

KANUKU MOUNTAINS PROTECTED AREA PROCESS COMMUNITY RESOURCE EVALUATION



**SHULINAB
VILLAGE REPORT
June 19 - 29, 2002**

COMMUNITY RESOURCE EVALUATION

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Acknowledgement

"Thank you"

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

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

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

The workshop would not have been possible without the help and support of Touchau Willie Clement, the other members of the village council, and the Community Coordinators, Stephen Ignacio (Meriwau), Maurice Adolph (Quiko) and Thaddeus Paulo (Shulinab) all of whom worked together to make the CRE a success

The village for the use of the market house and the Head Master, Cedric Buckley and the church for assisting the workshop by providing blackboards, tables and benches.

We would also like to thank Christina, Joyce, Olga, Ryan and Rudy for working tirelessly to provide the workshop with meals.

TABLE OF CONTENTS

INTRODUCTION.....	6
Conservation International.....	9
Project Location.....	10
Project Overview.....	12
CRE Overview.....	14
Methodology.....	15
SHULINAB, MERIWAWU & QUIKO VILLAGE REPORT.....	22
Village Description.....	23
Participant Group Information.....	25
CRE Workshop Results.....	27
Resource Lists.....	28
Seasonal Calendar.....	31
Sketch Maps.....	35
FIELD OBSERVATION.....	39
Data Results.....	46
Village Surveys.....	57
Village Survey Data Results.....	60
CLOSING ACTIVITIES.....	66
RESOURCE USE PROFILE.....	67
Site Geo-Reference Points.....	71
The Resource Site Maps.....	75
APPENDICES.....	79
Typical Activity Schedule.....	79
Team Profile.....	80
Copy Of Bush Data Summaries.....	85
Copy Of Village Survey Data Summaries.....	93

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.

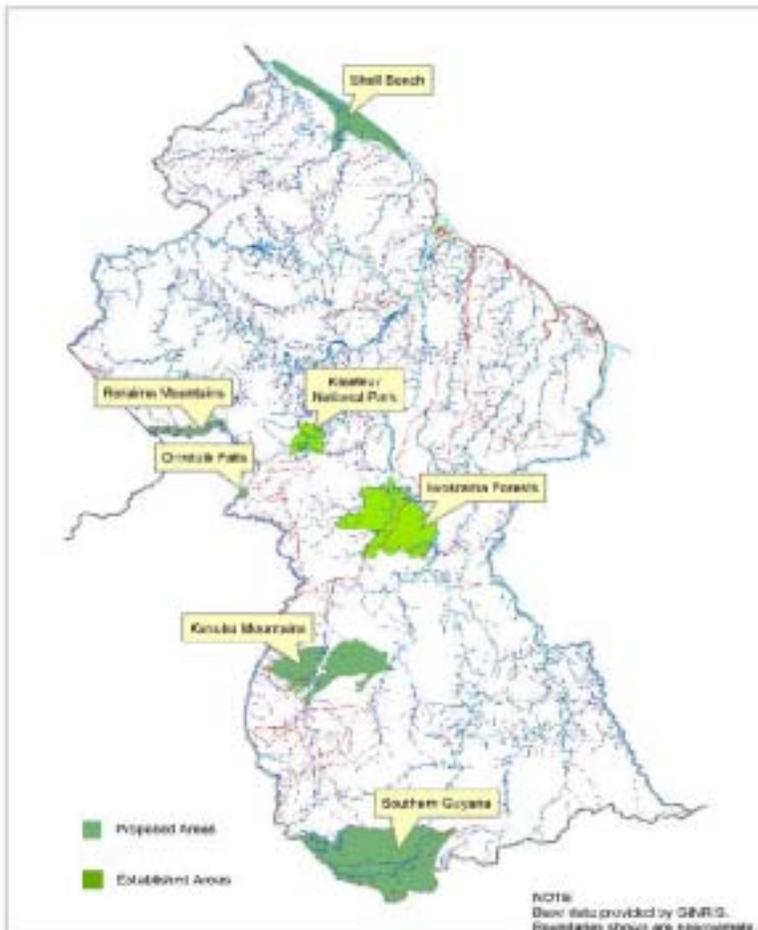
CI has been active in Guyana since 1990 and has led research expeditions, media events and educational activities. The strategic plan of CI Guyana (CIG) is to promote the conservation of biodiversity and the protection of critical ecosystems, through a process comprising scientific research based on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

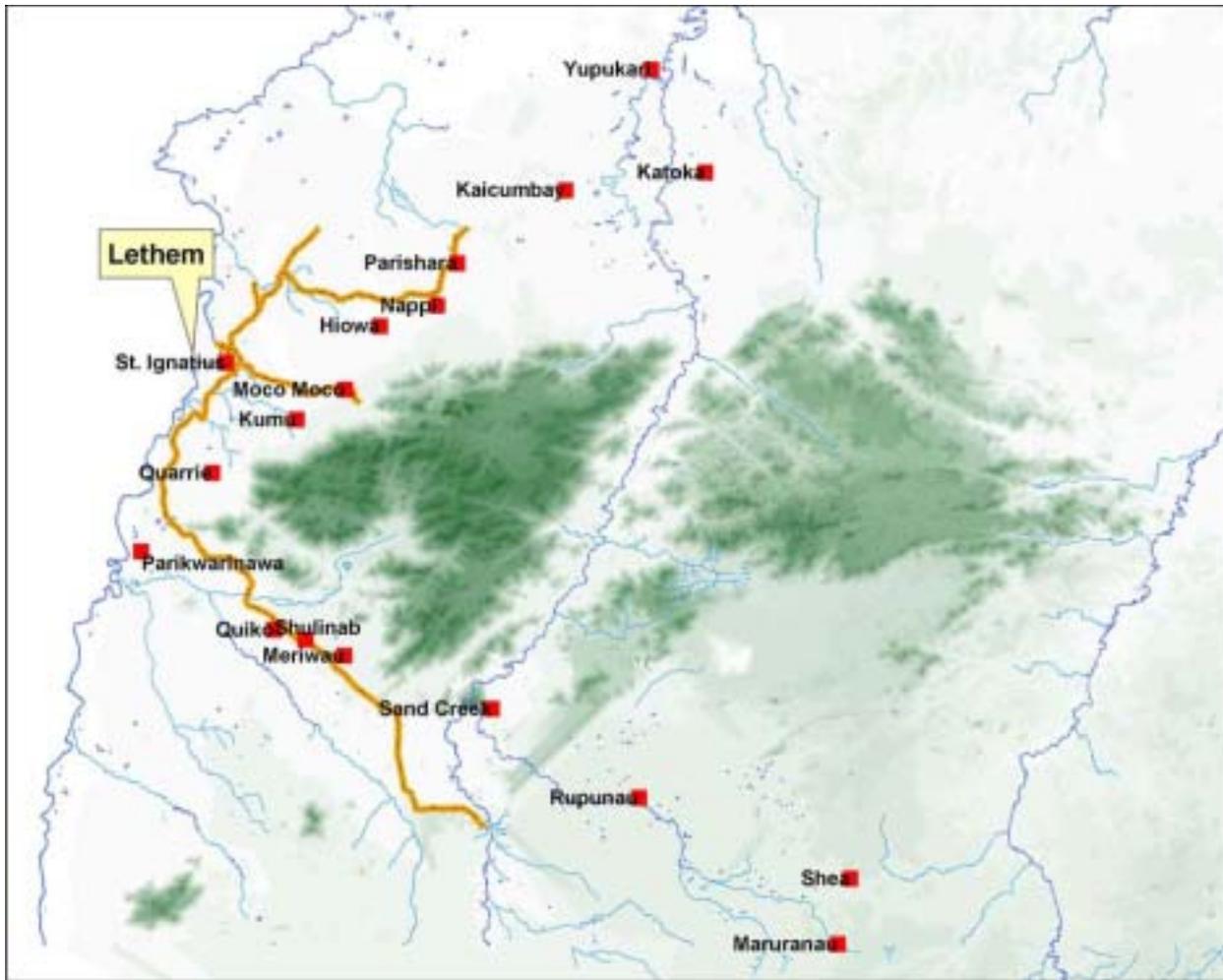
The Kanuku Mountains Proposed Protected Area (KMPA) is one of five areas in Guyana that have been identified by the Environmental Protection Agency (EPA) for conservation efforts. These areas are selected because of their beauty, landscape or richness in biodiversity.



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

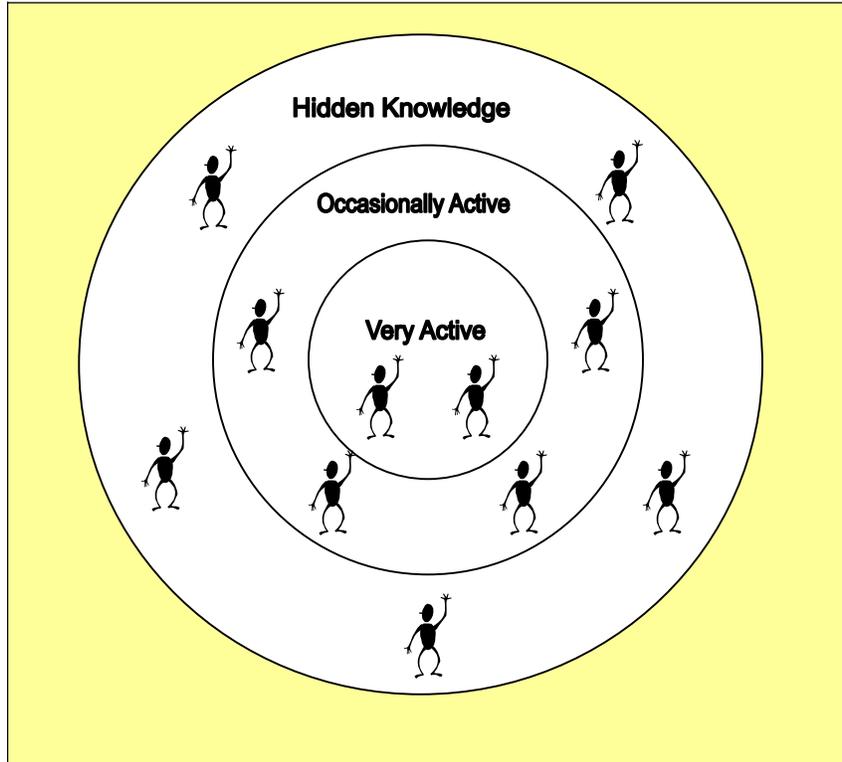
7. Mini Lectures

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

Shulinab, Meriwau & Quiko

SHULINAB, MERIWAU & QUIKO VILLAGE REPORT

The Community Resource Evaluation was conducted at Shulinab from June 19th to 29th June 2002. Shulinab, also known as Macushi Village is an administrative village under whose authority the two satellite villages of Meriwau and Quiko falls. Because of this every effort was made to allow for participation from all three areas.

Shulinab is a community that is very active in community related development activities and there are a number of local organizations in the village. The CRE benefited from this presence and managed to engage a wide range of participants including village councillors, women and church group leaders, youths and elders. The group included persons having a vast knowledge of various aspects of their resources.

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

VILLAGE DESCRIPTION

Shulinab, also known as Macushi Village, is located on the main South Savannah road about 35 miles south of Lethem, about 12 miles southeast of Parikwarinawa. The village was geo referenced at 3. 06939° N and 59.71333°W, midway between the Saurab River and the Kanuku foothills, A vehicle trails leads form the village through Red Hill Ranch to Potarinau about 5 miles west. On the main road south the next major village is Sawariwau, about 40 miles away, with branches to cross the Rupununi River at Dadanawa, 25 miles away, or at Sand Creek, 16 miles from Shulinab.

The cluster of houses furthest form the village center, about four miles down the main road, is Meriwau, 3.65280°N and 59. 67294°W. Meriwau is reached by a one-mile trail from the main road. The next largest satellite, Quiko, at 3. 07963°N and 59.74595°W, is half a mile from the main road close to the Saurab River, 2-5 miles away from Shulinab center. Those two settlements are the only ones distinguished as satellites by having councillors elected to speak for them on the Shulinab Council. There are only one or two other houses where the main road crosses the Saurab, and Midway Ranch half a mile down that stream. Black Rock consists of a few houses close to the Sawariwau River, and Red Hill is a ranch near the same river, two miles from Shulinab on the other side of the main road. There is a network of cart trails between all these parts of the village.

Shulinab has several active organizations, and serves as headquarters for the South Central Indigenous People’s Development Association (SCIPDA).

Farming is a very important activity within the community and is done along the banks of the Saurab, Shulinab and Sawariwau Rivers.

DEMOGRAPHICS

Population structure

Age Group	Male	Female	Total
< 1 yr	8	9	17
1 – 4 yrs	39	24	63
5 – 14 yrs	86	68	154
15 – 19 yrs	23	16	39
20 – 44 yrs	91	76	167
45 – 64 yrs	15	15	30
≥ 65 yrs	3	4	7
Total	265	212	477

Source: Socio-Economic Survey, Gordon Forte

Number of households by settlement:

- Shulinab: 47
- Meriwau: 18

- Quiko: 13
- Saurab, Midway, Black Rock, Red Hill, etc. about 10 households.
- Total of 88 households, four female-headed. Only three households have no children. The majority of the population is Macushi.

Administration

- Willie Clement (Touchau)
- Thaddeus Paulo
- E.Lewis
- Lucy Fredericks
- Emelda James
- Vibert Ignace
- Elmo James
- Fred Fredericks
- Demonie Stephen
- Dorothy Austin
- Samuel Lewis
- Maurice Adolph
- Frankly Adolph
- Hartencia Rodrigues

PARTICIPANT GROUP INFORMATION

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

Fourteen participants were selected from Shulinab and eight each from Meriwau and Quiko. Shulinab is the largest of the three villages with fifty-four households (54) Meriwau and Quiko have approximately eighteen (18) and thirteen (13) households respectively.

