

KANUKU MOUNTAINS PROTECTED AREA PROCESS COMMUNITY RESOURCE EVALUATION



**MOCO MOCO
VILLAGE REPORT
July 31 - August 10 2002**

COMMUNITY RESOURCE EVALUATION

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Prepared by Conservation International Guyana
266 Forshaw Street
Georgetown
592 - 225-2978
592 - 225-2976
www.conservation.org



Acknowledgement

"Thank you"

This report is the record of work done in Moco Moco Village by the participants who represented their community and the members of the Conservation International team during the CRE workshop.

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

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

The workshop would not have been possible without the help and support of Touchau Ronnie Cassiano, the other members of the village council, and the Community Coordinator, Cecelia Milliano, all of whom worked together to make the CRE a success!

The Head Mistress of the Kindergarten, Mrs. Frida George assisted the workshop by providing blackboards, tables and benches.

We would also like to thank Zerona, Lena, Jai and Bookertie for working tirelessly to provide the workshop with meals.

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LIST OF ABBREVIATIONS

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

INTRODUCTION

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

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

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

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

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

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

The CIG field team members included:

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

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

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

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

WORDS AND PLACE NAMES

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

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

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

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

CONSERVATION INTERNATIONAL

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

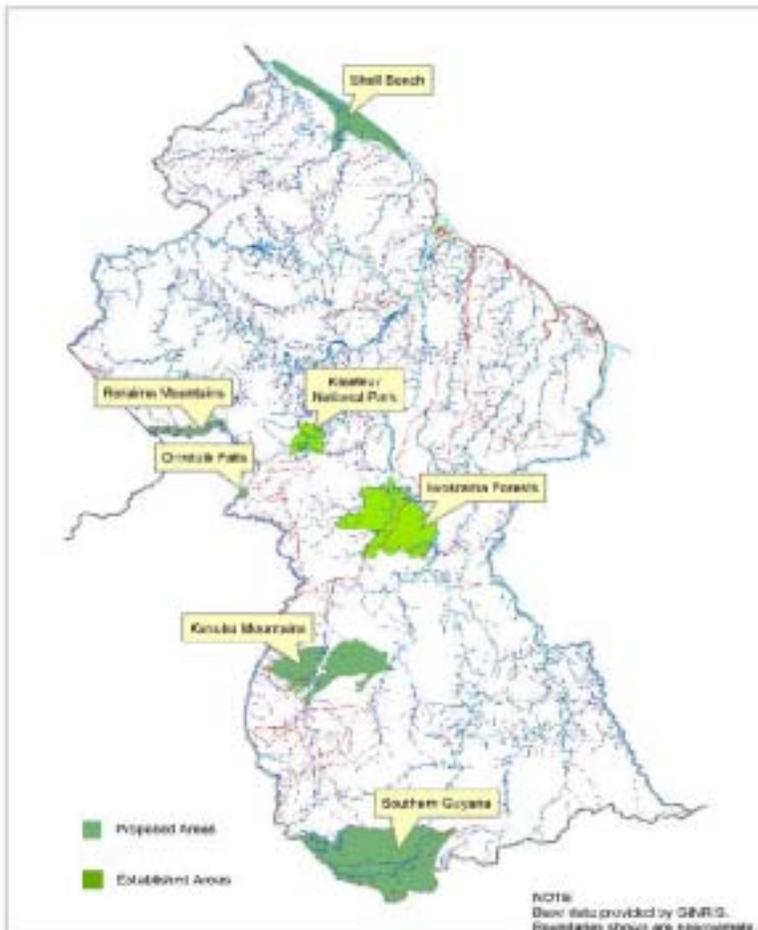
CI has been active in Guyana since 1990 and has led research expeditions, media events and educational activities. The strategic plan of CI Guyana (CIG) is to promote the conservation of biodiversity and the protection of critical ecosystems, through a process comprising scientific research based on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

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

PROJECT LOCATION

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

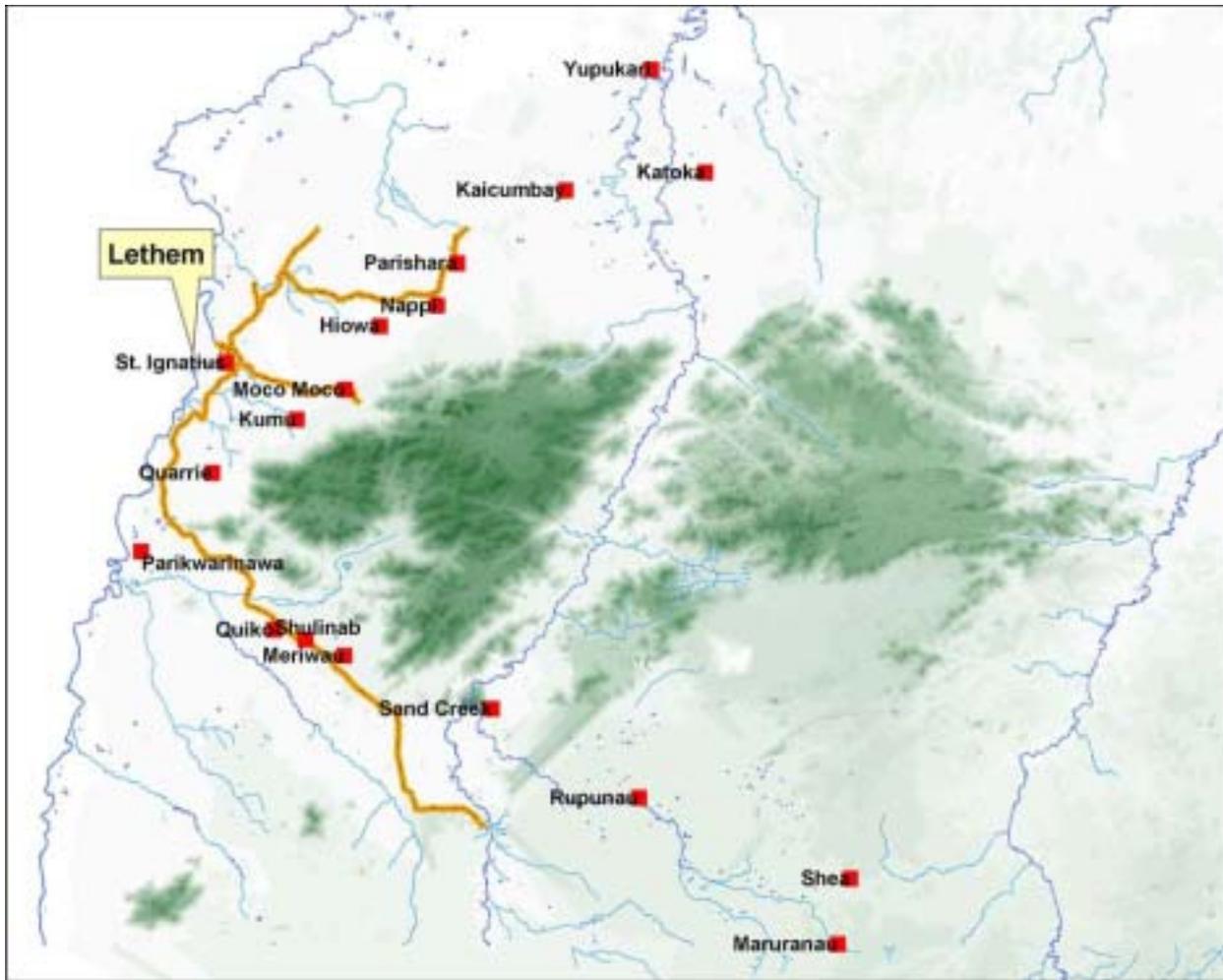
The Kanuku Mountains Proposed Protected Area (KMPA) is one of five areas in Guyana that have been identified by the Environmental Protection Agency (EPA) for conservation efforts. These areas are selected because of their beauty, landscape or richness in biodiversity.



Map Showing Five Priority Sites in Guyana

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

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



Map showing 18 Communities that directly use the Kanuku Mountains

PROJECT OVERVIEW

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

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

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

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

Significant contributions of the RAG include:

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

The RAG also made recommendations for:

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

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

Significant contributions of the NAG include the:

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

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

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

CRE OVERVIEW

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

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

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

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

METHODOLOGY

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

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

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

DESCRIPTION OF TOOLS

The following tools form the basis of the CRE:

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

1. Focus Groups

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

2. Resource List – “The What”

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

3. Seasonal Calendar – “The When”

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

4. Sketch Mapping

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

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

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

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

5. Field Observation

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

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

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

6. Village Surveys

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

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

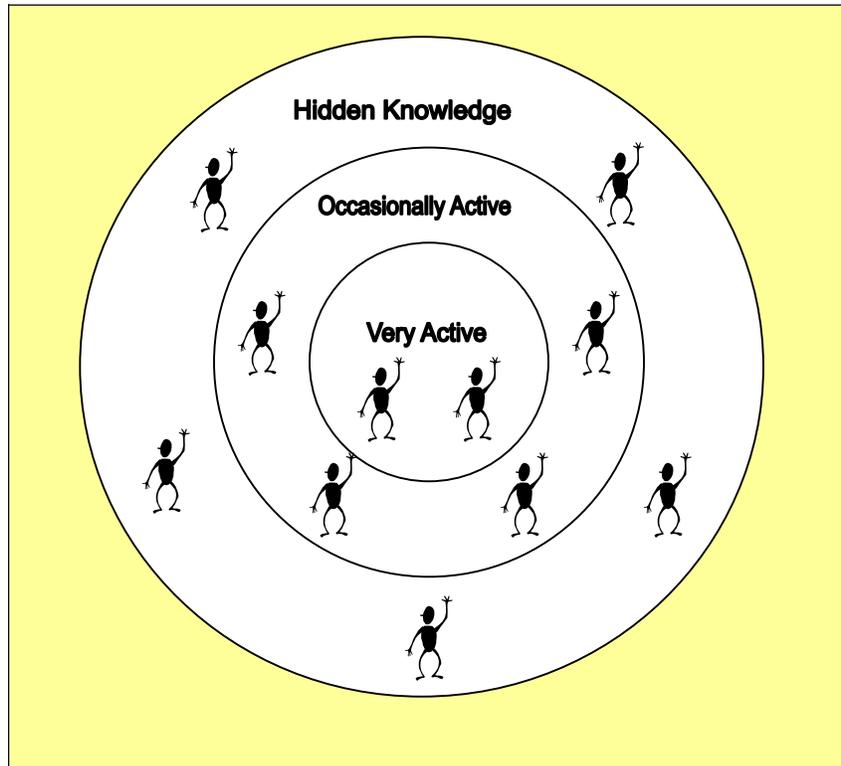
7. Mini Lectures

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

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

5. Survey methods and techniques

LEVELS OF COMMUNITY PARTICIPATION EXERCISE



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

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

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

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

TYPICAL CRE ACTIVITY TIMELINE

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

For a brief activity schedule see Appendix 1.

