



THE UNIVERSITY OF THE WEST INDIES, MONA CAMPUS

CENTRE FOR ENVIRONMENTAL MANAGEMENT

PUBLIC CONSULTATIONS ON DEFINING THE BOUNDARIES OF THE COCKPIT COUNTRY



Technical Report Prepared by

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EXECUTIVE SUMMARY

The main goal of this project was to initiate, manage and facilitate a public consultation process on defining the boundary of the Cockpit Country. The research team collected the views and opinions of the various stakeholders regarding the UWI proposed boundary in relation to other proposed boundaries which were referred by the UWI research team. In addition, a new boundary proposed for the Cockpit Country by relevant Governmental authorities and stakeholders in 2009 as well as previous proposed boundaries that were inadvertently omitted by the UWI research team were included in the discussion.

A mixed methodology was used combining qualitative and quantitative tools and instruments of empirical data collection. However, the public consultation primarily fell within the qualitative methodological paradigm. A total of 18 community public consultation meetings were organised within the Cockpit Country. Some neighbouring communities were joined together instead of holding a separate meeting in each district or community. A flexible questionnaire was administered to few members of each community in order to complement the qualitative information that was collected during the public consultation meetings. THREE Town Hall meetings outside the Cockpit Country were held in Santa Cruz, Montego Bay, and Kingston.

The research team also conducted a number of structured and unstructured interviews with Ministries and Governmental agencies, key stakeholders from the Cockpit Country Stakeholders' Group, other Non-Governmental Organisations, experts from the academic community and few private land owners. An interview guide was sent to each organisation prior to the interviews. Content analysis was used to analyse the views and opinions of the stakeholders. Text boxes were created when appropriate to report the data.

Results

Most people living within the Cockpit Country would like it to be declared and designated as a protected area and a national park, an ecotourism site and a World Heritage Site. There is vehement opposition to bauxite mining and limestone quarrying within the Cockpit Country. Some stakeholders believed that geology and geomorphology are foundational factors in identifying the Cockpit Country. However, these factors could not be the only parameters to take into account when defining the boundary of the Cockpit Country.

There is an agreement that economic opportunities for the local communities and the nation at large should be part of the Cockpit Country boundary discussion. Several representatives from the Governmental agencies support a balanced approach between the local economy and the national interest. There is full agreement that the defined boundary of the Cockpit Country should ensure watershed protection and the protection of the natural resources and the ecosystems.

Land tenure (Private versus Crown) should be addressed and incentives should be provided to Private land owners depending on the future of the Cockpit Country. Discussions should take place with the Accompong Maroon Council in order to resolve issues related to ownership rights, conservation and management of the natural resources. There are conflicts between the stakeholders about the use of the Cockpit Country's natural resources. Some stakeholders would like controlled use of the natural resources and amenities by establishing new practices such as sustainable farming, improved land use patterns, ecotourism activities, etc... Other stakeholders would like the natural resources to remain undisturbed.

There are conflicting views in terms of exploration of existing natural resources whether for economic opportunities, simple curiosity or scientific research. The high level of scepticism is associated with the issue of lack of trust between the stakeholders and the motives for the enquiry. Some stakeholders are of the view that exploration will always lead to exploitation and exploitation to devastation of the existing natural resources and endemic species of fauna and flora.

There is strong agreement that the Forest Reserve should not be touched at any cost as a result of its level of endemism, and biodiversity as well as its significance to watershed protection, climate change and other ecosystem services. There is also agreement that more research should be conducted in order to explore the archaeological and historical treasures of the Cockpit Country.

There are full agreement on declaring the Cockpit Country a Protected Area and National Park. All stakeholders are of the view that the Jamaica National Heritage Trust (JNHT) should seek a nomination of World Heritage site for the Cockpit Country.

Recommendations

1. There is an urgent need to develop a long vision for the Cockpit Country and evaluate the true cost of ecosystem services provided by the Cockpit Country for Jamaica and the World vis-à-vis the permanent removal of mineral resources under current technological conditions.
2. One of the biggest contributions of the Cockpit Country to the national economy is the provision of potable water. The Water Resource Authority insisted that 40% of water production in Jamaica is supplied by the Cockpit Country aquifer (WRA, 2004). The tourism sector in western Jamaica greatly benefits from the ecological services provided by the Cockpit Country aquifer in terms of water supply and water quality. The Cockpit Country Forest plays a critical role in sustaining water security in Jamaica.
3. The Government of Jamaica should not authorise any form of mining and quarrying activity within the Cockpit Country as the level of emotion is too high and the level of opposition and resistance by community members and leaders, community-based organisations, Non-governmental and civil society organisations, some governmental agencies and members of the academic community may not provide enough guarantee and confidence for potential investors.

4. The Cockpit Country deserves some form of legal protection. The declaration of a protected area and national park is the first step toward the ultimate goal, which is the nomination of the Cockpit Country as a World Heritage site by the United Nations Educational and Cultural Organisation (UNESCO).
5. The official boundary for the Cockpit Country should be comprised of a Core, a Transition Zone and an Outer Boundary.
6. The Core of the Cockpit Country boundary should be primarily based on the contiguous geological, geomorphological and biological parameters. The Core must be the centre of the best and primary forest within the Cockpit Country.
7. The 2005 Parris Lyew-Ayee Jr. proposed boundary, which also enclosed the current forest reserve can stand as a Core as it fits the above characteristics. The 2005 Parris Lyew-Ayee Jr. proposed boundary is suggested as the Core of the boundary.
8. The Transition Zone of the boundary must be legally protected as well. However, the transition zone will require fewer restrictions because it includes human settlement areas, agricultural lands, and other types of forest reserve, where some regulated anthropogenic activities take place. However, there should be a level of control in order to protect the Core. There should be a high level of zoning. Alternative livelihood strategies have to be sought if current economic activities can threaten the sustainability of the Core. The Cockpit Country NEGAR Add-on boundary is suggested as the Transition zone of the boundary.
9. The outer boundary should be legally protected. It can also be considered as a buffer zone depending on the arrangements as indicated by the International Union for Conservation of Nature (IUCN) or UNESCO's World Heritage Convention. There may be fewer restrictions in this zone. The outer boundary may include other forest reserves or special areas that need to be placed under stringent protection and conservation measures. The boundary proposed by the Cockpit Country Stakeholders' Group is suggested as the outer boundary.
10. A Board of Management or Stakeholders' Oversight Committee should be formed to oversee the management of the Cockpit Country Protected Area or National Park. The Board/Committee should comprise representatives from governmental agencies, the Maroon Council, non-governmental organisations and community-based organisations, the business community and educational institutions. The Board/Committee should report to the Cabinet through the Ministry of Water, Land, Environment and Climate Change.

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ACRONYMS AND ABBREVIATIONS

CBO	Community Based Organizations
CCSG	Cockpit Country Stakeholders' Group
CPD	Centre for Plant Diversity
FD	Forestry Department
FR	Forest Reserve
GDP	Gross National Development
GEF	Global Environment Facility
GOJ	Government of Jamaica
IOJ	Institute of Jamaica
IUCN	International Union for the Conservation of Nature
JB I	Jamaica Bauxite Institute
JCDT	Jamaica Conservation and Development Trust
JCO	Jamaica Caves Organisation
JET	Jamaica Environment Trust
JNHT	Jamaica National Heritage Trust
JNHT	Jamaica National Heritage Trust
JTB	Jamaica Tourism Board
LFMC	Local Forest Management Committees
MGD	Mines and Geology Division
MOAF	Ministry of Agriculture and Fisheries
MOTE	Ministry of tourism and Entertainment

MSTEM	Ministry of Science, Technology, Energy and Mining
MWLECC	Ministry of Water, Land, Environment and Climate Change
NEGAR	National Ecological Gap Assessment Report
NEPA	National Environmental Planning Agency
NGO	Non-Government Organizations
NJCA	Northern Jamaica Conservation Association
NLA	National Land Agency
NWC	National Water Commission
PARE	Protected Area for Rural Enterprise
RADA	Rural Agricultural Development Authority
STEA	Southern Trelawny Environmental Agency
TNC	The Nature Conservancy
UNDP	United Nations Development Programme
UNESCO	United Nations Educational and Cultural Organisation
USAID	United of States Agency for International Development
UWI	University of the West Indies
WRA	Water Resources Authority
WRC	Windsor Research Centre

Chapter 1

Introduction and Methodology

1.1 Introduction

The Cockpit Country is a very pristine area in Jamaica, which has been recognized nationally and internationally as a sanctuary for many endemic species of plants and animals (Eyre, 1995). The geology and the geomorphology of the Cockpit Country forest which is described as a rugged and impenetrable terrain have made possible the preservation of a high biodiversity of fauna and flora (Parris, 2005). These two physical characteristics have also helped the Cockpit Country to remain the repository of important underground natural resources and medicinal plants, which are yet to be explored and economically evaluated. Many sections of the Cockpit Country are yet to experience the wrath of anthropogenic penetration. The Cockpit Country is depicted as “one of the largest remaining areas of moist to wet limestone forest reserves in Jamaica” (Mitchell *et al.*, 2008: 4). Hydrological Assessment of the Cockpit Country by the Water Resource Authority (WRA) revealed that its aquifer substantially contributes to the ground water reserves in the hydrological basins of the Great River, Martha Brea, Dry Harbour Mountain and Black River. The Water Resource Authority estimated that the Cockpit Country aquifer made a contribution of 40% to Jamaica’s exploitable underground water resources (WRA, 2004).

The Cockpit country has drawn the interests of numerous academic researchers, governmental agencies, environmentalists, conservationists, ordinary people, community-based development organisers, politicians and potential investors. Each group of stakeholders have developed comparable, opposing and complementary agendas that range from current use, protection, conservation, exploration to potential exploitation of the mineral resources of the Cockpit Country. However, the boundary of the Cockpit Country has never been delimited without contest and controversy. The Forest reserve is gazetted as the Cockpit Country Forest Reserve. The boundary can be defined by any or a combination of features such as geological,

geomorphological, forest cover, hydrological, historical, archaeological and cultural. While the boundary of the Cockpit Country can be defined by the preceding characteristics, the stakeholders are yet to agree on an official boundary for the Cockpit Country.

There is a great body of academic work on defining the boundaries for the Cockpit Country in the literature, which had been reviewed by Lyew-Ayee (2005) and Mitchell *et al.* (2008). The UWI proposed boundary was the most recent and perhaps only commissioned study by the Government of Jamaica. Other scientific studies on forest fragmentation and related projects on various aspects of the Cockpit Country were reviewed by Newman (2007). The Windsor Research Centre (WRC), located within the Cockpit Country, continues to publish numerous project reports and empirical research on various aspects of the Cockpit Country.

With the public outcry against the approval of licences for prospecting bauxite mining in areas surrounding the forest reserve and the historically and culturally called 'Ring Road', the Ministry of Agriculture and Fisheries had commissioned the Department of Geography and Geology at the University of the West Indies at Mona to conduct a study on defining the boundaries of Cockpit Country. Specific terms of reference were agreed by both parties and a research team was constituted from available human resources of the Department of Geography and Geology. A technical report was submitted in October 2008 with a proposed 'scientific boundary' for the Cockpit Country. Several recommendations were also made to the Governmental authorities. A period of public consultation was recommended to consider the new proposed boundary.

After 4 years of silence about the recommended public consultation to consider 'the UWI proposed boundary', the Centre for Environmental Management approached and applied to the Forest Conservation Fund (FCF) for a grant to facilitate the public consultation. The project initial length of time was changed from 1 year to 6 months after various meetings with staff from the Ministry of Water, Land, Environment and Climate Change. Unforeseen difficulties and obstacles had stalled the project during the implementation phases which had caused the request for a further no fund extension, which was approved by the Forest Conservation Fund.

All the relevant stakeholders were informed of the public consultation on defining the boundaries of the Cockpit Country.

1.2 Methodology

The main goal of this project was to initiate, manage and facilitate a public consultation process on defining the boundary of the Cockpit Country. The research team intended to collect the views and opinions of the various stakeholders regarding the UWI proposed boundary in relation to other proposed boundaries referred by the UWI research team. The research team had also included in the discussion a new boundary proposed for the Cockpit Country by relevant Governmental authorities and stakeholders in 2009 and previous proposed boundaries that were unintentionally omitted by the UWI research team, which may be of great importance for the present research. The research team proposed to achieve three major objectives during this study.

1.2.1 Objectives

- Develop a public consultation strategy based on different aspects of the Arnstein's ladder of participation and other relevant participatory action research models. This phase also involved preliminary field visits to the Cockpit Country, informal meetings with different organisations and key stakeholders within the Cockpit Country and the creation of a comprehensive list of potential partners, stakeholders, interest groups from whom qualitative information will be collected during the public consultation.
- Engage the relevant stakeholders and the general public in order to garner the views expressed with regard to the boundary of the Cockpit Country and its potential as a protected area and national park.
- Review, document and present the views of the relevant stakeholders and the general public, and make some recommendations. The final report will be disseminated to all stakeholders and partners, libraries and documentation centres throughout Jamaica.

1.3 Limitation of the Arnstein's ladder of participation

The Arnstein's ladder of participation could not be totally used as theorised since this public consultation exercise is about collecting the views and opinions of all the stakeholders regarding the possible geographical and physical boundary of the Cockpit Country rather than the development of a comprehensive management plan and strategy for the Cockpit Country. The development of such a holistic management plan should be the next step, which is beyond the remit of this report. The Arnstein's ladder of participation presents eight types or levels of participation that can be used in the management of a specific natural resource or public asset.

Therapy and Manipulation fall at the bottom of the ladder. They are described as non-participation because of the top-to-bottom approach, which seeks to educate the general public in order to change their 'ill-informed attitudes' and views towards the use and management of a specific natural resource or public asset. The simple assumption is that education is essential to modify the attitudes of the general public and help garner their support of a particular management strategy and use of a natural resource or public asset.

Placation, Consultation and Informing are described as degree of tokenism because final decisions remain with the Governmental agencies in charge of managing the natural resources or public assets. Despite the fact the stakeholders have been informed and intensively consulted, they may not be asked to vote on the final decisions.

Lastly, Citizen Control, Delegated Power and Partnership are argued as degree of citizen power because of the direct involvement of all the stakeholders in the decision making process as well as the high level of accountability that is demanded of those who have been mandated to manage the natural resources or public goods. These three types form the highest level of the Arnstein's ladder of participation because of the combination of bottom-up and top-bottom approaches with clear definition of roles, goals and objectives, responsibilities, power sharing and control mechanisms as well as the level of accountability.

The current research falls at the levels of 'Consultation and Placation'. The views and opinions of the stakeholders are collected through well-advertised community public consultation and Town Hall meetings, unstructured and structured interviews and a small quantitative survey.

1.4 Tools and instruments of empirical data collection

The Cockpit Country is a very rugged terrain with scattered communities around and beyond the Ring Road. The research team gave high priority to the communities that are located within the Cockpit Country during this public consultation process. These communities fall within the different competing proposed boundaries for the Cockpit Country. Following a number of visits to the Cockpit Country and informal meetings with members of the Cockpit Country Local Forest Management Committees (LFMCs) as well some members of the Cockpit Country Stakeholders' Group, the research team had decided to re-assess the methodological approach that was proposed to the Forest Conservation Fund (FCF) when the research proposal was originally submitted. A mixed methodology seemed to be the most appropriate approach for this study. Tools and instruments of empirical data collection from both the quantitative and qualitative approaches to social research were used within the context of the public consultations. Unstructured and structured Interviews, panel of discussion, Town Hall meetings, community public consultation meetings and a flexible questionnaire was employed to garner the relevant information.

1.5 Town Hall meetings

Three Town Hall meetings outside the Cockpit Country were held in Santa Cruz, Montego Bay, and Kingston. The Director of the Centre for Environmental Management, Professor Dale Webber, facilitated the discussions for each Town Hall meeting. The events were advertised in the media (radio and print) before they took place. Each Town Hall meeting lasted over two hours. There was a period for short presentation by the stakeholders of their specific proposed boundary for the Cockpit Country. This was followed by general discussion with members of the public. The research team recorded the meetings manually and through a digital tape recorder.

1.6 Small survey design

As stated above, the public consultation primarily fell within the qualitative methodological paradigm. However, the research team had decided to design a small survey in order to complement the qualitative information that was collected during the public consultation meetings. A flexible questionnaire was administered during the day to few members of each community who were non-randomly and conveniently selected. This exercise helped the research team to extend an invitation to members of the community to the public consultation meetings which were held in the evening. This strategy facilitated the collection of additional data from each community within the Cockpit Country as time and financial resources did not allow the holding of a public consultation meeting in few small and isolated communities.

1.7 Public consultation meetings

A total of 18 community public consultation meetings took place within the Cockpit Country rather than the FOUR originally proposed Town Hall meetings within the Cockpit Country when submitting the project proposal to the Forest Conservation Fund (FCF). For example, there was no guarantee that the members of the general public and Local Forest Management Committees would travel very far to attend the Town Hall meetings. Further, the research team may not be able to control the quality of the participants which will have serious implications for the quality of the final report. A small public consultation meeting in the community was geared to help increase the number of attendees and turn the discussions to the significance and implications of the proposed boundary of the Cockpit Country for the local realities, protection and conservation strategies, livelihood strategies. Each public consultation meeting lasted between 60 and 90 minutes. Small adjacent communities were clustered together. The research team provided and reimbursed taxi fares for participants and members of the Local Forest Management Committees. Given the urgency of time and limited financial resources, there were two community public consultation meetings per day.