In addition to representatives of the Village Council – including the Touchau Willie Clement – there were members of the Church, a church leader, a member of the Rice Farming Group, Youth leaders, members of the P.T.F.A (Parents, Teachers and Friends Association) and representatives of the women’s group. The group included active farmers, hunters, fishermen and gatherers who brought a wealth of knowledge to the workshop.

The participant group represented a wide range of persons, with representation of all facets of the village. Six of the participants who attended had already been involved in CI related workshops. In total there were thirty persons.

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

The names of the participant group are as follows:

- | | | | |
|-------------------------------|------------------|--------------------|-------------------|
| Rudolph Adams | Derick Adolph | Maurice Adolph Jr. | Alan Fredericks |
| Willie Clement | Lanis Francis | Laurence Francis | Tito Jose |
| Elmo James | Imilda James | Calvan Jose | Joseph La Rose |
| Austin Augustin | Dorothy Augustin | Hubert Augustin | Basil Bernard |
| Alfred Fredericks | Edmond Ignace | Ronald Ignacio | Sebastian Ignacio |
| Jerry Lewis | Samuel Lewis | Nicholas Patrick | Julie Paulo |
| Bertram Bernard | Charles Bernard | Theodore Ignacio | |
| Margaret Pieters | Joan Stephen | | |
| Community Coordinators | | | |
| Stephen Ignacio (Meriwau) | | | |
| Maurice Adolph (Quiko) | | | |
| Thaddeus Paulo (Shulinab) | | | |

Participant Age Profile

AGE	15 - 28	29 - 40	41 – 55	Above 55	Not Stated
No. of persons	6	6	16	0	1

The CI team consisted of:

Natalie Victoriano - Macushi Translator
Andrew Demetro – Indigenous Knowledge Advisor
Margaret Gomes – Wapishana Translator
Nial Joseph – GIS/IT Technician
Susan Stone - Program Manager
Vitus Antone - Forest Resource Advisor
Richard Wilson – Indigenous Knowledge Advisor
Esther McIntosh – CRE Facilitator
Lloyd Ramdin – Agriculture Resource Advisor



From Left: Front Nial, Andrew and Vitus. Back Lloyd, Natalie, Julie, Margaret, Vibert, Susan, Richard and Esther.

CRE WORKSHOP RESULTS

CREATION OF THE TOOLS



Margaret presenting the Seasonal Calendar

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

Participants created three tools to help communicate Shulinab, Meriwau and Quiko's resource use:

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

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

RESOURCE LISTS

“The What”

FARMING

The group came up with one of the most extensive resource lists. In total sixty-nine crops are planted in the community. These include fruits, coffee, tobacco and vegetables. Shulinab is village in which initiative has been taken to promote kitchen gardens; there is also a kitchen garden at the school.

Crops			
1.	Cassavas- bitter & sweet	36.	Benas
2.	Corn	37.	Ginger
3.	Paddy	38.	Anatto
4.	Pumpkin	39.	Dasheen
5.	Yams	40.	Tania
6.	Eddoes	41.	Musk melon
7.	Sweet Potato	42.	Leaf of life
8.	Banana	43.	Neem
9.	Plantain	44.	Pium (leaf)
10.	Sugar cane	45.	Gourds
11.	Watermelon	46.	Calabash
13.	Peppers	47.	Mashish (wild cucumber)
13.	Pear	48.	Peanut
14.	Pineapple	49.	Sorrel
15.	Peas	50.	Bora
16.	Cotton	51.	Squash
17.	Crawa	52.	Tomato
18.	Arrow	53.	Cucumber
19.	Papaw	54.	Ochro
20.	Sur gum	55.	Calalu
21.	Tobacco	56.	Corilla
22.	Coffee	57.	Boulanger
23.	Hiarie	58.	Passion Fruit
24.	Conani	59.	Cashew
25.	Cherry	60.	Lettuce
26.	Jamoon	61.	Celery
27.	Guava	62.	Mango
28.	Ginip	63.	Orange
29.	Sugar Apple	64.	Lime
30.	Dunks	65.	Coconut
31.	Whitey	66.	Grape Fruit
32.	Custard Apple	67.	Sour Sap
33.	Tangarine	68.	Sourie
34.	Limeren	69.	Tamarind
35.	Psidium		

HUNTING & FISHING

In total the hunting/fishing group identified thirty-two species of game as being actively used by the community. These include: turtle eggs, labba, macaws and quails. The fishing list identifies thirty-seven species of fish that are used including electric eels, arawana and lukunani.

Hunting				Fishing			
1.	Tapir	20.	Maam	1.	Hassar	20.	Piaba
2.	Deer	21.	Powis	2.	Houri	21.	Sword Fish
3.	Labba	22.	Waracabra	3.	Patwa	22.	Haimara
4.	Agouti	23.	Marudi	4.	Yarrow	23.	Electric eel
5.	Armadillo	24.	Hana-Qua	5.	Yakatu	24.	Alligator egg
6.	Capibara	25.	Macaw	6.	Perai	25.	Darie
7.	Adouri	26.	Duck	7.	Lukunani	26.	Cuyukuyu
8.	Land and water turtles egg	27.	Toucan	8.	Arawana	27.	Skeet (Banana Fish)
9.	Iguana and eggs	28.	Parrot	9.	Tiger Fish	28.	Costumer
10.	Ant eater	29.	Quail	10.	Imiri	29.	Crab
11.	Kibehi	30.	Pigeon	11.	Larima (Mangie)	30.	Shrimp
12.	Porcupine	31.	Nigger cup	12.	Cassi	31.	Basha
13.	Bush hog	32.	Caterpillar	13.	Birara	32.	Sting ray
14.	Monkey			14.	Pacou	33.	Congo eel
15.	Sloth			15.	Butter Fish	34.	Toocuma
16.	Cock-of-the-rock			16.	Sun Fish	35.	Wax Fish
17.	Gray Cane			17.	Bat Fish	36.	Police Boots
18.	Duckla			18.	Dawala	37.	Lugo-Lugo
19.	Korikak			19.	Flounder		

GATHERING

The focus group that dealt with gathering resources came up with forty-four materials. The materials included; medicines, wild fruits, poisons, housing materials, and leaves.

Materials			
1.	Karamani	23.	Plum
2.	Balata	24.	Ginip
3.	Nibi	25.	Whitey
4.	Tibisiri	26.	Genpap
5.	Muckru	27.	Arruwa
6.	Bow (wood)	28.	Fan Materials
7.	Axe handle	29.	Nuts & Seeds
8.	Turo	30.	Locust
9.	Incense	31.	Kupa (Aman-ye)
10.	Gold	32.	Bush Medicine
11.	Leaves	33.	Fire wood
12.	House Materials	34.	Ete Fruit
13.	Logs	35.	Wichabai and fruits
14.	Coral Rails	36.	Morona oil
15.	Bush Rope	37.	Manicole (Kapa-shang-ye)
16.	Clay Bricks (Goblet Pots)	38.	Bamboo
17.	Lou	39.	Congo Pump
18.	Akeru	40.	Locust Gum
19.	Honey/wax	41.	Punah seed (Beads)
20.	Poison/Hiari	42.	Pooru (Hitcha)
21.	Cocorite	43.	Wild Guava
22.	Spice Wood (Maipaima)	44.	Pidma Fruit

SEASONAL CALENDAR

“The When”

The seasonal calendar was a great success in Shulinab especially as the information reflects the seasonal activity of the three communities, including Quiko and Meriwau. As can be seen on the calendar, the group was able to include a detailed list of activities for farming and those for hunting and fishing.

FARMING

Farming activities were separated into two categories: high and low bush. The term “high bush” refers to a new area that has been cleared for farming. High trees and fertile soil characterize the area. A low bush area is one that has been used previously, having less dense growth to clear.

Low bush

Land preparation is done in the first four months of the year including under bushing, drying, burning and the clearing of the land. In May the land is ploughed and the following crops are planted; corn, cassava, pears, watermelon, potatoes, plantain, eddoes and paddy. Throughout the rest of the year i.e. June – December weeding, reaping and the taking care of crops takes place. In October paddy and eddoes are harvested and corn is dried. In December cassava is reaped.

High Bush

For the planting of high bush areas the preparation begins in November through to April. In January – February the land is burned which is followed in March – April by the clearing and planting of crops such as watermelon (in the first week of March), cassava, peanuts, corn, banana, plantains, eddoes, sugarcane, yams, sorghum and potatoes. The next six months is spent weeding the land and reaping produce including: corn (the type that requires forty days), watermelon, and pumpkin. From September through to December cassava is reaped and replanted. November and December are the months in which the under bush is cut down in preparation for the next year.

HUNTING & FISHING

From the month of January – April game is chased by fire and by using flashlights at night to catch deer. June is the month when there is a village hunt for armadillos, ducks and other game. Through July to August Toucans and Macaws are caught and from September to December bird trapping is done. During the dry season (December to March) wild hogs come into the savannah in droves to seek water and food, and are caught using arrows and bows, guns, dogs, stones, and wood. Wild hogs can also be found in the savannahs during the month of October. In December there is another village hunt.

During the first four months of the year fishing is done in the lakes and ponds mainly using cast nets. In May and June fish march upstream and in August to mid-September Piab are caught at the waterfalls using bottles to trap them. Throughout the year though fishing is done using

various methods, facemasks, diving with arrows, poison, arrow and bow, hooks and lines, seines and cast nets.

GATHERING

Gathering is done throughout the year for medicinal plants according to need. These plants include incense, bark, herbs, vines, roots, and seeds. House and craft materials are also gathered. Several wild fruits including cocorite and etc are also gathered throughout the year. Mining “pork-knocking” is done from January to almost the end of March. For this purpose various methods are used including pick axes, battle and spade. Certain house materials, like leaves, round wood etc. are gathered in the same period. Balata bleeding takes place between June and July. Cashew nuts are gathered in the last two months of the year. For the Amerindian Heritage Month celebrations local seeds are gathered in August and September.

Revised Seasonal Calendar for Shulinab, Meriwau & Quiko

January	February	March	April	May	June	July	August	September	October	November	December	Seasons	
Long Dry			Rain Starts	Real Rain			Short dry, wet, windy.	Mid Sept. Rain	Sun Month	Mid Nov.	Short Rain 'Tauna'		Long Dry
Maiden/High Bush Farming													
Burn		Clearing & Planting: 1 st week watermelon, <i>Cassava</i> , <i>Peanuts Corn, Banana</i> , <i>Plantains, Eddoes, Sugarcane</i> , <i>Yams, Sour gum, Potatoes</i>		Weeding, Reaping & Taking Care of Crops: - 40 days corn - Watermelon - Pumpkin					Under Bush Cut Down				
← Reaping & Replanting of Cassava is done throughout the year, this depends on the species of cassava planted example, 3, 6 and/or 9 months cassava. →													
Low Bush Farming													
Under Bush	Allow to dry	Burn	Clearing up Land	Plough & Plant: corn, cassava, peas watermelon, potatoes, plantain, eddoes, paddy	← Weeding →								
					← Reaping →								
									Reaping paddy & eddoes, dry corn				Reaping Cassavas
					← Taking care of farm →								
← Reaping & Replanting of Cassava is done throughout the year, this depends on the species of cassava planted example, 3, 6 and/or 9 months cassava. →													

FARMING

Revised Seasonal Calendar for Shulinab, Meriwau & Quiko continued

January	February	March	April	May	June	July	August	September	October	November	December		
Chasing game by fire, Flashing dark night, Powis (deer), Arrow & Bow					Village Hunt Armadillos, ducks, all games	Toucans, Macaws		Bird Trapping – Tawa Tawa			Village Hunt	HUNTING	
								Village Hunt for Heritage	Hogs come into Savannahs – arrows & bows, guns, dogs, stone, wood				
Lakes and Ponds Fishing – cast nets				Fish March – creeks and into savannahs				Piabi Jump- falls, bottles				Village Fishing	FISHING
Dragging Seine in big Rivers								Trap Setting- Maskah		Dragging Seine in big Rivers			
← Big Rivers – face masks, diving with arrows, poison, wooden, arrows & bows, hooks & lines, seines, cast nets →													
House Materials: leaves, round wood, sawn wood, brick making, bush rope, firewood						Balata Bleeding		Local seeds gathered for Heritage month			Cashew Nuts		GATHERING
Pork Knocking – pick axe, wood box, battle, spade													
← Medicine, Incense, barks, herbs, vines, roots and seeds →													
← Fence Posts/Corral rails →													
← Craft Materials →													
← Wild fruits: cocrite, etc, →													

Comments

☞ Tauna refers to one heavy shower during the month of November which also falls within the ‘Short Rain Season.

☞ Sometimes the seasonal cycle varies from year to year example, this year (2003) is different from last years’ (2002)

SKETCH MAPS “The Where”



**Touchau Willie Clement guiding the work on a
Resource Use Sketch Map**

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 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 rivers and creeks identified on the maps are: the Rupununi River (to the right of the map), Sawariwau Creek (left) and Saurab Creek. The village lies on the main road to the right of Sawariwau Creek. Trails, lakes, and roads are also shown.

Farming Resource Use Sketch Map

As the map shows all of the farming activities done by Shulinab, Quiko, Meriwau and also Midway (a small settlement close to White Rock) are done in the bush mouth zone. This is mainly along Saurab Creek starting from First Falls close to House Lake and all the way down to its mouth (Saurab creek), which flows into the Sawariwau Creek. A relatively small amount of farming is done (mainly by the people of Quiko) between the Saurab Creek mouth and Quiko Creek mouth up stream of Sawariwau creek.

On the other hand Meriwau has both bush mouth and mountain farms. The bush mouth farms are at Shulinab Creek Head and Ete savannahs. Because only the banks of the Saurab Creek bush are available, farming is intense in these areas while only paddy is planted in the inland areas, which are normally flooded.

However, in the case of the mountain farms, there are large expanses of land available but most of the farms are now abandoned especially at Saurab Head where Shulinab village was first located before moving to the present location. The movement was done so as to allow children to be closer to schools. There is every intention of returning to these abandoned sites at a later date since the soil there is very fertile while present farm areas are becoming exhausted.