Community Resource Evaluation Village Report

MOCO MOCO

MOCO MOCO VILLAGE REPORT

The Community Resource Evaluation was conducted at Moco Moco from July 31st to August 10th 2002. The CRE was conducted by a team of five persons who made up the team of Conservation International. The CRE followed the same format as that highlighted in the first section of this report.

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

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

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

VILLAGE DESCRIPTION

The center of Moco Moco village, the school, church and health post are located at 3.33066°N and 59.67213°W. It lies on the western side of the Kanukus and is located at ten (10) miles southeast of Lethem. Between the hydro plant and the village there is a land settlement scheme, where approximately one dozen “coastlander” families have farms and homesteads on the banks of the Moco Moco Creek.

A few Moco Moco families are settled in an area to the southeast called Cuba, which is also known as the northwestern edge of Kumu,

DEMOGRAPHICS

Population structure

Age Group	Male	Female	Total
< 1 yr	5	10	15
1 – 4 yrs	25	36	61
5 – 14 yrs	65	55	120
15 – 19 yrs	11	11	22
20 – 44 yrs	56	46	102
45 – 64 yrs	20	23	43
≥ 65 yrs	7	3	10
Total	189	184	373

There are approximately 66 households in the village, the majority of which are Macushi speakers.

Administration

The following persons were elected to the Village Council on March 16, 2002

Ronnie Cassiano (Touchau)

Nelson Paten

Charlotte Torquarto

Cecelia Milliano

Ryan Farias

John Raymundo

Lucian Alucidio

Elfreda Charles

Elucilda Ambrose

Source: Socio – Economic Survey (Forte: 2000)

PARTICIPANT GROUP INFORMATION

The participant group represented a wide range of persons from all parts of the village. There were representatives of the Village Council including the Touchau, Ronnie Cassiano. In addition there were church leaders, members of the Catholic Church, church youth leaders and women’s group members. The group also consisted of farmers, hunters, fishermen and gatherers who brought a wealth of knowledge to the workshop.

In total there were 26 participants, eight (8) women and eighteen (18) men. The majority of participants had never been involved in a workshop before.

The names of the participant group are as follows:

Sydney Davis	William Ramsarran	Bernadette Mandokin	Nelson Payton
Eric Williams	Damon Scipio	Ivan Ambrose	Samson Torquarto
Elfredia Charles	Elucilda Ambrose	Candace Scipio	Leo Ignacio
Nelson Davis	Paul Francis	Daman Scipio	Luciano Auscidio
Elsie Orella	Daniella Orella	Charlotte Torquarto	Levi Aldie
Amelia Gute	Wayne Frank	Ronnie Cassiano Basil	
Cyril Champion	Rayan Milliano	Daniel	

Cecelia Milliano (Community Coordinator)

Participant Age Profile

AGE	15 - 28	29 - 40	41 – 55	Above 55	Not Stated
No. of persons	5	6	10	0	5

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

- Andrew Demetro** (Indigenous Knowledge Advisor)
- Nial Joseph** (GIS/IT Technician)
- Richard Wilson** (Indigenous Knowledge Advisor)
- Natalie Victoriano** (Macushi Interpreter)
- Esther McIntosh** (CRE Facilitator)



CI Team Members: From left Natalie, Nial, Andrew, Richard and Esther.

CRE WORKSHOP RESULTS

CREATION OF THE TOOLS

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

Participants created three tools to help communicate Moco Moco'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 listed a total of sixty-two (62) crops that are actively planted by the community. The crops included commercial crops such as peanut (which is extensively planted in the settlement area of Moco Moco), cassava and bananas.

Moco Moco or “Sky Valley” as it was once called, is in a low land area. To protect farms from flooding, they tend to be located close to the mountain foot.

Crops			
1.	Cassava	32.	Pineapple
2.	Corn	33.	Calalu
3.	Banana	34.	Squash
4.	Yam	35.	Potato
5.	Paddy	36.	Papaw
6.	Eddoe	37.	Cabbage
7.	Peas	38.	Corilla
8.	Peanut	39.	Eschallot
9.	Watermelon	40.	Onion
10.	Cane	41.	Orange
11.	Pumpkin	42.	Tangerine
13.	Hot & Sweet Peppers	43.	Sorrel
13.	Bora	44.	Cashew
14.	Ochro	45.	Sugar apple
15.	Boulangier	46.	Sour sop
16.	Cucumber	47.	Coconut
17.	Tomato	48.	Mango
18.	Pockchoy	49.	Passion fruit
19.	Tobacco	50.	Carrot
20.	Jamoon	51.	Five finger (Bilimbi)
21.	Arrow	52.	Lemon
22.	Grape	53.	Crawa
23.	Pear	54.	Cotton
24.	Star apple	55.	Bena
25.	Guava	56.	Poison
26.	French cashew	57.	Cherry
27.	Sydium	58.	Lemon grass
28.	Whitey	59.	Thyme plants
29.	Lettuce	60.	Tania
30.	Bulb eschallot	61.	Dasheen
31.	Moss melon	62.	Lime

HUNTING & FISHING

In total thirty (30) species of game were listed by the hunting and fishing group. The group also listed thirty-one (31) species of fish. The fishing list includes several popular species of fish including; Lukunani, Tiger Fish and Yakatu.

Hunting				Fishing			
1.	Tapir	16.	Duck	1.	Tiger fish	16.	Butter fish
2.	Bush deer	17.	Iguana	2.	Banana fish	17.	Darra
3.	Small deer	18.	Craw	3.	Biarra	18.	Passhee
4.	Savannah deer	19.	Anacaw	4.	Cutie	19.	Cassi
5.	Labba	20.	Parrot	5.	Houri	20.	Hiamara
6.	Hog	21.	Macaw	6.	Patwa	21.	Piaba
7.	Monkey	22.	Tiger	7.	Yakatu	22.	Crab
8.	Baboon	23.	Anteater	8.	Lukunani	23.	Aramo
9.	Acouri-adouri	24.	Mountain chicken	9.	Hassar	24.	Water turtle
10.	Watrash	25.	Kabehee	10.	Emerrie	25.	Perai
11.	Powis-maam	26.	Couricock	11.	Sun fish	26.	Pine fish
12.	Tortoise	27.	Tuicma worm	12.	Dog fish	27.	Cuycuy
13.	Giant & small armadillo	28.	Caterpillar	13.	Logo logo	28.	Ca Shimbo
14.	Marudi	29.	Parakeet	14.	Arapaima	29.	Sword fish
15.	Warakabra	30.	Cock of the rock	15.	Alligator	30.	Mata mata
						31.	Electric eel

GATHERING

The gathering group created one of the most extensive lists of materials. In total, sixty-nine materials were listed. The community actively gathers all of these materials. These include; housing materials, wild fruits, poisons, firewood, beads and minerals (both precious and semi precious).

Materials			
1.	Turo	31.	Capadula
2.	Lou	32.	Manicole (bark, fruit)
3.	Cocorite (Palm)	33.	Purple Heart
4.	Awara	34.	Silver Bally
5.	Locus	35.	Mora
6.	Wild Ginep	36.	Cida (bitter, sweet)
7.	Wild cashew	37.	Woba Bally
8.	Cashra	38.	Sand Mora
9.	Whitey	39.	Cakora
10.	Plum	40.	Arora
11.	Muckru	41.	Dalli
12.	Straw	42.	Gold
13.	Bush Rope	43.	Greater stone
14.	Clay	44.	Purple stone
15.	Nibi	45.	Diamond
16.	Hairi	46.	Crawa
17.	Ete Palm	47.	Ete fruits
18.	Balata (barks, gums, wood, fruits)	48.	Blood wood bark
19.	Spice	49.	Wild nuts
20.	Syncona Bark	50.	Mushroom
21.	Wild cane	51.	Hiawa
22.	Firewood	52.	Ete
23.	Beads	53.	Kaim bu bark
24.	Karamani	54.	Moco Moco
25.	Anato	55.	Capabara Dung
26.	Bush garlic leaf	56.	Dear Calalu
27.	Cackrally	57.	Mountain pepper
28.	Wallaba	58.	Wild mango bark
29.	Bamboo	59.	Congo Pound
30.	Calabash	60.	Blood wood
61.	White wood	62.	Green heart
63.	Wild guava	67.	Rod wood
64.	Tauba	68.	Purple heart
65.	Cuti wood	69.	Leopard wood
66.	Mara tree		

SEASONAL CALENDAR

“The When”

The seasonal calendar created in Moco Moco was very detailed. Participants were extremely knowledgeable about the activities that the community is engaged in throughout the year.

As the table shows, the group was able to identify several seasons in the local (Macushi) language. These were Kadro (First Rains), Miride Cumbe (Scorpion Rains), Pata Waina (Short Dry season in August) and Town Kumbe (Heavy Rain season).

Nature based events also define particular seasons, such as Turtle Shower in February which is when the turtles hatch and Cashew Rains in November-December when the cashew plants blossom.

FARMING

Farming activities in the village are done using two main methods of farming - what is termed as “high” and “low” bush farming. The term “high bush” refers to a new area of virgin forest that has been cleared for farming. High trees and fertile soil characterize the area. On the contrary a low bush area is one that has been used previously, where forest growth is less dense.

As can be seen on the calendar in September land preparation begins for the “low bush” farming. It is not until the following month that the preparation of the “high bush” farms begins.

In January the high bush farms are dried and in February to March they are burned and cleared. Planting begins after the rains, which is around the end of April to June. Crops are reaped from August until the end of the year.

HUNTING & FISHING

As the calendar shows the community uses a number of species of fish and game. Game that is caught requires the use of a variety of methods: bow & arrows, guns, dogs, cutlass and torches. Similarly for fishing in August piab, cutie, dari, swordfish, pine fish and banana fish are all caught using hook and line (fishing rod), seines, bottles (to trap smaller fish) and stop offs (dams that are created to trap fish).

GATHERING

Gathering activities access many materials including; logs for making houses, medicines and wild fruits. As can be seen in the diagram, logging is done mainly in the earlier months of the year (January – April) as is the harvesting of medicinal plants.