1.8 Structured and unstructured interviews

The research team also conducted a number of structured and unstructured interviews with Ministries and Governmental agencies, members of the Local Forest Management Committees, key stakeholders from the Cockpit Country Stakeholders' Group, members of the academic community, some private land owners, etc.... An interview guide was sent to each organisation prior to the interviews. As a guide, the discussions were not fully confined to the proposed structured format. Questions and recommendations were added or removed. This is in line with the flexibility offered by the qualitative approach to social research. It was impossible to establish a blog on the NEPA website or any other related governmental agencies. Permission was requested and granted to circulate the 2008 final report that was submitted by the consultant team from the Department of Geography and Geology to the Ministry of Agriculture and Fisheries. A Facebook page and a Gmail account were created to gather more information from members of the general public during the public consultation process.

1.9 Data analysis

Content analysis was used to analyse the views and opinions of the stakeholders. Different boxes were created when appropriate to report the primary data. The views were reported in different themes, which addressed specific issues. The research team looked for different patterns in the information collected pertaining to differences and conflicts, commonalities and consensus. The boxes and tables facilitated greater understanding of the discussions, propositions and recommendations which were made by the stakeholders. With regard to the quantitative data, they were computed and analysed. Given the sampling procedures used to collect these data, they only represented the informal views of some members of the communities according to the assumptions of the research team. In other words, the findings cannot be generalised as the collection of the empirical data did not follow random sampling procedures that give a chance to each member of the communities to be randomly selected.

Chapter 2

Community Public Consultation Meetings

2.1 Introduction

This chapter presents the views and opinions of community members and leaders who attended the community public consultation meetings. It begins by providing a contextual framework and the geographical position of each community in relation to the different proposed boundaries for the Cockpit Country. The communities which appeared on all the proposed boundaries for the Cockpit Country were included in the public consultation process (Figures 2.1, 2.2). As stated in Chapter 1, small neighbouring communities were joined together instead of holding a separate meeting in each district or community as a result of time constraints and lack of financial resources. A policy was set to provide light refreshments for the participants and reimburse taxi fares to adjoining community members and leaders who attended the meetings. With regard to isolated communities which were included in any of the proposed boundaries, informal discussions took place with few members of these communities and an open-ended questionnaire was administered to persons residing in these isolated communities such as Stewart Town, Ulster Spring, Alps, Comfort Hall, Auchtembeddie, Craig Head, Bogue and Aenon Town, etc. The views and opinions of the participants are reported according to the timetable of the community public consultation meetings.

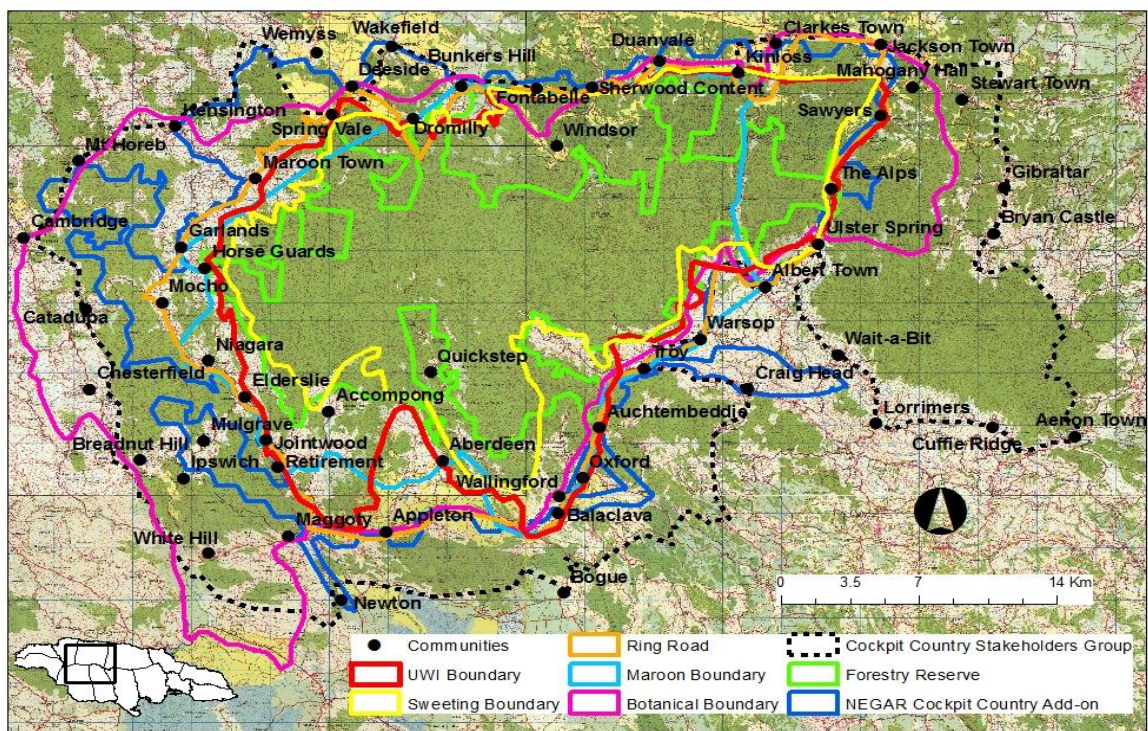


Figure 2.1: Proposed boundaries for the Cockpit Country

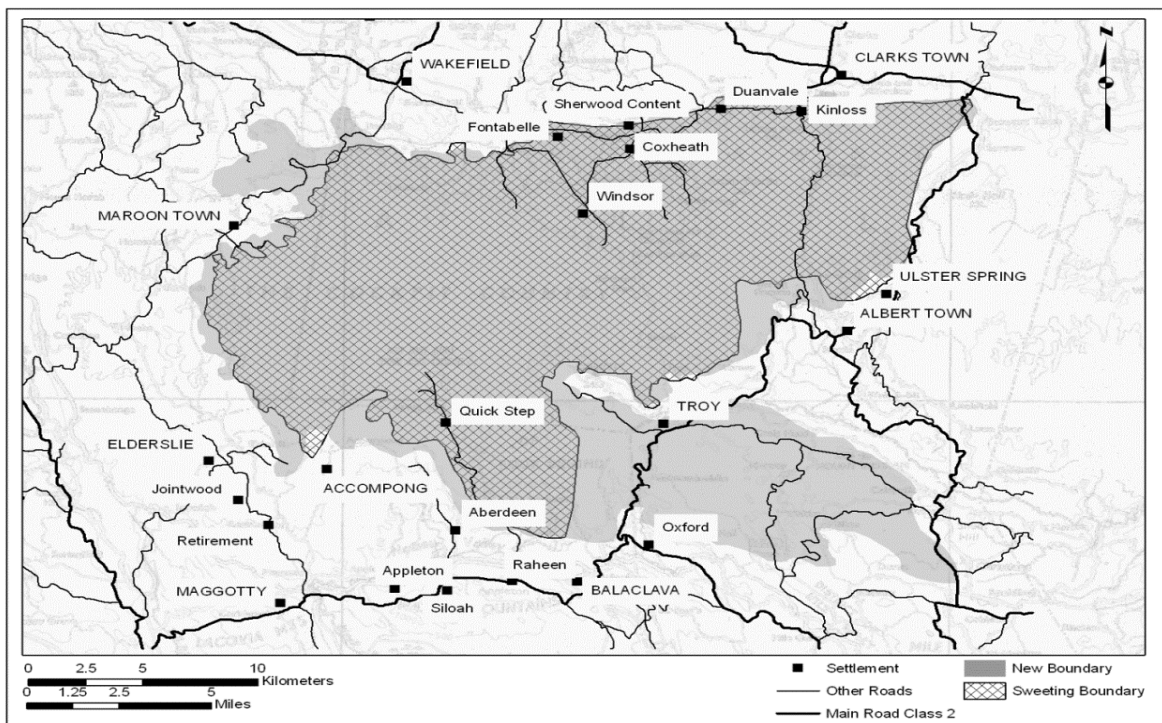


Figure 2.2: Parris Lyew-Ayee proposed boundary for the Cockpit Country

2.2 Sawyers

The communities of Sawyers and Mahogany Hall are situated on the Eastern section of Trelawny. They were clustered together for a joint community public consultation meeting within the context of this study. Both communities fall within the Cockpit Country botanical boundary used by Dr. George Proctor and the Cockpit Country Stockholders' Group boundary (Figure 2.1). They were excluded from the boundaries proposed by Dr. Parris Lyew-Ayee Jr. and Marjorie Sweeting as well as the Cockpit Country boundary described by some Maroon descendants residing at Accompong to Dr. Balfour Spence from the UWI consultancy team in 2007 (Figures 2.1, 2.2). Mahogany Hall falls beyond the Ring Road, the UWI proposed boundary and the Cockpit Country NEGAR Add-on boundary.



Some members of the Communities at the Public Consultation at Sawyers

Farming remains the predominant economic activity for people living in these two communities. Water is one of the most critical challenges highlighted by the residents during the survey and public consultation meeting. Most of the residents from Mahogany Hall originally came from St. Ann. They stated that they were re-settled at Mahogany Hall by the Kaiser Bauxite Company some years ago. Residents attending the meeting and those interviewed during the survey indicated that few farmers ventured into the deep forest to cut

yam sticks. They revealed that yam sticks are largely purchased from vendors who resided in St. Ann and Clarendon.

The public consultation meeting was well attended. However, more people were expected from Mahogany Hall. Their absence was largely related to a shooting incident between some members of the two communities few days before the consultation meeting was scheduled to take place. Many participants pointed westward to the forest when they were asked about the location of the Cockpit Country. However, a majority of the attendees stated that they lived in the Cockpit Country. There is a strong Local Forest Management Committee at Sawyers. The level of participation was average as few participants openly asked questions and provided answers. Box 2.1 presents a summary of the contents of the discussion. There was no strong discussion about the boundary because Sawyers falls within the UWI proposed boundary.

Box 2.1: Some views from the community public Consultation meeting at Sawyers

Sawyers

- The Cockpit Country is a mountainous terrain
- Its ecosystems protect plant life and animal life – it provides with natural habitation for endemic species and others
- It has high level of endemism
- The Cockpit Country is unique
- It is rich in natural resources
- It has bauxite, running and underground waters
- The vision for the Cockpit Country is that the Cockpit Country should remain as it is
- There should be no negative interference
- It should be protected in order to prevent environmental degradation through education as a mitigation factor
- Ensure sustainability so that future generations can continue to survive from it
- The Cockpit Country has great significance to life, water, agriculture and air
- There is an urgent need to dig wells to supply water for domestic uses – farming and other socioeconomic development activities
- Economic opportunities for local communities should come before the national economy

2.3 Jackson Town

The communities of Jackson Town and Stewart Town were clustered together for the community public consultation meeting. The meeting took place at Jackson Town. Residents from Stewart Town were informed of the reimbursement of taxi fares for community members and leaders attending the public consultation meeting. Jackson Town and Stewart Town are located on the North-eastern section of Trelawny. They were both excluded from the UWI proposed boundary, the boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr. and the Cockpit Country boundary described by some Maroon descendants from Accompong (Figures 2.1, 2.2). Jackson Town is situated within the Ring Road and also falls within the Cockpit Country botanical boundary used by George Proctor, and near the Cockpit Country NEGAR Add-on boundary.



Some members of the Community at the Public Consultation at Jackson Town

Stewart Town is located few kilometres away from the Ring Road and borders Browns Town in St. Ann. Stewart Town is only included in the boundary proposed by the Cockpit Country Stakeholders' Group.

Farming remains the predominant economic activity in both communities. Residents faced serious water shortage at times. Many residents from Stewart Town originated from St. Ann; they were re-settled in the area by the Kaiser Bauxite Company some decades ago.

Rainfall had prevented the administration of the survey and informal discussions with some residents from Jackson Town. The community public consultation meeting was well attended by residents from Jackson Town. No resident from Stewart Town came to the meeting. This was probably due to rainfall in Stewart Town prior to the meeting, lateness of the meeting (6-8 pm) and the inexistence of a Local Forest Management Committee in the community. There was an acceptable level of participation of the participants at the meeting. Some attendees pointed the Facilitator to southwest of Trelawny when asked about the location of the Cockpit Country; other residents stressed that Jackson Town cannot be excluded from the Cockpit Country. There was a strong opposition against mining in the area. Participants were more open to other economic activities such as ecotourism, sustainable agriculture, etc... Box 2.2 presents the major points which were highlighted during the discussion.

The research team administered a flexible questionnaire and conducted some informal interviews with few residents from Stewart Town during the Midday before the rain. The informal discussions revealed that most people who were 75 years old and over explicitly stated that Stewart Town has always been part of the Cockpit Country. They stressed that the history and the forest landscape are the same. People in their 50s argued that Stewart Town is not really part of the Cockpit Country which, they indicated, includes Albert Town, Alps, Ulster Spring, etc... However, they added, *“if it is about protecting the forest against bauxite mining, Stewart Town should definitely be included in the Cockpit Country.”* Some young people in their early 20s plainly stated that Stewart Town is located outside the Cockpit Country.

Box 2.2: Some views from the community public consultation meeting at Jackson Town

Jackson Town

- The Cockpit country provides natural habitation for animals
- It has high level of endemism (plants and animals)
- Protection is need for the Cockpit Country
- Jackson Town is part of the Cockpit Country
- There are several economic opportunities to grow the local economy
- Farming – mining – tourism
- There should be no form of mining in the area –bauxite or limestone
- There are medicinal plants in the Cockpit Country
- The Forestry department should assist in replanting trees
- Land acquisition should take place to maintain the forest
- Archaeological and historical sites should be used
- Quality of life should be improved
- Protection of the environment should start at home
- There should be forum of sensitization
- There should be better farming practices
- There should be incentives
- Special circumstances should be taken into considerations
- A compromise should be sought out

2.4 Warsop

Warsop and adjacent communities were clustered together for a joint community public consultation meeting. Warsop is located in the South-eastern section of Trelawny. It falls within the Ring Road and the Cockpit Country NEGAR Add-on boundary. The boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr., the UWI proposed boundary and the Cockpit Country botanical boundary used by Dr. George Proctor excluded the yellow limestone section of Warsop when defining the boundary for the Cockpit Country (Figures 2.1, 2.2). Using the Ring Road as a proxy, the yellow limestone section was included in the boundary proposed by the

Cockpit Country Stakeholders' Group. The Accompong Maroons included Warsop in the boundary they had described to Dr. Spence for the Cockpit Country.



Some members of the Community at the Public Consultation at Warsop

Farming remains the leading economic activity in Warsop and neighbouring communities. The yellow limestone is very fertile for yam cultivation. Residents face serious water shortage and develop individual rain water harvesting initiatives. Fortunately, the rainfall rate is very high in the Cockpit Country. There was a high level of participation of the attendees throughout the public consultation meeting. Some attendees pointed the Facilitator to the forest when asked about the location of the Cockpit Country; other residents stressed that *“we are in the Cockpit Country at Warsop.”* There was strong opposition to bauxite mining in the Cockpit Country as a result of the environmental devastation and pollution that its extraction has the potential to create. Some participants expressed scepticism about the information presented and discussed during the meeting. They were convinced that there is a high level of secrecy about the existence of natural resources, minerals and precious stones within the Cockpit Country. The public consultation meeting at Warsop was very passionate, intensive and long. It severely encroached on the time assigned for the meeting at Albert Town during that same afternoon. Box 2.3 provides a summary of the community public consultation meeting at Warsop.

Box 2.3: Some views from the community public Consultation meeting at Warsop

Warsop

- Cockpit Country is green – has a lot of trees
- Trees encourage rainfalls
- They reduce soil erosion
- The Cockpit Country has animals
- It is mountainous and has hilly rocks
- The Cockpit Country is a protected area
- Access to the Cockpit Country is difficult
- Reforestation is needed
- Legislation is needed for protection
- Cut a tree – plant a tree should be the way forward
- There should be education
- Yam cultivation is the main farming activity
- There is lack of unity between the farmers
- Lack of employment
- There is soil erosion, pollution and deforestation and degradation of the environment
- The economy of the local community should come first
- Farming should be done wisely
- Specific species of trees should be planted for yam sticks
- There should be ecotourism
- Access should be given through roads
- People living in the Cockpit Country should visit the Forest
- Sections of the Cockpit Country have been exposed to mining
- No bauxite mining
- Management plan should not be based on the size of the area or resources
- The process should be to identify the area first
- Establish the factors that will be taken into considerations
- Then establish the management system
- Water is needed
- There are different cultures about water harvesting, use and management

2.5 Albert Town

Albert Town and adjacent communities were clustered together for a joint community public consultation meeting. These communities included Alps, Ulster Spring, Spring Garden, Rock Spring and St. Vincent. Albert Town is located in the South-eastern section of Trelawny. It falls within the Ring Road and the Cockpit Country NEGAR Add-on boundary.



Some members of the Communities at the Public Consultation at Albert Town

The boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr., the UWI proposed boundary and the Cockpit Country botanical boundary used by Dr. George Proctor excluded the yellow limestone section of Albert Town when defining the boundary for the Cockpit Country (Figures 2.1, 2.2). Using the Ring Road as a proxy, the yellow limestone section was included in the boundary proposed by the Cockpit Country Stakeholders' Group. The Accompong Maroons interviewed by Dr. Spence from the Department of Geography and Geology cut the boundary before reaching the Albert Town Centre. Communities such as Alps and Ulster Spring fall within the UWI proposed boundary and Cockpit Country NEGAR Add-on boundary by using the Ring Road as a proxy (Figures 2.1, 2.2). These communities are also included in the Cockpit Country botanical boundary used by Dr. George Proctor and the boundary proposed by the Cockpit Country Stakeholders' Group.

Farming is a very important economic activity in Albert Town. This is the most urbanized area in Southern and South-eastern Trelawny. The yellow limestone is very fertile for yam cultivation and other agricultural produces. Albert Town experienced serious water shortage at times. The residents had to develop individual rain water harvesting strategies and initiatives. Box 2.4 presents a summary of the discussions, which were not fully completed because of the late start and the issue of availability of transportation for community members from Ulster Spring, Alps etc.