Shulinab Farming Map

Hunting & Fishing Resource Use Sketch Map

As is presented on the map, the hunting/fishing resources of the community are well spread out over a wide area (Sawariwau creek to the Rupununi river). The community mainly uses the savannahs and the bush leading up to the mountains for their hunting and fishing activities.

The village is located south and west of the Kanuku range around Mountain Point.

The main rivers and creeks are the Rupununi River, the Sawariwau and Saurab creeks.

The hunting resources include, deer, bush hogs, tapir, powis, armadillo, turtle, and anteater. The fishing resources include; piab, haimara, houri, patwa, tiger fish, and basha.



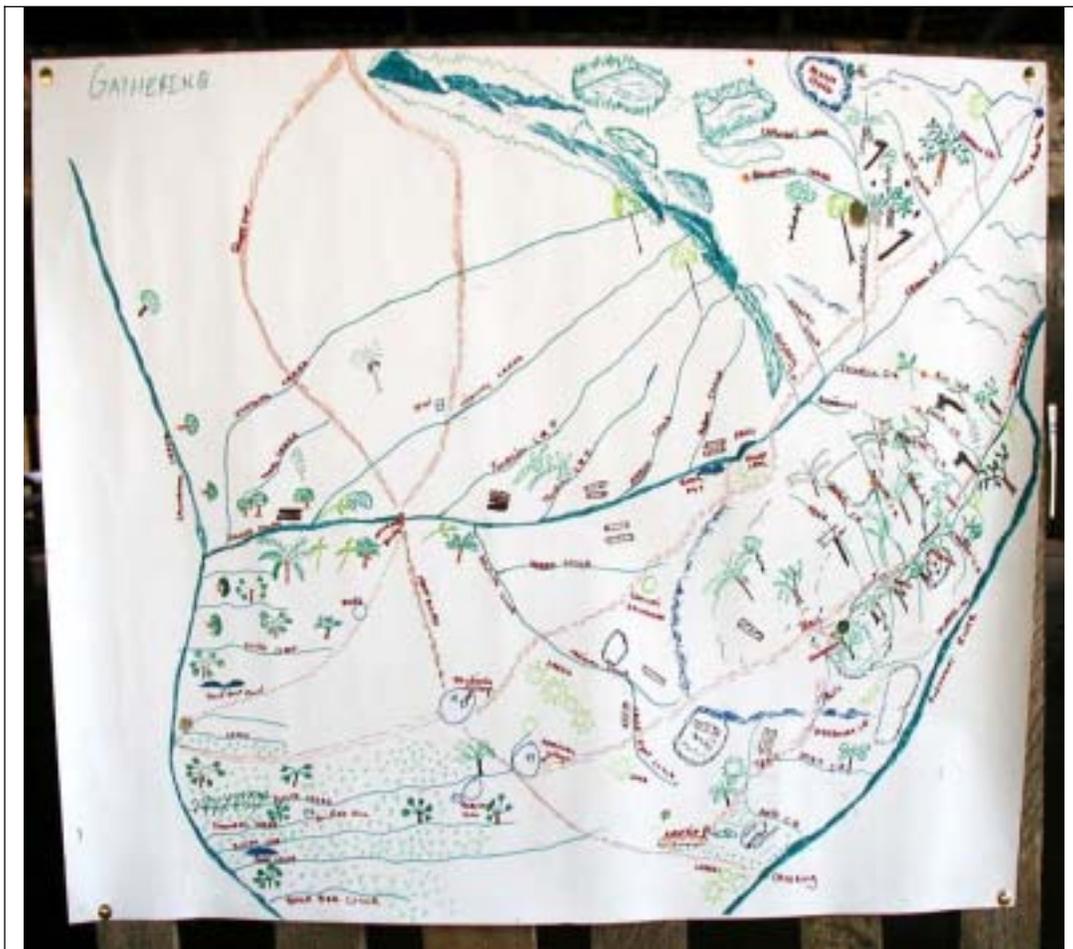
Shulinab Hunting and Fishing Map

Gathering Resource Use Sketch Map

The map below shows that there is resources found in locations along the Saurab and Sawariwau Creek banks.

Resources are also found in other areas that are directly located in the mountains.

Areas in the north east - mostly in the Saurab Head waters - and southeastern sections down to the Rupununi, especially in the Salmon Creek area of the western Kanukus - are used for resources such as axe handles, wild fruit mostly from palm trees, minerals, nibi, mamouri and others.



Shulinab Gathering Map

FIELD OBSERVATION

INTRODUCTION

The fieldwork in Shulinab, Meriwau and Quiko was done over a period of four days. One of the bush teams required was unable to reach the furthest point due to high water and rains, so there was a follow up field exercise to cover those points done in early December 2002, when the team visited the Purple Rock area. The results of all field trips are included here.

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 approximately 5 – 9 persons on each team. The teams were grouped according to the areas that had to be covered. Both teams observed and geo-referenced areas found along the way in each of the resource categories: farming, hunting & fishing and gathering.

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



Participants doing a simple GPS exercise

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

Andrew Demetro (CI)
Austin Augustin
Herbert Augustin
Basil Bernard
Bertram Bernard
Charles Bernard

AREAS COVERED



A view of the Rupununi River

The furthest point visited was **Salmon Creek Mouth** (a tributary of the Rupununi River) at the Rupununi River approximately 36 miles from the village. Other areas visited along the way were **Shulinab Creek Head, Plum Mountain, Peccary or Abuya Creek, Turtle Creek, Mamouri Creek, Arrua creek, Anteater creek, Hiari creek, Marsawatta creek, Eagle creek, Arua creek, Old Man Head creek and Rice Creek.**

The access route to the furthest point was created during the days of balata bleeding, which is no longer done. But the areas have, since then, continued to be used for hunting, fishing and gathering. Old balata

camp and farm plots that were established along the route were abandoned and have since grown back.



Muckru, nibi, mamouri were seen in abundance at locations in the Mamouri and Rice Creek area (midway in the mountains). In the other areas these resources were less plentiful because of heavier use. Materials for housing are still available. However there is heavier use of timber resources especially because of the presence of persons with power saws.

Most of the resources are further in the mountains. No recent balata bleeding was evident.

Most of the tracks seen along this route were that of wild hogs, mainly along the creek banks and low feeding areas. The team also crossed over tapir trails, and deer and labba tracks. Few of the hunted birds e.g. powis, marudi were observed. The team did come across a few land turtles. These were the only areas where very few turtles were seen.

The areas that were visited are not regularly used. It was explained that the route was used 2-3 times a year. This is because it is difficult to access during the rainy season as vast areas become flooded.

Acoushi ants, wild hogs for cassava crops, birds and monkeys for corn and banana crops, threatened all areas where farming occurred.

At the furthest points Sand Creek and Shulinab use resources from a common area. Both communities hunt, fish and gather in the same area. The people of Sand Creek mostly use the furthest point at Salmon Creek Mouth. A lot of hunting trails were crossed. One continuous threat at the bush mouth area is bush fires that are lit in the savannahs and spread through the forest.



Bush Team that visited Salomon Creek area

TEAM B

- Vitus Antone (CI)**
- Lanis Francis**
- Titio Jose**
- Calvan Jose**
- Sebastian Ignacio**
- Theodore Ignacio**
- Elmo James**
- Laurence Francis**
- Desmond Malcolm***
(added for the follow up trip)

AREAS COVERED

The furthest area visited by the team was the **Upper Kranwau** area, which is approximately 25 miles away from the village. Other areas visited include:

- **Meriking– the old settlement and farming area**
- **Sawarawau and Tamundua Creek – gold area**
- **Caterpillar Mountain – old balata bleeding area**
- **James Manduk’s farm**
- **Rock Creek**

- **Cashew Creek Mouth**
- **Kranwau Creek**
- **Waraputa Savannah**

The places that were not visited were Bat and Caramani Mountains, which were stated as other furthest areas of use up the mountains up Saurab head.

OBSERVATION

Presently the majority of Shulinab’s farms are located on the flat lands between the mountains along **Saurab Creek**. The entire area is fallow land or “old minab” as it is known locally.

The vegetation is more like a shrub forest with a few big trees. Due to the flatness of the land the area is usually flooded during the rainy season. The soil type is mostly clayey loam to sandy and is very suitable for paddy. It was observed that most farms had paddy since the area was conducive to rice growth. Yam is also prevalent in these areas covering vast areas especially on old farms. This is used as food when there is no cassava.



Yaruru, axe handle wood

Most of the farms found in this area were seasonal farms. Permanent farms are found on the higher lands closer to the mountain foot. The farms are made in clusters and are very close to each other since there is no other farming land available. This results in the Saurab banks being over used. The reason for this is the population growth which has given rise to many farmers returning to their old minabs or fallow lands before the land has completely replenished. The crop production at these farms is poor.



Rock Polissior discovered upper Saurab Creek

However in the mountains where farming used to be done the soil is very rich and conducive for crop production. But presently no active or new farm was observed in the area. There are some crops like bananas, paw-paws, sugarcane and other perennial fruit trees existing, which villagers harvest from time to time. This old farming ground used to be the first village of Shulinab before it was moved to the savannah location. At the landing (settlement) there exists a lot of rock polissiors and petroglyphs that indicates former dwelling places.

Gathering, hunting and fishing areas have an excellent supply of resources. However resources closer to the village are rapidly dwindling and the mountains are being used more now. Tools and local food processors such as axe handle,

craft materials, medicine and other non-timber forest products (incense gum, balata and wild fruits).

In one particular area (Tamandua Creek mouth at the Sawariwau Creek) there was active traditional “pork knocking” (mining) observed. It is not intense and the people are not motivated to mine the area.



Bush team members harvesting nibi

other areas visited, the Paurine wood is still in abundance.

Fishing and hunting activities are done both in the savannah and mountains as far as the source of Saurab Creek. Most hunting and fishing areas are seasonal. The creeks (upper Saurab) are used most heavily during the dry season, this is when the water level is low and transparent, which is suitable for diving (a new method now in use to catch fish). Another popular fishing area is at a pond called House Lake. It was also observed that many game exist in the savannahs between the mountains. There were many deer and tapir tracks.

Another specific area is the Purple Rock area. Here, the semi-precious stone, amethyst, can be found. It used to be mined by the villagers as well as others but it ceased due to the fact that the buyers (mainly Brazilians) claimed that it is not of good quality. So today the area has been re-covered by the forests. The only evidence of human contact is a couple of prospecting pits and old camp frames. According to the team the area was last visited about 6 years ago.

Along the Mara Creek materials for village projects are cut. At present the village is engaged in a massive fencing project of the farm areas. This has put a heavy demand on the Red Wood (Paurine) and Wichibai wood that are very strong fence posts. However in many of the



Balata tree

According to information from the participants the areas are now only visited for special occasions like Christmas, August and Heritage celebrations.

TEAM C

**Lloyd Ramdin (CI)
Maurice Adolph Jr.
Ronald Ignacio
Deryk Adolph
Rudolph Adams**

AREAS COVERED

The furthest point visited by the team was **Arrow Creek Head**, which is approximately 11 miles from the village. Other areas that were visited by the team include the **Dragon Hole** in Arrow creek, **Calabash creek mouth** (N03.16184, W059.72116), **Mountain Peak** (N03.18390, W059.73479) and **Caterpillar Mountain**.



Arrow Falls

OBSERVATION

These areas where the team visited are mainly used for gathering and hunting. During the rainy season when the creeks are high some amount of fishing is being done but because of the difficulty to access the area it is mainly in the dry season that these places are visited.

The creeks are used as tracks due to the high growth of the forest. In the rainy season villagers have to contend with water levels that range from between 5-15 feet.



House Lake a vital resource use area for fishing, especially during the rainy season

There are numerous varieties of housing materials including; cocorite leaves, etc leaves, wattles etc. which were found along the route. It was observed that the forest is in near pristine condition, since no farming, logging, mining, etc. is done in the area.

Other than hunting and some amount of gathering, the areas are intact.

Several species were observed during the fieldwork including; bush cow, tapir,

armadillo, turtle, powis and hogs. The gathering resources included balata, housing material, wattles and wild fruits.

There were no threats, either observed or reported by the team, to the area.



An aerial view of the savannah

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.

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

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

The information presented in this section is the result of the work recorded by the “bush teams”.

The results of the geo-referencing exercise are shown in this section of the report. The information is presented in the forms of bar graphs. The graphs are used to show the main threats to the area visited, as well as the intensity and quality of use of all categories of resource use. Each graph is followed by a description of the information that is represented on the graph.

