

## Appendix 4.4

### Project Report

- Title: Crabwood Oil Study: Equitable Use of NTFPs in Guyana: Report of the Community Level Survey
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# **CRABWOOD OIL STUDY: Equitable Use of NTFPs in Guyana**

PRELIMINARY REPORT OF THE COMMUNITY  
LEVEL SURVEY

**MARCH 2002**

Winners and Losers in Forest Product Commercialisation

DFID-Forestry Research Programme (FRP) funded Project  
in collaboration with the Centre for Ecology & Hydrology-UK.

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April 2002

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# 1 1. Preliminary Results of Community Level Survey

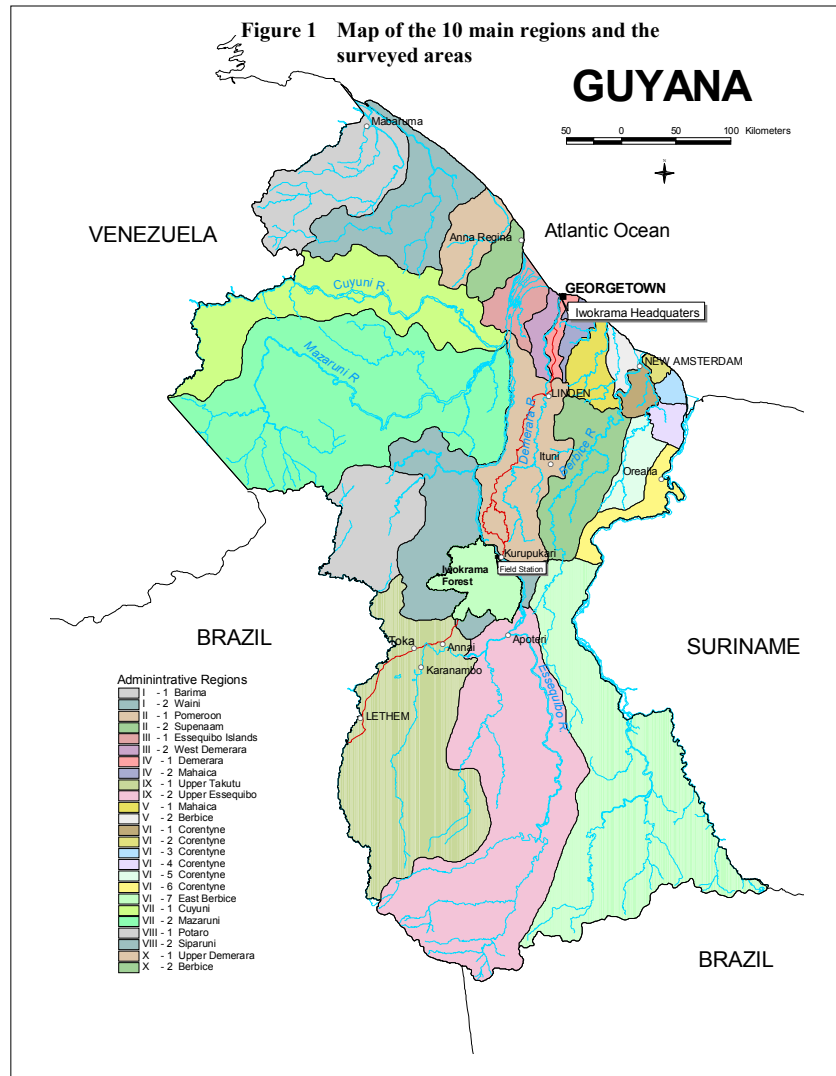
## 1.1 Method

The initial phase of the DFID-funded project examined the economic and social impacts of commercialisation of Crabwood Oil on the key stakeholders. During this phase, a total of 131 household surveys in the form of questionnaires were administered in 3 of the 10 main Administrative Regions of Guyana (Figure 1). The number of surveyed Crabwood Oil-producing households varied in each Region. The initial survey was administered in 3 regions, in the first, Region 9 bordering the Iwokrama Rainforest Reserve, in a second known as a key crabwood-oil producing site (10), and in a third area proximate to the capital city and the best local market for crabwood oil (3).

In an effort to ensure full community involvement and participation in the project, researchers were selected from within the areas surveyed. In Region 10, Iwokrama staff visited key Crabwood Oil producing communities along the Berbice River, to discuss the purpose and scope of the project with the heads of each community. During the

community visit, the project and questionnaires were introduced and discussed. The community leaders were then asked to select the most suitable person for the task of administering the questionnaires. With the assistance of Mr. Vandenburg (Deputy Chair of the RDC), a one-day workshop was held at the Iwokrama Centre on July 5, 2000, for training the selected researchers in refining and administering the questionnaires in the field.

