to the beginning of the CRE. As a result people were very positive.

The surveys went well, each member from Conservation International team introduced each other and spoke about what they do in the organization.

The participants also shared with the other villagers what they have been doing during the workshops. Booklets were handed out on Protected Areas to assist in the explanations that were given.

The Village Team



MACAW POND HILL
Wendy Leandro (CI)
Annie Albert
Joanita Andrew
Evelyn Joseph
Melissa Malcolm

The Village Team



LAUGHING
Edna King
Noela Carlos
Lionel John
Eunice Stephen

There were not many difficulties during the house visits.

One interviewee wanted to know if the information was going to be sold.

Questions/Comments:

- Appreciation was voiced at having been allowed to share experiences and stories with the team.
- The community needs to protect their resources because they are becoming scarce.

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.

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.

PROFILE
THE ARTISTS WHO CREATED THE MASTER RESOURCE USE

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

They 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.



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-four (34) 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** **14**
- **Fishing** **27**
- **Gathering** **23**

FARMING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
9	13	9	2

Gender

Male	Female
9	24

INTENSITY

During the village survey, most of the persons who were interviewed said that farming is concentrated mainly in the bush (21) area. Farm grounds are also located in the deep bush (7), at the bush mouth (7), at the mountain foot (3), up the mountain (2) and in the savannah (1). **See table**

Where is your farm?

Savannah	Bush	Bush Mouth	Deep Bush	Mountain Foot	Up the Mountains
1	21	7	7	3	2

Most farms are visited weekly (12) and 2 times a week (10). **See table**

How often do you visit your farm?

Daily	2 x Week	3 x Week	4 x Week	Weekly	2 x Monthly	Monthly	Other
5	10	1	1	12	1	2	2

The size of farms was mainly given as being between 1 - 2 acres (15) and less than one acre (12). **See table** The produce from most of these farms (21) is used for both domestic and sale purposes. Nine persons use the produce from their farms for domestic use only.

How big is your farm?

< 1 Acre	1>2 Acre	2-4 Acre	5 Acre and more
12	15	5	1

THREATS

Wild animals (21) were felt to be the main threat to farm crops. Other threats that were listed are acoushi ants (14), the weather (11) domestic animals and caterpillars (2) and weeds (1). **See table**

What are the threats to your crops?

Wild animals	Acoushi ants	Weather	Caterpillar	Weed	Monkey	Domestic animals	Other
21	14	11	2	1	0	2	4

HUNTING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
2	6	6	0

Gender

Male	Female
8	6

QUALITY

Ten (10) persons who were interviewed said that they felt that they had to go further to hunt than they did in the past. Nine (9) persons said that there had been a change in the availability of resources.

Has there been a change is the availability of resources?

Yes	No	No Response
9	0	5

INTENSITY

As the table below shows hunting is done mainly in the deep bush (6). Other hunting sites include the bush area (3), up the mountain and in the savannah (2). **See table**

Where do you hunt?

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	No Response
2	0	3	0	2	6	1

Hunting is done using bow and arrows (4), guns and hunting dogs (2). When asked how often they go to hunt the responses from the villagers was mostly daily (5) and weekly (4) **See table**

How often do you hunt?

Daily	2 x Weekly	Weekly	Monthly	Yearly	Seasonally	Other
5	1	4	2	0	0	2

The game that is hunted is used for domestic purposes only (7) for sale (6) and for both domestic use and sale (6). Some people commented that the change was because of the selling of game in other villages (Nappi, Hiowa and Lethem).

THREATS

The main threat to hunting sites was felt to be from outsiders (8). The increase in the population (4) and the weather (2) were also listed.

What are the threats to your hunting resources?

Over-Hunting	Outsiders	Weather	New Methods	Fire	Population	Other
0	8	2	0	0	4	1

FISHING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
5	13	7	2

Gender

Male	Female
7	20

QUALITY

Fourteen (14) persons said that they had to go further to hunt. Nineteen (19) persons responded that they felt that there had been a change in the availability of resources.

People commented that many new methods were being used to fish, which contributed to the change in availability. It was also said that there had been a loss of several larger fish.

Has there been a change in the availability of resources?

Yes	No	No Response
19	0	8

INTENSITY

Seven persons said that they fish in the bush and two persons said up the mountain. **See table**

Where do you fish?

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	No Response
0	0	7	0	2	0	18

Fishing is done using mainly new methods (15) which include seine (5), hook and line and cast nets (3). Bow and arrows (3) and the poisoning of fish (1) are also used. Fishing is done mostly daily (12) and weekly (7). **See table** The majority of the catch is used for domestic use only (19) or both domestic and sale purposes (8).

How often do you go fishing?

Daily	2 x Week	3 x Week	Weekly	Monthly	Yearly	Other
12	1	1	7	3	0	3

THREATS

The major threat to fishing sites was felt to be the outsiders. New methods, population increase (4) the weather (3), pollution and disrespect for other people's property (1) were also stated.