DATA SUMMARY

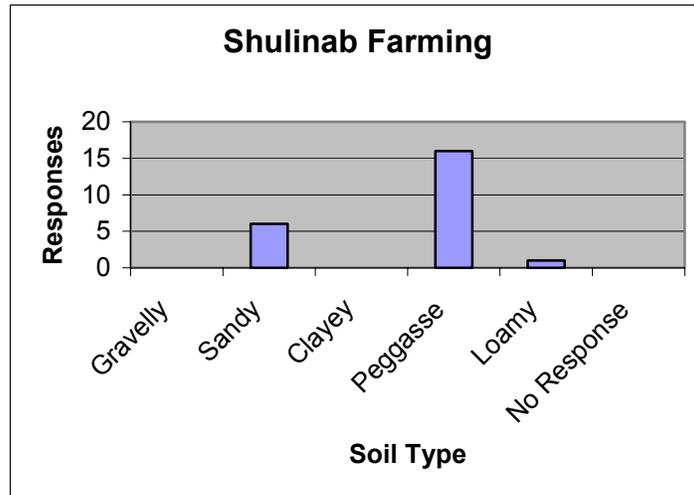
In total ninety-six (96) waypoints were taken. The following is a summary of the waypoints in each category

- **Farming** **23**
- **Hunting** **34**
- **Fishing** **20**
- **Gathering** **19**

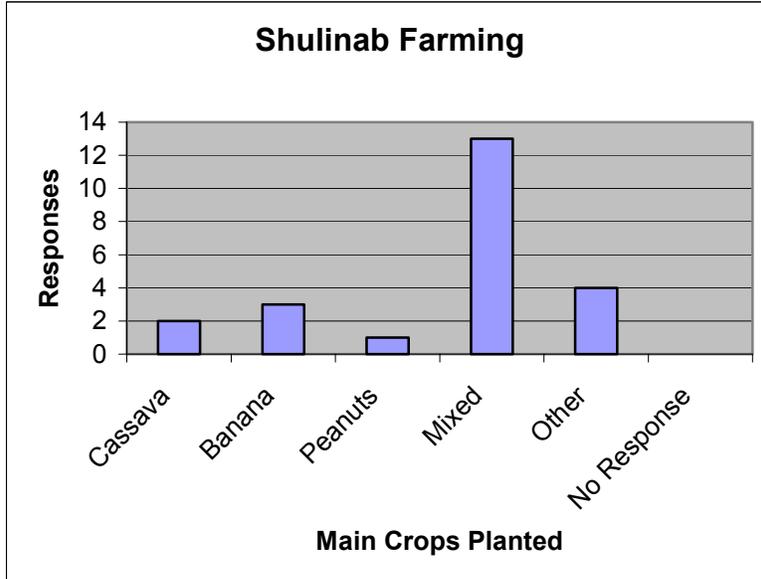
FARMING DATA RESULTS

QUALITY

The soil type in the majority of farming areas visited was pegasse (16). See graph

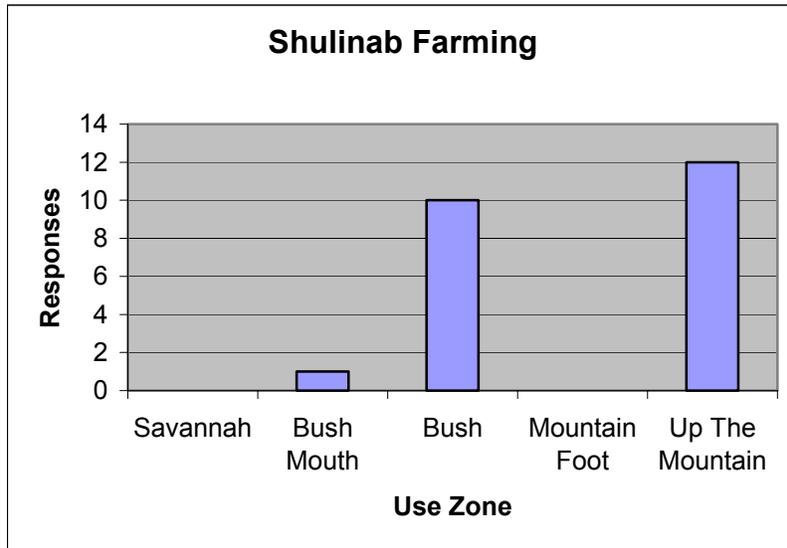


The crops planted on the farms are mainly mixed crops (13). See graph.

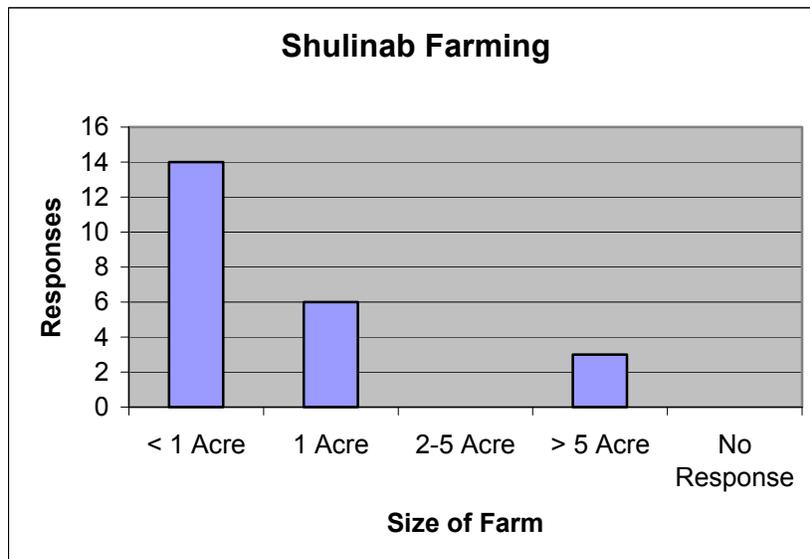


INTENSITY

The farms that were visited are concentrated up the mountain (12) and in the bush (10). See **graph**. Seventeen of the farms visited were actively used, four were fallow and two were abandoned.

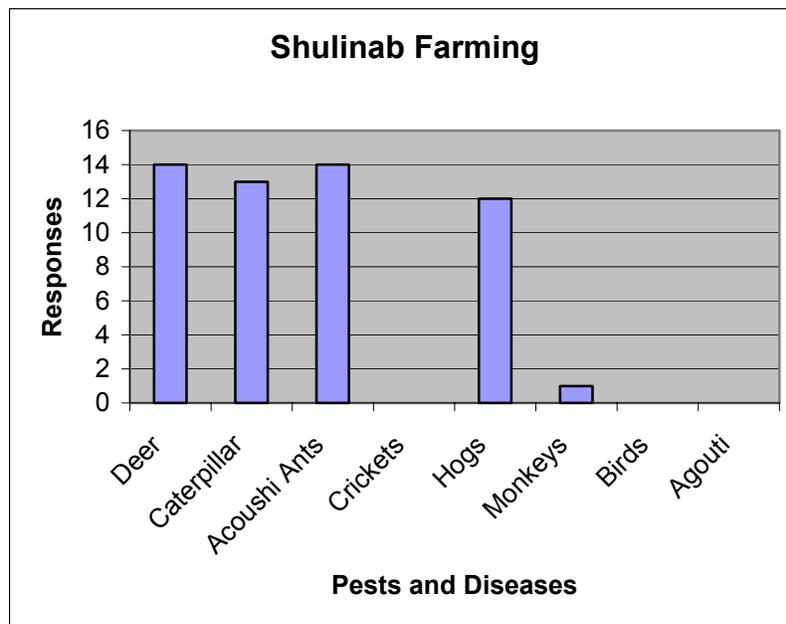
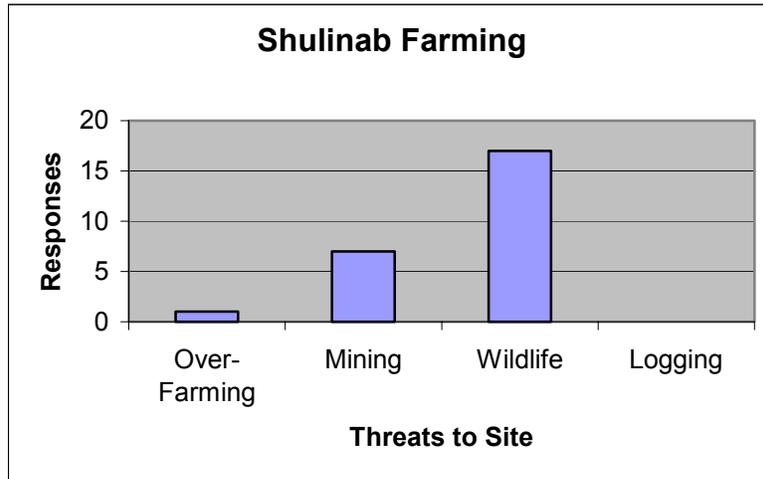


The farms are mainly less than one acre (14) See **graph**. Twenty-two of the farms visited were for domestic consumption only.



THREATS

There were several threats to the farms: wildlife (17), mining (7) and over farming (1). **See graph.** A broad number pests and diseases affect the crops: acoushi ants (14) deer (14) and caterpillar (13) **See graph.**

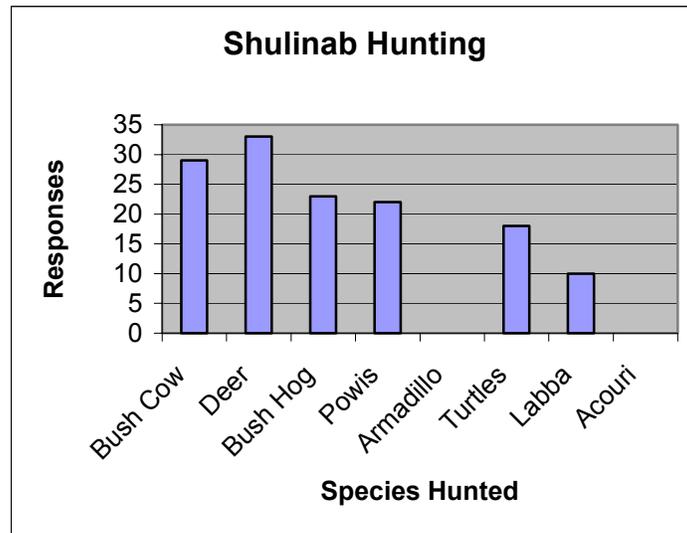


HUNTING DATA RESULTS

QUALITY

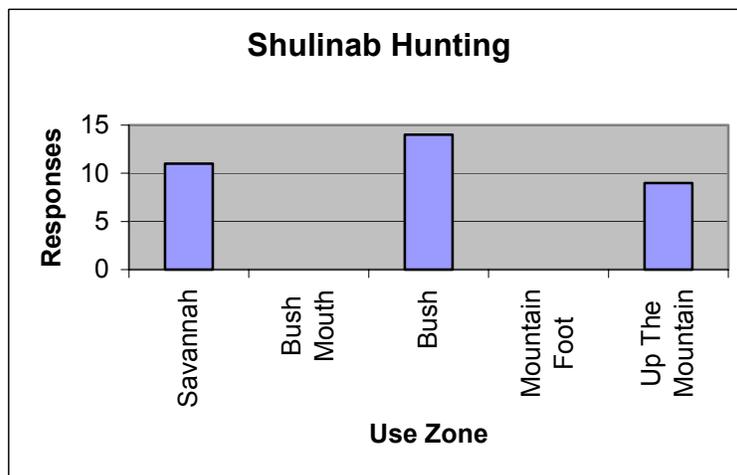
The quality of the hunting resources is considered to be excellent (24) and good (8). There was one site where the resource condition was entered as poor.

The games that are hunted were entered as deer (33) bush cow (29) bush hog (23) and powis (22). See graph

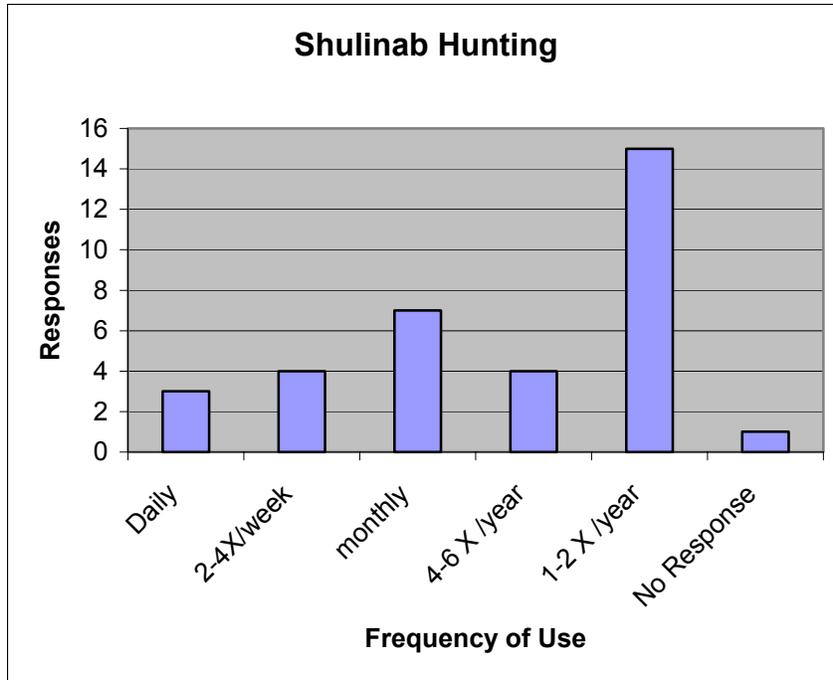


INTENSITY

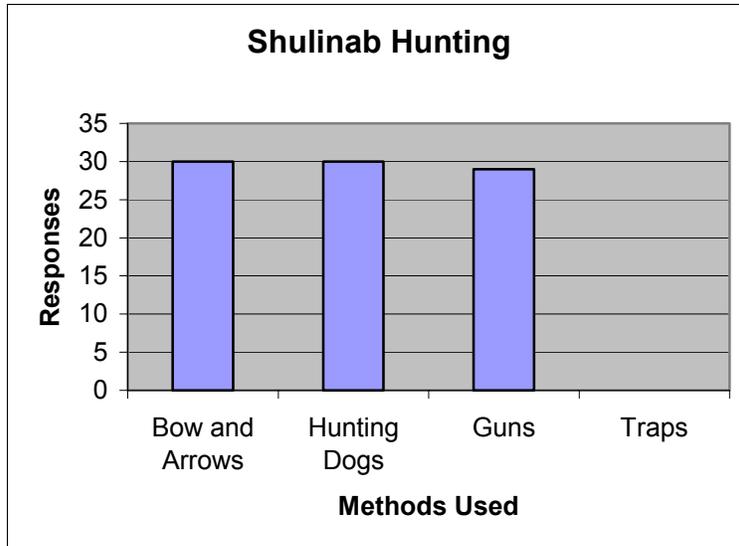
The areas that were visited are spread out in the bush (14), savannah (11) and up the mountain (9) see graph. All of the sites that were visited are actively used.



Hunting is done in these areas primarily 1 – 2 times a year (15), and to a lesser extent 4 – 6 times per year (4), and 2 – 4 times per week (4). See **graph** the number of game taken is usually less than three (30). All of the sites are used for domestic purposes only.

