

KANUKU MOUNTAINS PROTECTED AREA PROCESS COMMUNITY RESOURCE EVALUATION



KAICUMBAY VILLAGE REPORT

October 2—12, 2002

COMMUNITY RESOURCE EVALUATION

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Acknowledgement

"Thank you"

This report is the result of work that was done in Kaicumbay Village by the participants who represented their community and the members of the Conservation International Team during the Community Resource Evaluation.

All of the work in this report is the 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 Brian Vincent, the other members of the village council, and the Community Coordinator, Carlie Brown, all of whom worked together to make the CRE a success!

Thank you to the acting Head Master in charge, Mr. Ovid Brown for the use of the new school building.

We would also like to thank the cooks and their helper for working tirelessly to provide the workshop with meals.

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LIST OF ABBREVIATIONS

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

INTRODUCTION

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

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

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

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

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

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

The CIG field team members included:

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

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

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

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

WORDS AND PLACE NAMES

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

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

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

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

CONSERVATION INTERNATIONAL

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

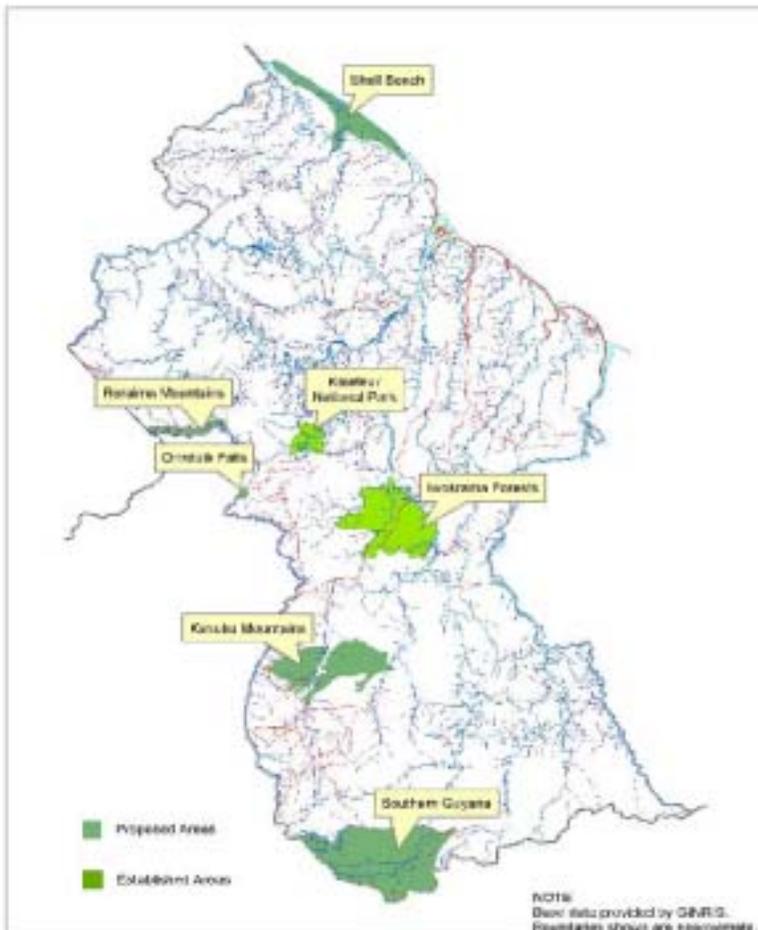
CI has been active in Guyana since 1990 and has led research expeditions, media events and educational activities. The strategic plan of CI Guyana (CIG) is to promote the conservation of biodiversity and the protection of critical ecosystems, through a process comprising scientific research based on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

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

PROJECT LOCATION

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

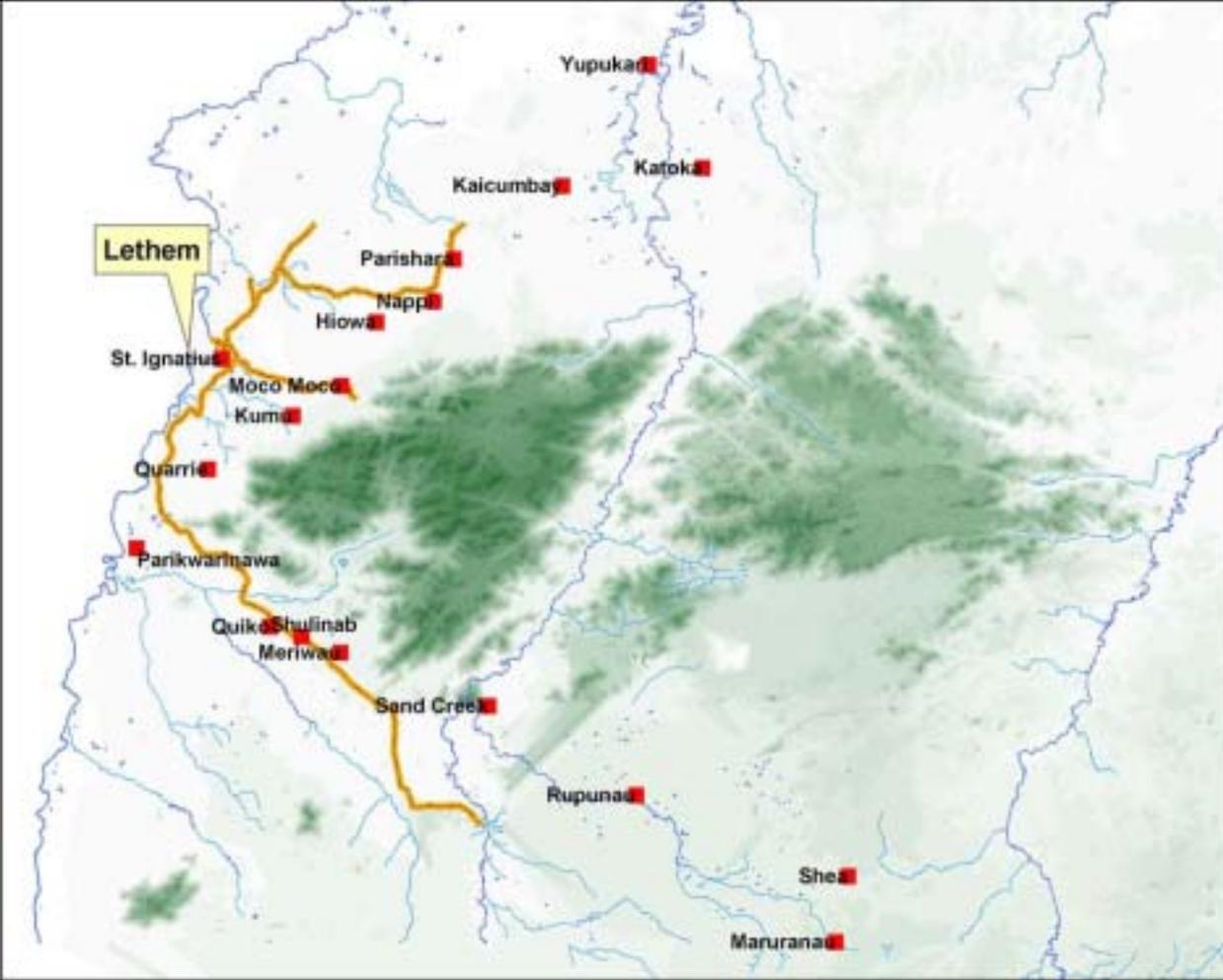
The Kanuku Mountains Proposed Protected Area (KMPA) is one of five areas in Guyana that have been identified by the Environmental Protection Agency (EPA) for conservation efforts. These areas are selected because of their beauty, landscape or richness in biodiversity.



Map Showing Five Priority Sites in Guyana

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

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



Map showing 18 Communities that directly use the Kanuku Mountains

PROJECT OVERVIEW

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

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

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

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

Significant contributions of the RAG include:

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

The RAG also made recommendations for:

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

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

Significant contributions of the NAG include the:

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

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

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

CRE OVERVIEW

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

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

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

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

METHODOLOGY

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

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

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

DESCRIPTION OF TOOLS

The following tools form the basis of the CRE:

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

1. Focus Groups

The twenty-five participants work with the CRE team throughout the evaluation exercise both in large and small group discussions. During the first day's activities, this group self-selects into three focus groups of eight-nine persons to work in the resource categories of a.) Farming; b.) Hunting & fishing; c.) Gathering. Their decision is based on their knowledge of the focus group topic. The large group serves as a unit to discuss the results of the focus group sessions, and to provide feedback and broader consensus on the information recorded.

2. Resource List – “The What”

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

3. Seasonal Calendar – “The When”

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

4. Sketch Mapping

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

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

When all of the individual Resource-Use Sketch Maps have been created, the resource information is combined and recorded on the chalkboard skeleton map resulting in a complete visual and spatial profile of the type and location of resource use in the community. The entire group must again come to agreement that the combined representation accurately depicts the resource use of the village. The information is then transferred from the chalkboard onto plywood board using paints in a variety of colors to create a permanent community resource use record.

All the maps are digitally photographed to preserve the data for analysis. The originals of the Resource-Use Sketch Maps and the Master Resource-Use Map remain in the community as

their record of the Community Resource Evaluation exercise. A copy of the master resource map is drawn for the records of the CRE team.

5. Field Observation

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

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

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

6. Village Surveys

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

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

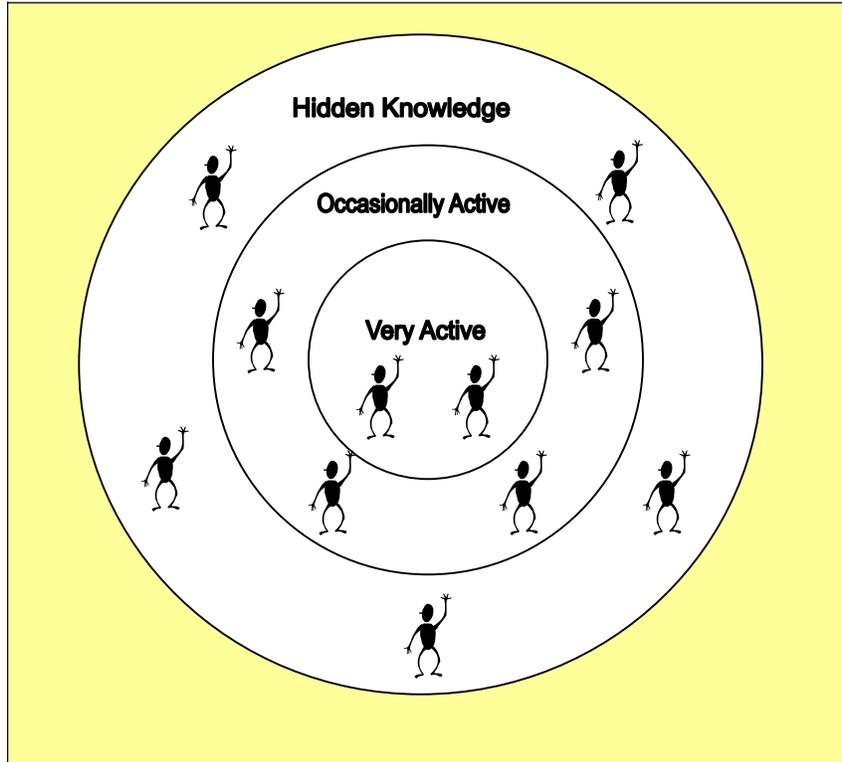
7. Mini Lectures

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

1. Protected Areas
 - The categories of Protected Areas
 - The steps to establishing a Protected Area
2. Conservation International and its role as a lead agency

3. Levels of Community Participation (see diagram below)
4. Where am I on the face of the Earth
 - Informal versus formal mapping
 - Geo-referencing/GPS training – a tool to record resource site location.
5. Survey methods and techniques

LEVELS OF COMMUNITY PARTICIPATION EXERCISE



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

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

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

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

TYPICAL CRE ACTIVITY TIMELINE

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

For a brief activity schedule see Appendix 1.

Community Resource Evaluation Village Report

KAICUMBAY

KAICUMBAY VILLAGE REPORT

The Community Resource Evaluation was conducted at Kaicumbay Village from October 2nd to 12th, 2002. The CRE was conducted by a team of five persons who made up the team of Conservation International.