What are the threats to your fishing resources?

Outsiders	Population	Pollution	Weather	Disrespect for others property	New Methods	Other
11	4	1	3	1	4	6

GATHERING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
7	9	6	1

Gender

Male	Female
9	14

QUALITY

Fifteen (15) persons who were interviewed said that there had been a change in the availability of resources while one (1) person said that there had not been a change. People commented that some of the reasons for this were due to an increase in the population. They also listed several species as being extinct or scarce example, etc balli.

Has there been a change is the availability of resources?

Yes	No	No Response
15	1	7

INTENSITY

Gathering is done mainly in the bush (9). To a lesser extent it is done in the deep bush (5), up the mountains (3) and at the mountain foot (1). **See table**

Where do you gather?

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	No Response
0	0	9	1	3	5	5

As the table below shows gathering is done mainly once a year (9). **See table**

How often do you gather?

Daily	Weekly	Monthly	Yearly	Seasonally	Quarterly	No Response
1	2	2	9	3	0	5

THREATS

The major threat to the gathering resources was felt to be the increase in the population (5) over-harvesting (3) and logging (2).

What are the threats to your gathering resources?

Over-Harvesting	Logging	Population	Fire	Other	No Response
3	2	5	0	3	10

CLOSING ACTIVITIES



Presenting the master resource map

The CRE concluded with a series of activities. 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.



The Parishara dance



Mrs. Edna King receives her certificate for being part of the CRE

RESOURCE USE PROFILE

The purpose of the resource use profile is an effort to create an understanding of

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

Parishara is predominantly a Macushi community situated about eight miles away from the mountains. It was geo-referenced as 3.46264°N and 59.55511°W. The main activity here is farming. The community is very dependent on sections of the mountains for resources such as building and craft materials, wild fruit, mainly from the palm trees (turo, lou), medicine and game. Fishing is done on the creeks.

The community is situated close to Lethem and Brazil. This provides an opportunity for increased sale of farm produce and other resources to these markets.

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. **Nappi Bridge** is located in this area.

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. Bush mouth areas generally do not have names unless they are close by a creek or some other natural feature. **Cocorite Point and Barlova** was geo-referenced at the bush mouth.

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. Areas visited and geo-referenced during the CRE bush trip included: **Bush Cow Pond**.

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. Sites observed and geo-referenced include: **Maipaima Falls, Shikmi falls.**

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. Sites visited during the CRE bush trip include: **Jordan Falls, Wamakaru mountain, Wamakaru Creek, Caramani Creek, Bank of Guyana.**

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

In Parishara villagers generally farm in the bush. Only one family has their farm at the mountain foot. Most villagers ensure that they have two farms, one at the bush mouth for use during the rainy season when access further into the bush is difficult due to flooding and impassable roads, and one in the deep bush for use during the dry season. This is to ensure that when the rains come that they are not cut off from going to the farm.

The data forms show that the areas of resource use visited by the bush teams were generally considered to be either good or in excellent condition. The farm sizes are average about an acre in size. From the village surveys there is evidence that resource availability has changed. The people express that they have to go further every time to collect resources as the quality and availability of the nearby has declined. The factors influencing this are population growth and the way that some resources are harvested, for example the cutting down of turo and lou trees for their fruits.

INTENSITY

Parishara	Use Zone				
	Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain
Farming	1	1	11	2	0
Hunting	0	2	16	2	6
Fishing	1	2	10	3	2
Gathering	0	1	14	1	9

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

Parishara’s resource occurs in all “zones”. The highest number sites observed were in the bush areas. The community primarily concentrates hunting, fishing and gathering activities in the **Pairawaca, Mora, and Kamarapa** areas.

The Parishara families all farm in different areas but with more farming grounds located in the bush zone. The main farming grounds are found in the bush along the **Nappi Creek, Wamakaru and Rupununi Rivers**. Most of these sites are old farming areas that are being used and gradually extended. Some farms are also located along the mountain foot of the **Shikmi Creek** where the soils are considered to be more fertile and the climate more conducive for crop growth. There are many locations in the bush area where the people of both Parishara and Nappi hunt, fish, and gather.

The furthest areas such as **Jordan Falls, Wamakaru River head, Wamakaru Mountain** are used to a lesser extent for hunting, fishing and gathering. The data results for these areas show that resource condition as being excellent.

THREATS

In the data forms, the threats reported by teams visiting different areas were logging, poaching and poisoning of fishes.

Today families increasingly use resources for their own needs and to meet the increasing demand for cash for items as school uniform, footwear and other essentials.