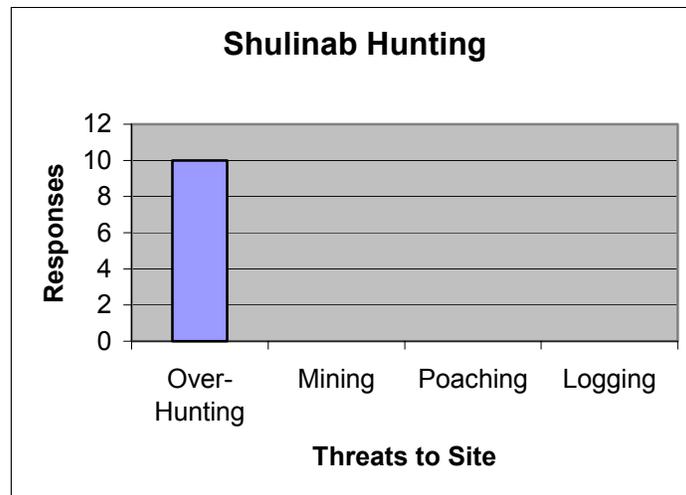


Hunting is done using both traditional and modern methods: bow and arrows (30), hunting dogs (30), and guns (29). See **graph**



THREATS

Over hunting is a threat to ten of the sites that were visited.

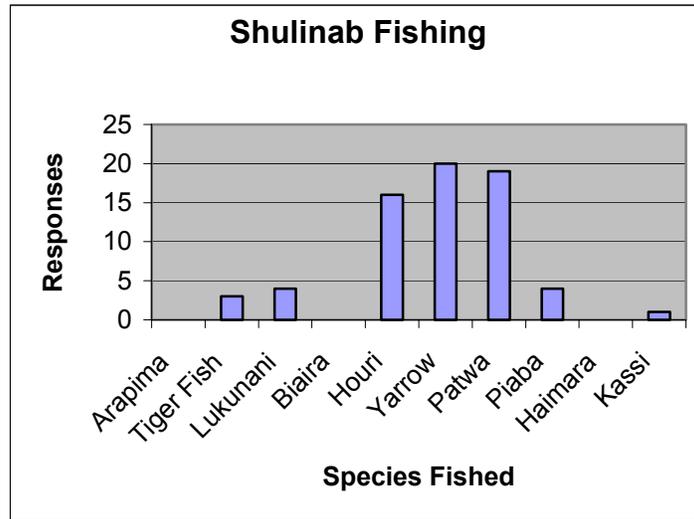


FISHING DATA RESULTS

QUALITY

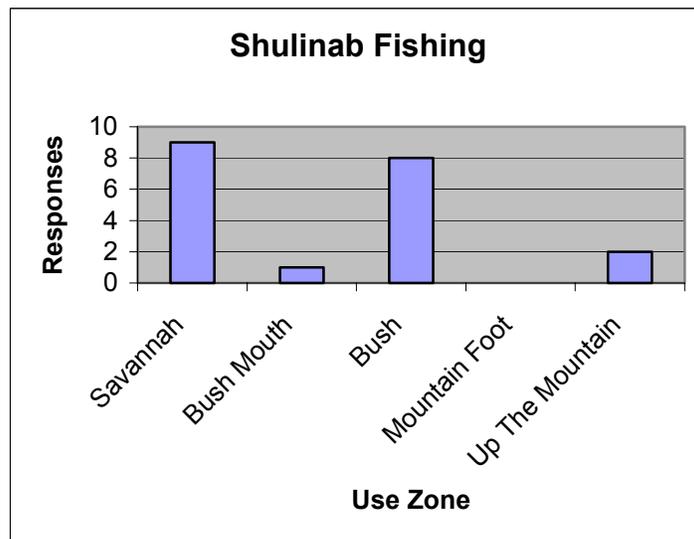
The condition of the fishing resources was considered to be excellent (18) and good (2).

The resources that are caught are yarrow (20) patwa (19) and houri (16) see **graph**.

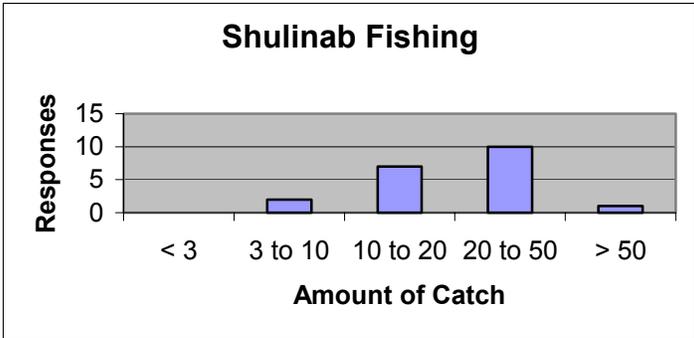
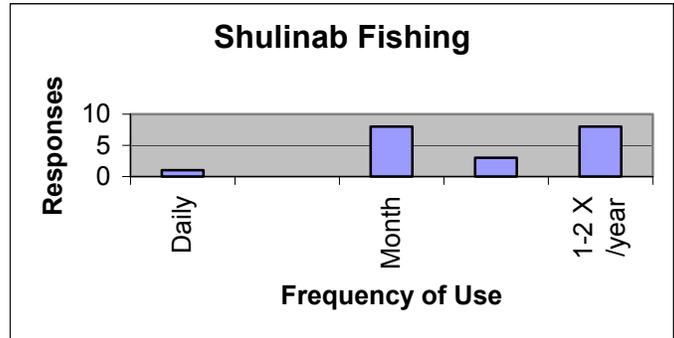


INTENSITY

Waypoints were collected mainly in the savannah (9) and bush (8) areas. **See graph**. All of the sites visited were active.



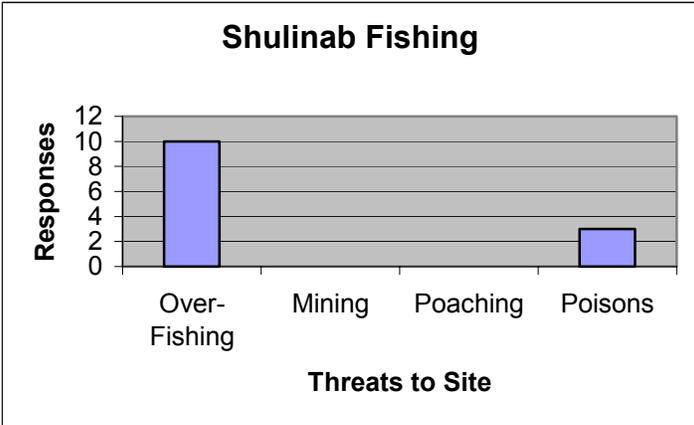
The main methods used for fishing were bow and arrows (19) hook and line (19) cast nets (16) and poisoning (13). Most fishing at the sites is done 1 – 2 times a year (8) and monthly (8). See **graph**. The catch is usually between 20 – 50 (10) see **graph**.



All of the sites are used for domestic purposes only.

THREATS

There were two threats entered - over fishing (10) and poisoning (3).

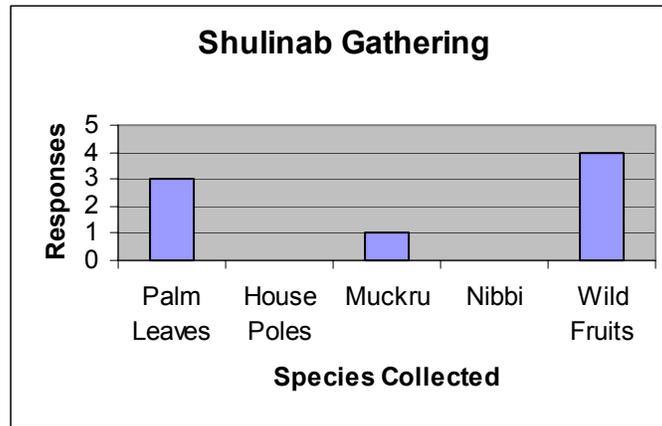


GATHERING DATA RESULTS

QUALITY

The gathering resource condition was recorded as being “good” (9) and “excellent” (6). At one site the resource condition was recorded as poor.

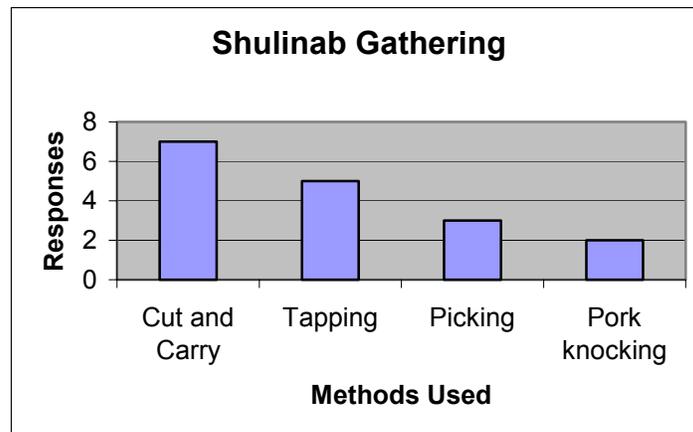
The resources collected are wild fruits (4) palm leaves (3) and muckru (1). **See graph**



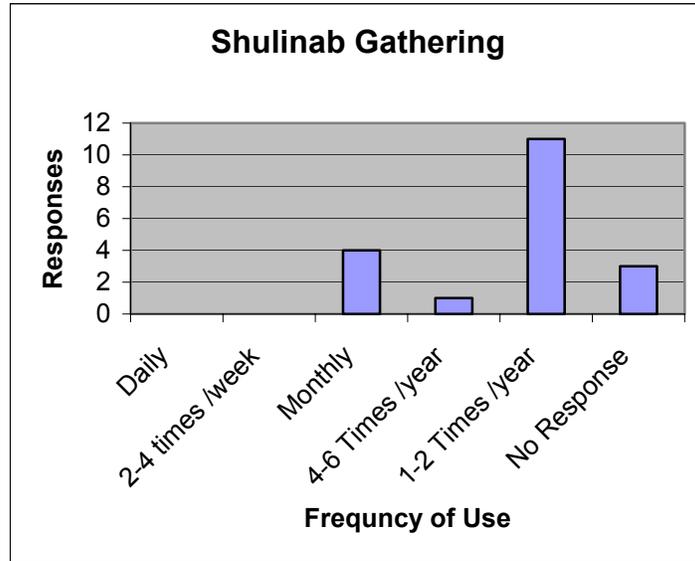
INTENSITY

The gathering sites that were geo-referenced were spread out, with points recorded up the mountain (9) in the savannah (4) and in the bush (5). Sixteen of the sites visited were active and three were inactive.

Cut and carry (7) tapping (5) picking (3) and pork knocking (2) **see graph** are the methods used in these areas.

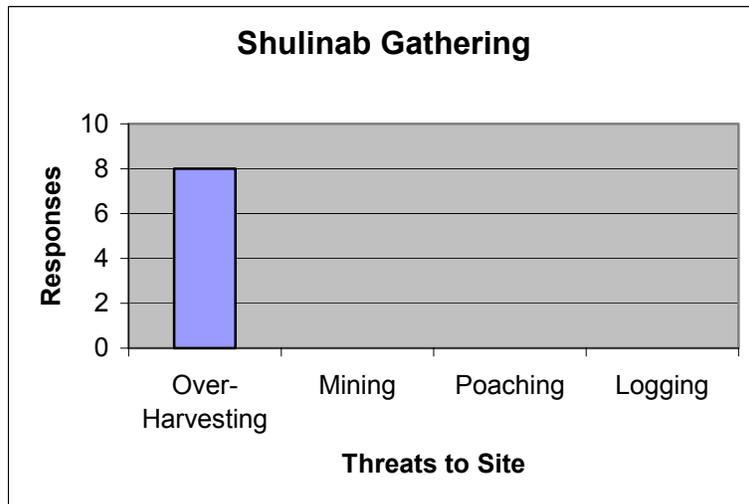


Gathering is done mainly done 1 – 2 times per year (11) **See graph**. Eleven (11) of the entries were used for domestic purposes, five (5) for sale, and one for both sale and domestic use.



THREATS

Over- harvesting is the only threat that was recorded (8) at the sites. **See graph**



VILLAGE SURVEYS

INTRODUCTION

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

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

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



Participants sharing information about protected areas

The Village Team



HUMMING BIRD

Natalie Victoriano (CI)
Deryk Adolph
Joseph La Rose
Imelda James
Thaddeus Paulo

INTRODUCTION

The Village Team's work benefited from a very well organized and enthusiastic group.

The group worked together to sketch out the village map and to identify the households to be visited in Shulinab, Meriwau and Quiko.

The group divided themselves into three teams, Hummingbird, Kanuku Bell Bird and Shiriri.

The participants were very active in organizing the survey and both informing and interviewing villagers. The village team also

benefited from the presence of the coordinators, Thaddeus Paulo and Maurice Adolph who assisted in translation.

The Village Survey was successful in obtaining a sizable number of households. In total thirty surveys were obtained from the three villages. This represents a sample of 25.5% of the estimated 85 households.

The Village Team



SHIRIRI

Esther McIntosh (CI)
Margaret Pieters
Julie Paulo
Alan Fredericks

OBSERVATION

The communities were well aware of the process and CI role and were more concerned about the PA and their land issues.

The purpose of the survey was explained at every house that was visited so that it was clear. In general the villagers were very welcoming.

There were some apprehensive people among the interviewees. This was because of negative information that was circulating about CI and its work.

People were very receptive to having well-explained information.

Apart from the land issue another concern that was raised was why didn't CI include the entire region in the consultation. It was felt that because the Kanukus is in Region Nine CI should consult with the whole region.

The Village Team



KANUKU BELL BIRD

Margaret Gomes (CI)

Dorothy Augustin

Joan Stephen

Stephen Ignacio

In general, the community had a good level of understanding about the process. There were also participants who really saw a lot of value in the survey and the need to conserve resources.

At the end of the workshop the majority of persons who had been interviewed attended the closing meeting.

VILLAGE SURVEY DATA RESULTS

INTRODUCTION

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

For many people in the community, it was the first time that they had taken part in a Resource Use survey of this type. As a result they were asked to respond to questions and sections with which they felt most comfortable. In some cases, for example, women did not feel comfortable to answer questions as related to hunting even though they may accompany their husbands and actively hunt. Therefore the number of responses in some sections may vary.