The CRE engaged a wide range of participants including village councillors, women and church group leaders, youths and elders. The group included persons having an in depth 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 Kaicumbay 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 the second 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

Kaicumbay is a satellite community and is predominantly Macushi speaking. The village is situated at the edge of the forest along Kaicumbay Creek, 12 miles north of the Kanuku Mountains.

Most villagers have their houses on the savannah hills away from the village center, 3.53888°N and 59.44273°W, where the newly established community primary school building is located.

The community is officially under the administrative council of Yupukari, located close to the Rupununi River. As a result, all external services are directed through Yupukari.

The main activity of this community is farming, hunting and fishing. A few families own several heads of cattle that graze in the savannah.

The main access to the village is via a good trail that intersects the old Yupukari trail which runs from the main Lethem – Kurupukari road about 4-5 miles south of Pirara, westerly through Marakanata.

DEMOGRAPHICS

Population:

	Households	Persons
Kaicumbay	30	68

Source: Regional Democratic Council – Region 9

Administration:

The following persons were elected to the Village Council on March 9, 2002.

- **Brian Vincent (Senior Councillor)**
- **Hamilton Marco**
- **Dora Marco**

These councillors serve as part of the main administrative council of Yupukari, led by Kenneth Dorrick, who was elected Touchau by both villages.

PARTICIPANT GROUP INFORMATION

The participant group represented a wide range of persons, with representation all parts of the village.

All of the councillors from Kaicumbay took part in the CRE including the senior councillor, Brian Vincent. In addition there were ex-teachers and councillors, members of the Health board and the Christian Brethren. In addition there were active farmers, hunters, fishermen and gatherers who brought a wealth of knowledge to the workshop.

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

The majority of participants had never been involved in a workshop before.

The names of the participant group are as follows:

Brian Vincent	Flores Marco	Owen Nazarene	Alexis Vincent
Linden Antone	Hubert John	Dora Marco	Albert Rodrigues
Nilas Vincent	Duncan Marco	Larnis John	
Edna Vincent	Hamilton Marco	Louisa Vincent	
Lewis John	Elsie John	Malcolm Marco	
Mario Nazarene	Vincent Joseph	Sybil Antone	
Gerald Eddie	Timothy Nazarene	Philiciano Augustine	
Royian Franics	Leslie Sutherland	Robert Joseph	
Carlie Brown (Community Coordinator)			

Participant Age Profile

AGE	15 - 28	29 - 40	41 – 55	Above 55	Not stated
No. of persons	5	11	4	5	1

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

- Vitus Antone** – Forest Resource Advisor
- Sebastian Tancredo** – Field Team Leader
- Richard Wilson** – Indigenous Knowledge Advisor
- Natalie Victoriano** – Wapishana Interpreter
- Esther McIntosh** – Facilitator



CI Team Members: From left Sebastian, Richard, Esther, Natlaie and Vitus.

CRE WORKSHOP RESULTS

CREATION OF THE TOOLS

The creation of the tools for the workshop took approximately three days. The participants divided themselves into three focus groups to produce the tools in the different resource use areas - farming, hunting & fishing, and gathering. After each tool was complete, the group reported on the work. This allowed contributions and agreement from the whole group for each resource area. Each group created a resource list and sketch map.

The seasonal calendar was done with the help of the whole group.

Participants created three tools to help communicate Kaicumbay'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.



Farming Group making their Sketch Map



The Seasonal Calendar being presented by Elsie



Resource List presentation

RESOURCE LISTS

“The What”

FARMING

In total the farming group listed sixty-one (61) different types of crops that are planted by the community. These include crops such as cassava, which is both the domestic staple and the source of commercial products such as farine and cassareep, an extensive lists of fruits (tangerine, sorrel, grape fruit, passion fruit), poisons (hiari, cunani) and ground provisions (eddoe, sweet potato).

Crops			
1.	Cassava	29.	Coconut
2.	Sweet cassava	30.	Crawa
3.	Sugar cane	31.	Pear
4.	Eddoe	32.	Tangerine
5.	Pine apple	33.	Guava
6.	Plantain	34.	Cherry
7.	Pepper	35.	Pop corn
8.	Arrow	36.	Boulangier
9.	Cotton	37.	Thyme
10.	Papaw	38.	Lemon grass
11.	Cunani	39.	Passion fruits
13.	Hiari	40.	Cassava bena
13.	Water melon	41.	Calabash
14.	Sorrel	42.	Jamoon
15.	Tobacco	43.	Tomato
16.	Rice/paddy	44.	Bell yam
17.	Orange	45.	Dasheen
18.	Cashew	46.	Sweet potato
19.	Grape fruit	47.	Mango
20.	Bora	48.	Eschallot
21.	Black eye	49.	Onions
22.	Lime	50.	Squash
23.	Sugar apple	51.	Peanuts
52.	Pumpkin	57.	Cucumber
53.	Sour sap	58.	Melon
54.	Cabbage	59.	Corn
55.	Banana	60.	Ochro
56.	Garlic	61.	Black eye peas

HUNTING & FISHING

The hunting and fishing group listed twenty-six (26) types of game that are hunted by the community. The list includes deer, labba, macaw and wissi duck.

The group then went on to list thirty-nine (39) species of fish that are caught which include arapaima, haimara, imiri and arawana.

Hunting				Fishing			
1.	Bush hog	18.	Anaquwa	1.	Arapaima	23.	Dari
2.	Deer	19.	Negacoop	2.	Arawana	24.	Basha
3.	Labba	20.	Baboon	3.	Lukunani	25.	Hassar
4.	Agouti	21.	Water Turtle	4.	Tiger Fish	26.	Fox Fish
5.	Turtle	22.	Waracabra	5.	Houri	27.	Lou Lou
6.	Armadillo	23.	Cock of the rock	6.	Yakatu	28.	Crabs
7.	Tapir	24.	Monkeys	7.	Perai	29.	Butter Fish
8.	Duck	25.	Duckla	8.	Patwa	30.	Pacco
9.	Powis	26.	Sallipenter	9.	Bera	31.	Cassie
10.	Marudi			10.	Sun Fish	32.	Banana Fish
11.	Watrash			11.	Cat Fish	33.	Alligator
12.	Wissi Duck			12.	Cuma Cuma	34.	Piab
13.	Macaw			13.	Haimara	35.	Iguana
14.	Mam Parrot			14.	Imiri	36.	Mata Mata
15.	Region			15.	Sword Fish	37.	Duck Shoe
16.	Adouri			16.	Mangi	38.	Button fish
17.	Crane			17.	Logo Logo	39.	Cashimboo
				18.	Kuyo Kuyo		
				19.	Yarrow		
				20.	Mud eel		
				21.	Sting ray		
				22.	Snail		

GATHERING

The gathering group recorded thirty-seven (37) types of materials that are gathered by the community. These include fishing rods, minerals (gold and diamond) and nibi.

Materials			
1.	Cocrite fruits and leaves	20.	Leopard wood
2.	Ete fruits and leaves	21.	Nibi
3.	Red wood	22.	Muckru
4.	Blood wood	23.	Bullet Wood
5.	Aruwa leaves	24.	Bitter cedar
6.	Awara shoot and fruits	25.	Caramani
7.	Plum	26.	Rubber Tree
8.	Bird cherry	27.	Turo
9.	Water cedar	28.	Locust Tree
10.	Waracabra rope	29.	Gold & diamond
11.	Ete balli	30.	Fishing rods
12.	Shanna tree	31.	Wild cashews
13.	Mourie fruit	32.	Balata tree & fruit
14.	Yellow fruit (Yoroung)	33.	Lou
15.	Whitey	34.	Manicole
16.	Yellow heart	35.	Ginep
17.	Eucalyptus tree	36.	Mora tree
18.	Greater paste	37.	Hiarie
19.	Worm wood		

SEASONAL CALENDAR

“The When”

The group identified two main seasons, the dry and the wet season. These seasons were then written down according to 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 also occurring within the year.

In addition to very detailed information on village activities throughout the year, the group also listed several names in the local Macushi language. The seasons that were noted in their Macushi names are; Kadro (First Rains) Timagen E Piben (May – August), Town – A Combe (September – October) Cashew Showers (November).

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

FARMING

Land preparation begins during the first four months of the year. As the calendar shows these activities include: under bushing, cutting down of trees, drying, burning and clearing. April, May, June, July and December is when planting is done. Crops are reaped from May through to the end of the year.

HUNTING & FISHING

Fishing is done throughout the year. During the first three months of the year it is confined to ponds, creeks and rivers. A number of species of fish are caught during this time. From April the water from the First Rains causes the water to rise and the fish start marching. A lot of night fishing is done as a result using fishing rods (hook and line). October to December is when fishing is done at the Mountain Foot at Kamarapa Falls.

Hunting is done throughout the year. From April to July there are a lot of “birthday” hunts, which takes place in the bush islands using hunting dogs.

GATHERING

Gathering of materials is done throughout the year. House materials, wild fruits and medicines are only some of the materials are collected by the community.

Seasonal Calendar for Kaicumbay

January	February	March	April	May	June	July	August	September	October	November	December		
Long Dry		Kadro - 1 st Rains	Rain Starts	Big Flood Timagen E Piben			Short Dry	Town –A- Combe	Short Dry	Cashew Rains	Dry	Short Rain	Season
Under bush & cut down		Allow to dry	Burn & clear	Plant			Weed Farms	Reap	High bush farm –under bush & cut down	Burn & clear	Plant		CYCLE
Plant				Weed farms					Reap				FARMING
			Plant Rice	Plant: eddoe, Tania, corn, yam, sugar cane, watermelon, banana, pumpkin, sweet potato, bitter & sweet cassava, peanut				Reap: corn, paddie, pumpkin, watermelon	Reap: peanut, eddoe, sweet potato, and yam		Reap: Cassava		
In ponds, savannah, creeks, rivers			Fish march – first rains water rising. Night fishing: hooks & line					Day time- Dari, Button fish	Anywhere –Lukunani, houri, perai, logo logo, hassar, yakatu		Piab, Hiamara at Mountain Foot (Kmarapa Falls)		FISHING
<i>Line, bow & arrow, cast nets, seine – Hassar, Lukunani, Patwa</i>	<i>Poison & Dive – Houri, Fine fish</i>	<i>Line, Bow & Arrow –Pacou, Lukunani, Skin fish, Basha, Sword fish, Biara,</i>	Yakatu houri, piab	Lukunani, Arawana, kata hak	Imiri, cassie, mangi, tiger fish, hiamara								
Hills, Savannah – dogs, bow & arrows: Any animals found			Big hunt for birthdays/ Island hunting with dogs: savannah & bush deer, acouri, labba, tapir, land turtle, bush hog, adouri armadillo				Set up Wabani to shoot labba, tapir, deer					HUNTING	
				Bush hogs in savannah									HUNTING
Medicinal Plants - bush garlic, Maipaima bark, wild mango bark, uma-ye, Leopard wood												GATHERING	
Nibi, muckru, rod, manicole, camie, shikna, cuti tree, crawa, bamboo, worm tree, mora tree, caramani,													

SKETCH MAPS

“The Where”

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

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

The main river identified on the map is the Rupununi River. The other waterways in the map are all tributaries of the river these include: Quatata Creek and Ummata Creek. The most notable pond on the map is Tranzing Pond, which is the main fishing source for villagers. It is also frequented by persons outside the Amerindian communities, including illegal use by poachers from Brazil.

The map also shows the main trails and other neighboring villages (Yupukari) and settlements (Quatata, Awarata and Burwetta).