Box 2.4: Some views from the community public consultation meeting at Albert Town

Albert Town

- The Cockpit Country should be turned into an attraction site
- Visitors should come to the Cockpit Country through ecotourism
- There should be protection of flora and fauna
- There should be protection of the environment
- Cockpit Country should become a world heritage site
- Protection of natural life through education and recycling
- Better farming and harvesting practices to increase sale of agricultural produces
- Why defining the boundary?
- Protection of the natural and physical resources
- A boundary should be defined through negotiation
- We can begin by sealing the Ring Road which is accepted and known by all
- Negotiate policy decision about what needs to be added to the Ring Road after
- There should be economic gains
- No bauxite mining
- Make preservation a principle that is applied to everybody
- Protection of the natural resources should be at all cost
- There should be use of the property
- Government should provide protection for its own property
- Research should be allowed for pharmaceutical purposes and information on plants and animals

In bulk, the community public consultation meeting was well attended. The level of participation was very high and controversial. Some participants pointed the Facilitator to the

forest when asked about the location of the Cockpit Country; others stressed that Albert Town is in the Cockpit Country. There was strong opposition to bauxite mining and limestone quarrying in the Cockpit Country. Some residents suggested the simple selection of the Ring Road, which is commonly accepted by many stakeholders as the boundary for the Cockpit Country. Other areas that need to be added to the Ring Road can be discussed and negotiated between the communities, land owners, state agencies, NGOs and CBOs. There was strong support for academic research and ecotourism activities in the designated areas with a view of controlled use and conservation of the natural resources rather than their strict preservation and sterilization.

2.6 Troy

Troy and adjacent communities were clustered together for a joint community public consultation meeting. Troy is located in the Southern section of Trelawny. It falls within the Ring Road, the Cockpit Country NEGAR Add-on boundary and the boundary described by some Accompong Maroons (Figures 2.1, 2.2). The boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr. as well as the UWI proposed boundary excluded the yellow limestone section of Troy by sticking to contiguous cockpit karst and tower karst when defining the boundary for the Cockpit Country (Figure 2.2). Using the Ring Road as a proxy, part of the yellow limestone section of Troy was included in the Cockpit Country botanical boundary used by Dr. George Proctor. While the above proposed boundaries fall at the edge or within the Ring Road as a proxy, the boundary proposed by the Cockpit Country Stakeholders' Group started from the cockpit karst and tower karst forest of the Nassau Mountains through Craig Head to terminate at Troy (Figure 2.1).

There is a strong Local Forest Management Committee at Troy. Most residents of Troy make a living out of farming activities. Troy is both a historical and cultural location in South Trelawny. That is why most of the participants argued to turn the Cockpit Country into an attraction and touristic site. Troy comprises several caves, trails and historical monuments. There was a low

level of attendance at the community public consultation meeting. This we believe was largely due to bad weather conditions before and during the meeting. Nearly half of the participants were students attending Troy High School. The level of participation was average given the number of participants. The discussions revolved much around rural livelihoods rather than the boundary of the Cockpit Country. This may due to the fact that Troy falls within or at the edge of all the proposed boundaries. Residents spoke of road conditions that need to be improved and the importance of opening the trails from Troy to Windsor. They argued that a plan of action is needed to create an awareness campaign about the Cockpit Country and its importance for Jamaica. The plan should assist in reducing tree cutting, promoting reforestation and ecotourism activities. Box 2.5 provides a summary of the major points discussed at the community public consultation meeting.

Box 2.5: Some views from the community public consultation meeting at Troy

Troy

- Turn the Cockpit Country into a touristic and attraction site.
- Troy has a lot of caves
- If we put our mind to it, we can achieve it
- We need to organize and team up together
- We need a plan of action
- We need to develop an awareness campaign about the Cockpit Country
- We need to put the structure to maintain the plan of action
- We need roads
- We need to ensure protection of the forest
- We need to practice sustainable farming
- Local communities and local economy should have priority

2.7 Oxford

The communities of Oxford, Auchtembeddie and Comfort Hall were clustered together for a joint community public consultation meeting. The meeting took place at the Oxford Community Centre. These communities are located in the North-western section of the Parish of

Manchester. The communities of Oxford, Auchtembeddie and Comfort Hall were included in the boundaries that were proposed by the Cockpit Country Stakeholders' Group and Dr. Parris Lyew-Ayee Jr. (Figures 2.1, 2.2). However, the communities of Oxford and Auchtembeddie fall within or at the edge of the Ring Road were included in the UWI proposed boundary, the Cockpit Country NEGAR Add-on boundary, the boundary described by some Accompong Maroons and the Cockpit Country botanical boundary used by Dr. George Proctor (Figure 2.1).



According to Mr. Michael Schwartz from the Cockpit Country Stakeholders' Group, cockpit karst and tower karst are present in both sections of the Ring Road at Oxford and Auchtembeddie. Similar remarks were made by Mitchell et al. (2008). The Ring Road has been used as a proxy to define the UWI proposed boundary at Oxford and Auchtembeddie. It is quite difficult to identify the interruption of cockpit karst and tower karst in these two locations.

Farming activities are predominant in the communities of Oxford, Auchtembeddie and Comfort Hall. Oxford and Comfort Hall are more developed than Auchtembeddie. There are many caves at Oxford and Auchtembeddie. The Oxford River has been greatly used for recreational activities by persons from the Parishes of Manchester, Trelawny, and St. Elizabeth. It is the only river in the parish of Manchester.

The community public consultation meeting was very well attended. The Community Centre had reached capacity. The level of participation was excellent. There is a strong Local Forest Management Committee at Oxford. Time was the major constraint as the meeting started One hour late. As usual most people pointed to the forest to identify the Cockpit Country. However, few people stressed that these communities are part of the Cockpit Country. Most participants are against bauxite mining in the Cockpit Country. Some of them wished the establishment of new factories to create employment for the youth in the communities. The residents discussed issues related to the proper management of the forest and sustainable farming practices. Box 2.6 presents a summary of the discussion.

Box 2.6: Some views from the community public consultation meeting at Oxford

Oxford

- We say no to destruction of the Cockpit Country by human activities
- No to bauxite mining
- All these communities are part of the Cockpit Country
- We need to take care of trees
- They are essential to the environment
- We need to encourage preservation and conservation
- There should be no cutting of trees
- We need to regulate the cutting of trees for domestic use and farming activities
- Trees impact the quality of drinking water
- We should encourage tree planting
- They affect rainfall
- We do farming – coffee, yam, sugar cane and orange
- Trees for yam sticks come mostly from the forest
- We need to develop strategies for sustainable farming
- We need to empower the communities
- We need to look at the greater good
- We need factories for job creation as it used to be in Oxford

2.8 Clarke's Town

The communities of Clarke's Town and Kinloss are located on the Northern section of Trelawny. These two communities were clustered together for a joint community public consultation meeting. Both communities fall within the Ring Road, the Cockpit Country NEGAR Add-on boundary, the Cockpit Country botanical boundary used by Dr. George Proctor and the boundary proposed by the Cockpit Country Stockholders' Group (Figure 2.1). The community of Kinloss falls within the UWI proposed boundary, the boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr. as well as the boundary described by some Accompong Maroons, whereas Clarke's Town was excluded from these boundaries (Figures 2.1, 2.2).

Farming remains a very important economic activity for people living in these two communities. There is a continued decline of economic opportunities in these communities after the closure of the sugar cane factories, which were the main job provider for many residents. While efforts are being made to revive the sugar cane industry, it may take years for these communities to recover from job loss resulting from the breakdown.

The community public consultation meeting was fairly attended. The Councillor for the Division was among the participants. There was no participant from the community of Kinloss at the meeting. This may be related to heavy rains that slashed out on the Northern and Central Parishes of Jamaica during that afternoon. Some members of the Local Forest Management Committee were also at the meeting. A brief presentation of all the boundaries was made by the Facilitator, which was followed by a succinct presentation of the boundary proposed by the Cockpit Country Stockholders' Group. The level of participation was very satisfactory. There was strong opposition to any form of mining in the Cockpit Country. The reasons are based on the repercussions of bauxite mining in other places in Jamaica. Participants stressed that Clarke's Town is part of the Cockpit Country. Participants also questioned the nature and significance of the community public consultation meeting in the decision-making process. There was a call for the Cockpit Country to be included in the school curriculum, at least at the Primary school level. Box 2.7 presents a summary of the major points raised by the participants.

Box 2.7: Some views from the community public consultation meeting at Clarke's Town

Clarke's Town

- Fauna and flora should be preserved
- Clarke's Town area to be included in the Cockpit Country
- The UWI boundary does not include Clarke's Town
- The UWI boundary was based on geological and geomorphological parameters
- The UWI study was commissioned by the Ministry of Agriculture and Fisheries
- There should be an extension of the area to include Clarke's Town
- According to Mike Schwartz, the boundary proposed by the Cockpit Country Stakeholders' Group extends to Stewart Town because of the presence of cockpit karst and tower karst
- The Cockpit Country Stakeholders' Group proposed boundary includes local history
- There is a Maroon path to Mahogany Hall on an old map (important to Maroons?)
- Cockpit Country should be clearly defined before being divided for economic purposes
- Mining act will have implications for Clarke's Town
- Lands can be acquired by the State at any time for public purposes
- Consultation process is supposed to influence the government's decision
- How effective is the consultation process?
- Chain of command and information, dissemination through members of parliament, councillors etc... who are paid to be the voice of the people they represent
- Strong concerns that the community is powerless against the government – land claiming for bauxite mining
- Clarke's Town should be included in the cockpit area for protection against mining
- Mining in Campbell's Area – does not want the experience to spread out
- Environmental degradation due to mining
- Teaching about the Cockpit Country in Primary schools
- Enforcing the importance to children
- The Cockpit Country should be included in the school curriculum
- Enforcement of forest reserve - manpower available?
- (history)- Nanny of the Maroons – what is her last name?

2.9 Duanvale

The communities of Duanvale and Sherwood Content are situated in the Northern section of Trelawny. These two communities were clustered together for a joint community public consultation meeting. They are the only two communities that fall within all the proposed boundaries for the Cockpit Country (Figures 2.1, 2.2).

Farming is very dominant in Duanvale and Sherwood Content. Many people residing in these communities came from St. Ann. They were re-settled by the Kaiser Bauxite Company. The proximity to Falmouth creates other job opportunities outside the farming sector. The reopening of the sugar cane factory may provide some livelihood strategies for the residents.



Some members of the Communities at the Public Consultation at Duanvale

The community public consultation meeting was well attended. A brief presentation of all the boundaries was made by the Facilitator, which was followed by a succinct presentation of the boundary proposed by the Cockpit Country Stockholders' Group. The level of participation of the attendees was exceptional. The participants were very knowledgeable and therefore facilitated a very balanced discussion. Some participants argued that they are the true stakeholders of the Cockpit Country, and they were not consulted by the so-called Cockpit

Country Stockholders' Group when defining their proposed boundary for the Cockpit Country. Some explanation was provided by Mr. Mike Schwartz about the creation and nature of the organization. The participants put forward a vision for the Cockpit Country and the reasons behind their complete opposition to bauxite mining and limestone quarrying in the Cockpit Country. By contrast, some other participants responded by explaining the potential for job opportunities that may be provided by mining activities for community members and the country at large. There was a call for ecotourism as an alternative economic activity to mining. The participants support the work of the Jamaica National Heritage Trust (JNHT) in seeking World Heritage Status for the Cockpit Country. Box 2.8 summarizes the contents of the discussion.

Box 2.8: Some views from the community public consultation meeting at Duanvale

Duanvale

- Cockpit Country is located in a section of St. James, St. Elizabeth, Manchester(Oxford, Auchtembeddie) and Trelawny
- Location of Cockpit country: All of Duanvale and Sherwood, Clarks Town, Kinloss
- Over 5000 conical shaped cockpits that hold and filter water
- Duanvale is located in the Cockpit Country

Vision for the Cockpit Country:

- To be a National Park
- To be left untouched
- Clear vision cannot be declared until boundaries are established
- Demarcation of a 'buffer zone'(around conical hills)
- Definition of Cockpit Country area bounded by the Ring Road – outside area of ring road needs to be utilized
- Why should the Cockpit country be 'bordered'?
- Potential benefits (aims and objectives of the public consultation)
- Who are the Stakeholders?
- We are the Stakeholders and How come we are not members of the Cockpit Country Stakeholders' Group?
- Community members believed that they should be an active part of the Cockpit Country Stakeholders' Group

Box 2.8 cont'd

- Surrounding areas of the Cockpit Country should be protected, even if excluded previously
- Preservation of the Cockpit Country to maintain water quantity and quality and protect natural resources
- Forest reserve area should be larger
- Plains/agricultural lands contribute to the Cockpit Country
- Jamaica Bauxite Institute boundary serves for mining purposes only – biased
- Bauxite mining can create employment and job opportunities
- Bauxite mining will cause contamination of the Martha Brae river – red colouration believed to have come from disturbance of the aquifer in Manchester – bauxite mining
- Participants are concerned that mining at the Duanvale fault line could trigger earthquake
- The Duanvale fault line is a terrace (repeated by Mike according to Simon Mitchell)
- The Cockpit Country Boundary should go down to Deeside
- Respect the place and make it a reserved area
- Ecotourism will provide economic opportunities in the Cockpit Country
- Support for Jamaica National Heritage Trust to seek the designation of the Cockpit Country as a World Heritage Site in the future (2015)?
- Stakeholders should include “local everyday man” not just the “experts”

2.10 Mocho

The communities of Mocho, Chesterfield, Cambridge and Catadupa were clustered together for a joint community public consultation meeting at the Mocho Community Centre. Transportation was provided for community members and leaders from Chesterfield, Cambridge, Catadupa and other neighbouring communities and districts. Mocho falls within the Ring Road and the Cockpit Country NEGAR Add-on boundary (Figure 2.1). The communities of Mocho, Chesterfield, Cambridge and Catadupa were excluded from the UWI proposed boundary, the boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr. as well as the boundary described by some Accompong Maroons (Figures 2.1, 2.2). By contrast, these

communities fall within the Cockpit Country botanical boundary used by Dr. George Proctor and the boundary proposed by the Cockpit Country Stockholders' Group (Figures 2.1, 2.2).



Farming is very dominant in these communities. Mr. Schwartz from the Cockpit Country Stakeholders' Group stated that there is a licence for prospecting bauxite in these communities which has been renewed annually.

The community public consultation meeting was well attended. The participants included young people, middle age and senior citizens. A brief presentation of all the boundaries was made by the Facilitator, which was followed by a presentation of the boundary proposed by the Cockpit Country Stockholders' Group. The level of participation was satisfactory. The meeting was very informative. The participants were able to identify possible locations of the Cockpit Country. There was strong emphasis on bauxite mining and its consequences by some participants. Most participants opposed bauxite mining in Catadupa, Chesterfield and Cambridge. They stressed that ecotourism should be promoted in the areas instead. Box 2.9 presents a summary of the contents of the discussion.

Box 2.9: Some views from the community public consultation meeting at Mocho

Mocho

- Location of the Cockpit Country: St. James, St Elizabeth, Trelawny, St Ann
- Cockpit Country - porous, limestone, numerous caves, wide region
- Some participants believe that a boundary “debate” is not necessary unless it leads to something beneficial for St. James
- Bauxite mining is dangerous for the environment
- Bauxite mining destroys topsoil for farmers
- Bauxite mining disrupts, dirties and depletes water supply of local people
- In the 1970’s, there were many ponds in the community – the number has been reduced now
- community members have great difficulty to access water
- Construction of reservoirs should be the solution
- Community members question how reliable the study by Nepa will be (because NEPA is a GOJ agency)
- There many environmental implications of mining
- Land reclamation – possible loss of land
- Promotion of ecotourism
- Chesterfield needs to be protected
- Protection of local flora and fauna
- Include historical background as reason to finalize border
- Planting of pine forests in the areas
- Archaeological sites – there are human remains in some caves

2.11 Maldon

The Maroon Town Greater Community Area was clustered together for a joint community public consultation meeting at the Maldon Evening Institute. Transportation was provided for community members and leaders from neighbouring communities. All communities of the Greater Maroon Town Area fall within the Cockpit Country NEGAR Add-on boundary, the Cockpit Country botanical boundary used by Dr. George Proctor and the boundary proposed by the Cockpit Country Stockholders’ Group (Figure 2.1). By contrast, some sections of the Greater

Maroon Town area are excluded from the Ring Road. For example, Maldon, which is largely comprised of yellow limestone, is excluded from these boundaries. Communities that are closer to the contiguous cockpit karst and tower karst forest are included in the boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr., the UWI proposed boundary and the boundary described by some Accompong Maroons.

Farming is very dominant in these communities as a result of the rich yellow limestone. There was no mention that these communities are under any mining threat by the representative of the Cockpit Country Stockholders' Group. There is some level of ecotourism activity in Maroon Town and Flagstaff. There are trails from Maroon Town going to Accompong and Windsor, etc...



Some members of the Community at the Public Consultation at Maldon

The community public consultation meeting was fairly attended. A succinct presentation of all the boundaries was made by the Facilitator, which was followed by a brief presentation of the boundary proposed by the Cockpit Country Stockholders' Group. There was a high level of participation. The participants described the Cockpit Country a pristine area and vehemently criticised the UWI proposed boundary for excluding several communities from the Maroon Town Greater Community Area in the Cockpit Country. There was a strong opposition to bauxite mining in the Cockpit Country. Some participants pointed out that bauxite mining could also create job. Other residents attending the meeting argued that illiterate people will get no

highly paid job from bauxite mining. Participants were leaning towards the Cockpit Country Stakeholders' Group boundary because of its inclusive nature in terms of forest coverage, agricultural land and local history. Box 2.10 summarises the major point of the discussion.