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
F	PS	3.46533	59.55659	Nappi Bridge	Savannah
FS	PS	3.46533	59.55659	Nappi Bridge	Savannah
F	PS	3.48398	59.4276	Cocrite Point	Bush Mouth
FS	PS	3.44832	59.54505	Barlova	Bush Mouth
FS	PS	3.48398	59.4276	Cocrite Point	Bush Mouth
G	PS	3.48398	59.4276	Cocrite Point	Bush Mouth
H	PS	3.44832	59.54505	Barlova	Bush Mouth
H	PS	3.48398	59.4276	Cocrite Point	Bush Mouth
F	PS	3.44764	59.43698	Alexis Farming Area	Bush

Site Type	Village	° North	° West	Area Name	Zone
F	PS	3.41855	59.5212	Balata Creek	Bush
F	PS	3.47816	59.42487	Brian	Bush
F	PS	3.4055	59.52235	Huri Creek(Maipaima)	Bush
F	PS	3.41089	59.52135	Huri Hill	Bush
F	PS	3.40765	59.52183	Huri Hill	Bush
F	PS	3.45577	59.43415	Justino Farming Area	Bush
F	PS	3.39086	59.51204	Maipaima	Bush
F	PS	3.38683	59.51367	Maipaima Creek	Bush
F	PS	3.46208	59.43159	Old Farming Area	Bush
F	PS	3.44089	59.437		Bush
FS	PS	3.39394	59.51678	Bambo Creek	Bush
FS	PS	3.445	59.54638	Bar Lover Creek	Bush
FS	PS	3.47816	59.42487	Brian	Bush
FS	PS	3.39889	59.37908	Carimon Pond	Bush
FS	PS	3.4055	59.52235	Huri Creek(Maipaima)	Bush
FS	PS	3.39086	59.51204	Maipaima	Bush
FS	PS	3.43072	59.52941	Nappi Creek	Bush
FS	PS	3.42735	59.53101	Water Dog Creek	Bush
FS	PS	3.39038	59.39772	Wild Banana Pool	Bush
FS	PS	3.44089	59.437		Bush
G	PS	3.39394	59.51678	Bambo Creek	Bush
G	PS	3.44401	59.54499	Bar Lover Creek	Bush
G	PS	3.44089	59.5375	Bush Cow Pond	Bush
G	PS	3.41938	59.42205	Clay Hill/Creek	Bush
G	PS	3.42928	59.44043	Horse Creek	Bush
G	PS	3.4055	59.52235	Huri Creek (Maipaima)	Bush
G	PS	3.39086	59.51204	Maipaima	Bush
G	PS	3.38519	59.51282	Maipaima	Bush
G	PS	3.38521	59.51262	Maipaima	Bush
G	PS	3.37708	59.50564	Maipaima Swamp	Bush
G	PS	3.43072	59.52941	Nappi Creek	Bush
G	PS	3.42291	59.52443	Water Dog Creek	Bush
G	PS	3.43482	59.53314	Water Dog Hill	Bush
G	PS	3.44089	59.437		Bush
H	PS	3.44764	59.43698	Alexis Farming Area	Bush
H	PS	3.39394	59.51678	Bambo Creek	Bush
H	PS	3.47816	59.42487	Brian	Bush
H	PS	3.44089	59.5375	Bush Cow Pond	Bush