Focus group working on Gathering Resource Map

Farming Resource Use Sketch Map

The farming areas of Kaicumbay are located at specific places. These areas include:

Marasawatta

Baby pond

Mongoose Pond

Aqqi-ta (nearest area to the village)

Awarata

Cock Hill

Sand Bank

Burwetta

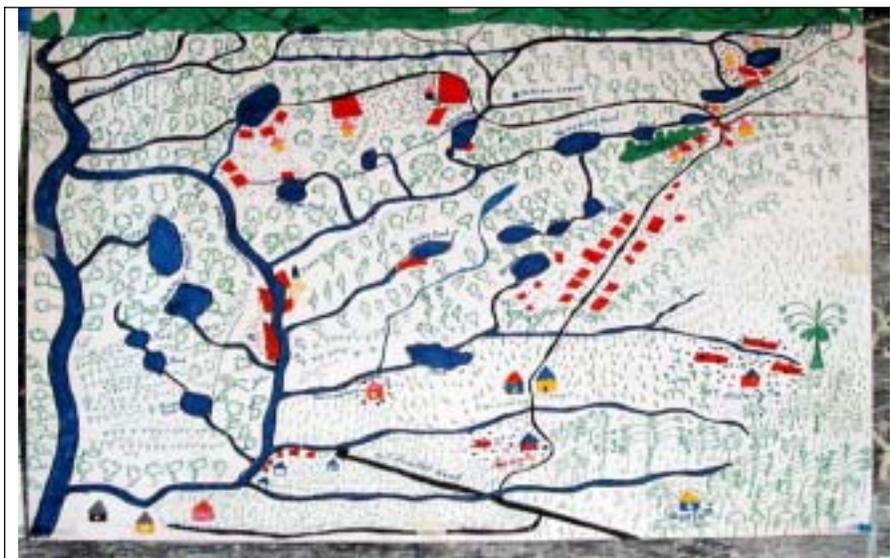
Piwaga Creek

Kokorite Point

Quata Pond

The majority of the farming lands are low and prone to flooding except for one area called Aqqi-ta, which is a laterite hill. This area is more used for planting bananas and plantains. Most of the farms at the different locations identified on the map are worked by family groups e.g. in the Piwaga area the Joseph family who have been farming there for over sixty years. In almost all the areas there are well-established farmhouses.

There is also one area, Cock Hill that is farmed by villagers from Yupukari. Access to these areas is by both land and river.



Kaicumbay Farming Map

Hunting & Fishing Resource Use Sketch Map

As the map shows hunting and fishing activities are concentrated in the savannah and bush areas. There are several ponds which the village accesses that provide a good source of fishing. These ponds along with the Rupununi River form the main sources of fishing.

The main hunting areas are also concentrated around the ponds and from the bush mouth to the mountains.

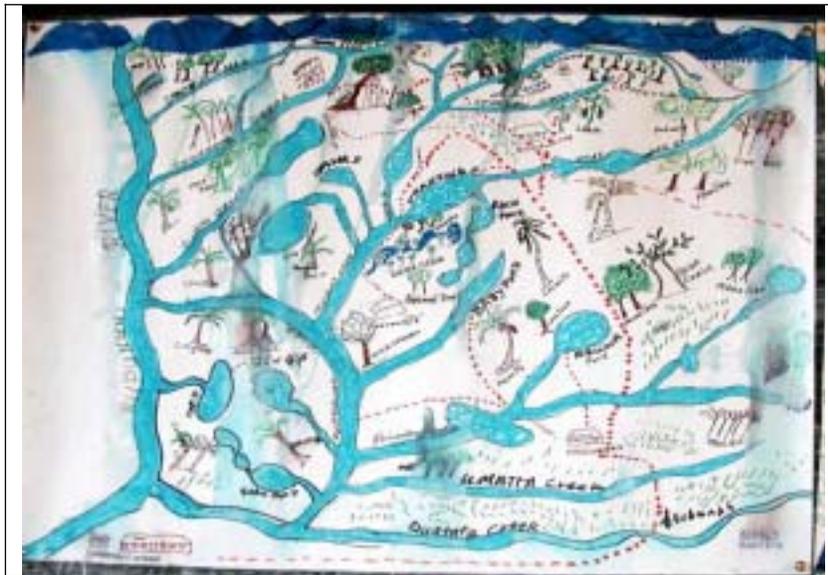


Kaicumbay Hunting and Fishing Map

Gathering Resource Use Sketch Map

The areas represented for resource use are located primarily on the west bank of the Rupununi River and along its tributaries. The resources represented are located as far as to the foot of the mountains.

Few resources were identified as being located in the mountains. The main forest resources gathered are identified as follows, logging resources, craft material, wild fruit and medicinal materials.



Kaicumbay Gathering Map

FIELD OBSERVATION

INTRODUCTION



Participants learning to use the GPS

The fieldwork in Kaicumbay 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

In total there were three teams, with 6 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.



Bush team discussion being lead by Leslie

A CRE team member led each team but all members of the team actively contributed to the information collected.



The Hunting and Fishing bush team crossing the Wamakaro River

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

Richard Wilson (CI)
Linden Antone
Leslie John
Alexis Vincent
Gerald Eddie
Timothy Nazarene

AREAS COVERED

The furthest area of resource use that was covered by the team is covered is **Chapul-bru Creek (Piab Creek)** 3.46075°N, 59.35396 W ° which is located by the mountain foot. Other areas that were visited include:

- **Bruwetta**
- **Bruwetta Bush Mouth**
- **Tapir pond**
- **Karle-otii**
- **Kamarapa creek**
- **Kamarapa pond**
- **Hiari creek**
- **Quata pond**
- **Tranzing pond**



**Bush team members
filling up data forms in
the fields**

OBSERVATION

The areas that were visited are used for both hunting and fishing. In a swampy area along the Kamarapa Creek 3.41163°N and 59.34881°W herds of wild hogs and other wild life feed. From the same area, muckru is gathered, which the local people use for making craft.

Quata pond and Tranzing pond are excellent fishing grounds that are located on the west of the Rupununi River. Fishes enter these ponds during the rainy season to spawn and feed and get trapped when the water recedes.

The lands between the two main ponds have very fertile soils where it was observed that crops produce excellent yields. The same can be said for the other resources, hunting, fishing and gathering. They were all observed to be in excellent condition.

In the furthest areas no threats were observed or reported. Because of their remoteness, the areas are visited only 1 – 2 times a year. The biggest threat that farmers face in the bush islands and bush mouth areas is the acoushi ants. Others threats include domestic animals and savannah fires. Savannah fires tend to spread to the bushes and destroy house materials and other useful resources that are nearby to the village.

TEAM B

Vitus Antone (CI)
Linden Antone
Vincent Joseph
Malcolm Marco
Owen Nazarene
Hamilton Marco
Lewis John

AREAS VISITED

The furthest areas visited were towards the **Wamakaro River**, approximately 30 miles from the village. Other areas that were visited include, **Piwaga farming lands, Piwaga Creek, Sand Bank.**

OBSERVATION

Kaicumbay is a small Macushi village situated on the savannah hills north of the Kanuku Mountains. Most of its forest are east of the village and are mainly large bush islands on laterite hills or on flat lands of the major ponds and the Rupununi River.

Most of the resource use areas are concentrated in the major hills and ponds. It was mentioned by the bush team that the entire flat lands are inundated during the rainy season so these areas are used seasonally, mainly during the dry season. It was also mentioned that only the elderly members of the community are familiar with the mountain areas since the young ones do not visit or use the areas.

The furthest farms towards the mountains were situated in Piwaga creek area. Here farming has been going on for over 50 years mainly by the Joseph's family. A lot of mango trees and several farmhouses are in the area. Most of the farming is done jointly so there are some large farms and forest clearings.

It was observed that in the Piwaga area, not many farms exist on the eastern side of the creek. This is because most of the land is flat and is normally flooded during the rainy season.

The other farming areas that were observed were mainly on the big bush islands that are ideal for planting bananas. Most of the cassava farms are done on the sandy area surrounding the ponds. The lands in all these areas are producing high yields and don't seem to have any threats.

Gathering

Not much gathering is done in the mountains since the village and farms are situated far from there. Most of the basic materials needed are taken from the nearby bushes where they exist in abundance. In the case of lumbering, this activity is hardly ever done by Kaicumbay villagers. It is however done on a commercial basis by people from Parishara village. The main area where this activity is presently being carried out is the Piwaga area where there are rich timber species in abundance.

The mountains are used mainly for pork knocking (mining) gold and diamond. This is mainly in the tributaries of the Kamarapa River. Other materials such as nibbi, muckru and medicinal plants are normally gathered when people are in the mountains pursuing other activities such as hunting.

There also exists a hill where leopard wood is plentiful. Villagers visit the area to collect the wood to be used in making bows. It was mentioned that not only villagers but also outsiders use the area.

Hunting & Fishing

These activities are done closer to the village on a regular basis. The forest and big ponds provide excellent hunting and fishing grounds so the people rarely go up the mountains even though resources are more plentiful up there.

During the dry season the mountains are used most heavily. Villagers go out in groups to hunt and fish mainly along the Kamarapa River to catch big fishes such as the Haimara.

They also go further in the mountains to fish for piabs (tiny fishes) at a place called Piab Falls. In all the areas observed games and fishes exist in abundance especially while they are in season.

TEAM C

Sebastian Tancredo (CI)
Hubert John
Robert Joseph
Royain Francis
Mario Nazarene
Albert Rodrigues

AREAS VISITED

The furthest location visited was the farming area at **Tapir Creek Source**, a tributary of the Piwaga Creek going towards the **Wamakaro River**. Other areas were **Marsawatta, Sandbank, Cock Hill, Quata Pond, Mongoose Pond, Bruwetta, and Cocorite Point**

OBSERVATIONS

Farming

It was observed that some farms are in a large bush island called Aqqi-Ta, which is located near to the village. In this area cassava is planted because there are no acoushi ants there. Other crops like banana, yam, eddoes and sugar cane are grown in this area.

Marsawatta is where some of the villagers farm. Marsawatta has virgin lands, high bush and good soil in which crops in this area grow well. The entire area is covered with Mora trees and it was observed that these areas are very fertile. In Quata Pond area it was observed that most of the citrus plants like orange and grape fruits grow well. The majority of farming activities are done at Piwaga. Villagers from Capybara (near Katoka) farm at Cock Hill.

Gathering

Aqqi-Ta Bush is close to the community where the entire village collects house materials such as posts, rafters, bush rope and leaves. Some fruits are also found in this area. The area is a mixed forest area.

There are clear-cut tracks along the Rupununi River. The team managed to cover all the farming areas near Wamakaro River.

Hunting

The main hunting areas are Parrot, Asa-yai and Iguana Islands. Hunting is done mostly during floods when all the games are in the islands. The participants claimed that during this period (floods), hunting dogs are used. Also some men would circle the islands with boats while others have bow and arrows and when a tapir/deer crosses to another island, men with boats will follow them.

Fishing

The main fishing area is Crab Pond. A participant stated that people from Nappi, Parishara, Hiowa, and Lethem also come to fish here. He also claimed that even Brazilians from Bon Fim come to fish here too.

Quata and Mongooses Pond are other major fishing grounds where big species like the tiger fish, arapaima, haimara and arawana are fished throughout the year. All the fishing grounds that were observed are in excellent condition.

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. The bush teams received additional training and were also shown how to record data on the data forms. The information presented in this section is the result of the work that was recorded by the “Bush teams”.