The Makushi Research Unit (MRU), an umbrella body representing Makushi women researchers, and established in 1995, were asked to administer the questionnaires in their communities in Region 9. In September of 2000, these researchers underwent training similar to



that received by the Region 10 data collectors. The survey of this area was conducted one month later.

Data collection was carried out at the community and household levels. The community level survey focused on collecting information from the highest decision making level within the community through questionnaires (Appendix II). A total of 20 community-level surveys were completed (Appendix III), mainly with Village Leaders and Councils. Each community profile assessment aimed at gathering data on a collective number of households. In the case of Region 3, data was collated from five villages representing a collective assessment for one community level survey. The community level survey mainly focused on assessing:

- access rights to resource sites by crabwood seed collectors
- land tenure issues
- production levels of Crabwood oil in communities with access to resources and in those with restricted access
- shifts in the number of Crabwood Oil producers
- abundance and availability of the resource – Crabwood trees
- energy requirements of the conversion process and the status of Crabwood seed supply
- number of producers in comparison with the scale of Crabwood Oil production

## **1.2 Resource Use Rights**

Presently, there are no restrictions imposed on Crabwood seed collection activity in the resource sites used by the various communities surveyed. It was noted in every instance that Crabwood seed collection can be carried out by any individual or household as required. In the past also, there were no restrictions on Crabwood seed collection by any family or families in the surveyed communities. However, one village in Region 9 recommended control over Crabwood seed collection to ensure that the seeds are not over harvested.

## **1.3 Land Use Rights**

The questionnaire aimed to assess whether the surveyed communities had land titles to Crabwood resource sites. The survey results indicated that in 11 of the 20 communities surveyed, some form of land title was held to the land where Crabwood seed are harvested. Eight of the 11 communities held individual title, of which, 6 represented 60% of the surveyed villages in Region 10 while the other two accounted for 22% of the villages in Region 9 (Table 1).

Of the remaining 3 communities, 2 of these land titles were held collectively by the villages in Region 9, while in the other case, seed collection are carried out in titled lands held both individually and collectively by the villages of Region 3. However, in all 11 cases, the community-level respondents indicated that local people were free to collect Crabwood seeds from these titled areas held individually or collectively by the community. It was unclear from the questionnaires whether the individual land titles were held only by community members or from outsiders. The researchers suspected that in some of the areas the land titles were also held by outsiders particularly by concessionaires.

**Table 1 Breakdown by region indicating types of land titles**

<i>Region</i>	<i>No. of Villages Surveyed</i>	<i>Individual Land Titles</i>	<i>Village Titles</i>	<i>Seed Collection carried out in land held individually and collectively by the Village</i>	<i>Do not know who hold titles to the resource site</i>	<i>No Land Titles held by the Communities</i>
		<b># of Respondents (n=20)</b>				
<b>10</b>	10	6 (60%)	0	0	0	4 (40%)
<b>9</b>	9	2 (22%)	2 (22%)	0	5 (56%)	0
<b>3</b>	1 <sup>1</sup>	-	-	1 (100%)	0	0
<b>Total</b>	<b>20</b>	<b>8 (40%)</b>	<b>2 (10%)</b>	<b>1 (5%)</b>	<b>5 (25%)</b>	<b>4 (20%)</b>

Amerindian rights or privileges to use the forest including collecting NTFPs e.g. Crabwood seeds on all State and Forest Lands, alienated or unalienated, is protected by legislation (*Section 37 of the Forests Act, Chapter 67:01*). Four of the 20 surveyed communities said that the communities do not hold titles to the Crabwood resource sites. These 4 communities of Region 10 indicated that local people still collect seeds from these sites since neither the government nor concessionaires have ever restricted access to collection of Crabwood seeds.

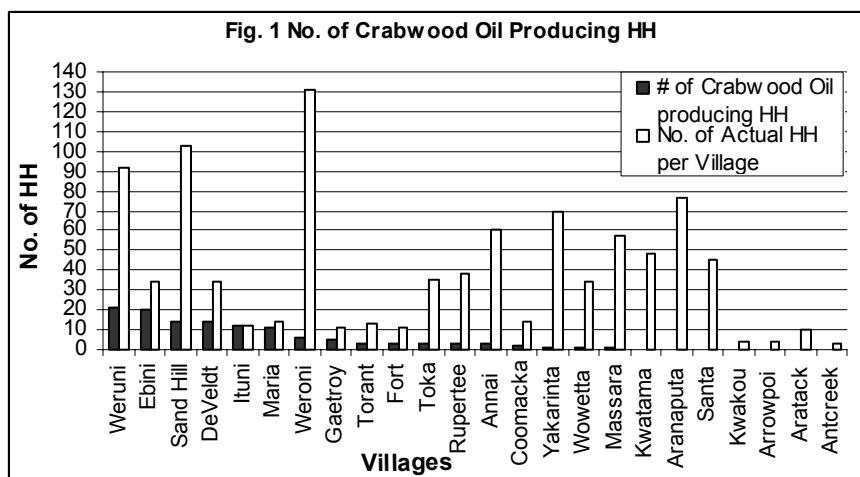
The remaining 5 communities in Region 9 did not know whether the communities held titles to the Crabwood collection sites. The communities noted that in some cases the Crabwood collectors travel long distances to collect seeds. Respondents indicated that in some instances during fruit-fall season, Crabwood trees associated with particular geographic range do not fruit. This was noted as a factor that necessitated travelling long distances and in many cases the seed collectors were not aware of land ownership of the collection areas since no one had ever restricted seed collection.