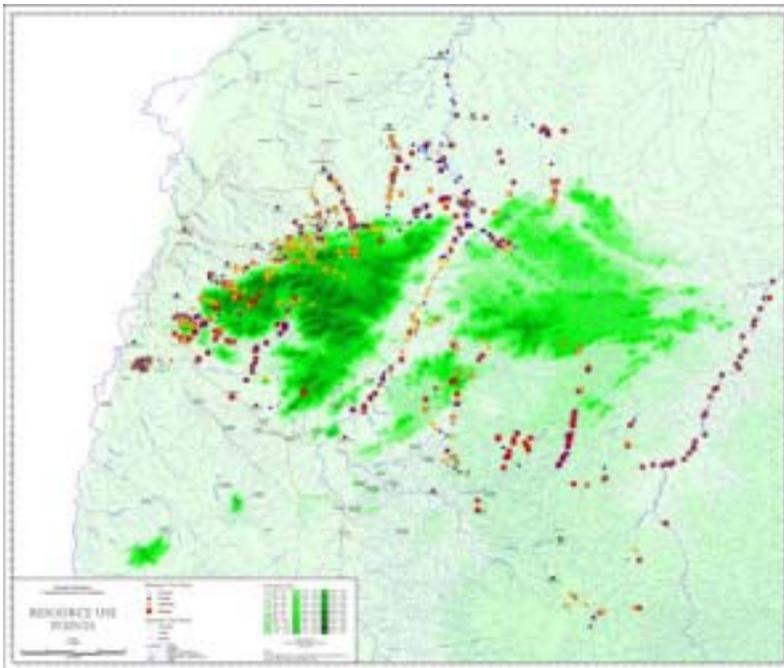
Site Type	Village	° North	° West	Area Name	Zone
H	PS	3.39889	59.37908	Carimon Pond	Bush
H	PS	3.41938	59.42205	Clay Hill/Creek	Bush
H	PS	3.42928	59.44043	Horse Creek	Bush
H	PS	3.4055	59.52235	Huri Creek Maipaima)	Bush
H	PS	3.45577	59.43415	Justino Farming Area	Bush
H	PS	3.39086	59.51204	Maipaima	Bush
H	PS	3.37982	59.50922	Maipaima Creek	Bush
H	PS	3.37708	59.50564	Maipaima Swamp	Bush
H	PS	3.43072	59.52941	Nappi Creek	Bush
H	PS	3.46208	59.43159	Old Farming Area	Bush
H	PS	3.39038	59.39772	Wild Banana Pool	Bush
H	PS	3.44089	59.437		Bush
F	PS	3.3601	59.50774	Maipaima Falls	Mountain Foot
F	PS	3.36678	59.49906	Shikmi Falls	Mountain Foot
FS	PS	3.39577	59.37883	First Wamakaru Parinabuy	Mountain Foot
FS	PS	3.35887	59.50691	Maipaima Falls	Mountain Foot
FS	PS	3.3906	59.39792	Nappi Landing	Mountain Foot
G	PS	3.3906	59.39792	Nappi Landing	Mountain Foot
H	PS	3.36125	59.50816	Maipaima	Mountain Foot
H	PS	3.3906	59.39792	Nappi Landing	Mountain Foot
FS	PS	3.36678	59.49906	Shikmi Falls	Up the Mountain
FS	PS	3.36392	59.48952	Shikmi Falls	Up the Mountain
G	PS	3.36534	59.4892	Bank of Guyana	Up the Mountain
G	PS	3.34884	59.50236	Caramani Creek	Up the Mountain
G	PS	3.35688	59.4579	Jordan Falls	Up the Mountain
G	PS	3.32	59.5	Kamarapa Creek	Up the Mountain
G	PS	3.31082	59.50259	Wamakaru	Up the Mountain
G	PS	3.31081	59.5265	Wamakaru Creek	Up the Mountain
G	PS	3.32	59.53	Wamakaru Creek	Up the Mountain
G	PS	3.32	59.51	Wamakaru Mountain	Up the Mountain
G	PS	3.33	59.5	Wamakaru Mountains	Up the Mountain
H	PS	3.36534	59.4892	Bank of Guyana	Up the Mountain
H	PS	3.34884	59.50236	Caramani Creek	Up the Mountain
H	PS	3.33688	59.4579	Jordon Falls	Up the Mountain
H	PS	3.32	59.51	Kamarapa Mountain	Up the Mountain
H	PS	3.31082	59.50259	Wamakaru Creek	Up the Mountain
H	PS	3.32	59.5	Wamakaru Creek	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.