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

PROFILE

THE ARTISTS WHO CREATED THE MASTER RESOURCE USE MAP

Whilst the "Village Team" was out doing surveys and collecting stories from the village, Touchau Willie Clement and Alfred Fredericks 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.

The men were very dedicated and took about four days to complete the map, which was left in Shulinab.



Fred receiving some assistance with the map

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

VILLAGE SURVEY DATA SUMMARY

In total thirty-six (36) surveys were collected. The following is a summary of all the data that was collected in each of the three resource categories:

- **Farming** 34
- **Hunting** 5
- **Fishing** 25
- **Gathering** 20

FARMING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55	Not Stated
4	6	12	10	2

Gender

Male	Female
24	10

INTENSITY

During the village survey, most people who were interviewed said that they farm mainly in the bush mouth area (26). Farms are also located up the mountain (8), at the mountain foot (3), in the deep bush, in the savannah, and the bush (3) each. **See table**

Where is your farm?

Savannah	Bush	Bush Mouth	Deep Bush	Mountain Foot	Up the Mountains
2	2	26	2	3	8

Most people said that they visit their farms every day (24). **See table**

How often do you visit your farm?

Daily	2 x Week	3 x Week	4 x Week	Weekly	Monthly
24	0	1	0	3	1

The size of their farms are mainly less than one acre (18) and to a lesser extent 1>2 acres (9) and 2-4 acres (7). **See table** The crops from the farms are mainly used for both domestic use and for sale as eighteen (18) persons said. Another thirteen (13) stated it was used for domestic use only and two (2) persons use their crops for sale only.

How big is your farm?

< 1 Acre	1>2 Acre	2-4 Acre	5 Acre and more
18	9	7	0

THREATS

Acoushi ants (32) were felt to be the main threat to farm crops. Other threats listed were wild animals (24), birds (8), domestic animals (6), caterpillar (4), monkey and the weather (3) each, weed (2) and fire (1). **See table**

What are the threats to your crops?

Wild animals	Acoushi ants	Weather	Caterpillar	Weed	Monkey	Domestic animals	Fire	Birds
24	32	3	4	2	3	6	1	8

HUNTING DATA RESULTS

INTERVIEWEES INFORMATION

Age

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

Gender

Male	Female
4	1

QUALITY

All five (5) persons who responded in this section said that they felt that they had to go further to hunt than they had done in the past. Three (3) persons said that there had been a change in the availability of resources. It was commented that the increase in the population was causing the change in resource availability and the destruction caused by fire.

Has there been a change in the availability of resources?

Yes	No	No Response
3	0	2

INTENSITY

Four persons said that they hunt mainly up the mountain, which supports the answer that they had to go further than they did in the past.

Hunting is done using bow and arrows (3) and guns (1). As the table below shows it is an activity that is done at various times. Some persons said daily, weekly and yearly (1) each. **See table** The game that is caught is used mainly for domestic purposes only (2).

How often do you hunt?

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

THREATS

There were several threats to the game that the villagers hunted: over hunting (2), fire and the weather (1).

What are the threats to your hunting resources?

Over-Hunting	Mining	Weather	New Methods	Fire	Population	No Response
2	0	1	0	1	0	1

FISHING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55	Not Stated
3	6	8	7	1

Gender

Male	Female
23	2

QUALITY

Twenty (20) persons who responded in this section said that they felt that they had to go further to fish than they had done on the past. Eight (8) persons felt that there had been a change in the availability of resources.

Has there been a change is the availability of resources?

Yes	No	No Response
8	0	17

INTENSITY

Fishing is concentrated mostly in the areas of the savannah and up the mountain (6). Other areas stated were at mountain foot, in the bush, at the bush mouth, in the deep bush and other (1). **See table**

Where do you fish?

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
6	1	1	1	6	1	1	8

Fishing is done using the following methods: hook and line (23) and seine (21) cast nets (17), bow and arrows (12) and poisoning of fish (3). Fishing is done regularly: either daily (9) or weekly (3). Some people also said that they fish “once in a while” and “when necessary” which is captured in the “other” response box. **See table** The fish that is caught is mainly used for both domestic use and for sale (13) or for domestic use only (11).

How often do you go fishing?

Daily	2 x wk	Weekly	2 x Monthly	Monthly	Seasonally	Other
9	1	3	0	1	3	8

THREATS

The major threat to fishing sites was felt to be the weather (15). Poison (5), fire (4), population increase (2), new methods of fishing (2) and over fishing (1) was also listed.

What are the threats to your fishing resources?

Weather	Poison	Population	New Methods	Over fishing	Fire	Other
15	5	2	2	1	4	5

GATHERING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55	Not Stated
2	6	8	3	1

Gender

Male	Female
18	2

QUALITY

One person who was interviewed said that they felt that they had to go further to gather materials that they had done in the past. Some people commented that the reason for this was the increase in the population, new methods are being use and that housing materials can no longer be found close to the village. One persons also said that because resources are less s/he has to go further into the bush.

INTENSITY

Gathering is done in several areas including: in the bush mouth (6) at the mountain foot (5) and up the mountain (6). **See table**

Where do you gather?

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	No Response
1	6	1	5	6	0	1

Gathering is done mostly when necessary, every 3 years or every five years. The materials collected are mainly used for domestic purposes (11). Another seven (7) persons said that it is used for both domestic use and for sale. **See table**

How often do you gather?

Daily	Weekly	Yearly	Every 5 Years	Every 2 years	Seasonally	Other	No Response
0	0	4	2	0	1	12	1

THREATS

The major threats to gathering resources were felt to be fire (10) and population increase (8). The weather and the clearing of land (1) were also given as responses.

What are the threats to your gathering resources?

Clearing land	Weather	Population	Fire	Other	No Response
1	1	8	10	2	2

CLOSING ACTIVITIES

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

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



School interaction during the CRE



Br. Stephen reports on the village work

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



CRE certificate presentation

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A participant retraces the route taken during the midway bush trip

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 create an understanding of:

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

Shulinab is located about three miles from the mountains, these communities are situated at the southwestern section of the Western Kanuku Mountain Range, and are the entry point to the other communities located in the south. For the purpose of this report these three communities will be considered as one since both Quiko and Meriwau are part of the administrative village of Shulinab. At the leadership's request, the CRE workshop combined all three villages into one exercise. Shulinab Village center was geo-referenced at 3.006939°N and 59.71333°W, Quiko at 3.07963°N and 59.74595°W, and Meriwau at 3.05280°N and 59.67294°W.

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

- (a) **Farming**
- (b) **Hunting**
- (c) **Fishing**
- (d) **Gathering**

RESOURCE USE PROFILE

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. Savannah areas covered in Shulinab were: **House Lake, Shulinab Creek, Warupu, Purple Island**. All of these sites were situated in the high land savannah area that juts into the western Kanukus northeast of Shulinab Village.

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. Examples visited are **Child Foot Creek** and **Twin Creek**.

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. Names of bush area observed during the CRE exercise were: **Saurab Creek, Arrow Creek, Calabash Creek, Mara Creek, and Dragon Falls**.

MOUNTAIN FOOT

This area lies within a mile range before the mountain slopes. The mountain foot areas are very fertile with a cooler climate and very favorable for crops. Communities that are located closer to the mountains prefer to use mainly these areas for farming. From the farms access is gained to the surrounding areas as well as up the mountains for resource use. Access to the mountains requires passage through the mountain foot. Areas such as **Caterpillar Mountain Foot** and **Arrow Creek** were located in this zone.

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 with some amount of gathering carried out at the same time. Some of the places visited within this area are; **Dragon Mountain, Caterpillar Mountain, Purple Rock Area, The old Settlement Area, Sawariwau, Tamandua Creek, Plum Mountain, Peca Eagle Creek, Abuya Creek, Mamouri Creek, Rice Creek, Arrua Creek I and II, Anteater Creek, Hiari Creek, Marsawatta Creek, Old Man Head Creek, Saurab Creek head, and Bamboo Creek**.

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**

Most of the areas visited by the “Bush Teams” were met by forest trails, in distances ranging 11-36 miles to the furthest areas of resource use reached. The bush teams were split into three groups. One team headed in a northeasterly direction from Meriwau Village towards the Rupununi River, with the furthest covering distance being 36 miles up to the Rupununi River at **Salmon Creek Mouth**. The second team leading to a north-easterly direction from Shulinab Village Center covering a distance of some 25 miles to the furthest point being **Purple Rock**. The third team headed to the north-northeast from the small settlement of Midway to the furthest

point identified, that being the **Arrow Creek- Dragon Mountain** area, which is used primarily by the residents of Quiko and Midway settlement.

QUALITY

Most of the areas visited including Farming, Gathering, Hunting and Fishing Sites were considered to be in good condition. The community farms are located mostly along the bush mouth with a few up the mountains and over **Saurab Creek**. According to the data analysis, the resources up the mountains are in excellent condition, the areas that are frequently used for resources are said to be in good condition.

From the surveys there is evidence that the gathering resources closer to the village are rapidly dwindling, due overuse and to unsustainable methods of harvesting resources such as the cutting of turo and lou trees to harvest the fruits, so people have to go great distances to hunt and gather. Muckru, nibi, and mamouri were seen in abundance at locations in the **Mamouri and Rice Creek** area (midway into the mountains). The mountains are being used more now for these resources.

Farms are found on flat lands along the bank of the Saurab creek. The banks are low hence flooded during the rainy season. The entire area is old minab or previously farmed land with some areas left fallow, so the soils are poor and some have already become exhausted. Land is being reused more quickly than in the past due to the need to farm closer to the village. Crop production is very poor in these overused areas. Soil types are clayey and sandy soils. A lot of paddy is planted for home use. Also yam tends to flourish wild in the farming lands. Soils in the farming areas up the mountain are very rich and produce good yields.

INTENSITY

	Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain
Farming	0	1	10	0	12
Hunting	11	0	14	0	9
Fishing	9	1	8	0	2
Gathering	4	1	5	0	9

The table above shows the number of sites visited in the different zones during the bush trips for resource use in the four categories. It shows that the bush and up mountain areas had the highest number of places for multiple resource use.

While in the savannahs there was a high amount of sites geo-referenced for hunting, fishing, some gathering but no farming since the soils are generally considered to be poor in fertility. The savannah area of Shulinab is high savannah land located in the mountains so is an excellent hunting ground for deer.

In the bush mouth only a few spots were geo-referenced to locate the area, however this area is one of the most heavily used due to its close proximity to the village. Due to over use certain

resources have been greatly reduced such as games hunted. As indicated by the table, no hunting sites were recorded. This has put more pressure on the other areas, but as use moves away from the Bush Mouth area, there are many different use sites in a large area, reducing pressure on any one place.

The table also shows that farms also exist in the bush and mountain areas. Only one farm reading was taken in the bush mouth to locate the area, however farms are clustered all along the Bush mouth area, and into the bush, where more sites were geo-referenced. Most of the daily farming activity is carried out in the bush mouth and bush areas. Several mountain farms of Shulinab were inactive or abandoned when the village relocated from the mountains to the present savannah location.

At one of the furthest points visited, Shulinab and Meriwau share use of the Salmon Creek mouth area with the village of Sand Creek, located on the opposite bank of the river. Although both communities hunt, fish and gather here, it is only visited 2-3 times per year because access during the rainy season is difficult due to flooding.

There is heavier use of timber resources developing, especially because of the presence of persons with power saws. Firewood is gathered closer to the community for ease of transportation, putting further pressure on these near areas.

Traditional pork knocking is done in the Tamandua Creek up Saurab head in the mountains on a small scale. Another specific area is the Purple Rock area. Here, the semi-precious stone, amethyst, can be found. It used to be mined by the villagers as well as others but these activities ceased because the buyers (mainly from Brazil) claimed that the stones were not of good quality. So today the area is partially covered by the forests. The only evidence of human contact is a couple of prospecting pits and old camp frames. According to the bush team, the area was last visited about 6 years ago.

The creeks (upper Saurab) are used most heavily for fishing during the dry season. This is when the water level is low and transparent, which is suitable for diving with facemasks (a new method now in use to catch fish). Another popular fishing area is at a pond called House Lake.

THREATS

The threats that were recorded were forest fires, population growth and unsustainable methods of harvesting of resources such as cutting down of trees for their fruits especially for turo/lou. The growth of the population has contributed to the difficulty in acquiring resources. Acoushi ants, wild hogs for cassava crops, birds and monkeys for corn and banana crops, threatened all areas where farming occurred.