Box 2.10: Some views from the community public consultation meeting at Maldon

Maldon

- Location of Cockpit Country: Trelawny, St. James, St. Elizabeth; Western part of the island
- Maldon (Maroon Town) is a part of the Cockpit Country
- Maroon Town has similar limestone mountains, vegetation, similar plants and animals (reasons for Maldon being a part of the Cockpit Country)
- The Cockpit Country is rich in history
- Some participants were concerned that agricultural areas were excluded from the UWI proposed boundary
- All maroon areas should be included in the Cockpit Country boundary
- Participants believe that community members should be consulted before the borders were done, especially the UWI boundary which was commissioned by the Government
- There was a general acceptance of the Cockpit Country Stakeholders' Group boundary because of greater land space for agriculture
- No mining
- Cockpit Country should extend into Clarendon because if the initiation of maroon wars in that parish (Suttons Estate)
- Most communities in the Cockpit Country practice small scale farming
- Concerns for economic benefits for community members if mining starts in the area
- Abundance of bauxite in the Cockpit country
- Most people employed in the Bauxite industry are semi-literate and literate
- There will relocation issue for long standing community members
- There are also conservation and protection issues of the area
- There should be growth for community through ecotourism and farming
- National medical industry can benefit as most medicinal plants are located in hard to reach hilly interior of the Cockpit Country
- Most lands are idle – so can be mined
- Participants believed that mining will destroy watershed area
- There is a need for a governing body to police the area
- Support for National park proposition and World Heritage Site

2.12 Deeside

The Communities of Deeside, Dromily and Springvale were clustered together for a joint community public consultation meeting. Reimbursement of taxi fares was promised to community members and leaders from Dromily and Springvale attending the meeting. Unfortunately, there was no representative from Dromily and Springvale at the meeting. These three communities fall within the Ring Road, the Cockpit Country NEGAR Add-on boundary, the Cockpit Country botanical boundary used by Dr. George Proctor and the boundary proposed by the Cockpit Country Stockholders' Group (Figure 2.1). However, Dromily and Springvale and some sections of Deeside are excluded from the boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr., the UWI proposed boundary and the boundary described by some Accompong Maroons (Figure 2.2).

Most people residing in these communities eke out a livelihood from farming. Other residents are employed in the tourism sector in Falmouth and Montego Bay. The decline of the sugar cane industry has severely impacted these communities. The community public consultation meeting was well attended. The Facilitator made a brief presentation of all the boundaries, which was followed by a presentation of the boundary proposed by the Cockpit Country Stockholders' Group by Mr. Mike Schwartz. Most of the participants were involved in a lively discussion, which revolved around the use and development of the Cockpit Country. The UWI proposed boundary was criticised for having excluded many communities from the Cockpit Country. A majority of the participants rejected the idea of bauxite mining, while others had attempted to explain the benefits of bauxite mining in terms of development and job creation. Some participants would like ecotourism to be promoted and reforestation activities to take place. Box 2.11 presents a summary of the major points raised by the participants.

Box 2.11: Some views from the community public consultation meeting at Deeside

Deeside

- Cockpit country location is right around the school (the school is located in the Cockpit Country)
- Views expressed by community members, “mining- mi nuh want dat!”
- Queen of Spain water supply is from Deeside
- Mining will impact the water supply
- drinking water is currently low
- DEVELOPMENT IN THE COCKPIT COUNTRY – “anything apart from mining” – Houses, roads etc...
- Mining has good and bad implications for the community
- I want to see/experience an increased presence of political representatives
- Political representatives should come from the community
- Forestry Department needs to have a permanent presence in the community
- Forestry Department should invest more in reforestation
- Penalty for using fire to clear land should be stricter due to soil erosion
- We need to ensure preservation of watershed
- More accountability from agencies such as RADA, Forestry
- We need protection and preservation of natural resources
- Praedal larceny is a major problem – we need stricter penalties
- We need to organise citizens’ associations
- Establish training centres
- The Maps showing the Cockpit Country need clarification and more familiar community names should be on them
- I want the Cockpit Country to be recognised for special products – indigenous crops – endemism
- We need better roads, especially to go to Maroon Town
- We need to promote ecotourism – village industries

2.13 Wakefield

Wakefield, Bunker's Hill and adjoining communities were clustered together for a joint community public consultation meeting at Wakefield. These communities are located in the North-western section of Trelawny. The Project reimbursed taxi fares paid by community members and leaders from Bunker's Hill and neighbouring districts to attend the meeting. These communities fall within the Cockpit Country NEGAR Add-on boundary and the boundary proposed by the Cockpit Country Stockholders' Group (Figure 2.1). However, the community of Bunker's Hill also falls within the Ring Road, the boundary described by some Accompong Maroons and the Cockpit Country botanical boundary used by Dr. George Proctor. By contrast, both communities were excluded from the boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr. and the UWI Researchers from the Department of Geography and Geology because of wide quantity of agricultural lands (Figure 2.2).

Farming is prevalent in these communities. There are also vast plantations of sugar canes, which used to provide employment for many residents. Unfortunately, the major sugar cane factories have closed down, which may cause an increase in unemployment in these communities.

The community public consultation meeting was well attended. A brief presentation of all the boundaries was made by the Facilitator. Mr. Schwartz from the Cockpit Country Stockholders' Group presented their proposed boundary. There was a high level of discussion. The UWI proposed boundary was severely criticised and rejected by most of the participants for having excluded both Bunker's Hill and Wakefield from the Cockpit Country. Bauxite mining is seen by some participants as a threat to the environment, whereas other participants argued that mining may improve the country economically. They also pointed out that their community should benefit from bauxite mining. Participants also discussed issues related to the use and protection of the natural resources of the Cockpit Country. Box 2.12 presents a summary of the major points which were discussed.

Box 2.12: Some views from the community public consultation meeting at Wakefield

Wakefield

- Location of Cockpit Country: St. Ann, St. James, Trelawny, St. Elizabeth and (parts of) Manchester
- Trees, mountains, rivers (around locale)
- Participants were divided as some believe that Cockpit Country includes Wakefield, while other believe that it excludes Wakefield, and some eastern part of Trelawny
- Fore parents owned land in the Cockpit Country
- I want to be considered a part of the Cockpit Country
- Concerns for mining affecting future generations and the environment
- Some people stress that mining can improve the country
- Other participants are of the view that mining won't improve the country
- Current natural resource use includes timber, water
- Protection of natural resources (especially timber)
- There is a conflict between making a living and the preservation of natural resources
- Some flooding is due to removal of trees
- Low income families may experience probable impact of mining, which may be negative and/or positive
- I want the community to benefit from bauxite mining

2.14 Elderslie

The Communities of Elderslie, Niagara, Jointwood and Retirement were clustered together for a joint community public consultation meeting. Niagara is located in South-East St. James, while the communities of Retirement, Jointwood and Elderslie are all situated in the Northern section of St. Elizabeth. Reimbursement of taxi fares was provided for neighbouring community members and leaders attending the meeting at Elderslie. Unfortunately, no representative came from both Niagara and Retirement. Few persons came from Jointwood. Some participants came from Accompong in order to voice the concerns and demands of the Accompong Maroon one more time. The meeting at Elderslie began immediately after the community public consultation meeting that took place at Accompong. All the four communities fall within the Ring Road, the Cockpit Country NEGAR Add-on boundary, the boundary described by some

Accompong Maroons, the Cockpit Country botanical boundary used by Dr. George Proctor and the boundary proposed by the Cockpit Country Stockholders' Group (Figure 2.1). The communities of Elderslie, Jointwood and Retirement are included within the UWI proposed boundary. By contrast, all the four communities are excluded from the boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr. (Figure 2.2).



As a result of the yellow limestone, farming is very prevalent in these communities. A video was recorded by Professor Simon Mitchell in order to explain the rationale behind the UWI proposed boundary. A representative from the Cockpit Country Stockholders' Group also presented their proposed boundary. There was a high level of discussion, which revolved around bauxite mining and sustainable farming practices. The research team had to politely ask some participants from Accompong to allow members of the communities of Elderslie and Jointwood to state their views and opinions on the issues at hand. Most community members and leaders criticised the UWI proposed boundary and showed preference for the Cockpit Country Stakeholders' Group because of its geographical size and the connection with the two maroon wars. Box 2.13 highlights the major points which were discussed.

Box 2.13: Some views from the community public consultation meeting at Elderslie

Elderslie

- Location of the Cockpit Country: St. Elizabeth, Manchester, Trelawny, St. James
- Elderslie is inside the Cockpit Country
- Development for the area
- Lands located in the forest reserve belong to the maroons
- Will not say anything because some people believe that the Accompong maroons already represent them
- (Some Accompong maroons came to meeting at Elderslie to share the same views that they shared previously at the Accompong meeting)
- There are other economic alternatives to mining
- Developing natural habitats such as caves
- Community group empowerment to stop mining
- Deforestation is a very important issue that needs to be addressed
- The cutting of trees can be solved with education
- There are other methods to support yam cultivation through different yam sticks based on previous knowledge
- Utilize stones
- There should be partnership with the UWI for research on medicinal plants
- Member stated that the community should know exactly the meaning behind the word “Cockpit”
- The issues and problems are to be resolved because the maroons will fight for their lands and hide between the rocks

2.15 Aberdeen

The Communities of Aberdeen, Thornton and Quickstep were clustered together for a joint community public consultation meeting. The community of Quickstep is located at the border of Trelawny and St. Elizabeth. The Communities of Aberdeen and Thornton are situated in the Northern section of St. Elizabeth. The research team promised to reimburse taxi fares to community members and leaders from Thornton and Quickstep as well as other neighbouring communities attending the meeting at Aberdeen. The meeting was poorly attended. There was

no representative from Thornton. Few individuals from Quickstep were students and teachers from Aberdeen Primary and Junior High School. Very few people came from the community of Aberdeen. The officer from the Social Development Commission (SDC) who was assigned to mobilise community leaders and members argued that the Town crier passed through the communities many times and He, himself, met with several community leaders and members who clearly stated that they would attend the meeting to voice their concerns.

All the three communities fall within the Ring Road, the Cockpit Country NEGAR Add-on boundary, the boundary described by some Accompong Maroons, the Cockpit Country botanical boundary used by Dr. George Proctor and the boundary proposed by the Cockpit Country Stockholders' Group (Figure 2.1). The Communities of Aberdeen and Quickstep are also included in the UWI proposed boundary, the boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr. (Figure 2.2). The Community of Thornton is excluded from the UWI propose boundary and the boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr.

Agriculture is very prevalent in these communities. The communities of Aberdeen and Thornton are located near the Appleton sugar cane plantations and factory, from which many farmers earn a livelihood. As a private enterprise specialising in the production of Rum, there has been no decline in sugar cane production when compared to the sugar cane industry in the Northern section of Trelawny. People residing at Quickstep are heavily involved in farming and logging as they remain the only community which still resides within the deep Cockpit Country forest.

The UWI proposed boundary was presented by Professor Simon Mitchell via a recorded video. He provided excellent information about the rationale behind the UWI proposed boundary. The boundary proposed by the Cockpit Country Stockholders' Group was presented by Mr. Mike Schwartz. There was an average level of discussion among the participants. Some participants criticised the UWI proposed boundary for excluding many communities and failing to provide enough details about the Maroons. The issue of bauxite mining, better use and protection of

the forest were also discussed. Preference was showed for the Cockpit Country Stakeholders' Group because of its inclusiveness and the connection with the two Maroon wars. Box 2.14 presents a summary of the contents of the discussion.

Box 2.14: Some views from the community public consultation meeting at Aberdeen

Aberdeen

- How did the UWI Researchers come up with their boundary?
- The UWI Researchers left out a very important detail, which is the Maroons
- Why is the stakeholders group against mining?
- Only a portion should be mined
- Mining could provide jobs for persons who don't have any job
- Once mining started it would be hard to contain
- What is a buffer zone?
- Many people live within the forest at Quickstep
- Better use and protection of the forest

2.16 Maggotty

The Community of Maggotty and its environs were clustered together for a joint community public consultation meeting. Maggotty is a well-developed district located in the Northern section of St. Elizabeth. Several persons came from Accompong to attend the meeting. The entire community of Maggotty is only included within the boundary that was proposed by the Cockpit Country Stockholders' Group (Figure 2.1). The Cockpit Country NEGAR Add-on boundary and the Cockpit Country botanical boundary used by Dr. George Proctor have included the Rocky Mountain that is located few meters West of Maggotty.

Professor Simon Mitchell presented the UWI proposed boundary via a recorded video. The second presentation was made by Mr. Mike Schwartz from the Cockpit Country Stockholders' Group. There was a high level and passionate discussion about the issues of bauxite mining, biodiversity, forest protection and conservation as well their significance to water quality and

quantity. The UWI proposed boundary was severely criticised for excluding Maggotty and neighbouring communities from the Cockpit Country.



Some members of the Communities at the Public Consultation at Maggotty

Some participants rejected bauxite mining wherever it takes place in Jamaica. The participants discussed the implications of the selection of the UWI proposed boundary for mining and relocation of people living in the area which will be mined. Other participants questioned what will be left for mining if the boundary proposed by the Cockpit Country Stockholders' Group is accepted. Box 2.15 summarises the contents of the discussion.

Box 2.15: Some views from the community public consultation meeting at Maggotty

Maggotty

- Location of the Cockpit Country: Sawyers, St. James, Accompong, Quickstep; from maggoty: St. James, Jointwood to New Holland
- The Cockpit Country deserves care, protection, and attention as a new born baby
- Biodiversity needs to be protected
- Persons who are interested in the cockpit country need to tread carefully
- Lands in the cockpit country can be used for good farming – rice
- Some concerns about the proposed boundaries
- Your boundary is so wide, what is left for mining?
- The Government should take control because of the biodiversity of the Cockpit Country

Box 2.15 cont'd

- The Cockpit Country should be protected from housing and farming, especially for a proposal for the area to become a World Heritage Site
- Mining license from Lacovia upward would be left if boundary proposed by the Cockpit Country Stakeholders' Group become the official boundary
- What are the differences between the UWI boundary and that of the boundary proposed by the Cockpit Country Stakeholders' Group?
- What are the implications of sticking to the UWI proposed boundary?
- I do not support mining – toxic to the environment
- Will people be relocated if the UWI proposed boundary becomes the official boundary?
- Will mining occur if the UWI proposed boundary becomes the official boundary?
- I am against mining in Jamaica
- Mining robs fertile lands of their fertility
- Mining affects health of the people – skin problems
- The forest hills provide water as watershed area
- Mining will affect water supply and distribution

2.17 BalACLava

BalACLava is a well-developed district located in the North-eastern section of St. Elizabeth. The community public consultation meeting did not live up to the expectation of the research team given the number of people living in BalACLava. BalACLava falls within the Ring Road, the Cockpit Country NEGAR Add-on boundary, the UWI proposed boundary, the boundary described by some Accompong Maroons and the boundary proposed by the Cockpit Country Stockholders' Group (Figure 2.1). The Cockpit Country botanical boundary used by Dr. George Proctor passed near BalACLava. Only the boundaries proposed by Marjorie Sweeting and Dr. Parris Lyew-Ayee Jr. fully excluded BalACLava (Figure 2.2).

Agriculture is one of the important economic activities in BalACLava. The district is located near the Appleton sugar cane plantations. Forest near BalACLava is under stress as a result of new housing projects in the community. The UWI proposed boundary was presented by Professor

Simon Mitchell via a recorded video. Mr. Mike Schwartz presented the boundary that was proposed by the Cockpit Country Stockholders' Group. There was a passionate level of discussion between the participants. The UWI proposed boundary was chastised for excluding the Nassau Mountains and Appleton Valley which border Balaclava. Some consequences of bauxite mining were discussed as well as the proper use and management of the natural resources and medicinal plants that can only be found in the Cockpit Country. The boundary proposed by the Cockpit Country Stakeholders' Group attracted more attention because of its geographical size, the inclusion of all the communities and the linkages with the two Maroon wars. Box 2.16 presents some major points which were discussed.

Box 2.16: Some views from the community public consultation meeting at Balaclava

Balaclava

- Location of the Cockpit Country: Area bordered by Alps, Auchtembeddie, Balaclava, Elderslie, Sherwood content, etc...
- Distinctive area of mountains defined by cockpits
- Cockpit Country ends in the Nassau Valley
- **Concerns:**
- Bauxite mining should not be allowed at all
- The impacts on water will be unimaginable
- Black river watershed area will be disrupted if mining takes place in the Cockpit Country
- There will be an increase in health issues, increase in cancer types, etc...
- All areas with cockpit karst should be included in the final boundary of the Cockpit Country
- Define boundary based on geomorphology and geography of the area
- Presentations could have been simpler
- Losing the Cockpit Country is like losing your spine
- Soil erosion due to forest removal, yam stick harvesting, landslides, flooding should have been included as major points in setting the boundary for the Cockpit Country
- Protection of natural resources such as medicinal plants
- Protection against exploitation from 'outside' researchers putting patents that would exclude the benefit of Jamaicans
- Presentations should include more about the value of the Cockpit Country

2.18 Litchfield/Wait-a-Bit

Litchfield/Wait-a-Bit is a very well-developed district located in the South-eastern section of Trelawny. The South West Regional Office of the Forestry Department is located at Wait-a-Bit. The community public consultation meeting was well attended. The community of Litchfield/Wait-a-Bit is only included in the Cockpit Country boundary that was proposed by the Cockpit Country Stockholders' Group (Figures 2.1, 2.2). Some small part of Litchfield/Wait-a-Bit is also included in the Cockpit Country NEGAR Add-on boundary. Litchfield/Wait-a-Bit is situated far from the Ring Road, and excluded from the boundary proposed by Dr. Parris Lyew-Ayee Jr., the UWI proposed boundary, the boundary described by some Accompong Maroons and the Cockpit Country botanical boundary used by Dr. George Proctor.