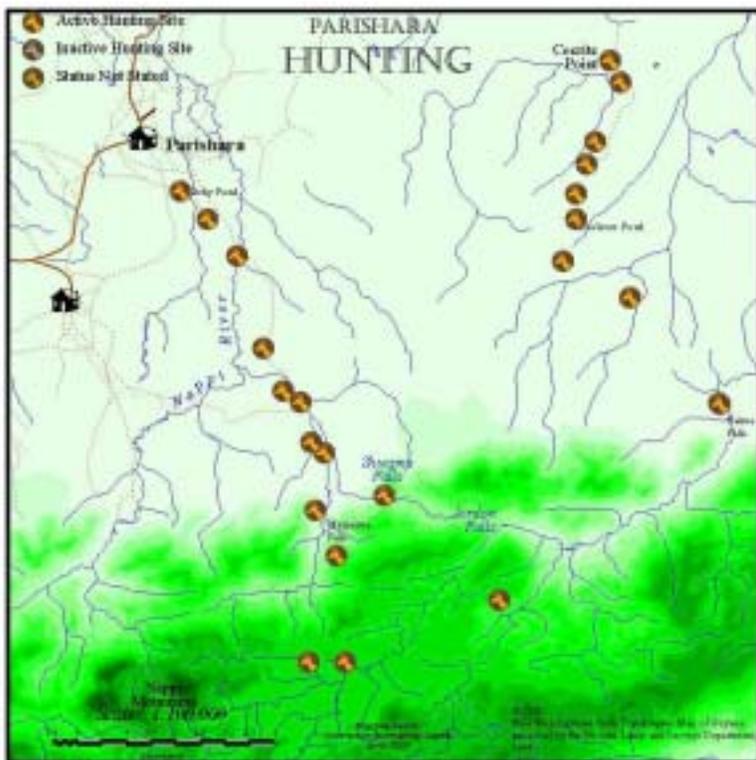


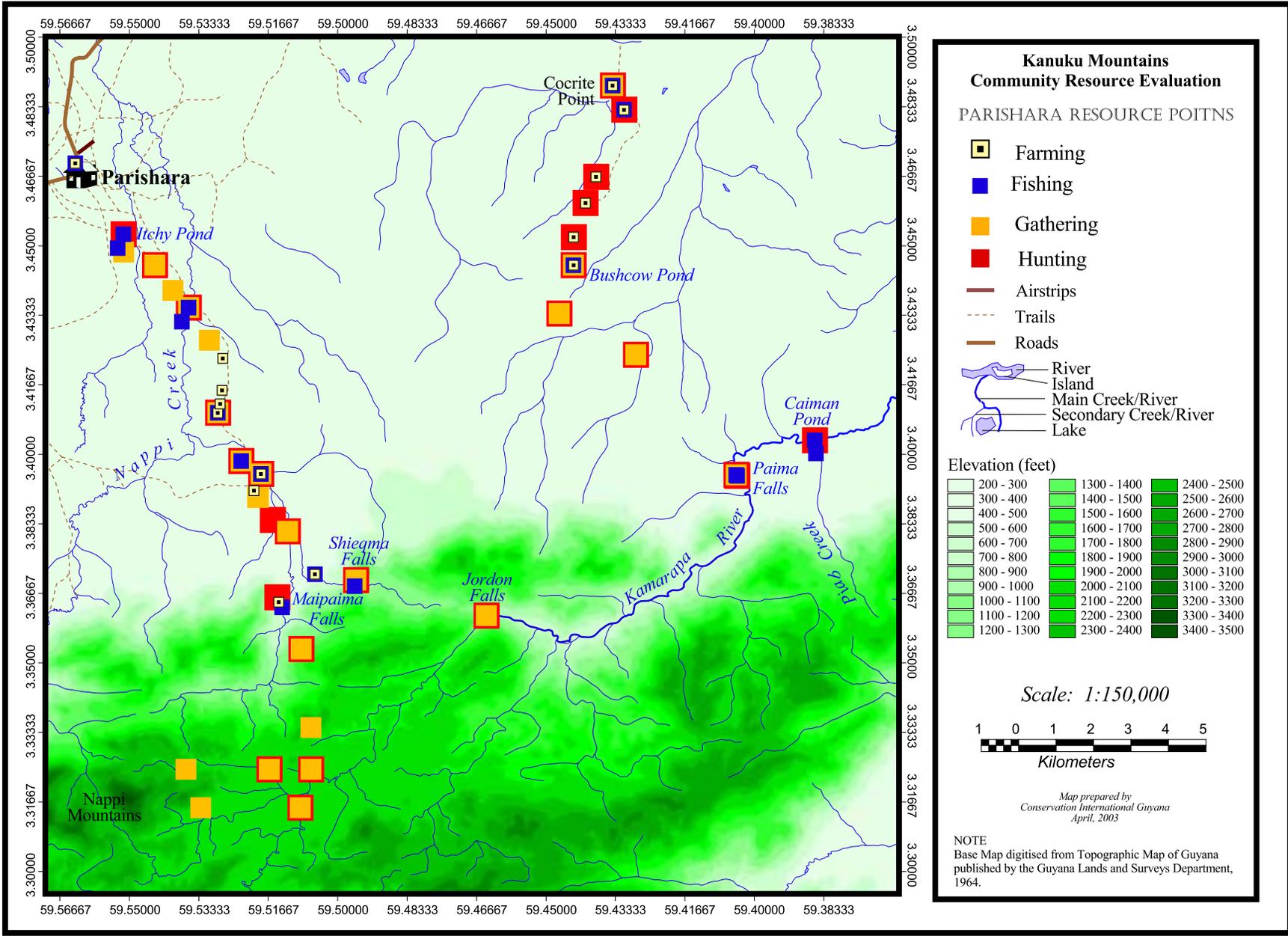
In some cases, flooding prevented access to some areas, especially those normally reached via creeks. In this case, readings were taken at a creek mouth, to record the area, while the use is described in the report.

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.





CONCLUSION



Reviewing the resource points on the small maps, Quarrie.

The Community Resource Evaluation Workshop was a learning experience for all involved. A great quantity of information was gathered and shared by the community participants. The results of the fieldwork and the draft copies of the resource site maps were returned to community for feedback and verification during a workshop in March 2003. Feedback and corrections were incorporated into the final report.

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.

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



Explaining the results of the village survey data, Parikwranau.



Verifying the seasonal calendar, Rupunau.



Reading their CRE reports, Maruranau.