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

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

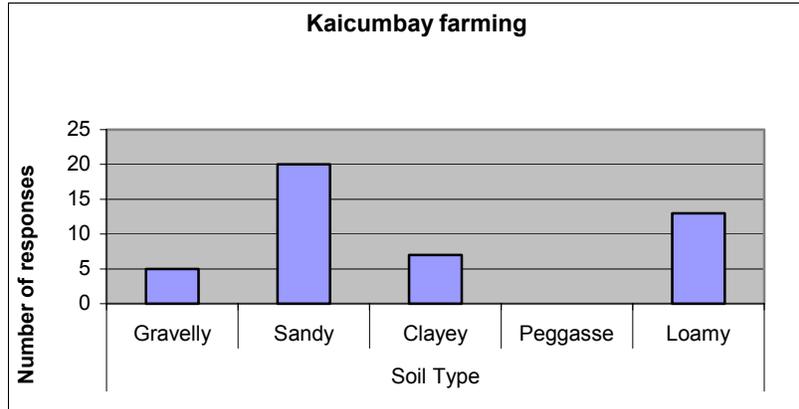
In total ninety-four (94) waypoints were taken. The following is a summary of all the waypoints that were taken in each category:

- **Farming** **45**
- **Hunting** **15**
- **Fishing** **21**
- **Gathering** **13**

FARMING DATA RESULTS

QUALITY

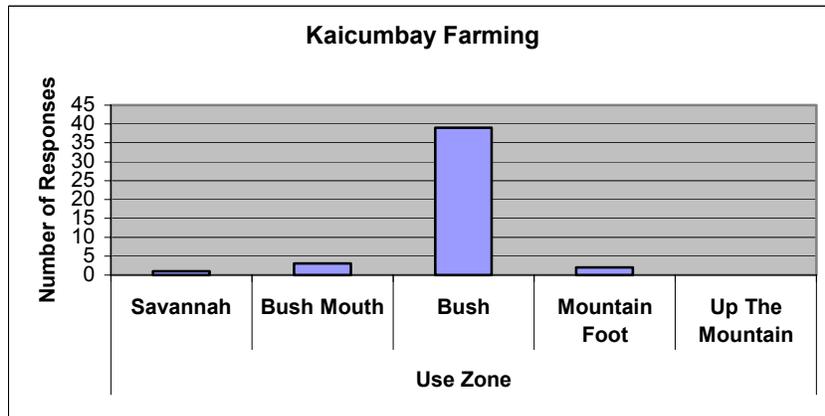
The soil type in the majority of farming areas visited was sandy (20) and loamy (13). See graph



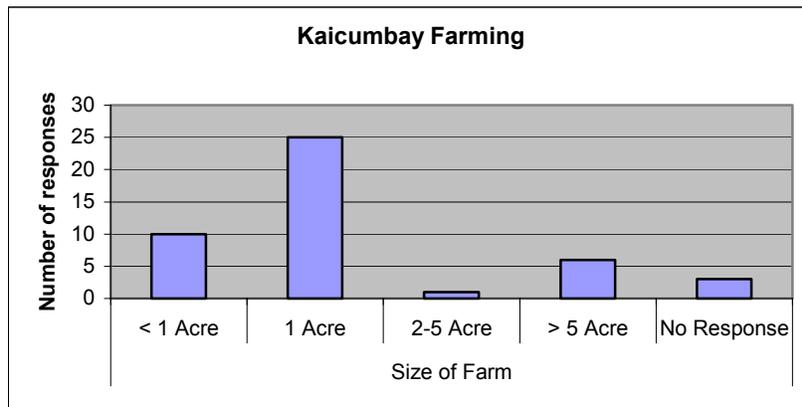
The crops planted on the farms are mainly cassava (22) mixed (18) and banana (4).

INTENSITY

The farms that were visited are concentrated in the bush area (39) see graph. Forty- three of the farms were being actively used; only one was fallow.

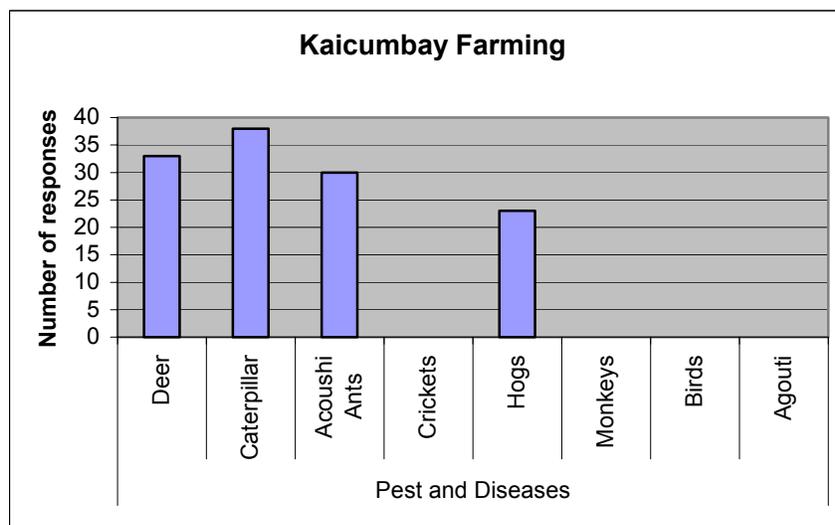


The farms are primarily one acre in size (25) **see graph**. The majority of the produce is grown for both domestic use and for sale. There were seventeen entries for domestic use only.



THREATS

Two threats were recorded at the sites- mining (8) and logging (1). Several pests affect the crops: caterpillars (38) deer (33) acoushi ants (30) and hogs (23). **See graph**

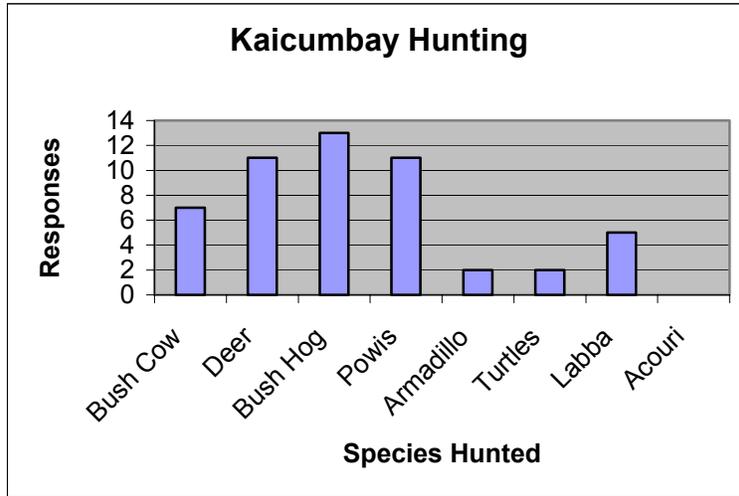


HUNTING DATA RESULTS

QUALITY

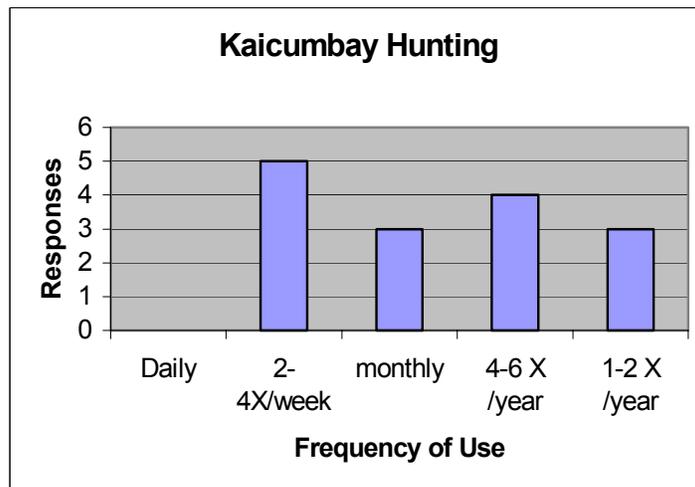
The quality of the hunting resources is mainly considered to be either excellent (11) or good (3).

The game that is hunted was entered as bush hog (13), deer (1), powis (11), bush cow (7) and labba (5).



INTENSITY

The areas that were visited are located in the bush (7) at the mountain foot (3) and in the savannah (3). Fourteen of the sites visited are actively used. Hunting is done in these areas with varied frequency, from 2 to 4 times a week to 1 to 2 times per year. (5) **See graph**



Hunting is done using primarily traditional methods, bow and arrows (14) hunting dogs (13) and to a lesser extent, modern methods such as guns (1).

The amount of game caught is usually less than three (14) and is used for domestic consumption. (12). There were two entries for both sale and domestic use.

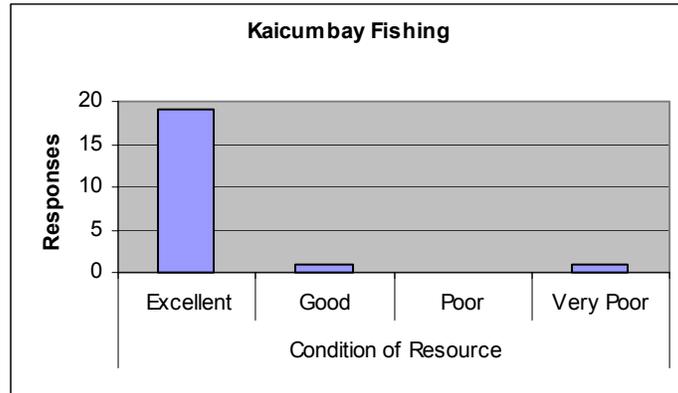
THREATS

There were two threats recorded, logging (3) and over-hunting (1).

FISHING DATA RESULTS

QUALITY

The condition of the fishing resources was considered to be excellent (19) in most sites. There was one entry for good and one for poor. **See graph**



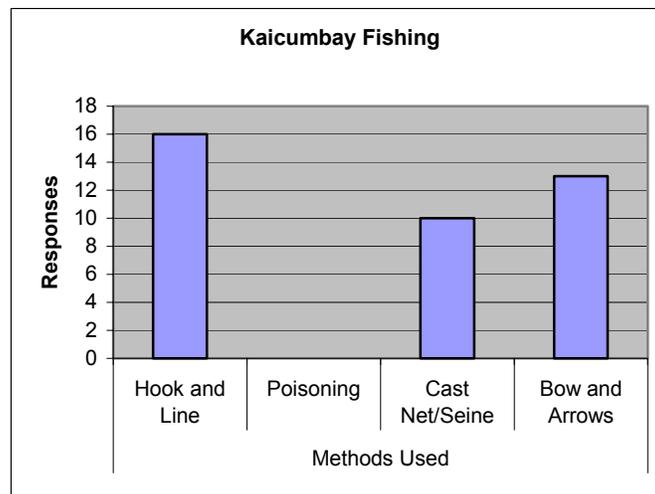
The resources that are caught are lukunani (11) houri (11) patwa (11), yarrow (10) and haimara (5).

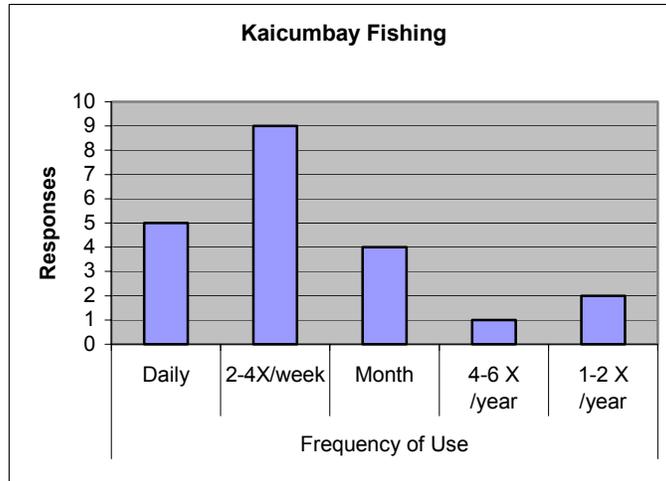
INTENSITY

Waypoints were collected in the bush (9) and at the mountain foot (7). All of the sites visited were active.

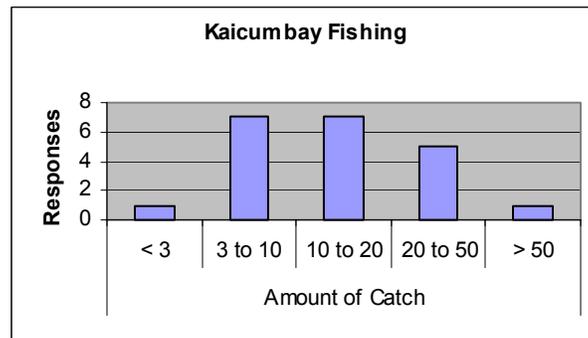
The methods used were hook and line (16), bows and arrows (13) and cast nets (10). Most fishing at the sites is done 2 – 4 times a week (9) and monthly (4).