Yam cultivation is very prevalent at Litchfield/Wait-a-Bit as a result of the yellow limestone physical characteristics of the soil. The participants stated that they purchased yam sticks from vendors who lived in St. Ann and Clarendon. The discussion was very passionate and balanced. Professor Simon Mitchell presented the UWI proposed boundary via a recorded video. The boundary that was proposed by the Cockpit Country Stockholders' Group was presented by Mr. Mike Schwartz. Some participants questioned the UWI proposed boundary because it has excluded Litchfield/Wait-a-Bit from the Cockpit Country. The boundary proposed by the Cockpit Country Stockholders' Group was preferred to any other proposed boundary. Participants cautioned against overuse of the natural resources that may lead to destruction. Bauxite mining was not supported. Many participants stressed that the community can earn money from ecotourism. Box 2.17 details some major points which were discussed.

Box 2.17: Some views from the community public consultation meeting at Litchfield/Wait-a-Bit

Litchfield/Wait-a-Bit

- Location of Cockpit Country: Trelawny, St. James, St. Elizabeth, St. Mary, Portland, part of Manchester
- Wait-a-bit is a part of the Cockpit Country - South Trelawny
- Does the Government of Jamaica want to mine the land in the Cockpit Country?
- Is Trelawny the only parish left to mine? What will happen to the people?
- From Ulster Spring to Sawyers – the only place/area left with resources
- The resources should be used but the area should not be destroyed – sustainable use
- What will be done about opposing views on proposed borders for the Cockpit Country?
- “The maroons will fight war again”
- How can the Government of Jamaica meet with the community people and hear their views?
- “Government of Jamaica – major stakeholder”
- On what basis did the UWI Researchers arrive at their proposed boundary?
- The boundary proposed by the Cockpit Country Stakeholders’ Group seems to be the best boundary
- How will the community benefit if mining takes place in the community?
- Nothing left in St. Ann to eat after mining – reduction in land fertility – less food produce
- Residents who have been relocated are left without proper land
- They have land without title, no proof of ownership

Vision:

- Tourism to be introduced: hiking, mountain climbing
- Farming- yam-> tourism -> tourism product
- Yam stick harvesting-> most sticks come from Clarendon and St. Ann
- Farmers buy from people who harvest in those Parishes
- Fertilizer use, chicken manure
- Community for wildlife is good
- There are about 120 endemic species
- Ecotourism – tour guides
- Spin off industries/business ->food shops-> roast yam etc.
- Economic benefits for the community
- Tourists do nothing for community except USE of resources

Box 2.17 cont'd

- “Black man has to know that the land belongs to him and should Feed himself”
- Community can earn foreign exchange from tourism
- Introduction and propagation of organic farming
- Stop, reduce fertilizer use
- Using tourists to benefit from them

2.19 Considerations

The community public consultation meetings provided an avenue for community members and leaders to voice their views and opinions regarding the proposed boundaries for the Cockpit Country. The discussions also included issues related to bauxite mining and limestone quarrying, rural livelihood, economic opportunities, protection and conservation of forest which are at the core (explicit or implicit) of any proposed definition for the Cockpit Country. The Cockpit Country is about flora and fauna in relation to human needs and activities. The main goal here was to collect the views and opinions of the community members and leaders and report them without any alteration. The discussions were at times very emotional, passionate, intensive and controversial. Most of the participants paid little attention to geological and geomorphological characteristics when defining and thinking about the Cockpit Country. Their definition of the Cockpit Country is largely based on tradition and culture rather than scientific rationalisations.

Chapter 3

Findings from the general survey in selected communities

3.1 Introduction

This chapter describes the empirical data that were garnered during the public consultations on defining the boundaries of the Cockpit Country. A chiefly open-ended questionnaire was administered by the research team to members of several communities within the Cockpit Country before the community public consultation meetings. The purpose of the brief survey was to capture complementary data from members of the communities. The survey was not representative, which means therefore it could not be generalized to the members of all the communities within the Cockpit Country. The survey was primarily intended to collect additional and complementary information particularly from isolated communities where no community public consultation was scheduled to be held. The questionnaire was directly administered by the research team to 83 members of several communities. Time constraints and other challenges did not allow the research team to administer the questionnaire to several communities in North St. Elizabeth.

3.2 Gender and Name of the Communities

Most of the community members who were non-randomly interviewed were males. The empirical data reveal that 57% of them were males against 43% of the sample size who were females. With regard to their age groups, most of them were less than 50 years old (Table 3.1). A large number of the sample size (41%) fall between age group 30-49. Interviewees who were 70 and over were given more flexibility to speak on other related matters which might not have been included in the interview guide. Such a type of flexibility suits well the qualitative nature of this public consultation. The main focus of this research is to collect quality information, which is different from securing a large number of people to be interviewed. With residents who were 70 years old and over the conversation turned into an informal interview as they

were to provide quality information about the Cockpit Country (history, culture, economic activities and livelihood strategies, etc.).

Table 3.2 provides a list of communities within the Cockpit Country which were included in the brief survey. The rigidity of the schedule of the community public consultation meetings, the geography of the Cockpit Country and isolated rainfalls have negatively impacted the intention of the research team to interview residents from several communities.

Table 3.1: Distribution of the sample size by age group

AGE GROUP	PERCENTAGE
18-29	17
30-49	41
50-69	27
70 and over	16
Total (Count and %)	(83) 100

Table 3.2: Distribution of the sample size by name of communities

NAME OF THE COMMUNITIES	FREQUENCY	PERCENTAGE
Aberdeen	1	1.2
Aenon Town	5	6.0
Albert Town	11	13.3
Auchtembeddie	5	6.0
BDAC	1	1.2
Bogue	5	6.0
Comfort Hall	7	8.4
Craig Head	2	2.4
Deeside	5	6.0
Eppin Flats	1	1.2
Grove Hill	1	1.2
Maggotty	4	4.8
Mahogany Hall	3	3.6
Maldon	4	4.8
Oxford	4	4.8
Rock Spring	1	1.2
Sawyers	5	6.0

NAME OF THE COMMUNITIES	FREQUENCY	PERCENTAGE
Spring Garden	2	2.4
Springfield	1	1.2
St. Vincent	2	2.4
Stewart Town	7	8.4
Ulster Spring	1	1.2
No Names of communities	5	6.0
Total	83	100.0

3.3 Place of birth, length of time residing in the community

The data collected reveal that most of the interviewees were born in the Cockpit Country. Some residents came from St. Ann and were resettled by the Kaiser Bauxite Company. Resettlement is still on-going in some sections of Stewart Town. Few interviewees are returning residents. As stated above, the research team was very flexible in dialoguing with people who were 70 years old and over, born and still living in their communities. Some of these individuals are categorical about the inclusion of their communities in the Cockpit Country. They made a lot of references to the history and had a good deal of knowledge about the Cockpit Country. For example, during an interview at Bogue, two adult men who were 70 year old and over, and who were interviewed separately stated that prospecting bauxite was cancelled for the Nassau Mountains in the 70s when the Government of Jamaica wanted to have more controlled over bauxite mining. He argued that Prime Minister Manley opposed bauxite mining in the Nassau Mountains. The research team had a similar encounter two weeks before with some residents in Stewart Town. We had a long discussion with a returning resident who turned 85 years old the day of the interview. He resolutely declared that Stewart Town has always been part of the Cockpit Country. He argued that the landscape and forests are similar to the Cockpit Country forest. However, he warned the research team about many people from St. Ann who have resettled in Stewart Town recently who may say otherwise because they have little or no knowledge about the history of Stewart Town and the Cockpit Country.

By contrast, most of the youth in many communities did not think that their communities fall within the Cockpit Country. They pointed the research to the forest and not their community. That was the opinion of many youth from Stewart Town who were going to school. They did not want to complete the interview because they were going to school. Even in Warsop which is very close to the Cockpit Country forest reserve, some youth told members of the research team that Cockpit Country is the forest 'over there.' In locations such as Aenon Town and Craig Head, there were similar comments even from residents who were 65 year and over. They informed the research team that the Cockpit Country is in Trelawny and part of St. Elizabeth.

3.4 Occupations and livelihood strategies

Most people residing within the Cockpit Country are farmers. Many interviewees did not properly disclose their occupations. The survey was conducted during the day, which means that some heads of households who work far away from home would not have been interviewed. When asked how people make a living in the Cockpit Country, the words farming and farmers were repeated 47 and 14 times (Box 3.1). This confirmed that most people living in the Cockpit Country make a livelihood through farming. The yellow limestone and the valleys make it very easy to farm and with expectation of great harvest. In some locations, the interviews were conducted with people working on the sugar cane farms, banana plantations, pineapple plantations, mechanic shops etc... Some of interviewees complained about high level of unemployment in their communities, especially with the closure of the sugar cane factories which used to provide direct and indirect employments for many people living in the Cockpit Country. Adult men who were 50 years old and over were complaining that the youth were idling around and refused to get involved in farming activities. They stated that land is available, but the youth were more interested in other types of employment in the hotel industry in Falmouth and Montego Bay, ecotourism, construction, driving taxi, etc...

Box 3.1: Views of the respondents on how persons make a living in the Cockpit Country

Coffee factory, farming-bananas, teaching, Construction Farming, Construction, farming, Construction, Farming, Higgling, Farmers, Farmers & Teaching, Farmers and teachers, Farmers-Yam, Banana, Domestic Work, Farmers, Falmouth, Discovery Bay, Clarks Town, Farmers, Higglers, Hustler, Farmers, Hotels, Factory, Cane field, Farmers, Montego bay, Construction, Farmers, self-employed-vending, construction work, Farmers, taxi drivers, higglering/vendors, Farmers, Trade, mason, carpenter, Farming, Farming & Cashiering, Farming & few business, Farming & Out of Town, Farming & Prostitution, Farming & Santa Cruz, Farming & Teachers, Farming & Tourism, Farming & Trading, Farming & Work out of the Community, farming direct source of living, Farming Higglering, Office work, Small business, Farming Majority, Teaching, Small business owners, Farming, Appleton Estate, Farming, Banana, yam, pumpkin tomato, farming, carpentry, Farming, Construction, Trade men, Remittance, farming, differing jobs, call-Centre at Freeport, Farming, domestic work, shopkeepers, Farming, hotelier industry, Work at school, Farming, Peddling, Farming, selling/vending, Farming, taxi operators, shop, Farming, taxi operators, truck drivers, Farming, taxi operators, truck drivers, carpentry, Farming, Teachers, Chicken Rearing, Farming, Teaching, Farming, Unemployed, Farming, work out of town, Farming, begging, construction work, Farming, Higglers, Farming, Teaching (Westwood), Kaiser, Farming: Small scale, Farming: Ground Provisions, cane, Farming, Higglers and Mo-Bay work, JPS, Orange factory Farming, Migrate & farm, Plant Ganja, Goats, Farmers, Small Business owners, carpenters, farmers, tourism

3.5 Ownership of property and house located within the Cockpit Country

Few persons interviewed are members of the Local Forest Management Committee (10%). The data from Chapter 2 are similar as many residents are not aware of the existence and the work of the Local Forest Management Committees. The community public consultation meetings have provided an avenue for possible recruitment of news members in the Local Forest Management Committees. The findings also show that most of the respondents owned some kind of property within the Cockpit Country (Table 3.3). However, some of the interviewees clearly highlighted that the land belongs to their family. This situation is very common in the

countryside where the ownership of the land may belong to the grandparents and children and grandchildren or family members may receive a portion of land to farm and make a living without necessarily holding any ownership right of the property. The data further revealed that most of the respondents believed that they resided within the Cockpit Country. However, nearly 25% of the interviewees pointed out that they did not reside within the Cockpit Country. This is very relevant and confirmed the above difference between young people and adults about where is the Cockpit Country. Middle age and old people were more inclined to indicate that they resided within the Cockpit Country. Young people may see the Cockpit Country from a utilitarian perspective, which focuses on tangible economic gains. These findings cannot be generalized as the data were not collected from a representative sample size. The truth is that the name 'Cockpit Country' should not be imposed on people who think they are not in the Cockpit Country. That is why the boundary needs to be comprehensively defined in order to address these challenges.

Table 3.3: Distribution of the sample size by ownership of property and by house located within the Cockpit Country

OWNERSHIP OF PROPERTY		PERCENTAGE	
No Answer		15	
Yes		77	
No		8	
Total (Count and %)		(83)	100
House located within the Cockpit Country		Percentage	
No Answer		17	
Yes		58	
No		24	
Don't Know		1	
Total (Count and %)		(83)	100

3.6 Singularity of communities within the Cockpit and Ecotourism

The respondents were asked to indicate what is so special about their communities. Box 3.2 contains a list of unaltered responses from the interviewees. These community members unequivocally described their communities as quiet and peaceful. These features were the highest scores (19 and 13). These are open-ended questions and therefore respondents were free to state their own views. They compared their communities with the rest of Jamaica. Interviewees were also asked their views on ecotourism. A large percentage of the respondents agreed that it was great and very good that other people come to visit the Cockpit Country. About 14% did not answer the question. Only 2% of them found ecotourism in the Cockpit Country as a bad idea. Localities that are quiet, peaceful, calm and free of violence may be very good for ecotourism activities. The vegetation (forest and trees) was thought to have been what is special about the communities within the Cockpit Country. Residents thought otherwise. These characteristics may be included in the tourism product of the Cockpit Country.

Box 3.2: Views of the respondents on what makes their community special and Ecotourism

A lot of Fruits & Vegetables, Friendly People, A lot of Rivers, No flooding, A lot of rivers & springs, caves, farming, Availability of land, Availability of water, Blessed place, flora & fauna of all quality, Calm, quiet, no violence, calm quiet, no violence, Calm-not violent as the others, Cash Crops: Vegetables, the farmers, Easy to get food that others have to buy, Caves, Climate, Tourist Attraction, Comfortable place to live, Cooperation among people, people helpful towards elderly, Crime Free Environment, Picturesque lovely, green, Environment, Bad roads, Family-oriented, Sports-oriented, More forested, Farming, High School, Police station as other areas don't have, Food Plentiful, Peaceful People, Hectors River, Freedom of Movement, Quietness, Love the area, Good people and place for farming and business (even though it is slow at the time) Outside people, Good Place & No crime, Landscape-Picturesque-beautiful terrain, Lots of Fruits & Vegetables, Medicinal Plants & Bauxite, More to the main than Rosie Valley, Land opportunity, Nice Road-wasn't previously, many churches easy to reach, Nice Temperature and Cool evenings, Nice, Quiet, Peaceful, No jobs, not violent, Quiet, nothing, quiet, peaceful, Not a lot of resources, fertile soil, not much jobs, Not much crime rarely any stabbing or shooting, Not much crime and Violence, Not much pollution very clean, a lot of

Box 3.2 cont'd

community, Not violent like Kingston, quiet, no jobs, Not-Lively, Peaceful, No Entertainment, Nothing, Nothing Special, Nothing Special & Underdeveloped, Nothing Special about Albert Town or St. Vincent, Peaceful & Nice, Peaceful & Quiet, Peaceful & Quiet, Westwood Presence and police station, Peaceful people, quiet place, 2nd most famous cave Oxford Cave, Peaceful, Community Support, Peaceful, Quiet Environment with a lot of rivers, Peaceful, Quiet, Undeveloped Tourist Attraction with potential, 2nd famous cave: Oxford Cave, Plenty Fruits & vegetables, Attractive mountains, Productive Area-Farming Community, Provision of Ground provision and Love the environment, Quiet Community, Quiet community with loving people, Quiet not busy & noisy like the town but underdeveloped compared to others in the country, Quiet place & Got married stayed, Quiet, peaceful cool, Quiet, Peaceful, Loving, Quiet, Resource free, Resource water and it provides us with water, Rich Soil type for root, tubers yams potato, corn and legumes, peanuts and peas, Rivers, Rivers compared other areas in Manchester, Scenery, slow nothing to live off, the water-presence of springs & rivers, Tranquillity & Farming Community, Very poor, Vibrant, local coffee, employment, citrus, banana, Violence free, good area but road want to fix and more development, water, Water

Table 3.4: Distribution of the sample size by age group

ECOTOURISM IN THE COCKPIT COUNTRY	PERCENTAGE
No Response	14
Bad	2
Good	15
Very Good	21
Great	48
Total (Count and %)	(83) 100

3.7 Knowledge of the Cockpit Country

The knowledge of the respondents of the Cockpit Country varied strongly (Box 3.3). The major characteristics of the Cockpit Country were the hills, rivers and water, caves etc... The Cockpit Country is known as a watershed and water catchment area. However, many places within the

Cockpit Country experienced severe water shortage during the year. Some communities became self-sufficient in terms of setting their individual rainwater harvesting catchment system. From an outsider viewpoint, the limestone forest, the cockpit karst and tower karst would have been the outstanding characteristics of the Cockpit Country. People residing within the Cockpit Country barely visited the forest if they are not loggers or yam stick harvesters.