Revised Seasonal Calendar for Moco Moco

January	February	March	April	May	June	July	August	September	October	November	December		
Dry Season	Turtle Shower	<i>Dry Season</i>		First Rain 'Kadro'	<i>Scorpion Rains 'Miride Cumbe'</i>		7 Star 'Peaben	Pata Short Dry 'Pata Waina Spider web'	Butterflies	Heavy Rains 'Town Kombe'	Cashew Rains		Seasons
Dry High Bush – farm along creek beds. Plant greens and cassava	Burn and Clear		Wait for Rain	After 1 st Rain - Plant		Reaping crops e.g. corn		Lowland preparation Low Bush	High Bush – under bush and cut		Dry		
				Take care of farms				Reap: corn, melon, pepper, squash, pumpkin, paddy	3 days – allow to dry, burn & clear –plant cassava, greens & 40 days corn Reap: Pea (all species), cabbage, carrot, tomato, cotton & paw paw	Reap: <i>sugar cane</i>	Reap: 6mths cassava, banana, sorrel		FISHING/HUNTING
Houri, patwa, yakatu, hassar, lukunani, cassie, dari, piab, crabs, cashimb, perai, sun fish, log log, congo eel, alligator	Hunting and Fishing			Caterpillar, B/deer, powis, armadillo – dogs, bow & arrow	(Creeks) logo logo, cutie, imiri - hooks, lines, bait with young worms, caterpillars		Piab, cutie, dari, sword fish, pine fish, banana fish – hook, seine, stop off, bottles						
<i>Alligator, tortoise, iguana</i>		Labba, bush deer, tapir, hogs, ducks, watrash – use: bow & arrow, guns, dogs, torches.	Armadillo, tucuma woras axe	High Creeks- yakatu, patwa, etc – arrow & bow, seine, cutlass									

Revised Seasonal Calendar for Moco Moco Continued

January	February	March	April	May	June	July	August	September	October	November	December			
Ete Ete Palm		Turo lou cashra whitev cocrite wild ginen locust					Wild cashew							
Logging: Silver balli, purple heart, mora, bullet wood, sand mora, waba balli, dally wood, red wood, blood wood														
Medicinal Bush: garlic, moco moco, hiowa, syncona, epe, blood wood														
House Materials: rafters and manicole							Ete Palm cocrite bush rone							
			Easter Community Hunt & Fish		Prepare for heritage – collect beads, annatto, straw, feathers, palms, bones, calabash							Xmas Community Fish & Hunt 'Savannah Mountains.'		
						San Juan Community hunt/fish/cari							Heritage Community – feed up (donations) Mts farms	

GATHERING

FESTIVALS

SKETCH MAPS

“The Where”



Farming team with their 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 then used by each focus group to record the resource locations. In total three sketch maps were created in the three resource group categories of farming, hunting & fishing, and gathering. The keys of each resource map show the main resources that the participants selected to be included on the map.

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

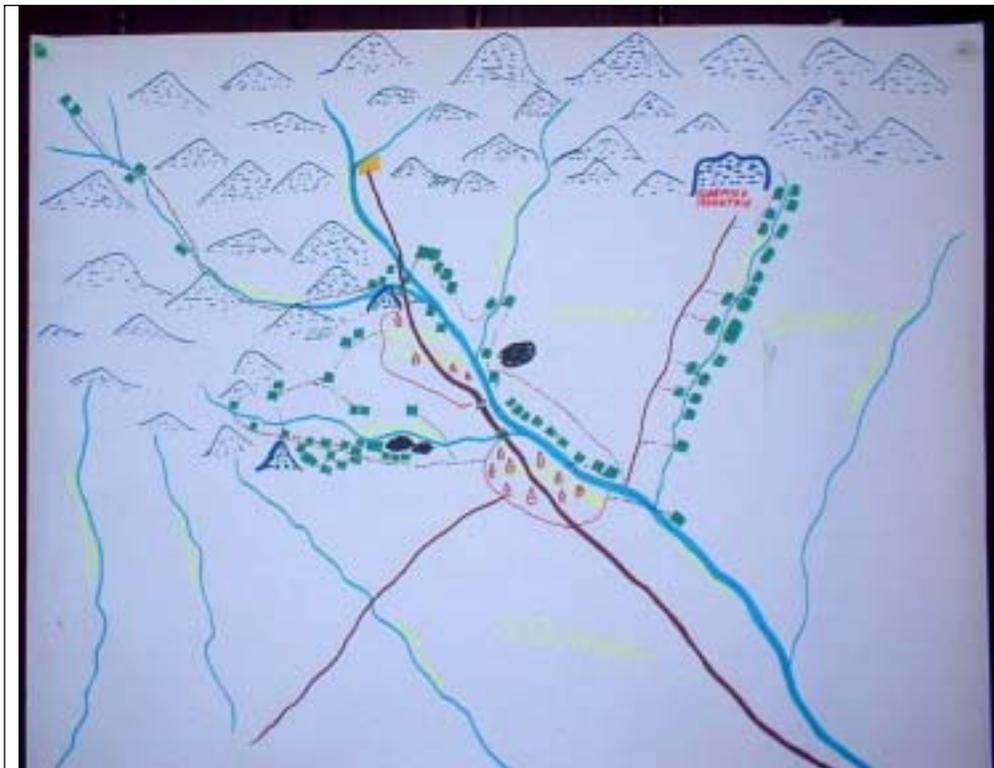
The main rivers and creeks identified on the maps include Cruza, Moco Moco, Kumaka and Luke Water Creek. The maps also show the main road, trails and a local landmark; Sleeping Giant Mountain. Other notable local landmarks are the Hydro-electric Station, which is located in the land settlement area of Moco Moco and Rugawaga translated as Rook Walker creek.

FARMING RESOURCE USE SKETCH MAP

Farming grounds are located in three main areas. These are along the banks of the Rook Walker Creek, Moco Moco Creek, and Kumaka Creek.

There is a fair distribution of farms found in the three areas. In all these areas farming activities stopped at the mountain foot except in one case. This is along the Cruza Creek towards the source where a few farms exist. All farming areas are quite accessible since there is a fair network of usable trails.

Moco Moco is considered as one of the richest farming areas of the Rupununi with soils conducive to the growth of peanuts and rice.



Moco-Moco Farming Map

HUNTING & FISHING RESOURCE USE SKETCH MAP

This is a representation of the areas where the members of Moco-Moco community hunt and fish. As is indicated on the map these activities occur on both sides of the hydro trails up and above the dam.

While hunting and fishing occurs between Rook Walker Creek and the Kumu – Cruza areas, these activities are concentrated mostly in and between the Cruza and the Rook Walker creeks.



Moco-Moco Hunting and Fishing Map

GATHERING RESOURCE USE SKETCH MAP

The village is located close to the mountains. Most of the forest resources are located in the mountains. Most of the gathering activities here are for lumber, wild fruit, craft material and minerals.

Main trails to access these areas are also represented on the map. The resource that is most harvested is lumber.



FIELD OBSERVATION

INTRODUCTION

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

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

In total there were three teams, with 6 persons on each team. The teams were grouped according to the areas that had to be covered. Each team observed and geo-referenced areas found along the way in each of the resource categories: farming, hunting & fishing and gathering.



Esther demonstrates the use of the GPS to a small group of participants in the field



Charlotte extracting the Hiowa gum; incense used to ward off evil spirits

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

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

TEAM A

Richard Wilson (CI)
Sampson Torquarto
Leo Ignacio
Eric Williams
Rayan Milliano
Cyril Campion

AREAS COVERED

The furthest point that was visited by the team is **White Horse Mountain**. The distance is approximately 7.16 miles away from the village. The other areas covered were as follows

- **The main creek (Cruza)**
- **Wild Yam Bay**
- **Gold Creek**
- **Dragon Falls Mountain**
- **White Horse creek mouth**

OBSERVATION

Dragon Falls is found up Cruza Creek and is the furthest fishing area, which is used by the fishermen from the village. No farms exist in that area because of the distance and mountainous terrain. Gathering is done in the areas both along the creek banks and up the mountains.

The areas are mainly only used for hunting - it was reported to be easy to find game. The area is also laden with raw materials including, aruwa shoots and manicole, which are used in house construction. Muckru especially grows in the islands along the creek banks, lumber and housing materials are untouched because the areas are not used often. The areas are only visited about 3-4 times a year especially during the dry season.

In the bush mouth areas, there is a big contrast to the furthest areas. Housing materials, palm leaves, wattles and others are extracted heavily by the community for their village programs or when people do their individual repairs.

Very few people of the village use the further areas of resource use, they mainly use nearer areas for hunting, gathering and fishing. Moco Moco Creek is used heavily for fishing because the water is high throughout the year and because there is no other nearby site where villagers can fish.

Regarding the fishing resources, the resources were reported to be of poorer quality than in the past, the same could be said for hunting as villagers must go further and further into the mountains.

It was observed that the bush mouth areas are almost completely exhausted. There is no more farmland for extension or for planting purposes.

TEAM B

Nial Joseph (CI)
Levi Aldie
Basil Daniel
Charlotte Torquarto
Bernadette Mandukin
Daniella Orella

AREAS COVERED

The furthest point that was visited by the team was **Nibi Hills**, which is 11 miles from the village, **Sleeping Giant Mountain** and **Clement Falls**.

OBSERVATION



Bush trip participant recording her observations in the field

The gathering areas are found mostly in the mountainous areas. Resources here are in abundance since people from the village do not usually go this far to gather resources. One of the factors influencing this is the availability of items in Lethem. The resources observed in the mountains are in excellent condition.

The majority of these areas are not actively used for hunting anymore because of the threats in this area; mainly savannah fires that cause animals to migrate further into the mountains.



Team B atop Sleeping Giant Mountain

Farms are located at the Mountain Foot. The crops that are planted include banana, corn, and rice. The soil type is mainly clayey loam and suited mostly for banana and rice planting. The land was being used for a long time since no fully-grown trees could be found. Because the areas become flooded during the rainy season, it is good for planting rice and the crops were observed to be in good condition.

Resources are gathered from the mountains for special festivities; even so the amount that is harvested is reduced because of the distance that it must be fetched.

Similarly, because of the mountainous terrain, the collecting of medicinal herbs, housing materials et cetera is hardly done since transporting of these resources is difficult.

TEAM C

Andrew Demetro (CI)
Ivan Ambrose
Luciano Auicidio
Sydney Davis
Nelson Davis
Wayne Frank

AREAS COVERED

The duration of the field trip was expected to last four days but the areas the group agreed to visit and geo-reference were covered within three (3) days. The areas visited were as follows:

- **Bush Mouth Farms**
- **Kumaka Creek Head Farms**
- **Gathering Areas – (no specific name)**
- **Hunting and Fishing Areas**
- **Sacred/Archeological Sites**

The furthest point visited was **Kumaka Creek Head**, which is approximately 12 miles from the village.

OBSERVATIONS

There were many active farms along the banks of the Kumaka Creek. The types of crops planted there were cassava, peanuts and corn. Some of these areas were very low and subject to flooding. Farmers, therefore, had more than one farms as a protection against flooding.

The areas where muckru and palm leaves are located are close to the farming areas. We also traversed dense silver bali areas at the top of the mountain. The team then proceeded into the headwaters of the Kumaka Creek area, which was noticeably frequented. It was observed that there were not very many logging resources.

There are vast feeding areas for hogs, labba, deer and tapirs, which were close to the farming areas. Fishes found in these areas are mostly the small species e.g. piabs, cassi, houri, patwa and hassar.

The team also visited and geo-referenced two sacred archeological sites, located at the bush mouth. Archeologists have from time to time removed skeletons in the past from these sites. The team did not disturb the sites.

In addition to visiting these areas we also visited the Moco Moco settlement. Farmers were brought in from the coast to the settlement specifically to plant tobacco. Today the residents of the settlement mainly plant other commercial crops such as peanuts, tomatoes, and cabbages.