APPENDICES
APPENDIX 1
Typical Activity Schedule

<i>DATE</i>	ACTIVITY (S)
Day 1	A.M ☞ Arrival ☞ Meeting with Touchau/Council
Day 2	A.M ☞ Public Meeting <ul style="list-style-type: none"> • Defining Concepts • The Protected Area Process • Presenting the CRE ☞ Participant Meeting
Day 3	A.M. ☞ Introductions ☞ Community Participation ☞ Creating Resource Focus Groups P.M ☞ Creating Resource List: <i>The What</i>
Day 4	A.M. ☞ 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
Day 5	Activity Break
Day 6	A.M. ☞ Field Work Preparation <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.M. ☞ Bush Team: Prepare for Departure
Day 7	Village Team: A.M. ☞ Bush Team Departs ☞ Village Team <ul style="list-style-type: none"> ○ Prepare for surveys ○ Create Village Map ○ Review survey
Day 8	A.M. ☞ Village Surveys and stories ☞ Video Show at school and quiz
Day 9	☞ Continue with village surveys and interviews
Day 10	☞ Bush Teams returns ☞ Village Team <ul style="list-style-type: none"> • Compile Interview Results • Prepare Presentations

APPENDIX 2

Team Profile

Lloyd Ramdin (Agriculture Advisor):

Lloyd is originally from the Upper Essequibo and has been working for CI for nearly two years.

During the CRE he worked as:

Bush Team Leader

Training

Materials Manager

Lloyd has participated in 9 CRE's. His role for the team includes:

- Focus Group leader
- Bush team leader
- Mini-lectures on soils for participants and students
- Technical assistant on photography and video

Lloyd is responsible for the production of all printed materials for the CRE activities, having acquired skills in MS Word, Publisher and PowerPoint. He co-designed a three-day training program for community field team leaders in CRE methodology, data gathering and GPS use. He also designed and presented presentations for participants and students in agricultural topics. Lloyd has led 9 Bush Team trips with 48 participants over 36 days and more than 600 miles.

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.

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.

Susan Stone (Program Manager):

Susan is from California, USA. She has been working with CI-Guyana for three years. Her first year was spent living in the village of Nappi where she worked along with the Nappi Balata Artisans.

As the Program Manager, Susan has overall responsibility for the CREs, which includes:

- Management
- Recruitment
- Planning
- Design
- Implementation
- Budgeting
- Evaluation and Reporting

In total she has participated in 9 CRE exercises. In the CRE she served as the lead facilitator for the team. In addition she oversaw the logistics of the activity, the bush team and the village teamwork.

Month Day Year Date <input type="text"/> <input type="text"/> <input type="text"/> 2002 Group <input style="width:100%;" type="text"/>	Point Identification GPS Unit Village Feature Waypoint Code <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Coordinates North West <input style="width:100%;" type="text"/> <input style="width:100%;" type="text"/>
Area Identification Name <input style="width:100%;" 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 style="width:100%;" type="text"/>		Others <input style="width:100%;" type="text"/>	Others <input style="width:100%;" type="text"/>	1-2 times/year <input type="checkbox"/>
				Other <input style="width:100%;" 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 style="width:100%;" type="text"/>	Logging <input type="checkbox"/>		
More than 50 <input type="checkbox"/>	outside village	Other <input style="width:100%;" 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 style="width:100%;" type="text"/>		Patwa <input type="checkbox"/>	Bow and Arrows <input type="checkbox"/>	4-6 times/year <input type="checkbox"/>
		Others <input style="width:100%;" type="text"/>	Others <input style="width:100%;" type="text"/>	1-2 times/year <input type="checkbox"/>
				Other <input style="width:100%;" 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 style="width:100%;" type="text"/>	Poisons <input type="checkbox"/>		
More than 50 <input type="checkbox"/>	outside village	Other <input style="width:100%;" 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"/>	<input type="text"/>																								
	Muckru <input type="checkbox"/>	Picking <input type="checkbox"/>	Monthly <input type="checkbox"/>	<input type="text"/>																								
	Medicine <input type="checkbox"/>	Pork-knocking <input type="checkbox"/>	4-6 times/year <input type="checkbox"/>	<input type="text"/>																								
	Others <input type="text"/>	Others <input type="text"/>	1-2 times/year <input type="checkbox"/>	<input type="text"/>																								
			Other <input type="text"/>	<input type="text"/>																								
<table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Use of Collection</th> <th style="text-align: left; padding: 5px;">Threats to Site</th> <th colspan="2" style="text-align: left; padding: 5px;">Condition of Resource</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Domestic Consumption <input type="checkbox"/></td> <td style="padding: 5px;">Over-Harvesting <input type="checkbox"/></td> <td style="padding: 5px;">Excellent <input type="checkbox"/></td> <td style="padding: 5px;">Good <input type="checkbox"/></td> </tr> <tr> <td style="padding: 5px;">Sale Outside of Village <input type="checkbox"/></td> <td style="padding: 5px;">Mining <input type="checkbox"/></td> <td style="padding: 5px;">Poor <input type="checkbox"/></td> <td style="padding: 5px;">Very Poor <input type="checkbox"/></td> </tr> <tr> <td style="padding: 5px;">Both <input type="checkbox"/></td> <td style="padding: 5px;">Poaching <input type="checkbox"/></td> <td colspan="2" style="padding: 5px; vertical-align: top;"> <div style="border: 1px solid black; padding: 5px; min-height: 100px;">Notes</div> </td> </tr> <tr> <td style="padding: 5px;">%Amount sold outside village <input type="text"/></td> <td style="padding: 5px;">Logging <input type="checkbox"/></td> <td colspan="2"></td> </tr> <tr> <td></td> <td style="padding: 5px;">Other <input type="text"/></td> <td colspan="2"></td> </tr> </tbody> </table>					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"/>	<div style="border: 1px solid black; padding: 5px; min-height: 100px;">Notes</div>		%Amount sold outside village <input type="text"/>	Logging <input type="checkbox"/>				Other <input type="text"/>		
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%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"/>	
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 <input type="text"/>		Threats to Site		Pest and Diseases		<div style="border: 1px solid black; padding: 5px; min-height: 100px;">Notes</div>	
Use of Produce		Over-farming <input type="checkbox"/>	Deer <input type="checkbox"/>				
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