Box 3.3: Views of the respondents on their knowledge of the Cockpit Country

A place to get mahogany & Cedar, A lot of Caves visited by tourist n locals, rivers for domestic and recreational purposes, A lot of trees, fruits, rivers, abundance of water and mountains, A lot of Water, Area communities, has variety of lumber trees, mahogany, cedar just in Trelawny, Areas with caves, snails (largest variety in Manchester), rivers, Beautiful area, fresh area, lush greenery, hilly, Bushes, Rural Area, Beautiful hillside, Bushy, A lot of river and pest: mosquitos & Ticks, Caves, Rivers, Streams, Rock Climbing, Consist of trees shrubs, Rivers, Scenery ,rolling hillsides, caves, Contains hills, limestone, forested areas, Cool place/climate, birds, cows, sweet wood, bitter wood logwood, Cow, goat, bird, river, Endemic species and plants, Fertile land present there, good for farming, Found in Trelawny, Fruitful area, cool environment, sometimes very hot, Has a lot of farmed food, rivers, vegetation, sinkholes, Has a lot of Butterflies, quicksand, rivers Mountains, variety of flora fauna, green area, Hills that can be seen near homeland, Hilly & lowlands in the area, Hilly forested area, Limestone, Rains, Majority of Trelawny, St. Elizabeth & St James, Lower-Upper Trelawny, Lumber & Watershed, Main source of survival for people, hunting, farming on Crown Lands, Maroons, Most precious part of Jamaica, more than 140 medicinal plants found nowhere else in the world, safest part in Jamaica, Mountains and Less pollution, Mountainous, cool area with frequent rain, Mountainous, fertile Soil, rainfall, severs drought, no water in pipe, Natural fertility, plants, soils, Natural Scenery, Nice place to relax your mind, No flat land, area with a lot of hillsides and gully, less pollution in air, No idea but Maroons Place of Abode, Not much, nothing, Nothing, Peaceful and good area, People visit there (locals & tourist)attraction, hilly area, Plant a lot of yam, Rainy Area, Rich value, Watershed, Queen of Spain, Rock spring-Sherwood-Deeside, Rocks prevents slippage, Slaves ran away to there, Species different across the Jamaica and some found in Cockpit Country, Trees shouldn't be cut down, flat land, bushy (heavily vegetated), Unusual fruit, a lot beauty, Black River, Up in the hills, Very Little, Very useful: water catchment area, caves, birds, bauxite, Water availability and fertile soil, We get our own water, yam sticks, food

3.8 Views on existing natural resources within the Cockpit Country

Water, rivers, trees, lumber, plants, fruits, bauxite, etc... are some outstanding resources that exist in the Cockpit Country according to the respondents (Box 3.4). These characteristics may be similar to the characteristics which might have been listed by people who reside outside the Cockpit Country. One may wonder why the respondents did not state bauxite as the main characteristic of the Cockpit Country. The truth is that only well-informed residents within the Cockpit Country may be aware of the issue of prospecting license for bauxite mining in the Cockpit Country. It may also depend on the place of residence. No respondent had cited white limestone as a natural resource of the Cockpit Country. Medicinal plants were listed by only one respondent. That is why it is urgent to devise strategies to inform the residents of the Cockpit Country on other natural resources that are available in the area. The major challenge is who should inform the residents. Should it be governmental agencies, organized civil society groups such community-based organizations and Non-governmental organisations, etc.

Box 3.4: Views of the respondents on existing natural resources in the Cockpit Country

Bauxite, Bauxite and plants, bauxite, fruits, Breadfruit, Mango, Lumber, Ground provision, Cane & Ganja, Caves 3m-1mile, rivers, fertile soil, Caves, Rivers, Different Species of birds, endemic species, watershed area (pantry pond), Farmers and land rich, Fertile Soil, Fertile Soil for farming, Food Attractions, the source of all water, food-cane, fruits, Food-coffee, banana, yam, Forest water, Forest, Bauxite, all the land belongs to bauxite, Appleton, Forest, Mahogany, Orchids different species of plants, ferns animal, snails, Fruits, vegetables, cane, Humus, Pimento, Tobacco, Walnut, Lumber, Sandy loam, Clay loam, land, lumber, Lumber, lumber, fruits, natural food endemic, Medicinal plants, rivers, land, Nothing except water, plants, water, land, Reservation for Birds and Fertile Soil, fruit trees, caves, plants, fruits, fauna diverse, Sand, Yam sticks and sell, Soil & Trees, Springs, River, Lumber, fruit trees, ground provisions, stones-limestone, Trees & water, trees for furniture, banana, orange, Plants, trees, water rivers, rocks, animals-farm-goats, pigs, types of lumber, rare plants, birds, animals, fruits endemic, water, Water, water and trees, water plants, plants and animals, food, soil very fertile, farming-animals-cows, goats, sheep, food-birds-parakeet, yellow birds, black birds, Wood & Lumber, Wood, land bauxite, Yam sticks for farming, Yam sticks, fuel, forest, Yam sticks, Plant and Animals (things people look at), Yellow Snake Boa Constrictor & other plants & animals

3.9 Views on benefits deriving from the Cockpit Country

Respondents were also asked to outline the benefits that they and members of their family derived from the Cockpit Country. An exhaustive list of benefits is provided in Box 3.5. Food (15) and water (14) had the highest scores. These were followed by other benefits such as opportunity for farming, yam, wood and lumber. Some respondents did also state that they did not get any benefit from the Cockpit Country. Again, this may relate to the fact the survey was administered to locations where people may not have anything to do with the Cockpit Country. Respondents from areas such as Craig Head and Aenon Town may wonder about the tangible benefits they receive from the Cockpit Country which is located for many of them in Trelwany and St. Elizabeth. About 66% of the respondents agreed that other locations have also benefited from the Cockpit Country. Nearly 17% of the interviewees did not bother answer the question.

Box 3.5: Views of the respondents on benefits driving from the Cockpit Country

A lot of Rain, don't know, Don't Know, employment, fruits/food, Farm produce that sold in local markets, farming (hustling), Farming land, Farming, yam sticks water, farming: family employed through farming, Fertile soil, fertile soil, Cockpit fruit and cash crop, seedlings, food, Food, food fruits, cool climate, food to feed family and to make a living, food, banana, yam, water, Food, farming, food, material to build houses-wood lumber, food, water, Furniture, farming-banana, cane, Good health, natural food, variety, no pollution, a lot of fruit, Good soil for farming. Good Weather, health benefits from the herbs grown, Hunting Ground, water, farming land, clean air and an abundance of clean water, Jobs as forest rangers/attendant, land, lumber, Lumber built house and fertile soil, Lumber: Yam stick, board: Mahoe & Mahogany, main water source & Food (traditional and non-traditional), No, No benefits, No Benefits, none, None, nothing, Nothing, plants, water medicinal plants fresh air, Protect Lower Environment, Watershed Area, Rainforest Area, reaps food, yam sticks, Residents sustain from crops and animals, Rich land, burn wood and sell coal, River, lumber waterfalls, fertile soils, Sell food found here, water, Water & food, water, yam sticks, food, Wood & Water, wood to make furniture-doors and water, Yam Stick, Post for Wire fence, fertile soil, Yam sticks, Yam sticks, land for farming

3.10 Views on physical, historical and archaeological characteristics of the Cockpit Country

Apart from the natural resources, the Cockpit Country is also known for other unique physical, historical, cultural and archaeological characteristics. Most of the respondents were well aware of these characteristics. They stated the cockpit hills, white limestone, landscape and scenery that are very beautiful, attractive and unique. They also indicated the different caves used by Tainos and the Maroons. They declared that water flows through the caves to rivers from one point to another. The Cockpit Country has also been the principal location for the wars between the British soldiers and the Leeward Maroon slaves. Many places in the Cockpit Country are named after the Maroons. The first Maroon war led to the Maroon Treaty with the British Government as a separate group of free people in the Island. The interviewees also spoke about Cudjoe's caves, the Anglican Church in Craig Head, the Baptist church in Stewart Town and Deeside, etc... The Jamaica National Heritage Trust (JNHT) has already conducted an inventory of archaeological and heritage sites in the Cockpit Country (JNHT, 2009). That inventory will be of great importance to any decision made by the Government of Jamaica to seek World Heritage Status for the Cockpit Country.

3.11 Views on the different proposed boundaries of the Cockpit Country

Respondents were also presented with five specific proposed boundaries for the Cockpit Country. The Cockpit Country botanical boundary used by Dr. George Proctor and the Cockpit Country Add-on boundary were not included in the discussion with the respondents. The reason was because that question was purely quantitative rather than qualitative. The findings reveal that 43% of the respondents selected the boundary proposed by the Cockpit Country Stakeholders' Group, which was followed by the Ring Road proxy boundary. About 18% of the respondents were not sure of which proposed boundary should be selected. The UWI proposed boundary was only selected by 4% of the interviewees, while the Forest reserve was chosen by 7% of the respondents. Respondents were not provided with any rationale for any boundary per

se. The question was strategically placed at the end of the questionnaire. The exercise was not representative of all residents who lived in the communities which were surveyed. The selection of any boundary may relate to the interest of the respondents to ensure that his/her community is included in the official boundary of the Cockpit Country. Some interviewees did ask about the benefits for their community by being included in the Cockpit Country. For example, some respondents from Stewart Town who stated that Stewart Town is not part of the Cockpit Country argued that it should be included if this could prevent bauxite mining in the area. It remains clear throughout the public consultations that respondents who were against prospecting for bauxite and limestone deliberately selected the largest boundary as a precautionary measure.

Table 3.5: Distribution of the sample size by selection of the official boundary for the Cockpit Country

SELECTION OF A PROPOSED BOUNDARY	PERCENTAGE
UWI Boundary	4
Cockpit Country Stakeholders' Group	43
Maroon Boundary	11
Ring Road	17
Forestry Boundary	7
Not Sure	18
Total (Count and %)	(83) 100

3.12 Considerations

Most of the respondents argued that the Cockpit Country is a very special and unique place. The abundance of water resources, rivers, caves, hills and beautiful mountains, quietness and peacefulness, the quality and availability of land forests, trees, fruits, and bauxite are some of the many things that make the Cockpit Country very special according to the residents interviewed. Communities in the Cockpit Country are seen by many residents as crime free environment. This is why most of them are of the view that it will be very good and great for ecotourism activities to take place in the Cockpit Country. The boundary proposed by the

Cockpit Country Stakeholders' Group received the highest score. It may be either people wish to include more geographical locations within the Cockpit Country or they are opposing any prospecting for bauxite and limestone within the Cockpit Country.

Chapter 4

Views of the Accompong Maroons

4.1 Introduction

This chapter presents the views of the Accompong Maroons which were collected during the community public consultation meeting at Accompong, the Town Hall meeting at Kingston and a formal interview with the Maroon Government at Accompong. While the Accompong community public consultation meeting was largely completed, many issues were not fully covered during the formal interviews with members of the Maroon Council. In fact, some of the Maroon representatives asked more questions to the facilitators rather than explicitly expressing their views on most of the issues at hand. This situation may be due to a lack of trust between the Maroon community and outsiders or a misunderstanding of the role of the facilitators, who totally depend on the stakeholders to provide quality information and explicit views on the relevant issues during the data collection process.

4.2 The Town of Accompong

The Town of Accompong is situated in the Northern section of St. Elizabeth, few miles from South-West Trelwary and South-East St. James. Accompong is described as “the oldest of the Maroon communities that survive in Jamaica today” (Mitchell et al., 2008: 39). The Maroons who built the town of Accompong earned their freedom after endless wars with the British, and were consequently compensated with eternal ownership of lands and semi-independence to manage their own affairs (Robinson, 1994). Accompong sits on a yellow limestone that makes it one of the most suitable locations for agriculture and farming activities around the white limestone and mountainous Cockpit Country.



With regard to the proposed boundaries for the Cockpit Country around which revolves the public consultation process, Accompong falls within the Ring Road, the NEGAR boundary, the boundary described by some Accompong Maroons to Dr. Balfour Spence in 2007, the UWI proposed boundary, the Cockpit Country botanical boundary used by Dr. George Proctor and the boundary proposed by the Cockpit Country Stockholders' Group (Figure 4.1). By contrast, Accompong is excluded from the boundary proposed by Marjorie Sweeting which primarily focused on contiguous cockpit karst and tower karst to define the Cockpit Country.

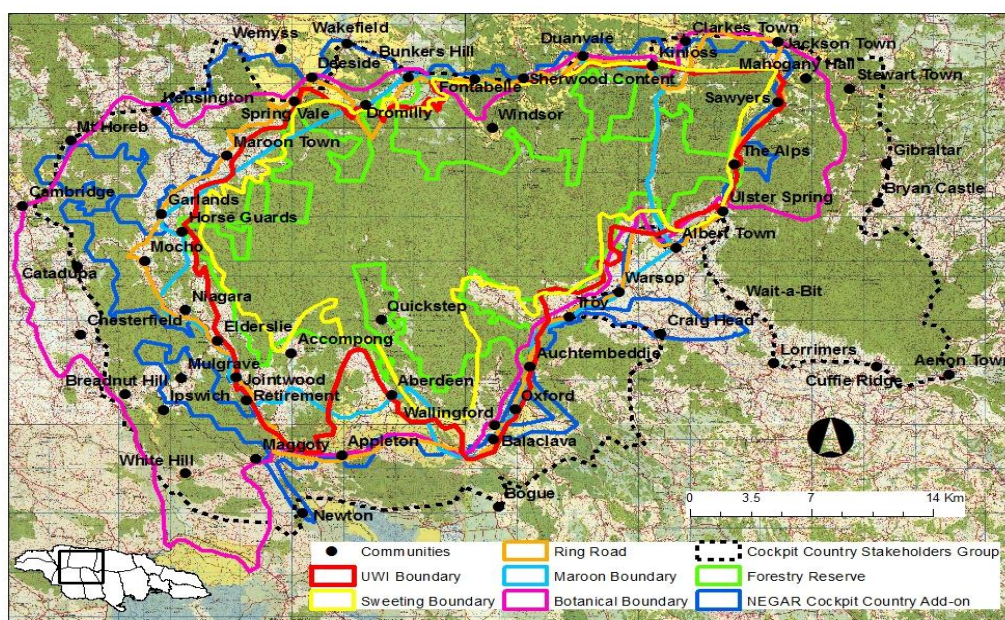


Figure 4.1: Proposed boundaries for the Cockpit Country

4.3 Vision of the Maroon for the Cockpit Country

The Accompong Maroon Government envisions an undisturbed Cockpit Country. They stated that *“the vision that the Maroons have for the Cockpit Country is to maintain it in its most pristine natural state for our descendants and keep it eco-friendly. The way it can be economical if it can employ people through ecotourism and pharmaceuticals”*. A former Deputy Colonel argued that:

“the Cockpit Country is the only place where you can find a green thin; green mountain, is this Cockpit Mountain that is governed by the Maroons. You don't find that anywhere else. All the forest in the whole country cut down and destroyed. So them turn now, them not see no other way where them can loggin things, them turn now to this cockpit. So we want keep it fi wi... When they start to log and mine, what will happen to those birds, them gone”.



Formal Interview meeting between Dr. Claudel Noel and some members of the Accompong Maroon Government

The vision of the Maroons for the Cockpit Country also includes opportunities for collaborative scientific research on plants and herbs. Representatives of the Maroon Government pointed out that:

“We have herbal bush in there for medical purpose. We only want scientists to come in and find them and take them and put them to use. We are willing to get researchers to come to share ideas with the Cockpit Country Maroons. We will welcome you, but don't come with bulldozer to destroy it, don't come with nothing to destroy it”.

4.4 Views of the Maroons with regard to the Government of Jamaica

The forefathers of the Accompong Maroons signed a treaty with the British in 1738, which recognized their freedom, land ownership and their right to self-governance based on the specific terms and conditions which were clearly stated in the Treaty. However, there has been no formal Treaty, Memorandum of Understanding or legal documents establishing some types of relationships, clear status or some form of agreement between the semi-independent Maroon community of Accompong and the autochthonous Government of Jamaica, which was created after the declaration of Independence and the enactment of the new constitution. Many members of the Maroon Government stated that:

“we should speak to another government, but we just facilitate the process and meet with you (the facilitators). We are in the wrong venue. We are to be putting our position to the leaders of the Country. The Treaty was made between the Maroons and the British. We don't have a general Memorandum of Understanding with the Jamaican Government. We need to know who we are dealing with. We have to know the agencies we are dealing with. Jamaican Government needs to sign a MOU with us. Are we squatters?”

Some members of the Maroon Government even wondered if the Government of Jamaica considers the Maroons as an indigenous set of people in Jamaica. They stated that:

“a general discussion is needed with a body that is above you (the research team). And that is not necessary a given Government agency, but the GOJ. Whatever decision the GOJ will make to be final, the Maroons will have to find the way to challenge it and we cannot challenge them because we have no business with them. The Maroons deal with the British, the British left the

Jamaican Government in charge of British interests. How the Maroons are seen in Jamaica? We have been said that there could be no state within a state”.

The Maroon Council stressed that they speak with one voice. They indicated that *“sometime we want to believe that the Government of Jamaica does not recognize us as state within a state as most the world knows and if one should remember in England where we have Wales, Ireland, Scotland etc.”.*



An Accompong Maroon eagerly waved his hand to make a comment



An Accompong Maroon eagerly waved his hand while seeking to make a comment and a team member recording what was being said

4.5 Ownership of the Cockpit Country

The issue of Ownership is one of the principles that need to take into consideration when defining the boundary of the Cockpit Country. Indeed, it is impossible to declare a critical portion of lands “National Park and Protected Area” or get awarded “World Heritage Site” by the United Nations Educational, Scientific and Cultural Organization (UNESCO) without establishing clear defined boundary and ownership rights. According to the National Land Agency, there is a legal provision for acquiring land for public purposes. The Forestry Department has developed policies to co-manage private lands in sensitive and critical areas on behalf of the private owners. This provision may not be applied to the Cockpit Country when

taking account of the ownership of the entire Cockpit Country. The position of the Maroon Government is categorical:

“The Cockpit country belongs to the Accompong Maroons. The Maroons of Accompong Town own the Cockpit Country exclusively and the Government of Jamaica has no right actually to any unauthorized involvement in the Cockpit Country. After all said and done, the most critical and important of all we are stating categorically that we exclusively own the Cockpit Country”.