The bush mouth and creek bank (Kumaka Creek) farms where we visited are very large areas. These areas were used about fifteen – twenty years ago or more, and most of the forest had been cut down. But because of the population growth of the Moco Moco community, it seems that the villagers are now returning to use the areas.

Hunting resources still seem to be good. We saw a lot of bush hog, deer, labba and tapir tracks. The species that seem to be disappearing are armadillos and land turtles, which is a result of the constant burning of the forest.

Fishing was reported as being under serious threat as a result of population growth and new methods of fishing for example, tangle nets and the diving.

The team no longer had much knowledge of resources, for example of trees, vines and even names of some of the creeks. The team reported that villagers no longer engage in hunting or gathering this far.

The threats to resources in these areas were:

- Bush fires to resources gathered.
- Acoushi ants, bush hogs, monkeys and birds (farming)
- Population growth
- The introduction of new fishing methods

DATA RESULTS

INTRODUCTION

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

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

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

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

Data Summary

In total sixty-one (61) waypoints were taken. The following is a summary of all the waypoints in each category

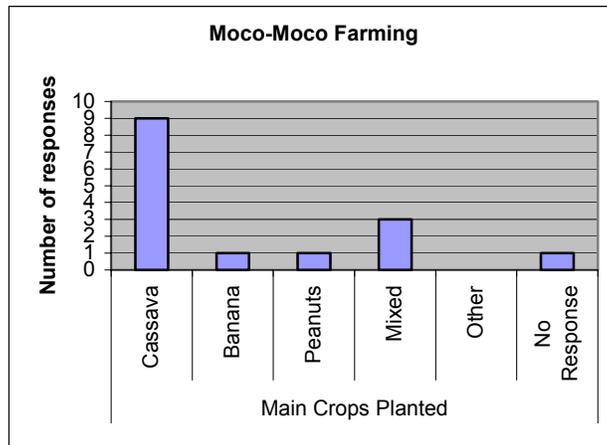
- **Farming** **15**
- **Hunting** **15**
- **Fishing** **4**
- **Gathering** **27**

FARMING DATA RESULTS

QUALITY

The soil type in most of the farming areas visited was mainly sandy (6), gravelly (4) or clayey/loamy (2).

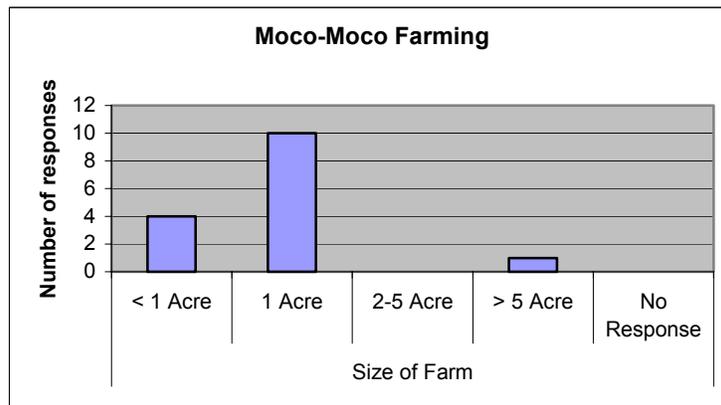
The crops grown on the farms are cassava (9) and mixed (3). To a lesser extent banana (1) and peanuts (1) were grown in these areas.



INTENSITY

The majority of the farms visited were in the mountain foot area (10) and to a lesser extent in the bush (4) and up the mountain (1).

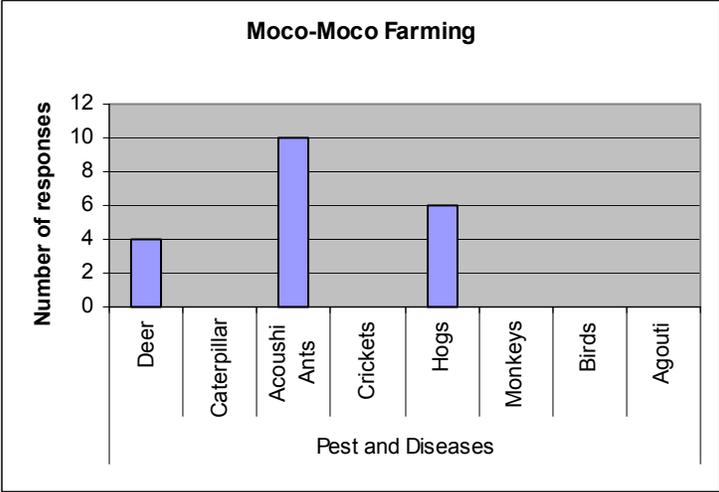
Thirteen of the farms were active and only two of them were fallow. The farms are mainly one acre (10), four of them were less than one acre, and one was more than five acres.



The majority of the crops are used for domestic purposes (10) and five are used for both domestic use and sale.

THREATS

Wildlife is the threat that was recorded most frequently (5) followed by over farming (2). The main pests to these farms are acoushi ants (10), hogs (6) and deer (4).

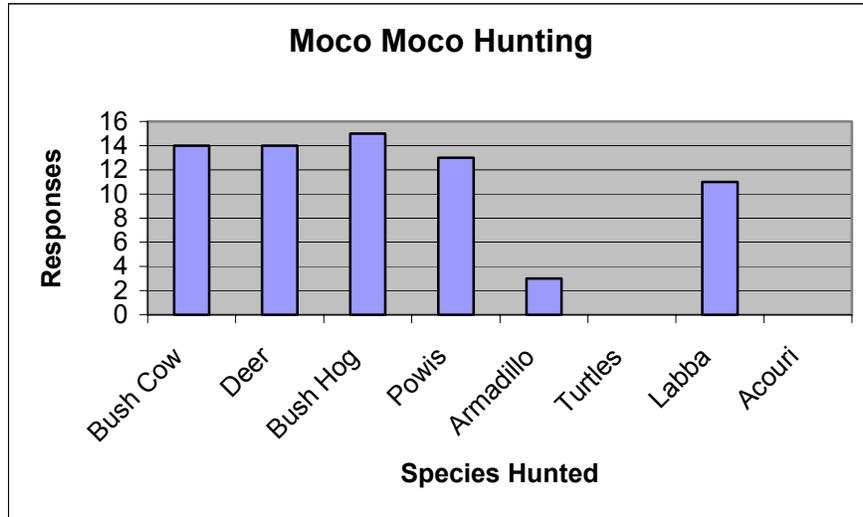


HUNTING DATA RESULTS

QUALITY

The quality of the hunting resources is mainly considered to be either good (9) or excellent (4).

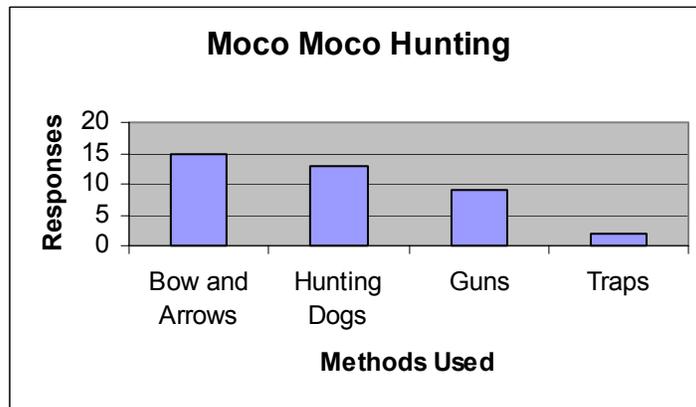
The game that is hunted was entered as bush hog (15), bush cow (14), deer (14), powis (13) and labba (11).

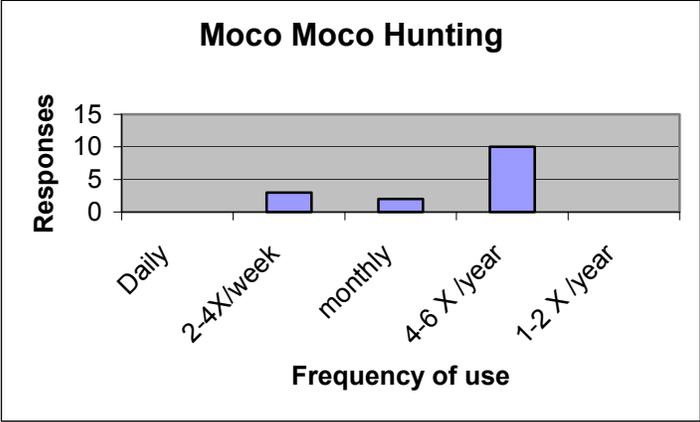


INTENSITY

The areas that were visited are concentrated up the mountain (12), at the mountain foot (2) and at the bush mouth (1). Twelve of the areas visited were active.

Hunting is done using primarily traditional methods, bow and arrows (15) hunting dogs (13) and to a lesser extent more modern methods such as guns (9). Hunting is done in these areas, 4 –6 yearly (10) and 2 – 4 times weekly (3).





The amount of catch in these areas is usually less than three (8) and between 10 to 50 fishes (5). Domestic consumption was noted in thirteen (13) of the sites.

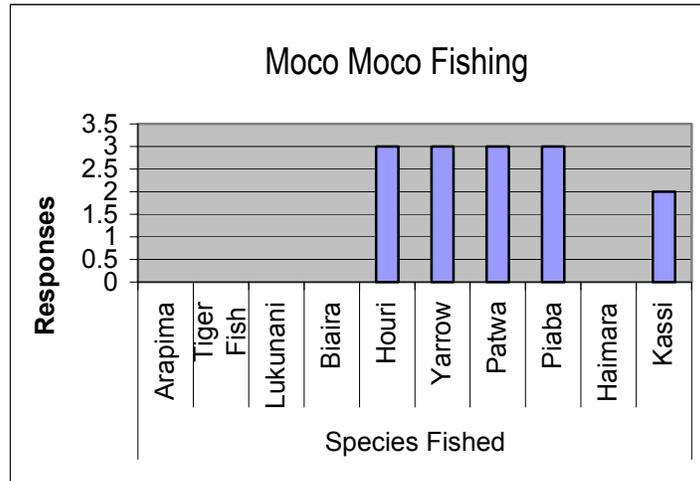
THREATS

There was only one site at which a threat was recorded - over-hunting.

FISHING DATA RESULTS

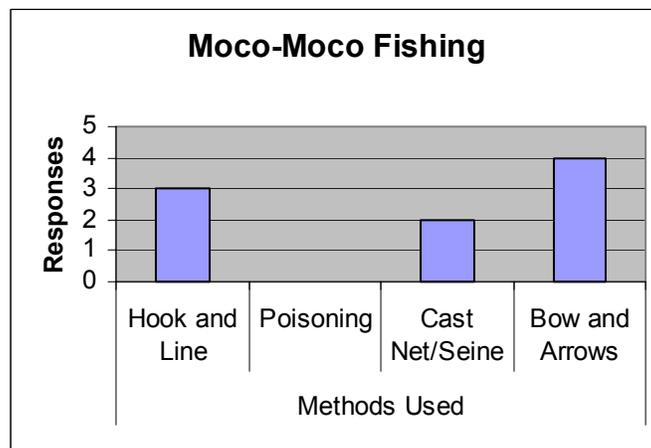
QUALITY

The condition of the fishing resources was considered to be mainly excellent (2) and good (1). The resources that are caught are yarrow (3), patwa (3), houri (3) and piaba (3).