Farming Summary

Village^{PS}
Total Number of Points 15

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
1	1	11	2	0			

Use Status

Active	Fallow	Abandoned	No Response				
14	1	0	0				

Method of Extension

Shifting	Extension	Rotation	Other	No response			
1	10	2	0	2			

Size of Farm

< 1 Acre	1 Acre	2-5 Acre	> 5 Acre	No Response			
5	5	1	3	1			

Soil Type

Gravelly	Sandy	Clayey	Peggasse	Loamy	No Response		
2	2	1	5	5	0		

Main Crops Planted

Cassava	Banana	Peanuts	Mixed	Other	No Response		
2	0	0	12	0	1		

Use of Produce

Dom. Consmpt.	Sale	Both	No Response				
5	0	8	2				

Threats to Site

Over-Farming	Mining	Wildlife	Logging				
0	0	4	1				

Pest and Diseases

Deer	Caterpillar	Acoushi Ants	Crickets	Hogs	Monkeys	Birds	Agouti
12	10	7	2	8	0	0	2

Hunting Summary

VillagePS

Total Number of Points26

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
0	2	16	2	6			

Type of Site

Feeding Area	Track	Drinking Pond	Nesting Area	Combined			
14	5	0	0	7			

Use Status

Active	Inactive	No Respect					
25	0	1					

Species Hunted

Bush Cow	Deer	Bush Hog	Powis	Armadillo	Turtles	Labba	Acouri
24	22	23	21	1	0	7	0

Methods Used

Bow and Arrows	Hunting Dogs	Guns	Traps				
25	21	8	13				

Frequency of Use

Daily	2-4X/week	monthly	4-6 X /year	1-2 X /year	No Response		
1	7	17	0	0	1		

Amount of Catch

< 3	3 to 10	10 to 20	20 to 50	> 50	No Response		
23	2	0	0	0	1		

Use of Catch

Dom. Consumpt	Sale	Both					
17	0	9					

Threats to Site

Over-Hunting	Mining	Poaching	Logging				
0	0	1	0				

Condition of Resource

Excellent	Good	Poor	Very Poor	No Response			
8	17	0	0	1			

Fishing Summary

VillagePS

Total Number of Points18

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain					
1	2	10	3	2					

Type of Site

River	Creek	Pond	Other						
5	11	2	0						

Use Status

Active	Inactive								
18	0								

Species Fished

Arapima	Tiger Fish	Lukunani	Baira	Hour	Yarrow	Patwa	Piaba	Haimara	Kassi
0	6	8	0	18	18	18	1	5	1

Methods Used

Hook and Line	Poisoning	Cast Net/Seine	Bow and Arrows						
17	3	12	17						

Frequency of Use

Daily	2-4X/week	Month	4-6 X /year	1-2 X /year					
9	3	4	2	0					

Amount of Catch

< 3	3 to 10	10 to 20	20 to 50	> 50	No Response				
0	2	9	2	4	1				

Use of Catch

Dom. Consumpt	Sale	Both							
13	0	5							

Threats to Site

Over-Fishing	Mining	Poaching	Poisons						
0	0	2	2						

Condition of Resource

Excellent	Good	Poor	Very Poor						
8	10	0	0						

Gathering Summary

Village^{PS}

Total Number of Points 25

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
0	1	14	1	9			

Use Status

Active	Inactive						
25	0						

Species Collected

Palm Leaves	House Poles	Muckru	Nibbi	Wild Fruits			
8	1	10	8	14			

Methods Used

Cut and Carry	Tapping	Picking	Pork knocking				
22	6	4	0				

Frequency of Use

Daily	2-4 times /week	Monthly	4-6 Times /year	1-2 Times /year			
0	1	10	1	13			

Use of Collection

Dom. Consumpt	Sale	Both					
22	0	3					

Threats to Site

Over-Harvesting	Mining	Poaching	Logging				
0	0	0	3				

Condition of Resource

Excellent	Good	Poor	Very Poor				
11	13	1	0				

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 Parishara

Total Number of Points 33

Age

No Response	15-28	29-40	41-55	Above 55			
0	9	13	9	2			

Gender

Male	Female	No Response					
9	24						

Number of Dependants

Average	Variance	Maximum	Minimum				
6.45	6.63	11	1				

Number of Farms

Average	Variance	Maximum	Minimum				
2.61	2.56	7	1				

Size of Farm

< 1 Acre	1>2 Acre	2-4 Acre	5 Acre and more	Other	No Response		
12	15	5	1				
36%	45%	15%	3%	0%	0%		