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
FS	SH	3.14686	59.67497	House Lake	Savannah
FS	SH	3.15205	59.67272	House Lake Savannah	Savannah
FS	SH	3.13386	59.67339	House Lake Savannah	Savannah
FS	SH	3.17588	59.63171	Purple Island	Savannah
FS	SH	3.16007	59.65598	Saurab above Falls	Savannah
FS	SH	3.09629	59.69068	Shulinab	Savannah
FS	SH	3.18514	59.6251	Warapota Island	Savannah
FS	SH	3.1884	59.6222	Warapota Savannah	Savannah
FS	SH	3.19209	59.63621	Whini Landing	Savannah

Site Type	Village	° North	° West	Area Name	Zone
G	SH	3.14377	59.67904	House Lake	Savannah
G	SH	3.13317	59.67335	House Lake Savannah	Savannah
G	SH	3.14482	59.6758	Saurib Top Side	Savannah
G	SH	3.09972	59.65825	Shulinab	Savannah
H	SH	3.13343	59.77319	Caterpillar Mountain	Savannah
H	SH	3.14686	59.67497	House Lake	Savannah
H	SH	3.15205	59.67272	House Lake Savannah	Savannah
H	SH	3.13386	59.67339	House Lake Savannah	Savannah
H	SH	3.17588	59.63171	Purple Island	Savannah
H	SH	3.16007	59.65598	Saurab above Falls	Savannah
H	SH	3.06636	59.71531	Savannah	Savannah
H	SH	3.09629	59.69068	Shulinab	Savannah
H	SH	3.18514	59.62519	Warapota Island	Savannah
H	SH	3.1884	59.62229	Warapota Savannah	Savannah
H	SH	3.19209	59.63621	Whini Landing	Savannah
F	SH	3.05235	59.6361	Twin Creek	Bush Mouth
FS	SH	3.04851	59.64849	Child Foot Creek	Bush Mouth
G	SH	3.12975	59.67405	Saurib Creek	Bush Mouth
F	SH	3.17563	59.73742	Arrow Creek Camp	Bush
F	SH	3.16184	59.7116	Calabash Creek Joined to ArrowCreek	Bush
F	SH	3.16406	59.72309	Calabash Creek Mouth	Bush
F	SH	3.17526	59.73769	Rudolph Adams Farming Ground	Bush
F	SH	3.12115	59.67743	Saurab	Bush
F	SH	3.12321	59.67635	Saurab	Bush
F	SH	3.11993	59.67941	Saurab	Bush
F	SH	3.120777	59.67815	Saurib	Bush
F	SH	3.05713	59.63114	Shaa Creek	Bush
F	SH	3.09972	59.63524	Shulinab	Bush
FS	SH	3.17563	59.73742	Arrow Creek Camp	Bush
FS	SH	3.14379	59.75681	Calabash Creek	Bush
FS	SH	3.16184	59.7116	Calabash Creek Joined to ArrowCreek	Bush
FS	SH	3.11021	59.68028	Marra Creek	Bush
FS	SH	3.12732	59.67503	Marra Creek Head	Bush
FS	SH	3.17526	59.73769	Rudolph Adams Farming Ground	Bush
FS	SH	3.12007	59.67931	Saurab	Bush
FS	SH	3.17894	59.4072	Turtle Pool	Bush

Site Type	Village	° North	° West	Area Name	Zone
G	SH	3.12978	59.67403	Arrow Creek	Bush
G	SH	3.17563	59.73742	Arrow Creek Camp	Bush
G	SH	3.16184	59.7116	Calabash Creek Joined to ArrowCreek	Bush
G	SH	3.11	59.68043	Morra Creek	Bush
G	SH	3.17526	59.73769	Rudolph Adams Farming Ground	Bush
H	SH	3.17563	59.73742	Arrow Creek Camp	Bush
H	SH	3.16406	59.72309	Arrow Creek Edge	Bush
H	SH	3.14379	59.75681	Arrow Creek Head	Bush
H	SH	3.14379	59.75681	Calabash	Bush
H	SH	3.14379	59.75681	Calabash Creek	Bush
H	SH	3.16638	59.7445	Calabash Creek (mouth enters Arrow Creek)	Bush
H	SH	3.16184	59.7116	Calabash Creek Joined to ArrowCreek	Bush
H	SH	3.16184	59.72116	Dragon Falls Arrow Creek	Bush
H	SH	3.11021	59.68028	Marra Creek	Bush
H	SH	3.12732	59.67503	Marra Creek Head	Bush
H	SH	3.16184	59.72116	Old Farm Ground	Bush
H	SH	3.17526	59.73769	Rudolph Adams Farming Ground	Bush
H	SH	3.12007	59.67931	Saurab	Bush
H	SH	3.17894	59.4072	Turtle Pool	Bush
F	SH	3.09005	59.57098	Bamboo Creek	Up the Mountain
F	SH	3.22162	59.61695	Between Saurab and Coranau Creeks	Up the Mountain
F	SH	3.23699	59.60706	Caterpillar Mountain Foot	Up the Mountain
F	SH	3.2277	59.61146	Crawa Area	Up the Mountain
F	SH	3.21844	59.61893	Saurab Creek	Up the Mountain
F	SH	3.22576	59.61354	Saurab Creek	Up the Mountain
F	SH	3.22721	59.62407	Saurb Creek	Up the Mountain
F	SH	3.22	59.62	Top Saurab Creek	Up the Mountain
F	SH	3.22707	59.62453	Top Saurab Creek	Up the Mountain
F	SH	3.22576	59.61354	Top Saurab Creek	Up the Mountain
F	SH	3.22656	59.6275	Top Saurab Creek	Up the Mountain
F	SH	3.22158	59.61741	Top Ssaurab Creek	Up the Mountain

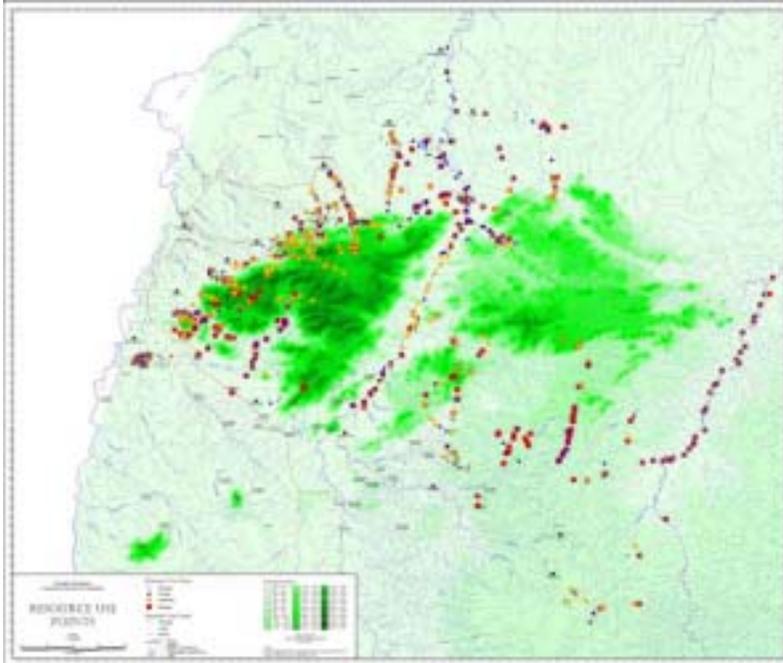
Site Type	Village	° North	° West	Area Name	Zone
FS	SH	3.21552	59.61817	Saarap Top Side	Up the Mountain
FS	SH	3.19317	59.62396	Saurab Falls or Patwa Falls	Up the Mountain
G	SH	3.1839	59.73479	Arrow creek, Mountain Peak	Up the Mountain
G	SH	3.23443	59.5987	Caterpillar Mountain	Up the Mountain
G	SH	3.21386	59.61738	Kumaka Hill	Up the Mountain
G	SH	3.22576	59.61354	Locust Creek Mouth	Up the Mountain
G	SH	3.22682	59.57544	Purple Rock	Up the Mountain
G	SH	3.22764	59.62855	Sawarawau	Up the Mountain
G	SH	3.22855	59.63442	Sawarawau	Up the Mountain
G	SH	3.22781	59.63232	Sawarawau	Up the Mountain
G	SH	3.23066	59.61019	Shiswana	Up the Mountain
H	SH	3.1839	59.73479	Arrow Creek, Mountain Peak	Up the Mountain
H	SH	3.18049	59.74403	Arrow Falls Creek	Up the Mountain
H	SH	3.14379	59.75681	Caterpillar Mountain	Up the Mountain
H	SH	3.23706	59.60674	Catterpillar Mountain Top	Up the Mountain
H	SH	3.18198	59.73575	Marudi Mountain Trail	Up the Mountain
H	SH	3.07495	59.59231	Plum Mountain	Up the Mountain
H	SH	3.07586	59.58876	Plum Mountain	Up the Mountain
H	SH	3.21552	59.61817	Saarap Top Side	Up the Mountain
H	SH	3.19317	59.62396	Saurab Falls or Patwa Falls	Up the Mountain

THE RESOURCE SITE MAPS

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

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

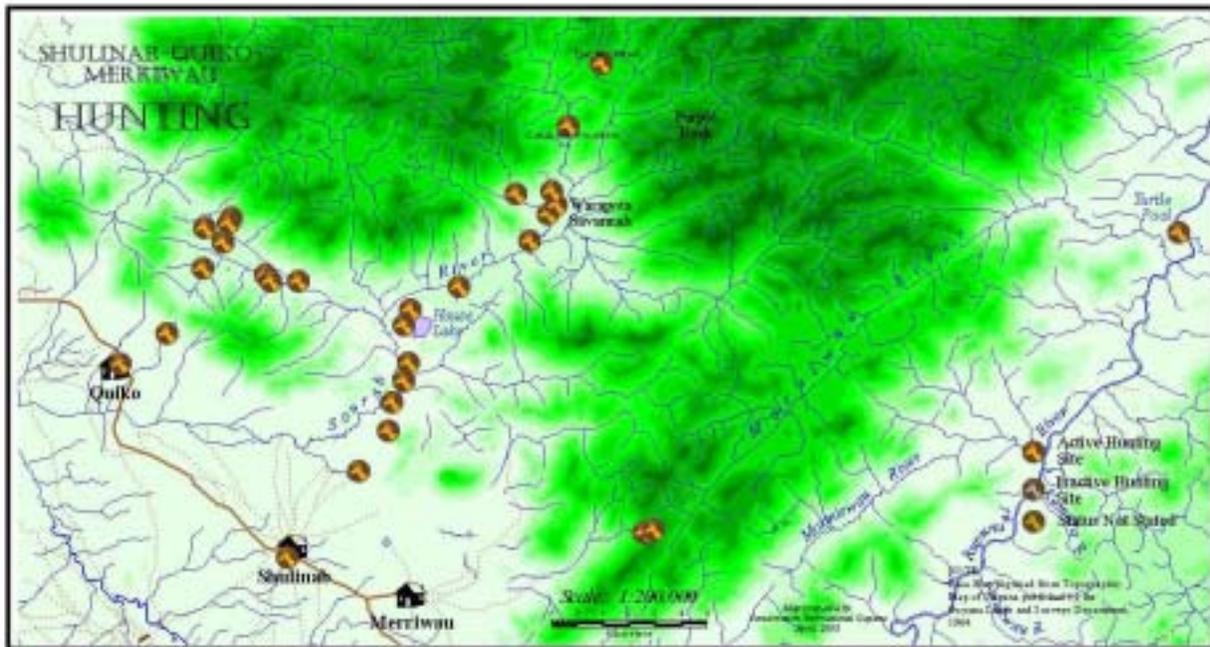
There is a separate map for each resource category as well as a combined map that has all the readings taken during the CRE. It is important to remember, when viewing the maps, that they represent only a record of sites observed during specific trips made during the CRE. These maps do not show every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



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

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

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





**Kanuku Mountains
Community Resource Evaluation
SHULINAB-QUIKO-
MERRIWAU
RESOURCE POINTS**

Scale: 1:200,000



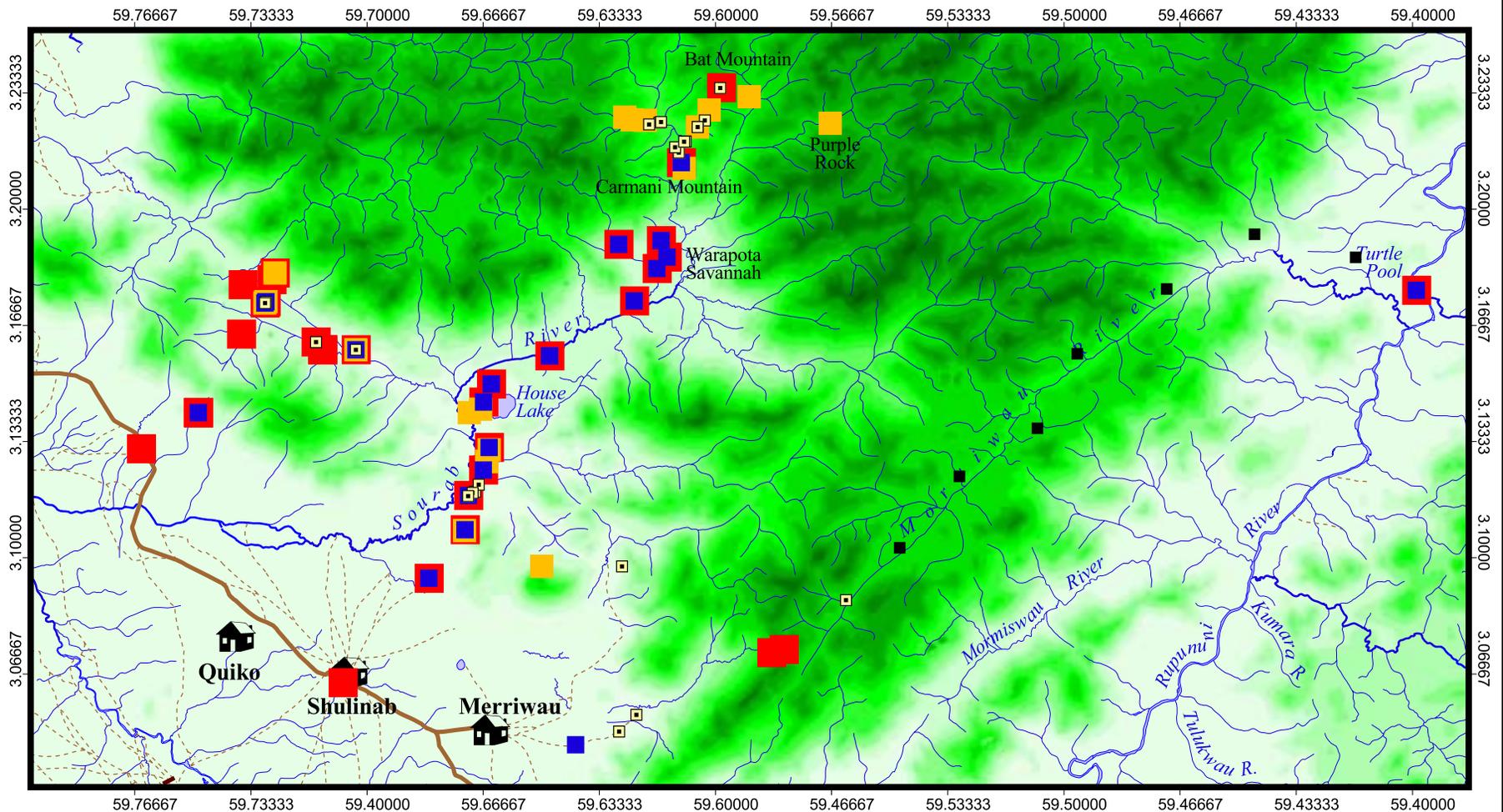
- Farming
 - Fishing
 - Gathering
 - Hunting
 - Airstrips
 - Trails
 - Roads
 - River
 - Island
 - Main Creek/River
 - Secondary Creek/River
 - Lake
- Approximate route of team from Merriwau to Turtle Pool

Elevation (feet)

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

Map prepared by
Conservation International Guyana
April, 2003

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



CONCLUSION



Reviewing the resource points on the small maps, Quarrie

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

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.