INTENSITY

Waypoints were collected mainly in the mountain foot (2) and up the mountain (2). Three of the sites visited were active. The methods used (**see graph**) were hook and line (3), bows and arrows (4) and cast nets (2).



Most fishing in the areas visited was done daily (3) or 2 – 4 times per year (1). The catch is usually more than fifty (4). All of the catch at the sites visited were used domestically and not for sale.

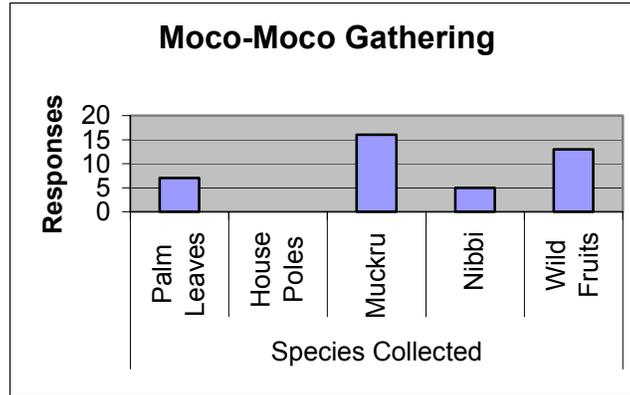
THREATS

There were no threats entered in the areas that were visited.

GATHERING DATA RESULTS

QUALITY

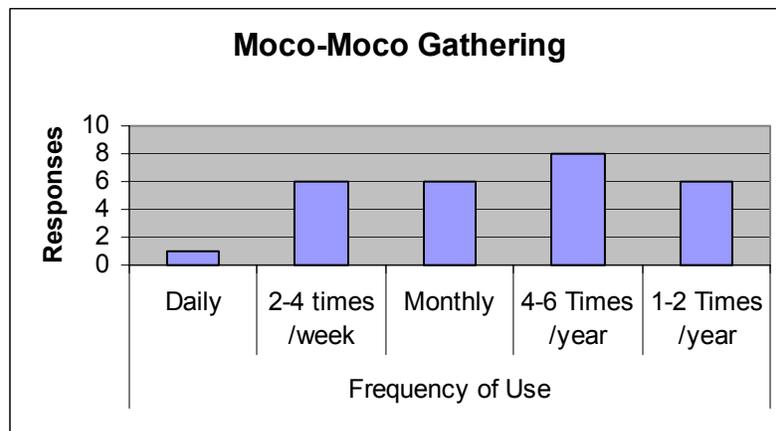
The gathering resource condition was recorded as being mainly “good” (21) and “excellent” (4). The resources collected are muckru (16), wild fruits (13), palm leaves (7) and nibbi (5).



INTENSITY

Most of the sites where gathering areas were geo-referenced were concentrated up the mountain (23) and to a lesser extent in the mountain foot (2), bush mouth (1) and in the savannah (1).

Cut and carry (22) and picking (16) are the methods that are mainly used. Gathering of materials occurs at varied intervals of 4 – 6 times per year (8), 1 – 2 times per year, 2 – 4 times per week, and monthly (6). The materials are mainly used for domestic consumption (23) and occasionally for both domestic use and for sale (1).



THREATS

Two threats were recorded: logging (2) and over-harvesting (1).

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

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

The Village Team



MACAW

Natalie Victoriano (CI)
Vania Francis
Nelson Davis
Paul Francis

was easily created and the houses identified. The participants went out themselves to notify the villagers whom they had selected. The group divided themselves into three teams; Mora, Pigeon and Macaw.



Sharing information at one of the homes visited during the village survey

The village survey was a great success. The teams were able to visit 28 homes over a two-day period. Every effort was made to cover all parts of the village including the more remote areas. Five homes in the settlement area are also included in this number.

Five homes in the settlement area are also included in this number.

OBSERVATIONS

The house visits were especially important, as it was reported to the CI team that there is a marked decline in attendance at public meetings within the village.

The Village Team



PIGEON

Cecelia Milliano
Elfreda Charles
Elsie Orella
Amelia Gute

A lot of information was gathered from the villagers, as they were very knowledgeable about their resources.

Several persons voiced their appreciation at having been visited and many of them also attended the public meeting at the end of the workshop.

The house visits allowed the villagers to ask questions and to raise whatever concerns they had with the team. One of the main concerns that people had, was concerning the land issue - namely whether their lands would be confiscated if the Kanuku Mountains were declared a Protected Area.

The Village Team



MORA

Esther McIntosh (CI)
Ronnie Cassiano
Candace Scipio
Elucilda Ambrose

Some other questions that were raised:

- Why was the team asking how we use the Kanuku Mountains?
- What will happen if the Kanuku Mountains is protected?
- Will people be chased from the village?
- Like Iwokrama, will villagers be banned from using the areas that they now use?

Related to farming, the threats were mostly to the farming resources which acoushi ants and hogs were destroying.

It was observed that some people were very reserved because of the misinformation that was being spread.

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 that they felt most comfortable answering. In some cases, for example, women did not feel comfortable to answer questions as related to hunting even though they may accompany their husbands and actively hunt. Therefore the number of responses in some sections may vary.

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

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

Village Survey Data summary

In total 25 surveys were collected. The following is a summary of all the data that was collected in each of the three resource categories:

- **Farming** 25
- **Hunting** 1
- **Fishing** 24
- **Gathering** 21

FARMING DATA RESULTS

INTERVIEWEES INFORMATION

Age

15-28	29-40	41-55	Above 55
3	10	12	12

Gender

Male	Female
18	19

INTENSITY

During the village survey, most people said that they farm up the mountain (12). Farming is also done at the bush mouth (10), at the mountain foot (5) and in the savannah (4). Several people commented that the produce from their farms is less than it used to be in the past and that the soil is poor.

Where is your farm?

Savannah	Bush	Bush Mouth	Deep Bush	Mountain Foot	Up the Mountains
4	0	10	0	5	12

Most farms are visited 3-4 times a week (8) each. Other visits are done 2 times a week (6) and daily (3). **See table**

How often do you visit your farm?

Daily	2 x Week	3 x Week	4 x Week	Weekly	2 x Month
3	6	8	8	0	0

The size of the farms were between 2-4 acres (8), 5 acres and more (8), 1>2 acres (6), and < 1 acre (3). **See table** The majority (13) of the produce from these farms are used for both domestic use and for sale. Another five (5) persons said that they used the produce for domestic use only while four (4) persons used their crop for sale only. Some people commented that they sold crops such as peanuts, bora and tomatoes in Lethem.

How big is your farm?

< 1 Acre	1>2 Acre	2-4 Acre	5 Acre and more
3	6	8	8

THREATS

Acoushi ants (17) and wild animals (15) were felt to be the two main threats. Additional threats to farm crops are: caterpillar (2), monkey (2), domestic animals (2), weather (1) and other (7). **See table**

What are the threats to your crops?

Wild animals	Acoushi ants	Weather	Caterpillar	Fire	Monkey	Domestic animals	Other
15	17	1	2	0	2	2	7

HUNTING DATA RESULTS

INTERVIEWEES INFORMATION

Age

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

Gender

Male	Female
1	0

QUALITY

The only person who responded in the hunting section said felt that s/he had to go further to hunt than in the past and that there had been a change in the availability of resources. It was felt that fewer people were hunting with bows and arrows. Because of its close proximity to Lethem people also rely on the purchase of meat from shops.

INTENSITY

The respondent stated that hunting is done mainly in the deep bush (1) using guns (1). Hunting is done in the deep bush area and the game is used for both sale and domestic use (1).

THREATS

The main threat to hunting sites was felt to be logging (1).

FISHING DATA RESULTS

INTERVIEWEES INFORMATION

Age

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

Gender

Male	Female
14	10

QUALITY

Sixteen (16) persons who were interviewed said that they had to go further to fish than they had done in the past. Eight (8) responded that there had been changes in the availability of resources. Some of the persons who were interviewed commented that flooding, population growth; the use of stop offs and the use of new methods had all affected the availability of fish in the village.

INTENSITY

The main hunting areas mentioned are: in the savannah (6), bush (5), up the mountain (3), at the bush mouth (1) and at the mountain foot (1). Eight did not respond. **See table**

Where do you fish?

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	No Response
6	1	5	1	3	0	8

Hook and line (22) and seine (18) are the main fishing methods used. Traps (7), cast nets (4) and bow and arrows (2) are also used. Fishing is done mainly daily (10), 2 times a week (7) and weekly (4). **See graph** The fish that is caught is used mainly for domestic use only (22). It is also used, to a lesser extent, for both domestic and sale purposes (2).

How often do you go fishing?

Daily	2 x wk	Weekly	2 x Monthly	Monthly	Yearly
10	7	4	2	1	0

THREATS

The major threats to fishing sites were felt to be the weather (8). Additional threats were, over fishing (5) crabs (5) the poisoning of water (2) the use of fire (2) and the increase in the population (1)

What are the threats to your fishing resources?

Over fishing	Poison	Population	Weather	Fire	Crabs	Other
5	2	1	8	2	5	3

GATHERING DATA RESULTS

INTERVIEWEES INFORMATION

Age

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

Gender

Male	Female
13	8

QUALITY

One person who was interviewed said that s/he had to go further to gather materials than in the past. One (1) person also responded that there had been changes in the availability of resources. It was commented that the increase in the population and the use of fire had affected the availability of materials.

INTENSITY

Gathering is done mainly up the mountain (14) and to a lesser extent at the mountain foot (4).

It was stated that gathering is done at long intervals [especially for housing materials] some of the responses given in the other “response” box was: every 2,5,9, 10 and 15 years. The resources that are gathered are used mainly for domestic purposes (15).

THREATS

The major threat to gathering resources was felt to be the use of fire (6). Over-harvesting (4) the increase in the population (3) waste (1) logging (1) and the use of resources by outsiders (1) were also stated.

What are the threats to your gathering resources?

Over-Harvesting	Waste	Logging	Fire	Outsiders	Population	No Response
4	1	1	6	1	3	11

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

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.



Final Public Meeting

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

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



**Presenting the CRE
participatory certificate**

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

The participants were also presented with certificates of participation.