See graph

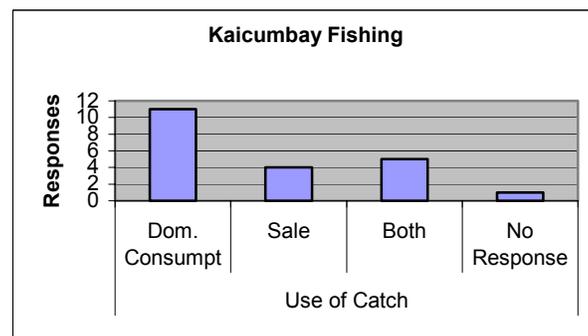




The catch is usually between 3 – 10 (7) and 10 – 20 (7). **See graph**

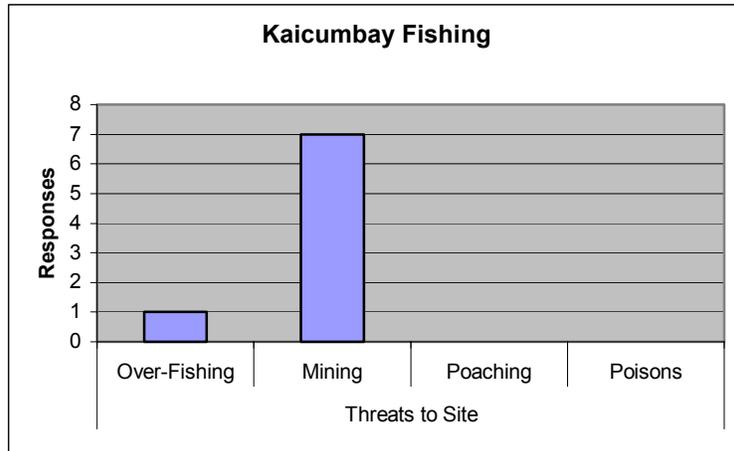


The majority of the sites are used for domestic use (11) and to a lesser extent both sale and domestic use (5) and for sale only (4). **See graph**



THREATS

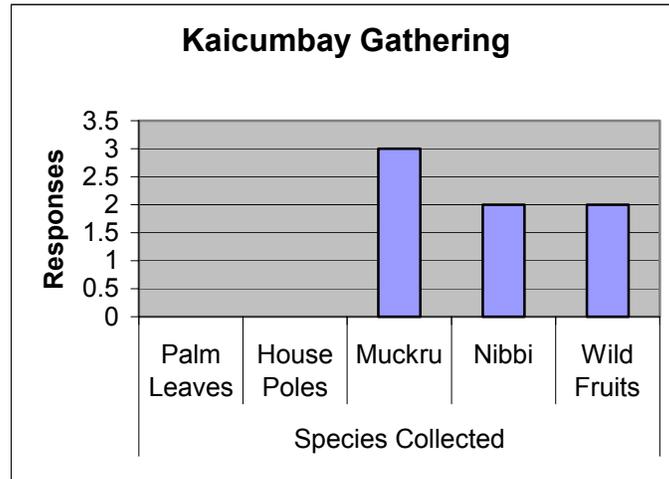
There were two threats recorded - mining (7) and over-fishing (1).



GATHERING DATA RESULTS

QUALITY

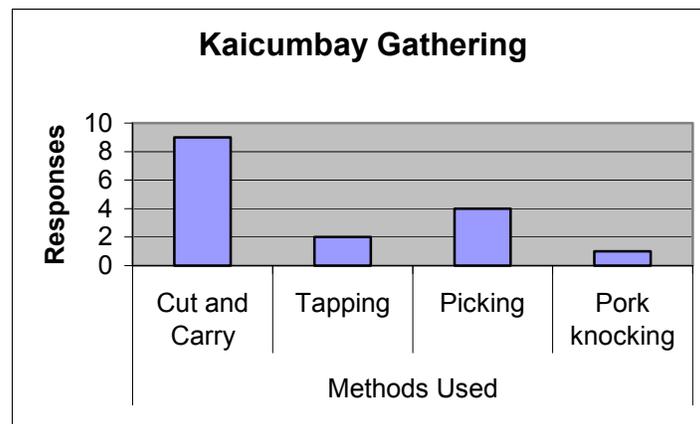
The gathering resource condition was recorded as being entirely “excellent” (13). The resources collected are muckru (3) nibi (2) and wild fruits (2).



INTENSITY

The gathering sites that were geo-referenced were concentrated in the area of the bush (9) and at the mountain foot (4). All of the sites that were visited are active.

Cut and carry (9) picking (4) and tapping (2) **see graph** are the methods most frequently used. Gathering is done mainly 1-2 times per year (7) and monthly (4). Ten of the entries were used for domestic purposes only (10) and three (3) were for sale only.



THREATS

There was only one threat, logging, which was recorded at all of the sites (9).

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 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.

PROFILE
A FIELD OUTING FOR THE VILLAGE TEAM

The “Village Team” had a lot of discussions about resources. The group shared stories about the history of the village.

The “Girls Cave” was one myth that was spoken of. The cave, though close by had not been visited by the most of the group.

They were all very excited. The team also paid a visit to Mermaid Falls.



Looking into the Girls Cave

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

INTRODUCTION

The Village Team's work benefited from a very well organized and enthusiastic group. The Village Sketch Map was easily created and the persons to be interviewed, identified. The participants went out themselves to notify the villagers whom they had selected.

The Village Team



QUANO (Harpy Eagle)

Nilas Vincent
Elsie John
Sybil Antone
Edna Vincent
Dora Marco
Natalie Victoriano (CI)

The group divided themselves into two teams, Quano and Toucan.

Most of the houses in the village are spread out so effort was focused on visiting households that were far away. The village teams were able to obtain 20 surveys representing a sample size of 65.1% of the total households in the village.

The team benefited from the presence of the coordinator, Carlie Brown who did translation with the Toucan team.

OBSERVATION

The Village Team



TOUCAN

Louise Vincent
Flores Marco
Carlie Brown
Brian Vincent
Esther McIntosh (CI)

This community needed explanation in the local language, so most of the interviews were done in Macushi. Several villagers voiced their satisfaction with the way the survey was conducted and especially being able to receive and give information in their local language, Macushi.

Several of the households that were visited had not heard of CI, the CRE or Protected Areas. They requested more workshops because they want to learn

more on these subjects.

Several persons who were interviewed during the survey also attended the public meeting that was held at the end of the workshop.



Louise and Flores doing an interview

VILLAGE SURVEY DATA RESULTS

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

PROFILE

THE ARTISTS WHO CREATED THE MASTER RESOURCE USE

Whilst the “Village Team” was out doing surveys and collecting stories from the village, Royain and Philliciano 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.



Royain and Philliciano at work

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.

The information is presented in the three resource use categories, farming, hunting and fishing, and gathering.

VILLAGE SURVEY DATA SUMMARY

In total 20 surveys were collected. The following is a summary of all the data that was collected in each of the three resource categories:

- **Farming** **20**
- **Hunting** **6**
- **Fishing** **11**
- **Gathering** **8**

FARMING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
5	9	5	1

Gender

Male	Female
8	12

INTENSITY

The farming results of the village surveys show that the majority of persons surveyed farm Up the Mountain (9) and in the bush (7) area. The other areas that they said were lesser used for farming were the bush mouth (3), and in deep bush (1). Some persons commented that there had been changes to farming because they had to go further to farm.

Where is your farm?

Savannah	Bush	Bush Mouth	Deep Bush	Mountain Foot	Up the Mountains
0	7	3	1	0	9

Farming is done regularly. As the table below shows most people responded that they visited their farms weekly (16). Fewer people said that they visit their farms daily (1), monthly (1) and in the “other” response box it was said that one person visited their farm twice a week.

How often do you visit your farm?

Daily	Weekly	Monthly	Other	No Response
1	16	1	1	1

The size of farms of most of the people who were interviewed was between 1>2 acres (10) and 2-4 acres (9). **See table** The produce from the farms is mainly used (11) for both domestic use and for sale. Four persons said that they use the produce from their farms for domestic use only and one person said that they used the produce only for sale.

How big is your farm?

< 1 Acre	1>2 Acre	2-4 Acre	5 Acre and more	Other
0	10	9	0	1

THREATS

Acoushi ants (18) and wild animals (15) are felt to be the main threats by most people who were interviewed. The only other threat that was listed was caterpillars (1). **See table**

What are the threats to your crops?

Wild animals	Acoushi ants	Weather	Caterpillar	Fire	Monkey	Domestic animals
15	18	0	1	0	0	0

HUNTING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
2	3	1	0

Gender

Male	Female
6	0

QUALITY

Under the hunting section five (5) persons said that they have to go further to hunt. One (1) person also said that there had been changes in the availability of the animals that are hunted. It was commented that the animals are less than they were in the past.

INTENSITY

As the table below shows, four of the persons who were interviewed said that they hunt in the bush area. The areas at the mountain foot (1) and in the deep bush (1) were used to a lesser extent. **See table** Hunting is done in these areas mostly monthly (3) or weekly (2).

Where do you hunt?

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush
0	0	4	1	0	1

It was said that hunting is done using mainly the traditional method, bow and arrows (4). The animals that are caught are used for either domestic purpose only (3) or for both sale and domestic use (3).

THREATS

The main threat to hunting sites was given as being the presence of tigers (4). Other threats that were given were fire (1) and the increase in the population (1).

FISHING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
3	7	1	0

Gender

Male	Female
7	4

QUALITY

Most people (6) who were interviewed felt that they had to go further than they used to in the past in order to find fish. Three persons also said that there was a change in the availability of fish. It was commented that the fish were less than they used to be and that the increase in the population has affected the availability of fish.

INTENSITY

The main areas where people said they went to fish was in the bush (4), and at the mountain foot (1).

The following methods of fishing are mainly used: hook and line (11), seine (7) and bow and arrows (6). Fishing is done regularly according to the responses that were given during the survey. Four persons said that they fish on a daily basis and one person said that they fish weekly. In the “other” response box, some people said that they fished “sometimes”. **See table**

The fish that is caught is only used for domestic use only according to eight (8) persons and three (3) persons use their catch for both domestic and sale purposes.

How often do you go fishing?

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

THREATS

The major threats to fishing sites were said to be over fishing (5) and poisoning of fishes (4). Two people felt that the increase in population was a threat to the resources.

What are the threats to your fishing resources?

Over fishing	Poison	Population	New Methods
5	4	2	0

GATHERING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
2	5	1	0

Gender

Male	Female
7	1

QUALITY

In the gathering section, three persons said that they felt that they had to go further to gather resources. Five (5) persons said that there had been a change in the availability of resources while two persons felt that there had been no change. Some of the comments that were made were that, it was felt that the trees were fewer and that the resources were “finishing”.

Has there been a change is the availability of resources?

Yes	No	No Response
5	2	1

INTENSITY

Gathering is done mainly in the bush (5) area according to the table below. The areas that were also mentioned were in the deep bush (2) and at the bush mouth (1).

Where do you gather?

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush
0	0	5	1	0	2

The persons who were interviewed said that gathering [especially for housing materials] is done mainly every year (4). Some one also said that they gathered quarterly [every three months]. In the “other” response box it was said that gathering is done “sometimes” and “anytime”.

How often do you gather?

Daily	Weekly	Yearly	Every 5 Years	Every 2 years	Quarterly	Seasonally	Other
0	0	4	0	0	1	0	1

The resources that are gathered are used mainly for domestic purposes (6).

THREATS

The major threat to the ability to gather resources was listed as being from the tiger (4). Fire (1) and the increase in the population (1) were also seen as a threat.

What are the threats to your gathering resources?

Over-Harvesting	Tiger	Population	Fire
0	4	1	1

CLOSING ACTIVITIES

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

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



Participant explaining the compiled village survey data

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

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

survey and field observation exercises.

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

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

The participants were also presented with certificates of participation.

RESOURCE USE PROFILE

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

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

Kaicumbay village, geo-referenced at 3.53888°N and 59.44273°W, is unique in its resource use pattern. The village depends mainly on the forested areas that surround it for most of its resources. These forested areas are large bush islands on top of laterite hills. The village's fishing ponds are well known for the good supply of fish that is found there throughout the year. The resource use of the village is concentrated in these major hills and ponds.

The Kanuku Mountains, which are 15 miles away, are used to a lesser extent because of the availability of resources closer to the community.

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

- Hunting
- Fishing
- Farming
- Gathering

RESOURCE USE ZONES

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

SAVANNAH

The savannah areas are the wide-open grasslands with scattered bushes dominated by the characteristic sand paper tree (*Curatella Americana*). There are low land savannahs and high land savannahs that are found in the mountain valleys. **Cocorite Pond** and **Hassar Pond** are areas that were geo-referenced in the savannah during the bush trips.

BUSH MOUTH

The community describes this area as where the main savannah land ends and the bush or the forest begins, extending approximately one mile into the bush. The vegetation of this area is typically secondary growth with the majority being fallow lands or old minabs, as the villagers call them. This term ‘bush mouth’ is used commonly when relating to the activities done within this particular area. For example, if a villager has a farm in this area, he would always refer to it as his/her bush mouth farm. So bush mouth areas generally do not have names unless they are close by a creek or some other natural feature. This is the nearest area to the village. The team also geo-referenced **Burwetta Bush Mouth and Crab Pond**.