#### **1.4 Crabwood-Oil Producing Households**

The survey identified the number of households involved in the collection and processing of Crabwood seeds to produce oil for home use and selling to local markets. The number of Crabwood-Oil producing households is represented in Figure 1. The preliminary survey for Regions 3, 9 and 10 confirms that the majority of Crabwood Oil producers are located in Region 10. In this Region, a total of 111 households produce Crabwood Oil accounting for approximately 24% of the total number of households of the villages surveyed in Region 10.

The number of producers in that area of Region 9 surveyed and which borders the Iwokrama Forest accounted for fewer than 2% of the total households in the surveyed villages. This is not surprising since most of these villages are located in the savannah areas, away from the forest. The collection of Crabwood seeds from the forest to make oil would require significant expenditures of time and energy by the villagers, and the survey further established that the knowledge of how to process seeds into oil was no longer widely known in this area. However, respondents indicated that they would be willing to embark on the processing of Crabwood oil, if a market existed for the product.

<sup>1</sup> In the case of Region 3, data was collated from five villages representing a collective assessment for one community level survey.



None of the households surveyed in the five villages of Region 3 were presently involved in Crabwood Oil production. Most of the respondents noted that in the past, Crabwood Oil production used to be carried out. The decline in oil production was mainly attributed to logging inside and outside the community reserve. Survey results indicated

that there was only a limited and scattered presence of Crabwood trees in and around the community reserves. The respondents noted that most of the remaining trees were less than 17 cm dbh, concluding that seed production levels would not be enough to sustain oil production in Region 3. Respondents said that Crabwood trees used to be larger in diameter 40-50 years ago. However, recent logging of these areas has led to a decline in Crabwood trees, resulting in fewer seed-bearing trees being left standing for oil production.

### 1.5 Crabwood Oil Producers and the Time Factor

The community level survey aimed to assess the variation, if any, in the number of Crabwood Oil makers in identified areas over the last 5 to 15 years. In all regions, the survey established a decline in producer numbers. Most of the communities identified more than one factor responsible for the decrease in the number of Crabwood Oil makers in the various villages. The common factors for the decline in Regions 3 and 10 are listed in Table 2. The most common

**Table 2** The common factors identified for the decrease in the number of Crabwood Oil makers in the surveyed villages of Region 3 and 10

Reasons for decline in Crabwood Oil Producers	Ranking (1 being the most common factor and 5 the least common)
1. Logging over the last 20 years	1
2. Low availability of Crabwood trees and travelling long distances to obtain seeds	2
3. Crabwood oil is slow to sell	3
4. Time and labour intensive	4
5. Migration of youths from village seeking alternative jobs	4
6. Price does not compensate for time and energy	5
7. Lack of steady market and low price	5

reason identified in mainly the 5 villages surveyed in Region 3 was logging out of the resource base. The surveyed communities also indicated that the time and effort put into processing Crabwood Oil was not adequately compensated for in the price that the producer is paid. The results also indicate that the Crabwood Oil takes a long time to sell which is frustrating to the producer, considering the long hours spent collecting seeds and making the Crabwood Oil. Other

reasons identified were migration of youths from villages in search of better job opportunities e.g. to the Bauxite Industry, mainly in Region 10.

Three of the surveyed communities in Region 10 indicated that the number of Crabwood Oil makers has increased over the last 20 years. The main reason given for the increase was increases in population of the villages, with limited alternative sources of income. The respondents noted that more people know how to make Crabwood Oil but there is no steady market for the product from these villages. Most villagers have knowledge of how to make Crabwood Oil and would begin to produce the oil if some of the steady oil producers were to stop making the oil in the villages. Others would store the oil to supply the orders from retailers in Georgetown. The respondents noted that the production of the oil can increase rapidly if the price received from sales of the Crabwood Oil were to compensate for the time and energy put into the processing.