RESOURCE USE PROFILE

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

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

Moco Moco's resource use is influenced by a number of factors:

- Closeness to Lethem on which many people from the village depend on for markets for their produce and job opportunities
- Moco-Moco is well known for its rich soil and is a village in which peanuts are grown but this is mainly done mostly by coastlander farmers, residents of the settlement area, with the actual villagers only providing seasonal employment
- Accessing of resources in mountainous areas has been limited due to the difficult terrain, far distance, lack of transportation, and the easy availability of supplements in Lethem

Moco-Moco is located 2 miles from the Kanuku Mountains. Geo-referenced at 3.33066°N and 59.67213°W, its resource use is mainly concentrated in particular areas like **Kumaka Creek Head, Cruza Creek, Gold Creek and Wild Yam Bay**.

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

- Hunting
- Fishing
- Farming
- Gathering

RESOURCE USE ZONES

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

SAVANNAH

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

BUSH MOUTH

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

this particular area. For example, if a villager has a farm in this area, he would always refer to it as his/her bush mouth farm. So bush mouth areas generally do not have names unless they are close by a creek or some other natural feature. **Arakapirin, Kumaka.**

BUSH

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

MOUNTAIN FOOT

This area lies within a mile range before the mountain slopes. The mountain foot areas are very fertile with a cooler climate and very favorable for crops. Communities that are located closer to the mountains prefer to use mainly these areas for farming. From the farms access is gained to the surrounding areas as well as up the mountains for resource use. Access to the mountains requires passage through the mountain foot. **Moco-Moco Settlement, Congo eel creek, and Marasha Spring** are sites located in this area.

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 nibi, caramanni, balata, medicine and game due to the forest being untouched. Hunting is the primary activity up the mountain due to the abundance of game animals with some amount of gathering carried out at the same time. Areas geo-referenced included: **White Horse Mountain, Gold Creek, White Nibi Hill, and Clement Falls.**

Main activities are generally carried out in the following areas:

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

QUALITY

There is a heavy concentration of resource use in Moco Moco, by the villagers, as well as by individuals from other communities such as Lethem and St. Ignatius. As a result, the quality and availability of resources has decreased. In the bush mouth areas it was observed that the resources are almost completely exhausted. Moco Moco is easily accessible because it is close to Lethem and can be reached by the all weather road constructed to access the Hydro-power Station. Thus, people from outside the community can enter the area to extract resources, especially loggers and bird trappers.

It is only in the further areas such as those in the mountains that the resources were described as “good” or “excellent”. This is because these areas are not heavily used. In fact the areas are visited on few occasions - mainly for holiday hunting or if there is a special need for materials, for example to build a school.

Overall the resource use areas were described as being “good” and to a lesser extent “excellent”, with the exception of the bush mouth areas close to the community and some fishing areas. Villagers use Moco-Moco Creek because there is no other source of fishing that is close by. The quality of fishing was described as “poor”.

INTENSITY

Use Zone					
Moco Moco	Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain
Farming	0	0	4	10	1
Hunting	0	1	0	2	12
Fishing	0	0	0	2	2
Gathering	1	1	0	2	23

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

The lands along the mountain foot region of Moco-Moco resource use area are where the villagers carry out most of the farming activities. The farmland of Moco-Moco is considered to be one of the richest areas in the region; hence it has attracted a number of farmers from the coast. These coastlanders have developed their own settlement and farming has become a major economic activity. One of the biggest cash crops grown is the peanut that is sold to truckers and other buyers who takes it to Georgetown, capital city of Guyana. The village itself, which is located out in the savannah more uses the bush area of the Moco-Moco Creek to farm.

Farming in general is done in three main areas, **Ruga Waga Creek, Moco Moco Creek** and **Kumaka Creek**. Most of the farming areas stop at the mountain foot except in one case where it goes all the way up to **Cruza Creek**. At the Kumaka Creek area there are signs that villagers are returning to the area because of population growth. These areas were being used before about 10-15 years ago. At times however some of the farming grounds become flooded when the banks of the creek overflow.

The mountains are used mainly in the dry season when further areas are more easily accessed. The use of the mountains is mainly for gathering and hunting. Because of the distance that must be traveled and the difficulty to access the area during the rainy season, use is limited. However there are a lot of hunting and gathering places in the mountains because the area is vast and rich in resources.

Although some amount of fishing is done in the mountains it is not good fishing grounds due to the elevation and the falls in the upper areas. Fishing is concentrated more in Moco-Moco Creek but it was generally reported by the participants that the fishing resources areas are decreasing due to the introduction of fishnets.

The main factor affecting the intensity of use is the increase in population. This was mentioned in particular with regards to fishing. It was felt that because of the introduction of new methods of fishing, e.g. tangle nets, the use of these already poor resources has increased.

The bush mouth areas are heavily extracted and almost exhausted due to the heavy use of the resources. In the headwater of Kumaka creek it was found that there are not many resources left. In the case of hunting it was generally noted that villagers felt that they had to go further than they did in the past. This information corresponds with the information that was given in the village survey. There were also several species of plants, fish and game that were reported to be either less seen or not available these include: lukunani, biara, yakatu, tiger fish, blood wood, bush merishi and nibi.

THREATS

Apart from the increase in population and fire there were several other threats that were mentioned. These were mainly as related to farming- acoushi ants and wild animals. It was felt that excessive logging and over-harvesting was also noted as threats, which would correspond with the amount of rare or extinct species of trees that were mentioned during the village survey. Fire is also having an impact as it was mentioned that it is causing game to go further up the mountain. The extent of “runaway” fires has increased due to changing weather patterns and poor fire management practices.

SITE GEO-REFERENCE POINTS

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

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

Site Type	Village	° North	° West	Area Name	Zone
G	MM	3.339033	59.636916		Savannah
F	MM	3.332366	59.648466	Camiriri Kri	Bush Mouth
F	MM	3.332916	59.643966	Kumaka	Bush Mouth
F	MM	3.345683	59.621767		Bush Mouth
F	MM	3.333633	59.646816		Bush Mouth
G	MM	3.337733	59.636933	Arakapirin Creek	Bush Mouth
H	MM	3.343	59.61485		Bush Mouth
F	MM	3.325566	59.6391	Congoeel Creek	Mountain Foot
F	MM	3.32685	59.6355	Congoeel Creek	Mountain Foot

Site Type	Village	° North	° West	Area Name	Zone
F	MM	3.319733	59.646466	Crab Hill	Mountain Foot
F	MM	3.31755	59.648	Crab Hill	Mountain Foot
F	MM	3.33064	59.6739	Luta Water Area	Mountain Foot
F	MM	3.29872	59.6686	Luta Water Area	Mountain Foot
F	MM	3.30528	59.63898	Marasha Sping	Mountain Foot
F	MM	3.315866	59.651933	Moco Moco Settlement	Mountain Foot
F	MM	3.332716	59.64055		Mountain Foot
F	MM	3.3248	59.6437		Mountain Foot
FS	MM	3.30882	59.62315	Drugon Mountain	Mountain Foot
FS	MM	3.30528	59.63898	Marasha Sping	Mountain Foot
G	MM	3.30882	59.62315	Drugon Mountain	Mountain Foot
G	MM	3.30528	59.63898	Marasha Sping	Mountain Foot
H	MM	3.30882	59.62315	Drugon Mountain	Mountain Foot
H	MM	3.30528	59.63898	Marasha Sping	Mountain Foot
F	MM	3.30478	59.63096	Frog Creek	Up the Mountain
FS	MM	3.30478	59.63096	Frog Creek	Up the Mountain
FS	MM	3.326216	59.6328	Kumaka Creek Head	Up the Mountain
G	MM	3.27992	59.65561	Clement Area	Up the Mountain
G	MM	3.28193	59.64833	Clement Area	Up the Mountain
G	MM	3.27961	59.6472	Clement Falls	Up the Mountain
G	MM	3.30428	59.63096	Frog Creek	Up the Mountain
G	MM	3.30581	59.61151	Gold Creek	Up the Mountain
G	MM	3.29038	59.6328	Hydro Dam	Up the Mountain
G	MM	3.29028	59.63263	Hydro Dam	Up the Mountain
G	MM	3.28555	59.64669	Hydro Dam	Up the Mountain
G	MM	3.326566	59.615483	Kumaka Creek Head	Up the Mountain
G	MM	3.32555	59.62275	Kumaka Creek Head	Up the Mountain
G	MM	3.32645	59.619016	Kumaka Creek Head	Up the Mountain
G	MM	3.325033	59.63025	Kumaka Creek Head	Up the Mountain
G	MM	3.326216	59.6328	Kumaka Creek Head	Up the Mountain
G	MM	3.32765	59.612383	Kumaka Head Waters	Up the Mountain
G	MM	3.27132	59.65399	Mountain Top	Up the Mountain
G	MM	3.27955	59.65581	Mountain Top	Up the Mountain
G	MM	3.28237	59.64661	Mountain Top- Nibi Hill	Up the Mountain
G	MM	3.28205	59.64841	Nibi Hill	Up the Mountain
G	MM	3.30226	59.60029	Para Creek	Up the Mountain

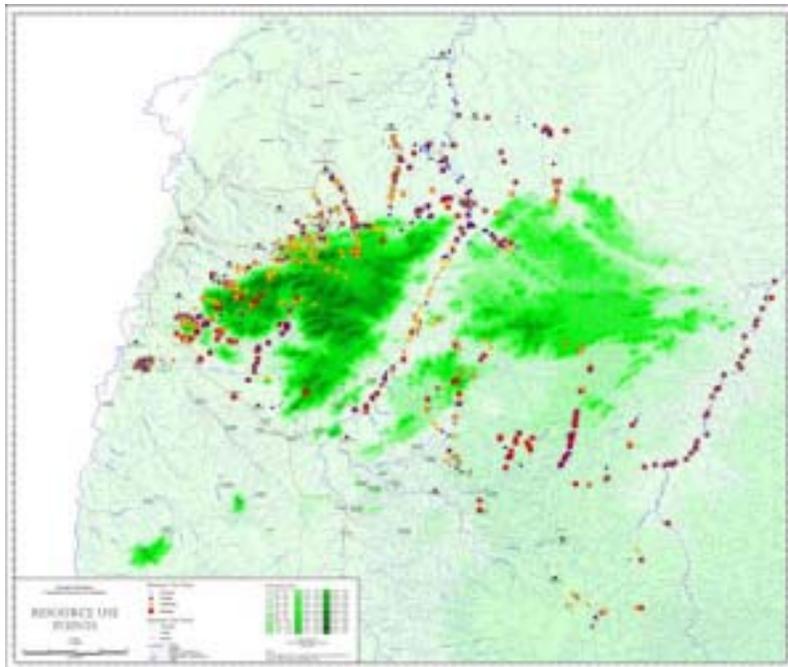
Site Type	Village	° North	° West	Area Name	Zone
G	MM	3.30436	59.57831	Saddle Mountain Creek	Up the Mountain
G	MM	3.30172	59.57356	White Horse Mountain	Up the Mountain
G	MM	3.332833	59.611433		Up the Mountain
G	MM	3.33645	59.611916		Up the Mountain
H	MM	3.30478	59.63096	Frog Creek	Up the Mountain
H	MM	3.30581	59.61151	Gold Creek	Up the Mountain
H	MM	3.326566	59.615483	Kumaka Creek Head	Up the Mountain
H	MM	3.32555	59.62275	Kumaka Creek Head	Up the Mountain
H	MM	3.32645	59.619016	Kumaka Creek Head	Up the Mountain
H	MM	3.325033	59.63025	Kumaka Creek Head	Up the Mountain
H	MM	3.326216	59.6328	Kumaka Creek Head	Up the Mountain
H	MM	3.32765	59.612383	Kumaka Head Waters	Up the Mountain
H	MM	3.27098	59.65418	Manicole Hill Top	Up the Mountain
H	MM	3.30226	59.60029	Pare Creek	Up the Mountain
H	MM	3.30436	59.57831	Saddle Mountain Creek	Up the Mountain
H	MM	3.30172	59.57356	White Horse Mountain	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.