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	<u>A.M</u> ☞ 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	<u>A.M.</u> ☞ Introductions ☞ Community Participation ☞ Creating Resource Focus Groups <u>P.M</u> ☞ Creating Resource List: <i>The What</i>
Day 4	<u>A.M.</u> ☞ Seasonal Resource Use Calendar: <i>The When</i> ☞ The Village Resource Use Sketch Map: <i>The Where</i> ☞ Discussion: Resource Use Methods, Availability and Threats: <i>The How</i> ☞ Group Presentations
Day 5	Activity Break
Day 6	<u>A.M.</u> ☞ 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 <u>P.M.</u> ☞ Bush Team: Prepare for Departure
Day 7	Village Team: <u>A.M.</u> ☞ Bush Team Departs ☞ Village Team <ul style="list-style-type: none"> ○ Prepare for surveys ○ Create Village Map ○ Review survey
Day 8	<u>A.M.</u> ☞ 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

Andrew Demetro (Indigenous Knowledge Advisor):

Andrew Demetro is from the village of Nappi where he served as Touchau for 8 years. He has been working with CI-Guyana for more than ten years.

During the CRE he served as:

- Co Facilitator
- Interpreter
- Bush Team Leader
- Lead Advisor-Bush Teams
- Lead Indigenous Advisor-Planning Team

Andrew served as co-lead facilitator for CRE activities, as lead for the Bush Fieldwork, and as Macushi interpreter. As a Bush Team Leader, during the CRE activity Andrew participated in 9 CRE's and served as lead implementer for three additional data gathering field exercises. He has led 9 Bush Team trips of approximately 600 miles and 41 days duration. As a member of the technical team in the Lethem office, Andrew advises on community relations and methodology design for community activities. New skills acquired:

- Methodology design
- Facilitation
- Training
- Use of GPS and Digital Photography

Nial Joseph (GIS/IT Technician):

Nial is originally from St. Ignatius but lives in Lethem. He has been working with CI – Guyana for two years.

During the CRE his role was as:

- IT and GIS Technician
- Overall Field Technical Lead-Responsible for all technical equipment
- Technical Lead for Team
- Facilitator
- Bush Team Leader

Nial has participated in 10 CRE's. His role for Team A includes:

- Focus group leader
- Bush Team leader.
- Facilitator for Mapping Mini lecture and GPS training
- Technical lead (responsibility for equipment, video shows, photo management, onsite design and presentation of closing photo show)

Nial is responsible for all GIS work related to the CRE fieldwork. He is responsible for downloading all waypoints from GPS units, maintaining files and liaising with the GIS specialist in Georgetown. Nial manages the mapping software and the flow of data to and from Georgetown.

Responsibilities also include issuing of all equipment in preparation for each CRE activity. Nial has acquired skills in MS Word, PowerPoint, Arc View, OziExplorer, and Camedia Photo Management, in addition to technical skills in IT support. Nial trained both in Georgetown, Lethem, and Washington, DC as IT support for all computer equipment in the Lethem office.

Nial led 9 Bush Team trips with over 45 participants and 35 days duration covering over 600 miles.

Lloyd Ramdin (Agriculture Advisor):

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

During the CRE he worked as:

- Bush Team Leader
- Training
- Materials Manager

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

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

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

Margaret Gomes:

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

During the CRE her role was as:

- Facilitator
- Village Team Leader
- Overall Purchasing Manager

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

- Wapishana interpretation
- Facilitator

- Lead Facilitator Village Team Activities
- Focus Group Leader
- Kitchen Manager (supervising preparation of 300 meals during the activity)

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

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

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

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.

Susan Stone (Program Manager):

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

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

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

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

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 team “B”, 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.

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

HUNTING

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

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

FISHING

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

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

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

GATHERING

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

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

FARMING

Farmer's Name <input type="text"/>		Active <input type="checkbox"/>	Fallow <input type="checkbox"/>	Abandoned <input type="checkbox"/>	Age of Farm <input type="text"/>	Persons Fed <input type="text"/>
---	--	---------------------------------	---------------------------------	------------------------------------	---	---

Method of Extension	Size of Farm	Soil Type	Main Crops Planted
Shifting <input type="checkbox"/> Extension <input type="checkbox"/>	< 1 acre <input type="checkbox"/> 1 acre <input type="checkbox"/>	Gravelly <input type="checkbox"/> Sandy <input type="checkbox"/>	Cassava <input type="checkbox"/> Banana <input type="checkbox"/>
Rotation <input type="checkbox"/>	2-5 acre <input type="checkbox"/> > 5 acre <input type="checkbox"/>	Clayey <input type="checkbox"/> Peggasse <input type="checkbox"/>	Peanuts <input type="checkbox"/> Mixed <input type="checkbox"/>
Other <input type="text"/>		Loamy <input type="checkbox"/>	Other <input type="text"/>

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

Use of Produce	Other
Domestic Consumption <input type="checkbox"/>	
Sale Outside of Village <input type="checkbox"/>	
Both <input type="checkbox"/>	
% Amount sold outside village <input type="text"/>	

Copy of Bush Data Summaries

Farming Summary

Village Shulinab

Total Number of Points 23

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
0	1	10	0	12			

Use Status

Active	Fallow	Abandoned	No Response				
17	4	2	0				

Method of Extension

Shifting	Extension	Rotation	Other	No response			
19	3	0	0	1			

Size of Farm

< 1 Acre	1 Acre	2-5 Acre	> 5 Acre	No Response			
14	6	0	3	0			

Soil Type

Gravelly	Sandy	Clayey	Peggasse	Loamy	No Response		
0	6	0	16	1	0		

Main Crops Planted

Cassava	Banana	Peanuts	Mixed	Other	No Response		
2	3	1	13	4	0		

Use of Produce

Dom. Consmpt.	Sale	Both	No Response				
22	0	0	1				

Threats to Site

Over-Farming	Mining	Wildlife	Logging				
1	7	17					

Pest and Diseases

Deer	Caterpillar	Acoushi Ants	Crickets	Hogs	Monkeys	Birds	Agouti
14	13	14	0	12	1	0	0

Hunting Summary

Village Shulinab

Total Number of Points 34

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
11	0	14	0	9			

Type of Site

Feeding Area	Track	Drinking Pond	Nesting Area	Combined			
8	10	0	0	16			

Use Status

Active	Inactive						
34	0						

Species Hunted

Bush Cow	Deer	Bush Hog	Powis	Armadillo	Turtles	Labba	Acouri
29	33	23	22	0	18	10	0

Methods Used

Bow and Arrows	Hunting Dogs	Guns	Traps				
30	30	29	0				

Frequency of Use

Daily	2-4X/week	monthly	4-6 X /year	1-2 X /year	No Response		
3	4	7	4	15	1		

Amount of Catch

< 3	3 to 10	10 to 20	20 to 50	> 50	No Response		
30	3	0	0	0	1		

Use of Catch

Dom. Consumpt	Sale	Both					
34	0	0					

Threats to Site

Over-Hunting	Mining	Poaching	Logging				
10	0	0	0				

Condition of Resource

Excellent	Good	Poor	Very Poor	No Response			
24	8	1	0	1			

Fishing Summary

Village Shulinab

Total Number of Points 20

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain					
9	1	8	0	2					

Type of Site

River	Creek	Pond	Other						
0	17	1	2						

Use Status

Active	Inactive								
20	0								

Species Fished

Arapima	Tiger Fish	Lukunani	Baira	Houri	Yarrow	Patwa	Piaba	Haimara	Kassi
0	3	4	0	16	20	19	4	0	1

Methods Used

Hook and Line	Poisoning	Cast Net/Seine	Bow and Arrows						
19	13	16	19						

Frequency of Use

Daily	2-4X/week	Month	4-6 X /year	1-2 X /year					
1	0	8	3	8					

Amount of Catch

< 3	3 to 10	10 to 20	20 to 50	> 50					
0	2	7	10	1					

Use of Catch

Dom. Consumpt	Sale	Both							
20	0	0							

Threats to Site

Over-Fishing	Mining	Poaching	Poisons						
10	0	0	3						

Condition of Resource

Excellent	Good	Poor	Very Poor						
18	2	0	0						

Gathering Summary

Village Shulinab

Total Number of Points 19

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
4	1	5	0	9			

Use Status

Active	Inactive					
16	3					

Species Collected

Palm Leaves	House Poles	Muckru	Nibbi	Wild Fruits		
3	0	1	0	4		

Methods Used

Cut and Carry	Tapping	Picking	Pork knocking			
7	5	3	2			

Frequency of Use

Daily	2-4 times /week	Monthly	4-6 Times /year	1-2 Times /year	No Response	
0	0	4	1	11	3	

Use of Collection

Dom. Consumpt	Sale	Both	No Response			
11	5	1	2			

Threats to Site

Over-Harvesting	Mining	Poaching	Logging				
8	0	0	0				

Condition of Resource

Excellent	Good	Poor	Very Poor	No Response			
6	9	1	0	3			

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 Data Summaries

Farming Village Summary

Village Shulinab

Total Number of Points 34

Age

No Response	15-28	29-40	41-55	Above 55			
2	4	6	12	10			

Gender

Male	Female	No Response					
24	10						
71%	29%	0%					

Number of Dependants

Average	Variance	Maximum	Minimum				
5.62	8.12	12	2				

Number of Farms

Average	Variance	Maximum	Minimum				
2.35	1.14	4	1				

Size of Farm

< 1 Acre	1>2 Acre	2-4 Acre	5 Acre and more	Other	No Response		
18	9	7					

Farming Zone

Savannah	Bush	Bush Mouth	Deep Bush	Mountain Foot	Up the Mountains	Other	No Response
1	1	21	2	1	8		

Methods of Transportation

Walking	Bicycle	Bullock Cart		Other	No Response		
22	26	11					

Frequency of Use

Daily	2 x wk	3 x wk	4 x wk	5 x wk	Weekly	Monthly	3 x mth
24		1			3	1	0

Use of Produce

Dom. Consmpt.	Sale	Both	No Response				
13	2	18	3				

Threats to Farms

Wild animals	acoushi ants	weather	caterpillar	domestic animals	monkey	weed	fire	birds
24	32	3	4	6	3	2	1	8

Biggest Threat

Wild animals	acoushi ants	weather	caterpillar	domestic animals	monkey	weed	fire
8	18			1		1	

Hunting Summary

Village Shulinab

Total Number of Points 5

Age

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

Gender

Male	Female	No Response					
4	1						

Number of Dependants

Average	Variance	Maximum	Minimum				
5.8	19.7	12	2				

Frequency of Use

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

Methods Used

Arrow & Bows	Guns	Dogs	Other	No Response	Traps		
3	1						

Hunting Zone

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

Hunting Site

Feeding area	Track	Pond	Creek	Nesting area	Combined	No Response	
					3	2	

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
2	1	1	1				

Threats to Site

Over-Hunting	Mining	Weather	New_Methods	Fire	Population	Tiger	No Response
2		1	0	1			1

Do you Fish Further?

Yes	No	No Response					
5							

Change In Resource availability

Yes	No	No Response					
3		2					

Extinct or Scarce Species

deer	amadillo	labba	turtle	bush hog			
1	2		1				

Fishing Summary

Village Shulinab

Total Number of Points 25

Age

No Response	15-28	29-40	41-55	Above 55			
1	3	6	8	7			

Gender

Male	Female	No Response					
23	2						

Number of Dependants

Average	Variance	Maximum	Minimum				
5.76	8.36	12	2				

Frequency of Use

Daily	2 x wk	3 x wk	Weekly	Monthly	Seasonally	Other	No Response
9	1		3	1	3	8	

Fishing Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
6	1	1	1	6	1	1	8

Fishing Site

River	Creek	Pond	Falls	Combined	No Response		
1	12	1	2	7	2		

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
11		13	1				

Methods Used

Hook and Line	Poisoning	Cast Nets	Bow and Arrows	Seine	Other	New Method	
23	3	17	12	21	3	3	

Threats to Site

Over fishing	Weather	Poison	Population	New_Methods	Outsiders	Fire	Other
1	15	5	2	2		4	5

Do you Fish Further?

Yes	No	No Response					
20		5					

Change In Resource availability

Yes	No	No Response					
8		17					

Extinct or Scarce Species

Arapaima	Tiger Fish	Lukunani	Biara	Hiamara	Other	Arawana	
1	4	3			4	2	

Gathering Summary

Village Shulinab

Total Number of Points 20

Age

No Response	15-28	29-40	41-55	Above 55			
1	2	6	8	3			

Gender

Male	Female	No Response					
18	2						

Number of Dependants

Average	Variance	Maximum	Minimum				
5.85	8.93	12	2				

Frequency of Use

Daily	3 xwk	Seasonally	Yearly	Every 2 yrs	Every 5 yrs	Other	No Response
0	0	1	4	0	2	12	1

Gathering Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
1	6	1	5	6			1

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
11	1	7	1				

Threats to Site

Over-Harvesting	Weather	Population	Fire	Woodants	Clearing land/farms	Other	No Response
0	1	8	10	0	1	2	2

Do you Gather Further?

Yes	No	No Response					
10		10					

Change In Resource availability

Yes	No	No Response					
1		19					

Extinct or Scarce Species

House Materials	Green Heart	Red/Blood Wood	Cedar	Hard Wood	Frezo	Other	
	2	8	2	3	1	2	