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 observed and geo-referenced included: **Marasawatta and Burwetta Creek.**

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 favourable 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. **Pairawaca area** is an area at the mountain foot about 12 miles from the village where a few families farm.

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.

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

Farming in Kaicumbay is affected by the lowness of the land, as it is prone to flooding, particularly the eastern side of the village. As a result the farm areas tend to be concentrated in specific places. The main farming areas that were visited are mainly in the bush, at the bush mouth and deep into the bush. Of all the areas observed, only **Aqqi-ta**, a laterite hill, does not flood during the rainy season. It is also an area in which, apart from farming, the entire village also does gathering for palm leaves and other house materials.

Cock Hill is an area, which is also used by villagers from Yupukari and Capybara, since their resource use areas tend to overlap and most people of Kaicumbay originally came from Yupukari. Farming is also done in bush islands and these areas are ideal for the cultivation of bananas. The farms produce very high yields.

There are several ponds, **Tranzing, Quata, and Crab Ponds**, which provide a good year round supply of fish. The bush islands are also used for hunting, especially in the rainy season, since the animals are left stranded and have no other place to go. **Mongoose Pond** is another major

fishing area where big species like the tiger fish, arapaima, haimara, banana fish and arawana are fished throughout the year. All the fishing grounds that were observed are in excellent condition.

INTENSITY

Kaicumbay	Use Zone				
	Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain
Farming	1	3	39	2	0
Hunting	3	2	7	3	0
Fishing	3	2	9	7	0
Gathering	0	0	9	4	0

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

The areas that are mainly used by the community as indicated from the points taken along the routes chosen by the bush teams during the CRE field trips are:

- **The savannah for hunting and fishing with limited farming**
- **The bush are for farming, gathering, hunting and fishing**
- **The bush mouth areas for farming, hunting, fishing - also gathering fire wood- (although no points were recorded in the bush mouth, this areas is actively used)**

Kaicumbay has a large forested area that extends from the savannah towards the Rupununi River and into the Kanuku mountains with a lot of small tributaries and lakes within. So most of the forest is seasonally flooded with most of the high bush found on what is called bush islands. These are higher elevated lands that are far in the bush where the villagers choose to do farming as was recorded by the bush teams.

The other activities of hunting, fishing and gathering are also carried out within the bush areas since many fishes and animals can be found there. It was mentioned that Kaicumbay has one of the richest fishing grounds that attracts other villagers as well as outsiders. One outstanding pond is **Tranzing Pond**.

There are quite a few places also in the savannah that provide excellent hunting and fishing grounds, like **Bruwetta Savannah** and **Cocorite Savannah** that are found within the big bush islands. Limited farming is done at the edge of the bush islands but more in the savannahs. The soil type is sandy suitable for cassava and watermelon.

The furthest area in terms of farming that villagers tend to use is the **Pirawaga Creek** area east going towards the Kanuku, where there are some large farms. The size of the farms averages about one acre in size. Most of the farming is done jointly so there are some large farms and forest clearings. This is also an area in which commercial lumbering is done primarily by villagers from Parishara. This activity is gradually extending towards the mountain foot. Also along the Pirwaga Creek muckru and other materials are gathered. Fishing for piabs and cassie is done up to the falls in the mountain. Further up no fishes can be found because they cannot get past the falls. The Pirawaga Creek is also a link to the **Kamarapa River** located between the mountains where hunting, fishing and gathering is occasionally done.

Although no sites were geo-referenced up the mountain, it is an area of resource use. The furthest areas in the mountains are only used 1-2 times a year because of the remoteness. During the dry season the mountains are used more heavily because of the easy access to the area. Villagers go out in groups to hunt and fish mainly along the Kamarapa River to catch big fishes such as the Haimara. Mining is also done in the tributaries of the Kamarapa River. They also go further in the mountains to fish seasonally for piabs (tiny fishes) at **Piab Falls**. There are no farms in the mountains. Basically the “Up the Mountain” areas are used to a lesser extent for hunting, fishing and gathering due to the following influences:

- The presence of resources closer to the community in the bush areas
- The distance and time that is required
- Many of the young people in the village travel to Brazil to work as casual labour and use this as a source of cash.
- Lack of knowledge of mountain areas by younger generation.

The older people use the mountains more than the younger generations.

THREATS

The biggest threat to the farmers is acoushi ants. This is especially the case in the bush islands and in the bush mouth areas. Aqqi-ta is the only area where acoushi ants are not a problem. The only other notable threats were mining, domestic animals and fire.

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	KB	3.48778	59.42799	Coricab	Savannah
FS	KB	3.46594	59.41131	Burwaitta	Savannah
FS	KB	3.39868	59.44404	Pairawaca	Savannah
FS	KB	3.49327	59.38043	Hassar Pond	Savannah
H	KB	3.50344	59.43395	Cocorite Point	Savannah
H	KB	3.46594	59.41131	Bruwaitta	Savannah
H	KB	3.48094	59.42804	Burrowetta	Savannah

Site Type	Village	° North	° West	Area Name	Zone
F	KB	3.48965	59.43626	Cocorite Point	Bush Mouth
F	KB	3.48772	59.42794	Walde Ma Hill	Bush Mouth
F	KB	3.48042	59.37625	Sand Bank	Bush Mouth
FS	KB	3.46594	59.41132	Bruwiatta Bush Mouth	Bush Mouth
FS	KB	3.49676	59.39092	Crab Pond	Bush Mouth
H	KB	3.46594	59.41132	Bruwiatta Bush Mouth	Bush Mouth
H	KB	3.4905	59.40347		Bush Mouth
F	KB	3.45395	59.4412	Burratta Creek	Bush
F	KB	3.468	59.43142	Burrewatta Creek	Bush
F	KB	3.45453	59.43741	Burrewatta Creek	Bush
F	KB	3.4539	59.43902	Burrewatta Creek	Bush
F	KB	3.4766	59.36208	Cock Hill	Bush
F	KB	3.50025	59.44548	Cocorite Point	Bush
F	KB	3.50131	59.44635	Cocorite Point	Bush
F	KB	3.50327	59.43887	Cocorite Point	Bush
F	KB	3.49217	59.36971	Mangoose Hill	Bush
F	KB	3.49271	59.35936	Mangoose Hill	Bush
F	KB	3.50984	59.37362	Marasawatta	Bush
F	KB	3.50913	59.37465	Marasawatta	Bush
F	KB	3.50781	59.37649	Marasawatta	Bush
F	KB	3.51093	59.37093	Marasawatta	Bush
F	KB	3.50282	59.38324	Mora point	Bush
F	KB	3.42417	59.44003	Pairawaca	Bush
F	KB	3.41965	59.44077	Pairawaca	Bush
F	KB	3.44104	59.43691	Pairawaca	Bush
F	KB	3.46083	59.35495	Quata Hill	Bush
F	KB	3.52241	59.43709	Rock Head	Bush
F	KB	3.48294	59.37511	Sand Bank	Bush
F	KB	3.48099	59.3713	Sand Bank	Bush
F	KB	3.48057	59.37432	Sand Bank	Bush
F	KB	3.48067	59.37553	Sand Bank	Bush
F	KB	3.48054	59.37605	Sand Bank	Bush
F	KB	3.48023	59.37796	Sand Bank	Bush
F	KB	3.4806	59.37396	Sand Bank	Bush
F	KB	3.48148	59.37044	Sand Bank	Bush
F	KB	3.44131	59.4352	Tapir Creek Head	Bush
F	KB	3.44006	59.43375	Tapir Creek Head	Bush
F	KB	3.43814	59.43466	Tapir Creek Head	Bush
F	KB	3.47574	59.36148	Tapir Hill	Bush

Site Type	Village	° North	° West	Area Name	Zone
F	KB	3.51343	59.43846		Bush
F	KB	3.50793	59.43747		Bush
F	KB	3.50925	59.43686		Bush
F	KB	3.51011	59.45682		Bush
F	KB	3.51039	59.43702		Bush
F	KB	3.51125	59.4573		Bush
F	KB	3.48067	59.37469		Bush
FS	KB	3.5008	59.37893	Board Creek	Bush
FS	KB	3.50298	59.37842	Board Pond	Bush
FS	KB	3.41163	59.34881	Marapa Creek	Bush
FS	KB	3.50294	59.38427	Mora Point	Bush
FS	KB	3.46259	59.35237	Quata Pond	Bush
FS	KB	3.46246	59.3525	Quata Pond	Bush
FS	KB	3.46061	59.35383	Quata Pond	Bush
FS	KB	3.477	59.35273	Rupununi River	Bush
FS	KB	3.50573	59.40124	Tranzing Pond	Bush
G	KB	3.42585	59.37208	Karlieoti Creek	Bush
G	KB	3.4025	59.34711	Marapa Lake	Bush
G	KB	3.41522	59.44243	Pairawaca	Bush
G	KB	3.41353	59.44226	Pairawaca	Bush
G	KB	3.40964	59.44301	Pairawaca	Bush
G	KB	3.46199	59.43191	Parica Hill	Bush
G	KB	3.42585	59.37208	Tapir Creek	Bush
G	KB	3.50068	59.43513	Tranzing Mountain	Bush
G	KB	3.51634	59.43896		Bush
H	KB	3.42585	59.37208	Karlieoti Creek	Bush
H	KB	3.41163	59.34881	Marapa Creek	Bush
H	KB	3.50678	59.37744	Marasawatta	Bush
H	KB	3.46246	59.3525	Quata Pond	Bush
H	KB	3.51777	59.4388	Rock Creek End	Bush
H	KB	3.42585	59.37208	Tapir Creek	Bush
H	KB	3.51614	59.43887		Bush
F	KB	3.4972	59.42585	Agouti Mountain	Mountain Foot
F	KB	3.50095	59.42332		Mountain Foot
FS	KB	3.46075	59.35396	Chapuli Bru Falls	Mountain Foot

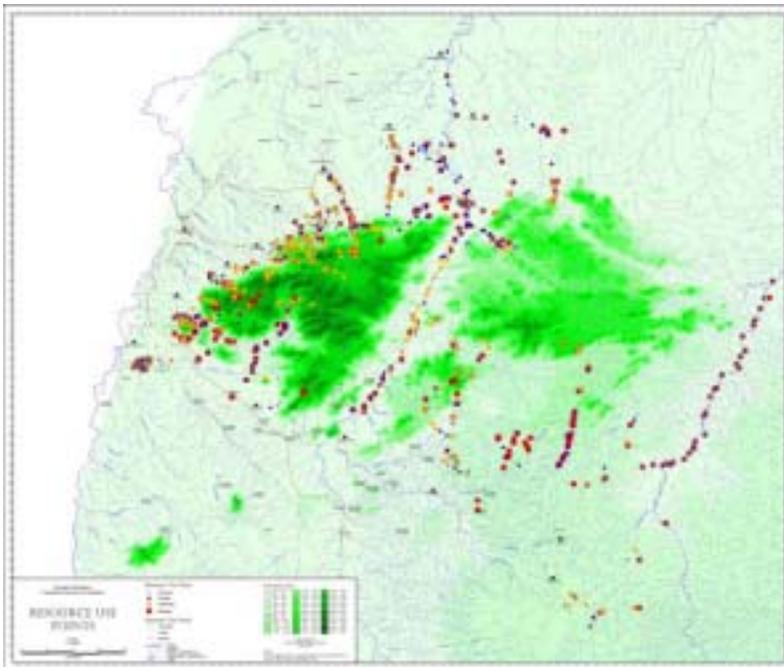
Site Type	Village	° North	° West	Area Name	Zone
FS	KB	3.38144	59.37389	Hiarie Creek	Mountain Foot
FS	KB	3.38921	59.39765	Kamarapa	Mountain Foot
FS	KB	3.38023	59.39545	Kamarapa	Mountain Foot
FS	KB	3.36899	59.40689	Kamarapa	Mountain Foot
FS	KB	3.3831	59.44517	Pairawaca	Mountain Foot
FS	KB	3.38321	59.4451	Pairawaca End	Mountain Foot
G	KB	3.36849	59.40925	Karamapa	Mountain Foot
G	KB	3.39716	59.44428	Pairawaca	Mountain Foot
G	KB	3.39626	59.44411	Pairawaca	Mountain Foot
G	KB	3.3951	59.44461	Pairawaca	Mountain Foot
H	KB	3.46075	59.35396	Chapuli Bru Falls	Mountain Foot
H	KB	3.38144	59.37389	Hiarie Creek	Mountain Foot
H	KB	3.41531	59.44238	Pairawaca Area	Mountain Foot

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.