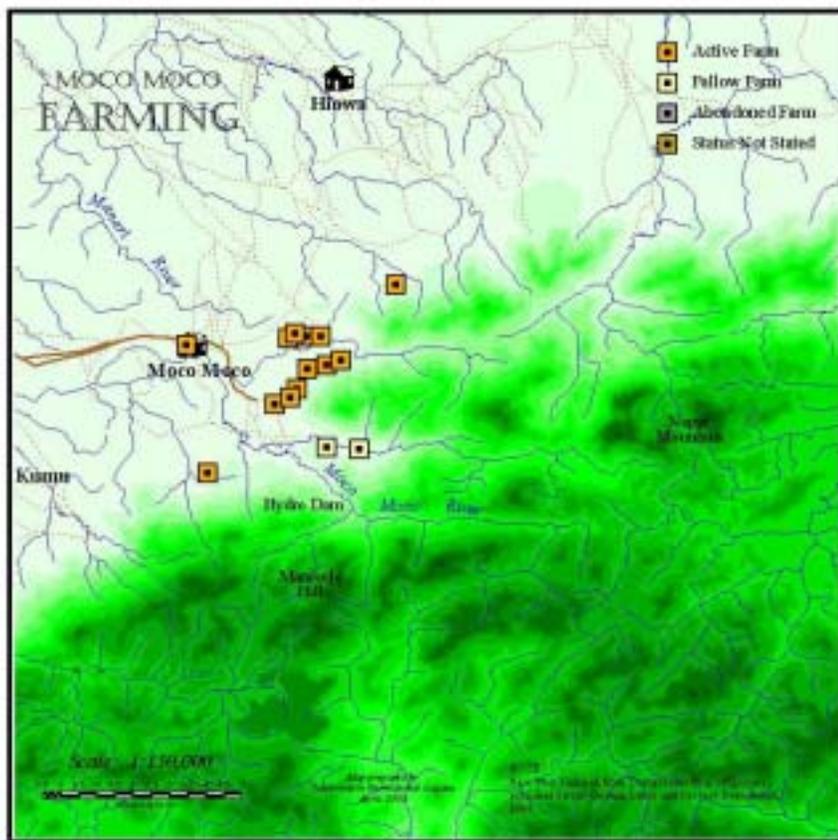
There is a separate map for each resource category as well as a combined map that has all the readings taken during the CRE. It is important to remember, when viewing the maps, that they represent only a record of sites observed during specific trips made during the CRE. These maps do not show every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

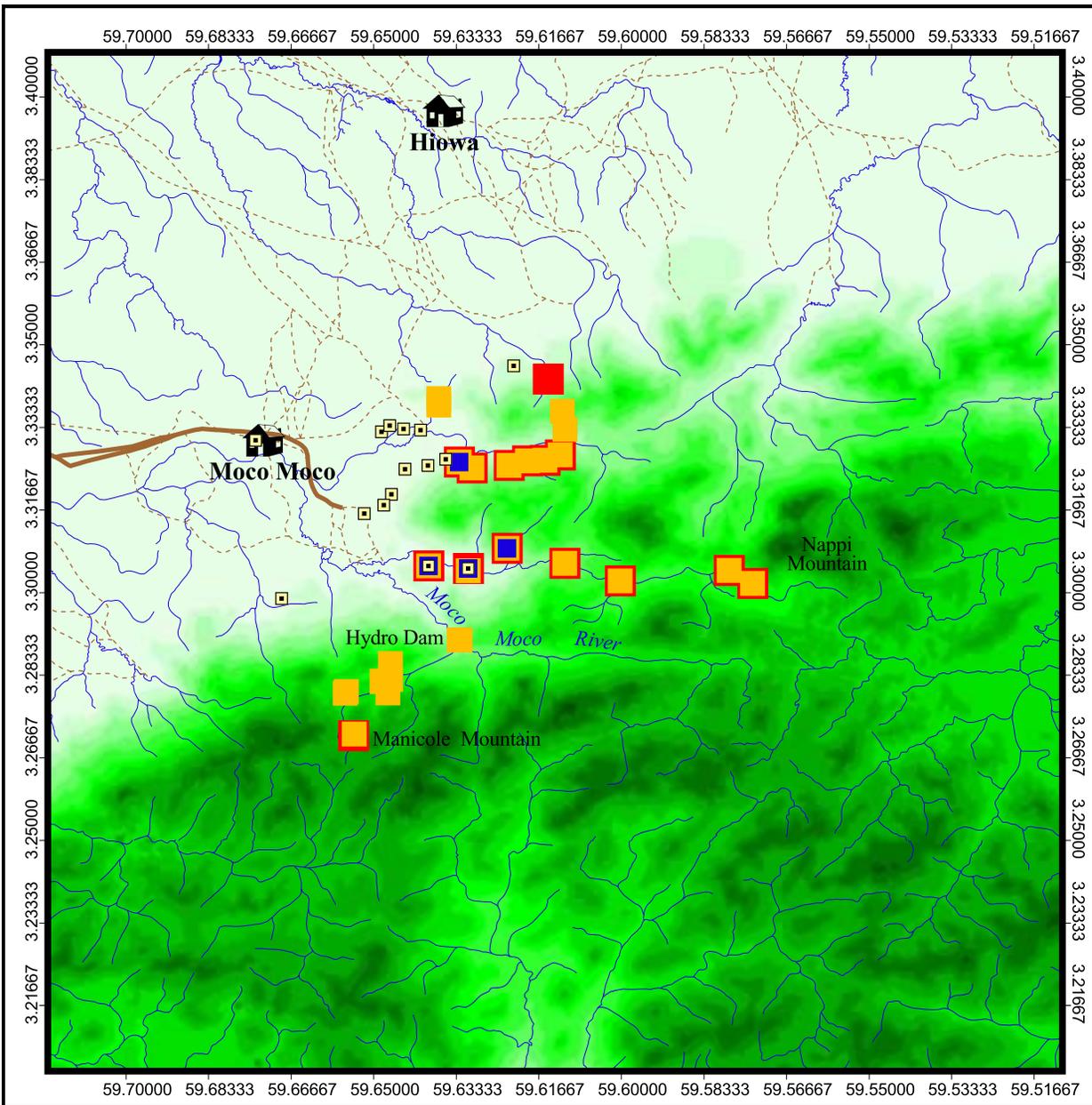


In some cases, flooding prevented access to some areas, especially those normally reached via creeks. In this case, readings were taken at a creek mouth, to record the area, while the use is described in the report.

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 it 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

Moco Moco Resource Points

- Farming
- Fishing
- Gathering
- Hunting
- Airstrips
- Trails
- Roads
- River
- Island
- Main Creek/River
- Secondary Creek/River
- Lake

Elevation (feet)

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

Scale: 1:150,000

0.5 0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5
Kilometers

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, Parikwranau.



Verifying the seasonal calendar, Rupunau.



Reading their CRE reports, Maruranau.

APPENDICES
APPENDIX 1
TYPICAL ACTIVITY SCHEDULE

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

APPENDIX 2

TEAM PROFILE

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.

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.

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

Esther McIntosh (CRE Facilitator):

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

Her responsibilities during the CRE include:

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

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

Date <table style="display: inline-table; border: none;"> <tr> <td style="border: none; padding: 0 10px;">Month</td> <td style="border: none; padding: 0 10px;">Day</td> <td style="border: none; padding: 0 10px;">Year</td> </tr> <tr> <td style="border: 1px solid black; width: 40px; height: 20px;"></td> <td style="border: 1px solid black; width: 40px; height: 20px;"></td> <td style="border: 1px solid black; width: 40px; height: 20px; text-align: center;">2002</td> </tr> </table>	Month	Day	Year			2002	Point Identification Code <table style="display: inline-table; border: none;"> <tr> <td style="border: none; padding: 0 10px;">GPS Unit</td> <td style="border: none; padding: 0 10px;">Village</td> <td style="border: none; padding: 0 10px;">Feature</td> <td style="border: none; padding: 0 10px;">Waypoint</td> </tr> <tr> <td style="border: 1px solid black; width: 40px; height: 20px;"></td> <td style="border: 1px solid black; width: 40px; height: 20px;"></td> <td style="border: 1px solid black; width: 40px; height: 20px;"></td> <td style="border: 1px solid black; width: 40px; height: 20px;"></td> </tr> </table>	GPS Unit	Village	Feature	Waypoint					Coordinates <table style="display: inline-table; border: none;"> <tr> <td style="border: none; padding: 0 10px;">North</td> <td style="border: none; padding: 0 10px;">West</td> </tr> <tr> <td style="border: 1px solid black; width: 60px; height: 20px;"></td> <td style="border: 1px solid black; width: 60px; height: 20px;"></td> </tr> </table>	North	West		
Month	Day	Year																		
		2002																		
GPS Unit	Village	Feature	Waypoint																	
North	West																			
Group <input style="width: 100%;" type="text"/>	Area Identification Name <input style="width: 100%;" type="text"/>																			
Feature Codes: Farming=F; Hunting=H; Fishing=P; Gathering=G	Use Zone Savannah <input type="checkbox"/> Bush Mouth <input type="checkbox"/> Bush <input type="checkbox"/> Mountain Foot <input type="checkbox"/> Up the Mountain <input type="checkbox"/>																			

HUNTING

Type of Site	Site Use Status	Species Hunted	Methods Used	Frequency of Use
Feeding Area <input type="checkbox"/>	Active <input type="checkbox"/>	Bush Cow <input type="checkbox"/>	Bow & Arrow <input type="checkbox"/>	Daily <input type="checkbox"/>
Track <input type="checkbox"/>	Inactive <input type="checkbox"/>	Deer <input type="checkbox"/>	Hunting Dogs <input type="checkbox"/>	2-4 times/week <input type="checkbox"/>
Drinking Pond <input type="checkbox"/>		Bush Hog <input type="checkbox"/>	Guns <input type="checkbox"/>	Monthly <input type="checkbox"/>
Nesting Area <input type="checkbox"/>		Powis <input type="checkbox"/>	Traps <input type="checkbox"/>	4-6 times/year <input type="checkbox"/>
Other <input style="width: 100%;" type="text"/>		Others <input style="width: 100%;" type="text"/>	Others <input style="width: 100%;" type="text"/>	1-2 times/year <input type="checkbox"/>
				Other <input style="width: 100%;" type="text"/>