The 8 communities surveyed in Region 9 indicated that the number of Crabwood Oil makers have declined significantly over the last 20 years. It was pointed out that Crabwood Oil used to be produced to supply the traders during the heyday of Balata Bleeding, from the 1920s to the 1960s. However, the closure of the Balata operations also led to a commensurate decline in the production of Crabwood Oil. During the period of Balata Bleeding, both men and women worked and together made trips to the forest where they used the opportunity to carry out more than one activity, including collecting the seeds to make oil for home use and to supply the markets. After the closure of the Balata Company, there was no need to travel long distances to bleed Balata and many of the villagers in Region 9 stopped making Crabwood Oil, due to lengthy travelling time to collect Crabwood seeds. Other communities in Region 9 noted that it became increasingly difficult to collect seeds since persons have to walk long distances as the resource sites are far away from the villages in the North Rupununi.

Some of the North Rupununi respondents noted that the younger persons in the communities have no knowledge of Crabwood Oil making since the closure of the Balata Industry.

### **1.5 Abundance of Resource**

The community level survey tried to assess the state of the resource base in those areas where the villagers are collecting the oil seeds. Most of the respondents said that the amount of Crabwood seeds is about the same as 20 years ago. However, in some cases the villagers have been cutting the Crabwood tree to make canoes. The respondents noted that the main predator of the seeds are the peccaries. As indicated above, the trees are the target of loggers and chainsaw operators and in some areas there are no Crabwood trees left for community use. The respondents said that based on their observations, seed production is dependent on weather conditions and also that some Crabwood trees do not fruit every season. The respondents indicated that seed production levels decline as the Crabwood tree matures.

**Appendix I**  
**List of Participants at**  
**Training Workshop on Questionnaire Administration**  
**5 July 2000**

<b>#</b>	<b>Participant</b>	<b>Village</b>
1	Colin Kertzious	DeVeldt
2	Hazel Collins	Coomaka
3	Merle Keasting	Ituni
4	Calvin Vandenburg	Maria Henrietta
5	Colin St. Clair	Weruni
6	Percy King, Village Captain	Weruni
7	Janette Forte	Iwokrama Intenational Centre
8	Twydale Martinborough	Iwokrama Intenational Centre
9	Sharon Ousman	Iwokrama Intenational Centre
10	David Hammond	Iwokrama Intenational Centre

# Appendix II

## Community – Level Questionnaire

### COMMUNITY-LEVEL QUESTIONNAIRE

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Name of community .....

Location .....

Population .....

1. Can any person in your village collect seeds where they want to or is collection from certain areas restricted to certain families?

2. Do you know whether your community has title to the area(s) where crabwood seeds are collected? Describe the situation in your community.

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3. How many households in your community make crab oil every season?

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4. Are there more or fewer crab oil makers in your community than there were  
(a) 5 to 10 years ago                      (b) 10 to 15 years ago

5. If there are fewer crab oil makers in your community, give the reasons why people have stopped making crab oil (give the most important reason first, and then the others):

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6. Are crabwood seeds as plentiful now as they were  
(a) 1 to 5 yrs ago      (b) between 5 and 10 yrs ago      (c) between 10 and 15 yrs ago?

7. If crabwood seeds are fewer in quantity in the area(s) where collecting took place before, give reasons for the decline.

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Name of person who collected this information \_\_\_\_\_

Date \_\_\_\_\_

## Appendix III

### Village Profiles – Population and Household Statistics

Region	Villages	# of Crabwood Oil producing HH	Estimated No. of Actual HH per Village	Population
10	DeVeldt	14	34	150
10	Gaetroy	5	11	50
10	Ebini Waterfront	20	34	150
10	Weruni Village Berbice	21	92	400
10	Torani	3	13	50
10	Sand Hill	14	103	450
10	Fort Nassau	3	11	50
10	Maria Henrietta	11	14	60
10	Coomacka	2	14	60
10	Weroni District	6	131	571
10	Ituni	12	12	52
<b>Total</b>		<b>111</b>	<b>469</b>	<b>1529</b>
9	Annai	4	60	372
9	Rupertee	3	38	229
9	Wowetta	1	34	243
9	Massara	1	57	319
9	Yakarinta	1	69	485
9	Toka	3	35	219
9	Kwatamang	0	48	314
9	Aranaputa	0	77	421
<b>Total</b>		<b>13</b>	<b>1418</b>	<b>2602</b>
<b>3</b>	<b>5 Communities</b>			
3	Santa Mission	0	45	193
3	Aratack	0	10	44
3	Antcreek	0	3	14
3	Arrowpoint	0	4	15
3	Kwakou	0	4	15
<b>Total</b>		<b>0</b>	<b>66</b>	<b>281</b>