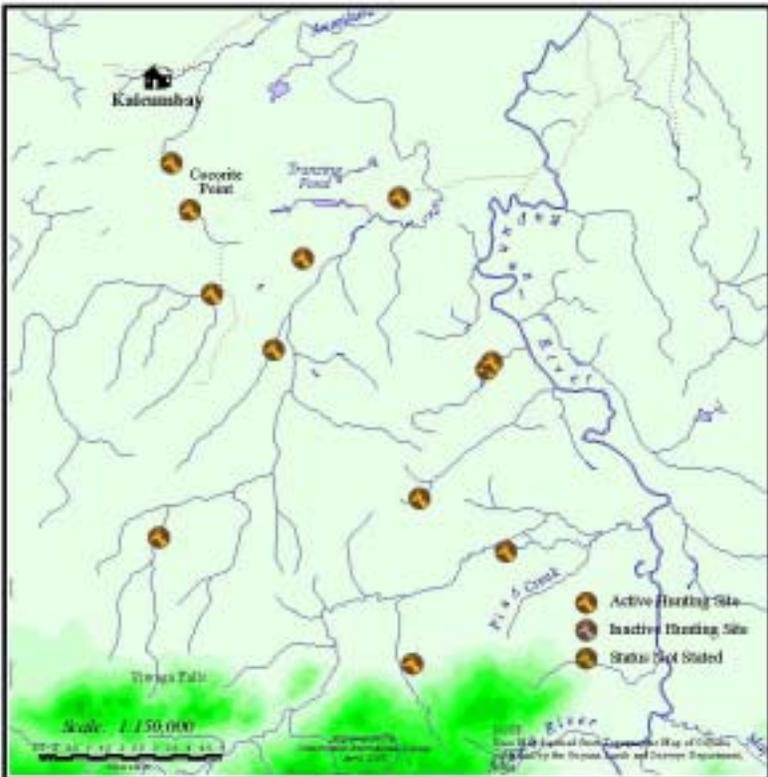
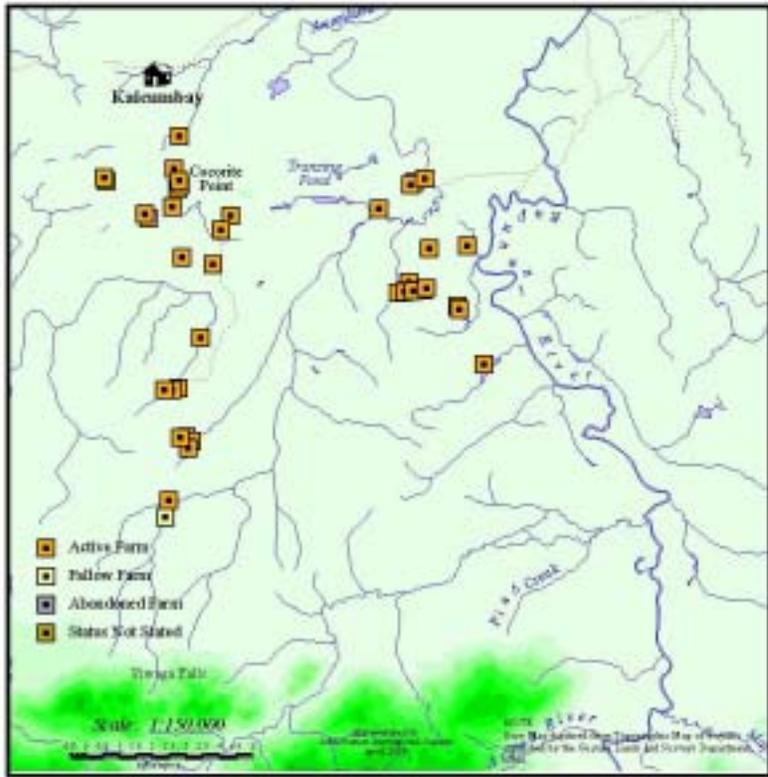
There is a separate map for each resource category as well as a combined map that has all the readings taken during the CRE. It is important to remember, when viewing the maps, that they represent only a record of sites observed during specific trips made during the CRE. These maps do not show every 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.

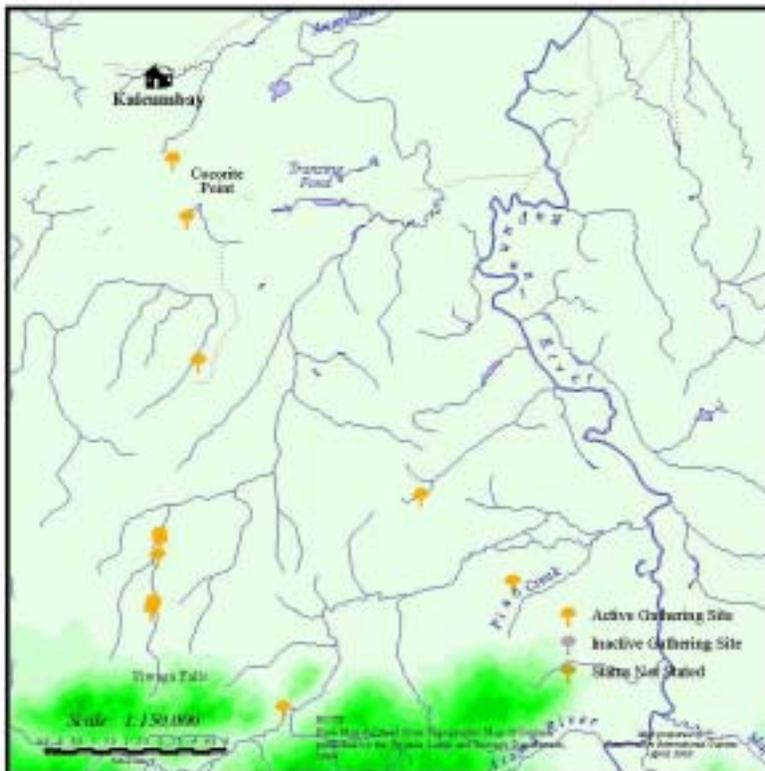


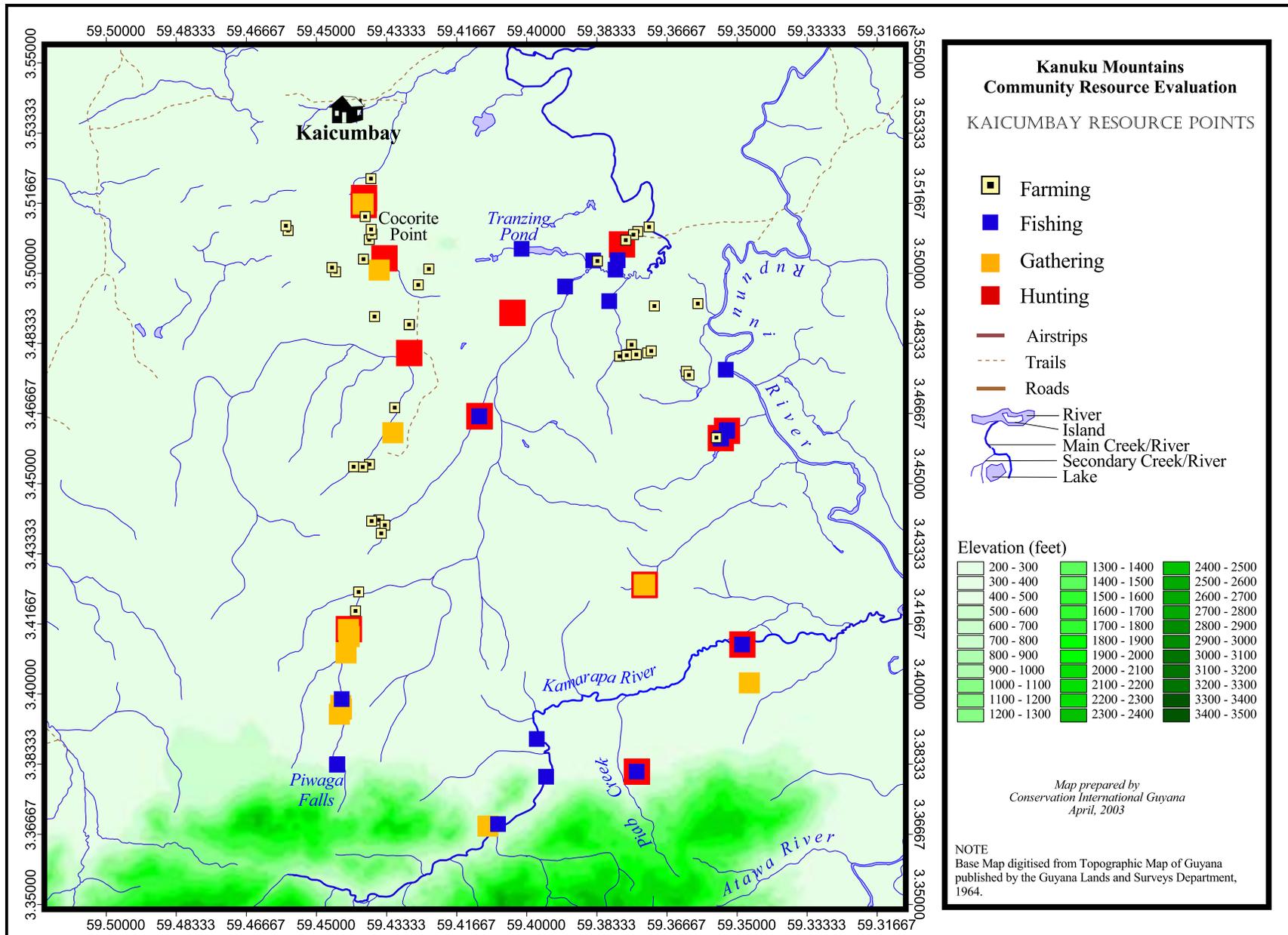
In some cases, flooding prevented access to some areas, especially those normally reached via creeks. In this case, readings were taken at a creek mouth, to record the area, while the use is described in the report. In order to have a complete understanding of the resource use areas, it is important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

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

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



Explaining the results of the village survey data, Parikwarinawa.



Verifying the seasonal calendar, Rupunau.



Reading their CRE reports, Maruranau.

APPENDICES
APPENDIX 1
Typical Activity Schedule

<i>DATE</i>	<i>ACTIVITY(S)</i>
Day 1	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

Vitus Antone (Forest Resource Advisor):

Vitus is from Lethem. He has been working for CI for one year. Before joining CI he worked at Iwokrama as a forest ranger. He attended both the University of Guyana and the Guyana School of Agriculture.

During the CRE his role was:

Co Facilitator
Technical Lead on Digital and Video Photography,
CRE presentations
Training

Vitus has participated in 8 CRE's. His role for Team B includes:

- Co-lead facilitator
- Bush Team Leader
- Focus Group Leader
- Lead responsibility for Bush Team activities
- Technical Lead for photography, video, GPS work

Vitus co-facilitates the team's activities. He holds lead responsibility for all photographic data, including downloading of images, maintenance and identification. He co-designed and implemented the community field leader training as well as delivered training in report writing for the CRE team members.

Vitus has designed and delivered presentations on forestry topics for the student interactions using digital photo presentations and PowerPoint, and has delivered mini-lectures on his experiences while working with Iwokrama. He manages the technical issues for Team B, including GPS training and mapping lectures. Vitus has led 6 Bush Teams with 33 participants over 24 days and 430 miles.

Natalie Victoriano (Macushi Interpreter):

Natalie is originally from Kumu village. She has worked with CI for two years. Before joining the organization she was the Women's Group Leader, Church Assistant and a Village Councillor.