Amount of Catch	Use of Catch	Threats to Site	Condition of Resource	
Less than 3 <input type="checkbox"/>	Domestic Consumption <input type="checkbox"/>	Over-hunting <input type="checkbox"/>	Excellent <input type="checkbox"/>	Good <input type="checkbox"/>
4-10 <input type="checkbox"/>	Sale Outside of Village <input type="checkbox"/>	Mining <input type="checkbox"/>	Poor <input type="checkbox"/>	Very Poor <input type="checkbox"/>
10-20 <input type="checkbox"/>	Both <input type="checkbox"/>	Poaching <input type="checkbox"/>	Notes	
20-50 <input type="checkbox"/>	% Amount sold <input style="width: 100%;" type="text"/>	Logging <input type="checkbox"/>		
More than 50 <input type="checkbox"/>	outside village	Other <input style="width: 100%;" type="text"/>		

FISHING

Type of Site	Site Use Status	Species Fished	Methods Used	Frequency of Use
River <input type="checkbox"/>	Active <input type="checkbox"/>	Huri <input type="checkbox"/>	Hook and line <input type="checkbox"/>	Daily <input type="checkbox"/>
Creek <input type="checkbox"/>	Inactive <input type="checkbox"/>	Yarou <input type="checkbox"/>	Poisoning <input type="checkbox"/>	2-4 times/week <input type="checkbox"/>
Pond <input type="checkbox"/>		Lukunani <input type="checkbox"/>	Seine/ Cast Net <input type="checkbox"/>	Monthly <input type="checkbox"/>
Other <input style="width: 100%;" type="text"/>		Patwa <input type="checkbox"/>	Bow and Arrows <input type="checkbox"/>	4-6 times/year <input type="checkbox"/>
		Others <input style="width: 100%;" type="text"/>	Others <input style="width: 100%;" type="text"/>	1-2 times/year <input type="checkbox"/>
				Other <input style="width: 100%;" type="text"/>

Amount of Catch	Use of Catch	Threats to Site	Condition of Resource	
Less than 3 <input type="checkbox"/>	Domestic Consumption <input type="checkbox"/>	Over-fishing <input type="checkbox"/>	Excellent <input type="checkbox"/>	Good <input type="checkbox"/>
3-10 <input type="checkbox"/>	Sale Outside of Village <input type="checkbox"/>	Mining <input type="checkbox"/>	Poor <input type="checkbox"/>	Very Poor <input type="checkbox"/>
10-20 <input type="checkbox"/>	Both <input type="checkbox"/>	Poaching <input type="checkbox"/>	Notes	
20-50 <input type="checkbox"/>	% Amount sold <input style="width: 100%;" type="text"/>	Poisons <input type="checkbox"/>		
More than 50 <input type="checkbox"/>	outside village	Other <input style="width: 100%;" type="text"/>		

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

GATHERING

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

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

FARMING

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

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

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

COPY OF BUSH DATA SUMMARIES

Farming Summary

*Village*MM

Total Number of Points 15

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
0	0	4	10	1			

Use Status

Active	Fallow	Abandoned	No Response				
13	2	0	0				

Method of Extension

Shifting	Extension	Rotation	Other	No response			
5	1	3	0	6			

Size of Farm

< 1 Acre	1 Acre	2-5 Acre	> 5 Acre	No Response			
4	10	0	1	0			

Soil Type

Gravelly	Sandy	Clayey	Peggasse	Loamy	No Response		
4	6	2	0	2	1		

Main Crops Planted

Cassava	Banana	Peanuts	Mixed	Other	No Response		
9	1	1	3	0	1		

Use of Produce

Dom. Consmpt.	Sale	Both	No Response				
10	0	5	0				

Threats to Site

Over-Farming	Mining	Wildlife	Logging				
2	0	5	0				

Pest and Diseases

Deer	Caterpillar	Acoushi Ants	Crickets	Hogs	Monkeys	Birds	Agouti
4	0	10	0	6	0	0	0

Hunting Summary

VillageMM

Total Number of Points 15

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
0	1	0	2	12			

Type of Site

Feeding Area	Track	Drinking Pond	Nesting Area	Combined			
2	0	0	0	13			

Use Status

Active	Inactive	No Response					
12	0	3					

Species Hunted

Bush Cow	Deer	Bush Hog	Powis	Armadillo	Turtles	Labba	Acouri
14	14	15	13	3	0	11	0

Methods Used

Bow and Arrows	Hunting Dogs	Guns	Traps				
15	13	9	2				

Frequency of Use

Daily	2-4X/week	monthly	4-6 X /year	1-2 X /year			
0	3	2	10	0			

Amount of Catch

< 3	3 to 10	10 to 20	20 to 50	> 50	No Response		
8	1	5	0	0	1		

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
13	0	1	1				

Threats to Site

Over-Hunting	Mining	Poaching	Logging				
1	0	0	0				

Condition of Resource

Excellent	Good	Poor	Very Poor	No Response			
4	9	0	0	2			

Fishing Summary

VillageMM

Total Number of Points4

Use None

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

Type of Site

River	Creek	Pond	Other						
0	4	0	0						

Use Status

Active	Inactive	No Response							
3	0	1							

Species Fished

Arapima	Tiger Fish	Lukunani	Baira	Hour	Yarrow	Patwa	Piaba	Haimara	Kassi
0	0	0	0	3	3	3	3	0	2

Methods Used

Hook and Line	Poisoning	Cast Net/Seine	Bow and Arrows						
3	0	2	4						

Frequency of Use

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

Amount of Catch

< 3	3 to 10	10 to 20	20 to 50	> 50					
0	0	0	0	4					

Use of Catch

Dom. Consumpt	Sale	Both							
4	0	0							

Threats to Site

Over-Fishing	Mining	Poaching	Poisons						
0	0	0	0						

Condition of Resource

Excellent	Good	Poor	Very Poor	No Response					
2	1	0	0	1					

Gathering Summary

VillageMM

Total Number of Points27

Use None

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain			
1	1	0	2	23			

Use Status

Active	Inactive					
27	0					

Species Collected

Palm Leaves	House Poles	Muckru	Nibbi	Wild Fruits		
7	0	16	5	13		

Methods Used

Cut and Carry	Tapping	Picking	Pork knocking			
22	6	16	5			

Frequency of Use

Daily	2-4 times /week	Monthly	4-6 Times /year	1-2 Times /year		
1	6	6	8	6		

Use of Collection

Dom. Consumpt	Sale	Both	No Response			
23	0	1	3			

Threats to Site

Over-Harvesting	Mining	Poaching	Logging				
1	0	0	2				

Condition of Resource

Excellent	Good	Poor	Very Poor	No Response			
4	21	0	0	2			

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 Moco Moco

Total Number of Points 25

Age

No Response	15-28	29-40	41-55	Above 55			
1	1	6	8	9			

Gender

Male	Female	No Response					
15	10						

Number of Dependants

Average	Variance	Maximum	Minimum				
6.56	10.51	13	2				

Number of Farms

Average	Variance	Maximum	Minimum				
2.4	1.83	5	1				

Size of Farm

< 1 Acre	1>2 Acre	2-4 Acre	5 Acre and more	Other	No Response		
3	6	8	8	0	0		

Farming Zone

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

Methods of Transportation

Walking	Bicycle	Bullock Cart	Boat	Other	No Response		
20	11	3					

Frequency of Use

Daily	2 x wk	3 x wk	4 x wk	5 x wk	Weekly	2 x mth	No Response
23							2

Use of Produce

Dom. Consmpt.	Sale	Both	No Response				
5	4	13	3				

Threats to Farms

Wild animals	acoushi ants	weather	caterpillar	domestic animals	monkey	weed	other
15	17	1	2	2	2	0	7

Biggest Threat

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

Hunting Summary

Village Moco Moco

Total Number of Points 1

Age

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

Gender

Male	Female	No Response					
1							

Number of Dependants

Average	Variance	Maximum	Minimum				
3		3	3				

Frequency of Use

Monthly	Seasonally	Quarterly	2 x Yr	Yearly	Other	No Response	3 x mth
					1		

Methods Used

Arrow & Bows	Guns	Dogs	Other	No Response			
	1						

Hunting Zone

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

Hunting Site

Feeding area	Track	Pond	Creek	Nesting area	Combined	No Response	
					1		

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
		1					

Threats to Site

Over-Hunting	Mining	Weather	Increase of hunters	Malaria	logging	Other	No Response
					1		

Do you Fish Further?

Yes	No	No Response					
1							

Change In Resource availability

Yes	No	No Response					
1							

Extinct or Scarce Species

deer	amadillo	labba	turtle	bush hog	birds		
					1		

Fishing Summary

Village Moco Moco

Total Number of Points 24

Age

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

Gender

Male	Female	No Response					
14	10						

Number of Dependants

Average	Variance	Maximum	Minimum				
6.392	9.38	13	2				

Frequency of Use

Daily	2 x wk	3 x wk	Weekly	Monthly	Seasonally	Other	No Response
10			7	4	2	1	0

Fishing Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
6	1	5	1	3			8

Fishing Site

River	Creek	Pond	Falls	Combined	No Response		
	20	3			1		

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
22		2					

Methods Used

Hook and Line	Traps	Cast Nets	Bow and Arrows	Seine	Other	No Response	
22	7	4	2	18	1		

Threats to Site

Over fishing	Weather	Poison	Population	Fire	Crabs	Other	No Response
5	8	2	1	2	5	3	

Do you Fish Further?

Yes	No	No Response					
16		8					

Change In Resource availability

Yes	No	No Response					
8		16					

Extinct or Scarce Species

Arapaima	Big Fishes	Lukunani	Biara	Yakatu	Tiger Fish	Other	
		3	1	4	1	2	

Gathering Summary

Village Moco Moco

Total Number of Points 21

Age

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

Gender

Male	Female	No Response					
13	8						

Number of Dependants

Average	Variance	Maximum	Minimum				
6.57	7.77	11	2				

Frequency of Use

Daily	3 xwk	Weekly	3 x mth	Monthly	Quarterly	Seasonally	Other
0							21

Gathering Zone

Savannah	Bush Mouth	Bush	Mountain Foot	Up The Mountain	Deep Bush	Other	No Response
			4	14			3

Use of Catch

Dom. Consumpt	Sale	Both	No Response				
15			6				

Threats to Site

Over-Harvesting	Weather	Population	Fire	Outsiders	Logging/Cutting	Wastage	No Response
4		3	6	1	1	1	11

Do you Gather Further?

Yes	No	No Response					
1		20					

Change In Resource availability

Yes	No	No Response					
1		20					

Extinct or Scarce Species

House Materials	Blood wood	Bush Merishi	Nibi	trees	Frejo	Tuba	
	1	1	1	1	1	1	