Farming Zone

Savannah	Bush	Bush Mouth	Deep Bush	Mountain Foot	Up the Mountains	Other	No Response
1	21	2	4	3	2		

Methods of Transportation

Walking	Bicycle	Bullock Cart	Boat	Other	No Response		
28	19	17	1				

Frequency of Use

Daily	2 x wk	3 x wk	4 x wk	Weekly	3 x mth	Monthly	Other
5	10	1	1	12	1	2	1

Use of Produce

Dom. Consmt.	Sale	Both	No Response				
9		21	3				

Threats to Farms

Wild animals	acoushi ants	weather	caterpillar	domestic animals	monkey	weed	other
21	14	11	2	2	0	1	4

Biggest Threat

Wild animals	acoushi ants	weather	caterpillar	domestic animals	monkey	weed	other
5	7	8	1	1	0	2	3

Hunting Summary

Village Parishara

Total Number of Points 14

Age

No Response	15-28	29-40	41-55	Above 55			
0	2	6	6	0			

Gender

Male	Female	No Response					
8	6						

Number of Dependants

Average	Variance	Maximum	Minimum				
7	9.38	11	2				

Frequency of Use

Daily	2 x wk	3 x wk	4 x wk	5 x wk	Weekly	Monthly	Other
5	1	0	0	0	4	2	2

Methods Used

Arrow & Bows	Guns	Dogs	Other	No Response			
4	2	2		6			

Hunting Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
2		3		2	6		1

Hunting Site

Feeding area	Track	Pond	Creek	Nesting area	Combined	No Response	
					5	9	

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
7	1	6					

Threats to Site

Over-Hunting	Mining	Weather	New_Methods	Fire	Population	Outsiders	Other
		2			4	8	1

Do you Fish Further?

Yes	No	No Response					
10		4					

Change In Resource availability

Yes	No	No Response					
9		5					

Extinct or Scarce Species

deer	amadillo	labba	turtle	bush hog	Other		
4	1		3		2		

Fishing Summary

Village Parishara

Total Number of Points 27

Age

No Response	15-28	29-40	41-55	Above 55			
0	5	13	7	2			

Gender

Male	Female	No Response					
7	20						

Number of Dependants

Average	Variance	Maximum	Minimum				
6.93	5.69	11	2				

Frequency of Use

Daily	2 x wk	3 x wk	4 x wk	5 x wk	Weekly	Monthly	Other
12	1	1	0	0	7	3	3

Fishing Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
		7		2			18

Fishing Site

River	Creek	Pond	Falls	Combined	No Response		
	26	1					

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
19		8					

Methods Used

Hook and Line	Poisoning	Cast Nets	Bow and Arrows	Seine	New Methods	No Response	
3	1	3	3	5	15	1	

Threats to Site

Over fishing	Weather	Poison	Population	New_Methods	Pollution	Disrespect	Other
0	3	0	4	4	1	1	6

Do you Fish Further?

Yes	No	No Response					
14		13					

Change In Resource availability

Yes	No	No Response					
19		8					

Extinct or Scarce Species

Arapaima	Big Fishes	Lukunani	Tiger Fish	Hiamara	Yakatu	Arawana	Other
4	3	5	11		1	3	3

Gathering Summary

Village Parishara

Total Number of Points 23

Age

No Response	15-28	29-40	41-55	Above 55			
0	7	9	6	1			

Gender

Male	Female	No Response					
9	14						

Number of Dependants

Average	Variance	Maximum	Minimum				
6.17	4.75	11	2				

Frequency of Use

Daily	3 xwk	Weekly	Monthly	Seasonally	Yearly	Other	No Response
1	0	2	2	3	9	4	2

Gathering Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
		9	1	3	5		5

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
9		5	9				

Threats to Site

Over-Harvesting	Weather	Population	Fire	Woodants	Logging/Cutting	Other	No Response
3	0	5	0	0	2	3	10

Do you Gather Further?

Yes	No	No Response					
0	0	23					

Change In Resource availability

Yes	No	No Response					
15	1	7					

Extinct or Scarce Species

House Materials	Cedar	Silver Balli	Fruit trees	Bullet wood	Locust	Other	
	4	3	1	2	3	5	