From the Accompong Maroon perspective,

“all the land in Jamaica belongs to only two persons: the Government of Jamaica and the (Accompong) Maroons. Irrespective of what you might hear other persons say that they own land, they own how much acres of land, if they don't pay taxes; the Government of Jamaica will come and take it over. We the Maroons, they cannot take it over because we are not squatters; we actually earn our land rights. It is not something that was given to us... We earned it through tears and blood.”

The Maroons relied a lot on traditions and history regarding what their grandparents and parents told them and how far their fore parents had reached in the deepest part of the Cockpit Country forest. As such, they indicated that *“We live in the heart of the Cockpit Country and if this place has to be measured because our ancestors did not measure the land. We never allow people to come here to measure Maroon land in Jamaica. We don't have any representative who represents our village.* Some members of the Maroon Council established a comparison between the Accompong Maroons and other Maroon communities in Jamaica with regard to land ownership. They stated that:

“we own the land. There are other Maroon communities who don't have lands. We are the only Maroons in the Island of Jamaica who don't pay tax for land. If you look at on a map of Jamaica, if you look where we are clearly, we are in the part called Cockpit Country. The stakeholders, the people who live on the boundary of Maroon lands, the Government cannot define Maroon land

for Maroons, nobody else Government and we can't even do it. We have been ramped and sabotaged over these years”.

In addition, other members of the Maroon Council expressed their frustration in this way:

“the Cockpit Country was earned by the Maroons. They (Government) hated us, they don't respect our territory, they don't respect our land. They ignore our rights, as Maroons in this land. They have not treated us as human being; they ignore our victory over the British. Jamaica could be a better place if they respect the Maroons”.

The question of the ownership of the Cockpit Country has been argued by the Maroons from the origin and historical definition of the word Cockpit presented by Mr. Mike Schwartz from the Cockpit Country Stakeholders' Group during the community public consultation meetings. According to one of the definition of the word 'Cockpit' from the Oxford Dictionary, it may mean 'a place where a battle or other conflict takes place or an area in the aft lower deck where the wounded were taken'. Using that definition with a historical perspective, Schwartz argued that the Cockpit Country is the place where the Maroon wars took place. Some of the Accompong Maroons stressed that:

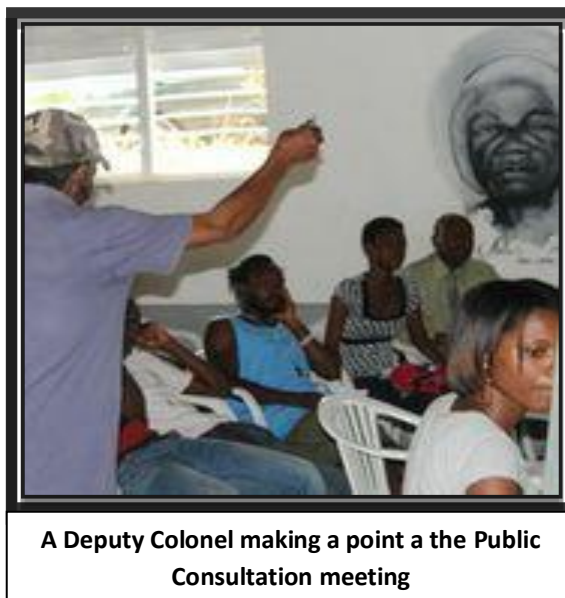
“country means people and the only people living there (the Cockpit Country) are the Maroons. The Cockpit Country is the Maroon country, earned from the British. There is no pretense as the name of Cockpit related to the Maroons which is bordered by the parishes of Trelawny, St. James, Westmoreland and if possible St. Elizabeth”.

The debate about land ownership and how far the boundary of Maroon land is has been argued by generations of Maroons, as they rejected or reinterpreted some of the clauses of the Maroon Treaty (Spence, 1985). According to a member of the Accompong Maroon Council, *“the Maroons own the Cockpit Country. The Cockpit does not define the entire boundary of the Maroons. The Cockpit is only a section of treaty land, only a section of it”.*

4.6 Statement by the Accompong Maroon Council at the Kingston Town against bauxite mining

Some members of the Accompong Maroon Government attended the Kingston Town Hall meeting. The Colonel read a prepared statement from the Maroon Council expressing their objection to bauxite mining in the Cockpit Country (Maroon land) and the urgency for dialogue between the Government of Jamaica and the Maroon Government.

“The Maroons are a sovereign people who have exercised sovereignty over Accompong and surrounding lands for over 300 years which rights are recognized and guaranteed by virtue of a Treaty with the British in 1738. The Maroons have also been recognized internationally as tribal people and therefore entitled to land rights as indigenous people under international laws... We are here today to register our strong objection to the grant of special exclusive prospecting license (SEPL) # 541 to Quality Incorporation Limited... and Alumina Partners of Jamaica to prospect for bauxite in St. Elizabeth. The License we're told originally granted in 2005, which has been renewed annually up to November 2013 covers Accompong and surrounding land belonging to the Maroons. We therefore find it extremely difficult to understand how the Government of Jamaica has continued to renew this prospecting license over our land, while at the same time we are having these consultations to identify what is the boundary for Cockpit Country with a view to ultimately determining what area cannot be mined. That means that the Government of Jamaica has already decided that it is okay to mine for bauxite in Maroon territory in (the) Cockpit Country without our approval. We therefore remind the Government of Jamaica that the act of granting license to any entity to prospect over Maroon lands without our permission is illegal and unconstitutional and a breach of international human rights laws. That prospecting license must therefore be immediately revoked for the entire Cockpit Country Area including all Maroon ancestral and traditional territory and land therein be free from any prospecting and mining whatsoever... so that the Maroon communities who have fought, survived and lived in our land for centuries may continue to do so undisturbed and unmolested at it is our rights”.



One of the Deputy Colonels who is 80 years old made the most passionate view at the Town Hall meeting regarding the Cockpit Country. He stated that:

"I was born there, grow and live there and I left it to come to this meeting. It pleased us very much to see at this time I am 80 years old. My mother and father, their parents were also born there. We live in this Cockpit Country with no murder, no war and up to today, we are crime free. If we sit aside and watch mining took place, what will I tell my grandchildren? What will my children tell their children, their grandchildren? ... The answer to that will be devastation. We the Maroons of Accompong will not allow any type of mining within that Cockpit Country that belongs to us. We can never, never be squatters in this country that we live... Our country, what our forefathers fought for, they fought the greatest army of the world and they won. They did not get any money... the land that is our compensation and they said we must pass it from generations unto generations, we must not sell it, we must not give it away. That's why today we don't have any squatters, we are free people, land is free and every young man will have a little place to plant something, he does not steal, he does not kill because he can find food, nobody is hungry. Ladies and gentlemen, I ask tonight because of you people out there who have the voice, hold fast to defend the Cockpit Country. The only place in Jamaica that you have green things it is the Cockpit Mountain. You find birds that have never been found in the world,

trees, medical herbs that we want some scientists to come in and find herbs to cure cancers and Aids because I am thinking that the medicine to cure these things are up in the Cockpit Country”.

4.7 Cockpit Country boundary preference

While some members of the Maroon Council claimed the ownership of the Cockpit Country for the Accompong Maroons (which means that there is no need for a boundary), they have nevertheless selected a preferred boundary among the different boundaries which were presented in order to facilitate the study. Members of the Maroon Government stated the following:

“The boundary that we prefer among all the boundaries that were presented, the one that we prefer is the one presented by the Cockpit Country Stakeholders’ Group, is the one presented by Mike Schwartz. We claim exclusive ownership of the Cockpit Country and we are stating the boundary that we prefer is the boundary of the Cockpit Country presented by the Cockpit Country Stakeholders’ Group which is represented only a portion of the land owned by the Maroons and not the 100% of the land we own. We just want people to have the idea we basically not talking about a boundary itself”.



A view of the members of the Community attending the Public Consultation meeting at Accompong

4.8 Summary of the views from the community public consultation meeting at Accompong

The community public consultation meeting allows anybody from Accompong to voice their views about the different proposed boundaries for the Cockpit Country and any other related issue. This was one of the biggest community public consultation meetings. The interaction was very lively and the participants were able to voice their views and opinions. Unfortunately, the facilitators had to answer a lot of questions, which may be part of the misunderstanding and the high level of suspicion regarding outsiders seeking for information and views of the Maroons about a portion of land over which they claim exclusive ownership rights.

The UWI proposed boundary was presented by Professor Simon Mitchell via a recorded video. He provided excellent information about the rationale behind the inclusion of Accompong in the UWI proposed boundary. Mr. Mike Schwartz presented the Cockpit Country Stockholders' Group proposed boundary. The UWI proposed boundary was severely criticised and classified as biased towards bauxite mining. The boundary proposed by Cockpit Country Stockholders' Group received high level of appreciation, which may be originated from the association between the Cockpit Country and the two Maroon wars. Box 4.1 presents a summary of the major issues which were discussed.

Box 4.1: Some views from the community public consultation meeting at Accompong

Accompong

- Location of Cockpit Country - St. James, St. Ann, St. Elizabeth, Trelawny and Manchester Westmoreland, Maggotty, Troy, Blue Mountains
- Major part of the Cockpit Country belongs to Maroons
- The Name Cockpit Country derived from war with the British
- People who make up the Cockpit Country are Maroons
- Accompong is in the midst of the Cockpit Country
- Cockpit Country is the source of water for 40 percent of Jamaica
- Not all of Cockpit Country belongs to the Trelawny Maroons

Box 4.1 cont'd

Vision for the Cockpit Country

- A place open to research “outsiders”
- Accompanying Maroons are major stakeholders
- No information from Local Forest Management Committee
- If mining takes place it will affect all rivers in the western region
- Erosion
- We reject potential infringement on Maroon lands by the Government of Jamaica
- Cockpit Country formerly called cockpit mountains, changed by British for the Maroons
- refers to treaty – opening roads to other parishes – St. Elizabeth, Westmoreland, Trelawny, St. James
- Cockpit Country reserved for Maroons by the British
- In conflicts with the 1500 acres signed for on the treaty
- No mining and logging to protect water reserves
- Preservation of local flora and fauna - birds, medicinal plants
- The Maroon authority in the process of setting trails for ecotourism and researchers can come now to go to the forest for research on medicinal plants

Questions

- Does the Government of Jamaica have the authority to mine Maroon lands?
- Was the Maroon Government consulted for/before the series of public consultations?
- The cockpit country being passed down – validity and worthiness of legacy – bushy etc.
- Can the Government of Jamaica ignore the Maroon Government of the Cockpit Country?
- Is mining the most efficient and sustainable way to make money?
- Did the Government of Jamaica trespass on Maroon lands by doing research without consulting the Maroons?
- We are all claiming authority regarding the Cockpit Country. Mr. Currie spoke about passing it down from generation to generation, what are we really passing down, a place with bushes and trees that most of us have never been. Does it benefit us to have the Cockpit Country has idled land. And since the issue of mining has been on the table since 2006, as Maroons, why haven't an alternative to mining been submitted in terms of Research and Ecotourism?

4.9 Call to meet with the Government of Jamaica

It is clear that the Accompong Maroons are one of the major stakeholders in the Cockpit Country. Mitchell *et al.* (2008: 40) argued that “they are critical for any delineation of the Cockpit Country”. According to Colonel Williams, the Accompong Maroon Council is ready to meet with the Government of Jamaica to dialogue over the issues related to the Cockpit Country. The idea regarding the existence of a Maroon State has been floated around when the Prime Minister of Jamaica visited Accompong some months ago. With regard to the issues relating to the boundary of the Cockpit Country, the Maroon Government stated that:

“We want to have dialogue with the Government of Jamaica as far as the boundary of the Cockpit Country is concerned and also without mining being considered in the Cockpit Country. We want to have dialogue with the highest persons in the Government of Jamaica and also without mining.”

Colonel Williams reiterated once more the relentless call for the establishment of a channel of dialogue and communication between the Government of Jamaica and the Accompong Maroon Council. He reemphasized that:

“We speak with one voice We are still crying out for the Government of Jamaica to speak with us whether they want to call us for a meeting elsewhere or they come here and let us talk, dialogue, as far as governance, preservation of the Cockpit Country and our rights to the land are concerned”.



**Colonel Williams making the
concluding remarks**

4.10 Considerations

The chapter textually reported the views of the Accompong Maroons. Views (regarding the relationship between the Government of Jamaica and the Maroon Council) which were important, but not relevant and related to the objectives of this present public consultation were not incorporated in this report. Unpleasant views (such as cussing, bad words) were deliberately removed in order to avoid obstructing any opportunity for a channel of dialogue, communication and cooperation to be established between the Government of Jamaica and the Accompong Maroon Council. The views of the members of the Accompong Maroon community and the Maroon Government can be summarized this way:

- Establishment of a Memorandum of Understanding between the Maroon Council and the Government of Jamaica
- The Accompong Maroon claim exclusive ownership of the Cockpit Country
- The Cockpit Country should be maintained in its own pristine state and pass from generations to generations
- Bauxite mining should not be allowed in any case
- The development of ecotourism as alternative economic activities
- Permission of collaborative pharmaceutical and medicinal research

Chapter 5

Views from the Town Hall Meetings in Santa Cruz, St. Elizabeth

5.1 Introduction

This chapter presents the views which were expressed by the stakeholders at the first Town Hall meeting which took place outside the Cockpit Country in Santa Cruz, St. Elizabeth. Concerned citizens from different walks of life participated in the Town Hall meeting in order to voice their opinions and concerns regarding the issues surrounding the definition of the boundary for the Cockpit Country. Two main presentations with regard to the proposed boundaries were made by Professor Simon Mitchell, the lead researcher of the 2008 report on defining the boundaries of the Cockpit Country that had recommended the public consultations, and Mr. Mike Schwartz who represented the Cockpit Country Stakeholders' Group. The views are reported with no alteration, except when they are unpleasant offensive and inappropriate.

This chapter is divided into two sections. The first section reports the views of the stakeholders as stated orally. These views are grouped according to respective themes or related issues. The second section contains the box which presents a summary of the issues which were discussed and handwritten by the members of the research team.

5.2 The Town Hall Meeting in Santa Cruz

The Town Hall meeting in Santa Cruz was fairly attended. Most of the stakeholders came from Santa Cruz and surrounding districts. The main disappointment was the absence of the leaders of the Accompong Maroons who are an indispensable stakeholder to any attempt to define and manage any proposed boundary for the Cockpit Country. The Accompong Maroon Council neither attended the Town Hall meeting nor sent their apologies as they were invited to be part of the panel during the community public consultation meeting at that took in Accompong

three days earlier. The Town Hall meeting was very interactive and less controversial. When considering the differences between the UWI proposed boundary and that of the Cockpit Country Stakeholders' Group, some of the participants explicitly requested a possible compromise between the two boundaries which were presented.

A proposed boundary was instantly identified by one of the presenter as a likely compromise, although He still preferred to stand by his own proposed boundary. The dissimilarities between the proposed boundaries lie in the philosophy and underlying principles upon which they were defined and determined. Each boundary has implications for the protection and conservation of natural resources, endemic plants and animals, sustainable use of natural resources and livelihood strategies, local and national economic opportunities, bauxite and limestone mining, ecotourism development, integrated management of the Cockpit Country protected area, national park and World Heritage status.

5.3 Differences between the UWI and the CCSG proposed boundaries

The UWI proposed boundary is largely defined as contiguous cockpit and tower karst formed in the white limestone group and yellow limestone group within the Ring Road (Mitchell *et al.*, 2008). The inclusion of small areas of yellow limestone located at Accompong and surrounding districts was mainly due to socio-historical reasons. By contrast, the boundary proposed by the Cockpit Country Stakeholders' Group is basically determined by the various locations where the maroon wars took place within and outside the Ring Road. These places also have similar geological and geomorphological characteristics of contiguous cockpit and tower karst.

One of the participants wanted to find out the extent to which she can be convinced that the UWI proposed boundary is the precise boundary. She also questioned the exclusion of human geography factors such as population movement and human settlements, which may affect the boundaries. According to Professor Mitchell, the UWI research team was comprised of two human geographers, a physical geographer with expertise in karst systems, and a geologist. He

explained that the terms of reference which was signed between the Government of Jamaica and the UWI researchers explicitly requested a physical definition of the Cockpit Country based on scientific criteria. However, the participant reiterated that human geography factors could not be ignored in defining the boundary of the Cockpit Country. Professor Mitchell agreed that human geography factors were indeed taken into account. He provided specific information on arriving at the UWI proposed boundary:

“we went around, we looked at the boundary we have seen over time, how it had changed... there has been quite a lot of changes... if you go back to the early part you come across the term cockpit... the first term of the cockpit... Cockpit Country initially was wherever you got cockpit karst. So Cockpit Country would be virtually the whole of Jamaica... So there has been a lot of changes in way these things were done... and you read all the definitions... you find that sort of thing during the 19th century... it turns around and then you started getting cockpit turning into Cockpit Country and Cockpit Country turning into cockpit karst. So there were progressive changes in the way people talked about that, which makes it very difficult to back unless they’re very specific and understand what they are talking about and if you go back you get term of pepper cockpit, very, very common in some of the newspapers... which is a type of cockpit still. The term was used for different things in the past and I think one of the things we are trying to do here is to understand what Cockpit Country is today. When you go back historically, it’s actually very different... it has actually changed in a lot of very different ways and so there is a big problem in that sense... historically how you actually understand the meaning at the time is very difficult... even when you see words on a map... The first Maroon Treaty talked about an area, which is North-west of Flag Staff being the cockpit... Very, very different to what we think about as the cockpit now... That is actually one reason why there is not enough in the white limestone”.