Initial Role: Macushi Interpreter

Current Role: Interpreter
Facilitator
Lead Village Team Activates
Asst. Purchasing Manager

Natalie has participated in 10 CRE's. Her role in the team includes:

- Interpreter

- Facilitator
- Focus Group Leader
- Lead Facilitator Village Team
- Kitchen Manager

Natalie assists Margaret Gomes in purchasing supplies, taking responsibility for all medical/first aid supplies. She assists in supply inventories and maintains supply list and menus on the computer using MS Word. During the activity Natalie managed the kitchen and the preparation of over 300 meals and all rations for the bush teams. As Village Team leader, Natalie facilitates all Village Team Activities, including:

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

Natalie has also lead Bush Teams for the Katoka Pilot and the Maruranau CRE.

Richard Wilson (Indigenous Knowledge Advisor):

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

His role in the CRE included acting as an:

- Interpreter
- Facilitator
- Bush Team Leader

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

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

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

Sebastian Tancredo (Bush Team Leader):

Sebastian is from Nappi village. Sebastian was involved with the Primate Group in Nappi where he received some GPS training from 2000 – 2001. Prior to the beginning of the CRE in Parishara he received an extensive one-week training on the GPS and fieldwork.

Sebastian then proceeded to participate in four CRE activities as a Bush Team Leader. His responsibilities included:

- Giving basic training on the GPS
- Leading a team

- Choosing routes
- Gathering data
- Report writing

In addition Sebastian also contributed to the workshop by: co-facilitating, interpreting and assisting the team where necessary.

Esther McIntosh (CRE Facilitator):

Esther is from Georgetown. She has been working with CI-Guyana for over a year as the CRE Facilitator and has participated in 8 CRE exercises. She worked on the CRE as a lead facilitator for the team.

Her responsibilities during the CRE include:

- Facilitator
- Village Team leader
- Logistics
- Management
- Reporting

Esther was lead facilitator for the team and lead for the Village team and student activities. She was also instrumental in implementation of the overall CRE project, designing methodology, capacity building, training and reporting.

Date <table style="display: inline-table; border: none;"> <tr> <td style="border: 1px solid black; width: 40px; text-align: center;">Month</td> <td style="border: 1px solid black; width: 40px; text-align: center;">Day</td> <td style="border: 1px solid black; width: 40px; text-align: center;">Year</td> </tr> <tr> <td style="border: 1px solid black; width: 40px;"></td> <td style="border: 1px solid black; width: 40px;"></td> <td style="border: 1px solid black; width: 40px; text-align: center;">2002</td> </tr> </table> Group <input style="width: 100%;" type="text"/>	Month	Day	Year			2002	Point Identification Code <table style="display: inline-table; border: none;"> <tr> <td style="border: 1px solid black; width: 40px; text-align: center;">GPS Unit</td> <td style="border: 1px solid black; width: 40px; text-align: center;">Village</td> <td style="border: 1px solid black; width: 40px; text-align: center;">Feature</td> <td style="border: 1px solid black; width: 40px; text-align: center;">Waypoint</td> </tr> <tr> <td style="border: 1px solid black; width: 40px;"></td> </tr> </table>	GPS Unit	Village	Feature	Waypoint					Coordinates <table style="display: inline-table; border: none;"> <tr> <td style="border: 1px solid black; width: 40px; text-align: center;">North</td> <td style="border: 1px solid black; width: 40px; text-align: center;">West</td> </tr> <tr> <td style="border: 1px solid black; width: 40px;"></td> <td style="border: 1px solid black; width: 40px;"></td> </tr> </table>	North	West		
Month	Day	Year																		
		2002																		
GPS Unit	Village	Feature	Waypoint																	
North	West																			
Feature Codes: Farming=F; Hunting=H; Fishing=P; Gathering=G	Area Identification Name <input style="width: 100%;" 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"/>																		

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"/>
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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"/>																								
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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 Summaries

Farming Summary

VillageKB

Total Number of Points45

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
1	3	39	2	0			

Use Status

Active	Fallow	Abandoned	No Response				
43	1	0	1				

Method of Extension

Shifting	Extension	Rotation	Other	No response			
13	26	5	0	0			

Size of Farm

< 1 Acre	1 Acre	2-5 Acre	> 5 Acre	No Response			
10	25	1	6	3			

Soil Type

Gravelly	Sandy	Clayey	Peggasse	Loamy	No Response		
5	20	7	0	13	0		

Main Crops Planted

Cassava	Banana	Peanuts	Mixed	Other	No Response		
22	4	0	18	0	1		

Use of Produce

Dom. Consmt.	Sale	Both	No Response				
17	1	24	3				

Threats to Site

Over-Farming	Mining	Wildlife	Logging				
0	8	0	1				

Pest and Diseases

Deer	Caterpillar	Acoushi Ants	Crickets	Hogs	Monkeys	Birds	Agouti
33	38	30	0	23	0	0	0

Hunting Summary

VillageKB

Total Number of Points15

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
3	2	7	3	0			

Type of Site

Feeding Area	Track	Drinking Pond	Nesting Area	Combined			
9	1	2	0	3			

Use Status

Active	Inactive	No Response					
14	0	1					

Species Hunted

Bush Cow	Deer	Bush Hog	Powis	Armadillo	Turtles	Labba	Acouri
7	11	13	11	2	2	5	0

Methods Used

Bow and Arrows	Hunting Dogs	Guns	Traps				
14	13	1	3				

Frequency of Use

Daily	2-4X/week	monthly	4-6 X /year	1-2 X /year			
0	5	3	4	3			

Amount of Catch

< 3	3 to 10	10 to 20	20 to 50	> 50	No Response		
14	0	0	0	0	1		

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
12	0	2	1				

Threats to Site

Over-Hunting	Mining	Poaching	Logging				
1	0	0	3				

Condition of Resource

Excellent	Good	Poor	Very Poor	No Response			
11	3	0	0	1			

Fishing Summary

VillageKB

Total Number of Points21

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain					
3	2	9	7	0					

Type of Site

River	Creek	Pond	Other						
5	8	8	0						

Use Status

Active	Inactive								
21	0								

Species Fished

Arapima	Tiger Fish	Lukunani	Baira	Houri	Yarrow	Patwa	Piaba	Haimara	Kassi
0	3	11	1	11	10	11	4	5	1

Methods Used

Hook and Line	Poisoning	Cast Net/Seine	Bow and Arrows						
16	0	10	13						

Frequency of Use

Daily	2-4X/week	Month	4-6 X /year	1-2 X /year					
5	9	4	1	2					

Amount of Catch

< 3	3 to 10	10 to 20	20 to 50	> 50					
1	7	7	5	1					

Use of Catch

Dom. Consumpt	Sale	Both	No Response						
11	4	5	1						

Threats to Site

Over-Fishing	Mining	Poaching	Poisons						
1	7	0	0						

Condition of Resource

Excellent	Good	Poor	Very Poor						
19	1	0	1						

Gathering Summary

VillageKB

Total Number of Points 13

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
0	0	9	4	0			

Use Status

Active	Inactive					
13	0					

Species Collected

Palm Leaves	House Poles	Muckru	Nibbi	Wild Fruits		
0	0	3	2	2		

Methods Used

Cut and Carry	Tapping	Picking	Pork knocking			
9	2	4	1			

Frequency of Use

Daily	2-4 times /week	Monthly	4-6 Times /year	1-2 Times /year		
0	1	4	1	7		

Use of Collection

Dom. Consumpt	Sale	Both				
10	3	0				

Threats to Site

Over-Harvesting	Mining	Poaching	Logging				
0	0	0	9				

Condition of Resource

Excellent	Good	Poor	Very Poor				
13	0	0	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 Survey Summaries

Farming Village Summary

Village Kaicumbay

Total Number of Points 20

Age

No Response	15-28	29-40	41-55	Above 55			
0	5	9	5	1			

Gender

Male	Female	No Response					
8	12						

Number of Dependants

Average	Variance	Maximum	Minimum				
6.05	5.21	14	4				

Number of Farms

Average	Variance	Maximum	Minimum				
2.75	1.36	5	1				

Size of Farm

< 1 Acre	1>2 Acre	2-4 Acre	5 Acre and more	Other	No Response		
0	10	9	0	1	0		

Farming Zone

Savannah	Bush	Bush Mouth	Deep Bush	Mountain Foot	Up the Mountains	Other	No Response
0	7	3	1	0	9	0	0

Methods of Transportation

Walking	Bicycle	Bullock Cart	Boat	Other	No Response		
13	14	8	8	0	0		

Frequency of Use

Daily	2 x wk	3 x wk	4 x wk	Weekly	Monthly	Other	No Response
0	1	0	0	16	1	1	1

Use of Produce

Dom. Consmpt.	Sale	Both	No Response				
4	1	11	4				

Threats to Farms

Wild animals	acoushi ants	weather	caterpillar	domestic animals	monkey	weed	fire
15	18	0	1	0	0	0	0

Biggest Threat

Wild animals	acoushi ants	weather	caterpillar	domestic animals	monkey	weed	fire
6	15	0	1	0	0	0	0

Hunting Summary

Village Kaicumbay

Total Number of Points 6

Age

No Response	15-28	29-40	41-55	Above 55			
0	2	3	1	0			

Gender

Male	Female	No Response					
6	0						

Number of Dependants

Average	Variance	Maximum	Minimum				
4.83	1.37	7	4				

Frequency of Use

Weekly	2 x mth	3 x mth	Monthly	Seasonally	Yearly	Other	No Response
2	0	0	3	0	0	1	0

Methods Used

Arrow & Bows	Guns	Dogs	Other	No Response			
4	0	0	1	0			

Hunting Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
0	0	4	1	0	1	0	0

Hunting Site

Feeding area	Track	Pond	Creek	Nesting area	Combined	No Response	
0	0	0	0	0	4	2	

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
3	0	0	0				

Threats to Site

Fire	Population	Tiger	Outsiders	Increase of hunters	Malaria	Other	No Response
1	1	4	0	0	0	0	0

Do you Fish Further?

Yes	No	No Response					
5	0	1					

Change In Resource availability

Yes	No	No Response					
1	0	5					

Extinct or Scarce Species

deer	amadillo	labba	turtle	bush hog			

Fishing Summary

Village Kaicumbay

Total Number of Points 11

Age

No Response	15-28	29-40	41-55	Above 55			
0	3	7	1	0			

Gender

Male	Female	No Response					
7	4						

Number of Dependants

Average	Variance	Maximum	Minimum				
5.36	1.65	7	4				

Frequency of Use

Daily	2 x wk	3 x wk	4 x wk	5 x wk	Weekly	2 x mth	Other
4	0	0	0	0	1	0	6

Fishing Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
0	0	4	1	0	0	0	6

Fishing Site

River	Creek	Pond	Falls	Combined	No Response		
0	4	5	0	1	1		

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
8	0	3	0				

Methods Used

Hook and Line	Poisoning	Cast Nets	Bow and Arrows	Seine	Other	No Response	
11	0	0	6	7	5	0	

Threats to Site

Over fishing	Weather	Poison	Population	New Methods	Outsiders	Fire	Crabs

5	0	4	2	0	0	0	0
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Do you Fish Further?

Yes	No	No Response					
6	0	5					

Change In Resource availability

Yes	No	No Response					
3	0	8					

Extinct or Scarce Species

Arapaima	Big Fishes	Lukunani	Biara	Hiamara	Manji/Mangi	Arawana	
1							

Gathering Summary

Village Kaicumbay

Total Number of Points 13

Age

No Response	15-28	29-40	41-55	Above 55			
0	2	5	1	0			

Gender

Male	Female	No Response					
7	1						

Number of Dependants

Average	Variance	Maximum	Minimum				
5.25	1.44	7	4				

Frequency of Use

Daily	3 xwk	Weekly	3 x mth	Monthly	Quarterly	Yearly	Other
0	0	0	0	0	1	4	3

Gathering Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
0	1	5	0	0	2	0	0

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
3	0	5	0				

Threats to Site

Over-Harvesting	Weather	Population	Fire	Woodants	Clearing land/farms	Outsiders	Logging/Cutting
0	0	2	3	2	0	0	0

Do you Gather Further?

Yes	No	No Response					
3	0	5					

Change In Resource availability

Yes	No	No Response					
5	2	1					

Extinct or Scarce Species

House Materials	Arowa Leaves	Rafters	Manicole	Hard Materials	Nibi		
	1	1	2	1	1		