The major challenge is that cockpit karst is not the best characteristics to define The Cockpit Country because cockpit karst features can be found in various parts of Jamaica (Lyew-Ayee, 2005). According to a participant, the topography of Jamaica has basically created that problem. Nonetheless, there is only one huge geographical area that is commonly called

Cockpit Country in Jamaica. It is clear then that there is a strong agreement that the Cockpit Country is made of cockpit karst. According to Professor Mitchell, *“the real question we are arguing about is which bit of this area should be included in Cockpit Country as a geographical unit”*. The participant was not really satisfied. She supported the historical evidence, but wanted more information about the scientific criteria used by the UWI research team. Indeed, that is the main reason behind the public consultations. The difficulty is how to quickly grasp all the information about the proposed boundaries of the Cockpit Country when there were only two presenters. The project team could not compel presenters to attend the meeting and defend their proposed boundaries. Mr. Schwartz re-emphasized that line of thought by stating that:

“there are various boundaries... there should have been six people here presenting tonight... the Government should make a decision... should take these proposals into account and the Government should take the feed-back from the public and the public should be participants (in the) decision-making process... It is for the people of Jamaica, especially the young people to think about their future and be presented with some of the arguments...”



**A participant making a point at Town Hall
Meeting in Santa Cruz**

Another important issue is the size of the boundary and what kind of protection it can offer. According to Professor Mitchell, by trying to protect everything, we will have to disenfranchise people. Some areas have to be attached to the boundary. For example, should Appleton Estate and factory be included within the boundary of the Cockpit Country as a protected area? He argued that the inclusion of a sugar cane factory in the protected area may undermine the strength of the dossier seeking World Heritage status. He further stated the following:

“If you have a bigger boundary, what does that mean for what goes on within Cockpit Country? Even if you have a smaller boundary, it still says something about what is to take for management of it... Are you going to stop people using a certain thing? ... These are management issues... If you go for World Heritage... those are things that have to be brought on the table and talk about... and if we don't, we are not going to get there... You cannot have a World Heritage site and you start burning charcoal... what if we define that boundary... what can go on in that boundary.... if you go for a smaller boundary, you got a buffer zone... you can define certain things to go on in the boundary... You need to decide what is going to happen inside that boundary... people need to realize that it's not just grabbed as much as you can because there're stakeholders of all times... this has started because people did not want bauxite mining... these are some other issues that may come to play in the future”.

From a geological and geomorphological perspective, there should be simple criteria to identify the boundary of the Cockpit Country. The Cockpit Country should be able to stand on its own. That is why the UWI proposed boundary excluded all agricultural lands, which interrupts the continuation of cockpit and tower karst. As reported in Chapter 2, The UWI proposed boundary excluded several communities from the Cockpit Country. According to Professor Mitchell, the agricultural lands do not look like Cockpit Country because there is no continuous area of cockpit and tower karst.

The importance of the boundary primarily depends on how it will be used. A participant asked that pertinent question to the panelists. Professor Mitchell stated that the boundary becomes very important if Jamaica is moving towards seeking World Heritage Status for Cockpit Country.

A confused and ambiguous boundary may delay the process or prevent the award of World Heritage Site to the Cockpit Country. He further argued that: *“World Heritage is something we really want because that puts it out there as something very important to protect and people will recognize that”*. Participants wanted to identify the factors that may prevent the Cockpit Country from being awarded World Heritage Status. Professor Mitchell stated that will certainly depend on what basis Governmental authorities plan to submit the dossier of the Cockpit Country for the recognition of World Heritage Status. The Cockpit Country has many characteristics such as biodiversity and ecology, cultural site and Maroon history etc... All these characteristics can even be merged together. This is where a proper boundary definition may help meet the criteria under which the application will be made.

Zoning was another issue which was raised by the participants. While Mr. Schwartz from the Cockpit Country Stakeholders' Group reiterated that the boundary of the Cockpit Country is a technical issue, He also believed that zoning is necessary to manage the Cockpit Country. He argued that *“any protected area always has zones, so I don't have a problem with general zonation, which is put forward here... around the community there will be less protection, in some areas there will be no go area... other areas which could be used with restrictions which are appropriate*. For example, the Windsor Research Centre (WRC) in collaboration with the Cockpit Country Local Forest Management Committees (LFMC) have already developed a conservation action plan, which contains what needs to be preserved and what are the actions that should be taken to reduce potential threats. Mr. Schwartz further stated that:

“we are not going to put security guard or fences... we need to go to the communities to discuss with them... I don't think protected areas should be managed by an entity... I think they should be managed by conservation action plan, which is everybody's conservation action plan... You can go to funding agency and look at what the community wants to do and apply for funding to get it”.

5.4 An Approach to a compromise between The UWI and the CCSG proposed boundaries

The extent to which a compromise could be reached between the UWI proposed boundary and the boundary proposed by the Cockpit Country Stakeholders' Group (CCSG) was one of the first issues that was raised at the Town Hall meeting. The challenge is that each proposed boundary is right in itself because it was defined based on specific terms of reference, rationales and objectives. Professor Mitchell argued that there could be no compromise between the two proposed boundaries because of inconsistencies in the boundary proposed by the Cockpit Country Stakeholders' Group. Mr. Mike Schwartz from the Cockpit Country Stakeholders' Group thought otherwise. Mr. Schwartz brought forward a recent boundary, which was determined after the 2008 study, resulting from combined efforts between Governmental agencies such as the Forestry Department, the National Environmental Planning Agency (NEPA), the Institute of Jamaica (IOJ) and experts from academic institutions, stakeholders from the Environmental NGO community, etc... Mr. Schwartz stated that:

“there are some areas which the government not I, not Simon, the government has worked out... valuables for the ecology and this was done in 2009-2010, it's called the National Ecological Gap Assessment Report (NEGAR) and it was done up there... However, what it is that, it looks at the ecological gaps, that what the aim says, it says where there are forest reserves that are already protected in Jamaica, and the colour is dark green... and this assessment done by NEPA and IOJ and so forth and it says what areas do we need to add on to the forest reserves to make it a national protected area that will preserve our biodiversity, ecology and the ecological functions including water supply. Those areas are seen in light green. So you see that this map and the different greens, it's actually fairly close to what we think and it's fairly close to what Simon think as well... Can you see that? You can kinda see the ring road in yellow here and north... this looks like an opportunity for compromise. I think the cockpit country has a boundary and I think it's the red boundary...

Professor Mitchell explained that the buffer zone that needs to be added to the UWI proposed boundary could be the possible compromise. He stated the following:

“...another thing that we mentioned in the report is that we are defining and that doesn’t necessarily mean that they aren’t areas aside from Cockpit Country that needs protection and that is written in the report. One of the other things that we need to be careful about is that we define a Cockpit Country itself and don’t add anything to please oneself... I don’t want to add extra things in it, what I don’t think is in the Cockpit Country... If you’re going to have a boundary, it’s good to have a buffer zone and that one way in covering more grounds and not ending up with the problem of including too much cockpits and that can be a compromise as well”.

However, Swartz stressed that *“the buffer zone is outside of the area that we want to protect. This poses an addition and takes us outside of the area”*. It can be argued that both presenters believed that the definition of the boundary is a clear technical issue. The two boundaries are different, but they are both very technical and precise. They both aimed at the same objective, which is to have a Cockpit Country that is protected (or can be protected). A concerned participant put it this way: *“with this particular boundary that we are talking about... this will prevent or protect it in such a way that no one will be able to go into to destroy it, destroy the Cockpit Country”*.

5.5 Importance of the Cockpit Country for Water Resources

There is a general agreement that the Cockpit Country is one of the two major water sources in Jamaica. The Water Resource Authority (WRA) confirmed during a formal interview that 40% of potable water in Jamaica comes from the Cockpit Country. In other words, the geological and geomorphological characteristics of the Cockpit Country forest define the surface water both in terms of quality and quantity. Professor Mitchell stressed that

“in some places you’ll find that the water will go one way and others in another way and there’s really nothing we can do. So when we are actually looking at for instance a water supply, it is always a big thing, I mean you know time and time again in Jamaica we hear, we don’t have enough water... We have to ensure that we look after the underground water that we have. So these defining lines are the inliers... that make the water go one way or the other way... so by protecting it we are defining an area that protects the water supply”.

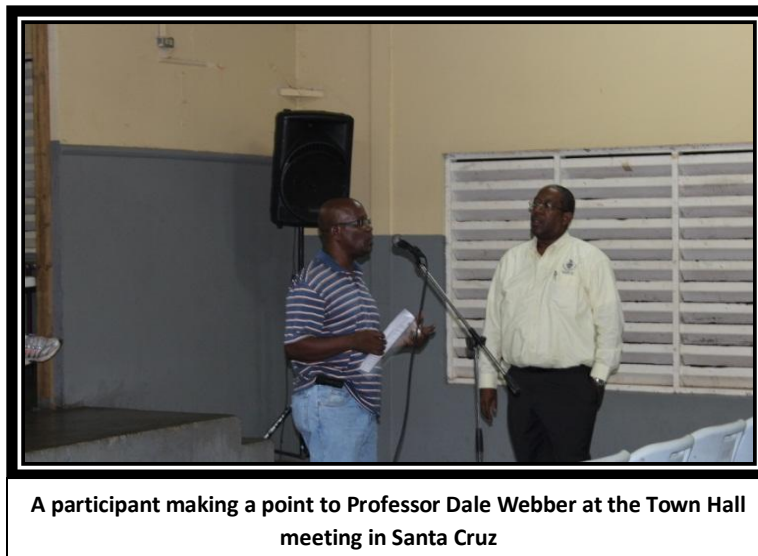
For some participants, the importance of the Cockpit Country for water resources is paramount and should have precedence over other forms of use or worth of the Cockpit Country. Professor Mitchell began by asking a simple question *“what value does the Cockpit Country have to someone living somewhere else?”* Indeed, most of the participants at the Town Hall Meeting resided out the Cockpit Country from the perspective of any proposed boundary. He argued that:

“If your water supply comes from it (Cockpit Country), it’s important for to you. It affects the climate of Jamaica and it makes sure that the rainy season comes in. This is important for you. So the ecosystem, the health of the ecosystem of Jamaica is partly controlled by what is in Jamaica and partly what’s in Jamaica is the Cockpit country, the Blue Mountain is still there. If we lose those, Jamaica is going to sink. So it has its value”.

5.6 Protection and use of forest

The protection and different uses of the natural resources are some of the cornerstones behind defining the boundary of the Cockpit Country. Most environmentalists prefer to speak about conservation, which involves controlled or sustainable use of the resources. In fact, we only protect and conserve what is valuable. However, given that the Cockpit Country is a reserved area and Global Warming is a main issue, and also based on our needs to satisfy, a participant who considered himself a lover of the environment proposed that *“we develop areas in which we can survive and consider the other generations to come”*. This has caused that stakeholder

to ask the extent to which *“can forest on a whole be developed in this country? Because Jamaica is a very beautiful country, it is unique and very special (when) compared to other countries in the world”*.



The presenters provided excellent responses about the worth of the forest, its use and the implications of forest loss. Indeed, a forest is more than a nice set of trees. Professor Mitchell argued that

“a forest is worth a lot of things... the forest itself actually changes the climate we have... it affects the nature of the climate we have... Look at the trees, if we cut down the trees, Jamaica wouldn’t have a lot of rain that it has... If we look on top of it... where are we finding medicine today? We find medicine in natural products... we’re going out to look for forest to find plants... one cures this and one cures that... If we are going to go down the route where we destroy the forest, we run the risk of losing medicine that helps us... So it’s not just looking at where are our children going to live, it’s also looking at what are these resources worth? Are they worth a lot? If we don’t have rain, nobody is going to live; if we don’t have medicine we are going to have problems. So all of these things are directly involved in protecting our area... so I think we have to look at it in multiple ways... We are on this planet for a short period... our children will go on and on... if we destroy it today in two generations, what will be left. You say it’s a beautiful country, it is, but do you want to see a beautiful country in two generations when your

grandkids are growing up? If you do, that's why you go to look for these areas and protect them".

According to Mr. Schwartz, we can use the forest in a sustainable way. He stated that there are a number of written materials published by the Windsor Research Centre (WRC) about the value of the Cockpit Country as judged by Jamaicans, the carbon value in the trees, alternative income generation where money can be earned from ecotourism and agriculture. He continued by stating that the forest is:

"there for you and your children and your children's children... Don't worry about people like me, I'm old, soon dead. But you guys have to decide, not me. It has to be sustainable and that is a whole question within itself. Have you ever noticed a single logger plant 1 tree... they never plant a tree... it has to be sustainable so that your children have the same opportunity that you have..."

Another important issue brought by the participant was the length of time it takes for a tree to grow (months and years) when compared to cutting a tree that may take a couple minutes or seconds. According to Professor Mitchell, the old adage cut a tree, plant a tree, should be discouraged. Some forest loss in limestone areas will never recover or may take more 500 years. Using the current work of Dr. Kurt McLaren from the UWI Mona Department of Life Sciences at Hellshire dry limestone forest, Professor Mitchell stated the following:

"Kurt McLaren does work on trees. He is looking at trees in Hellshire... these trees aren't very big but they take 500 years to grow. So somebody with a chainsaw can detonate 500 years of growth just like that and that's not going to come back... I think we got to be looking and valuing things for what they are and not saying... It's just a tree and it will grow back again... Well it may grow back again. The other trouble is that we have got what you call invasive species... you know invasive species, you see them, bamboo for instance... you cut down the trees that are natural... what grows in its place, bamboo. So when you actually move the natural things you get other things coming in that you don't want there and that's one of the other

problems... what is good looking forest, not too bad... is to see what is growing in them... if you see bamboo, coconut and palms, that's not a good forest... the invasive do better than the native trees... so protecting these things are very, very important, because of the native trees, all things grow there, flowers, insects, the lizards, everything that grows there is going to be affected so we really don't say we have to take time, we can't take everything away. We have to look after them. It belongs to all of us, it belongs to the country. We should not destroy it".

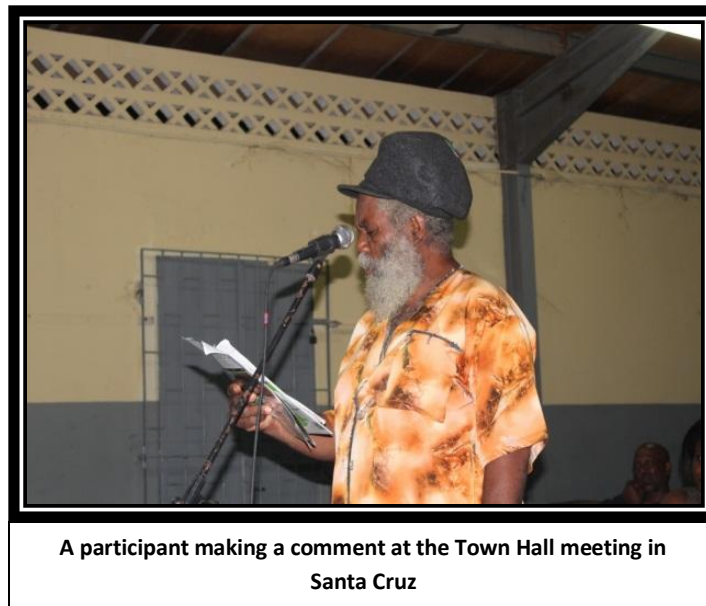
5.7 Conservation of natural resources and tourism in the Cockpit Country

Most environmentalists and forest conservators tend to replace the term 'protection' by 'conservation.' Protection is of a prohibitive and prescriptive nature, while conservation is seen as more utilitarian and participative. In other words, conservation provides immediate and tangible benefits for local communities. Indeed, within the available literature on integrated environmental management, the voluntary approach is argued to bring about long-term and sustainable changes, whereas the compulsory approach only leads to short-term compliance through penalties and a very heavy and costly management system. For instance, one of the participants inquired about the protective device or mechanisms that would be used to protect everything that falls within the red-line, one of the proposed definitions of the Cockpit Country. The response from Schwartz was the following:

"we don't talk about protection, we talk about conservation because we are not trying to stop people from getting a living... So you want to preserve ecosystems within the red line... One other way we are trying to stop yam stick cutting is to get people to grow 'live yam stick' ... (a type of trees)... which is a permanent yam stick... Conservation people worked with the community to solve the issue in a way that suits the community as well".

While the participant agrees that conservation is good, He also believed that conservation requires some level of protection within a limit. He is convinced that there has to be limitation within specific guidelines because the main concern is protection of the Cockpit Country. He stated that *"we're not stopping people from making a living/ livelihood, but at the same time*

we have to have a limitation because we're still coming back to protection no matter what we say or do". Schwartz provided a pertinent example regarding the way in which conservation can lead to greater and long term protection by creating livelihood opportunity within the Cockpit Country which consisted of building trails between Maroon Town and Flag Staff. He stated that: "what we are trying to do in the conservation side is to give people a benefit which is more than what they lose out for doing protection... For example we spend US\$70,000 ... to develop a tourism trail up at Flag Staff for the Cudjoe Town Maroon... there is a lot more money than that being spent at Accompong to build a trail. There is now a trail being built and opened between Accompong and Maroon Town... So you are trying to give people the way in to gain a livelihood, using the forest and not destroying the forest".



To sum up the discussion on protection and conservation, another participant would like to know what development and growth Jamaica can look forward to coming from the Cockpit Country from 2013 to 2020. According to Mr. Schwartz, there are three big foreign exchange earners in Jamaica, which are bauxite, agriculture and tourism. He believed that Jamaica does not need to do anything new that can be difficult. Jamaica just needs to do what they know best how to do it. For example, Jamaica needs to work on its image problem. Mr. Schwartz stated that:

“we can build a tourism product based on the Cockpit Country because it is a special place... it is a especial for people who live there... because they live of the land... Tourists want a real experience... They don't want a protected experience... They want a real authentic experience... That's one of those things that we can start developing around the Cockpit Country... what they are gonna to eat ... they have to eat what we grow locally... give them bammy... chicken foot soup... nobody in Europe, nobody in North America have ever eaten chicken foot soup... they are going to joke about it forevermore when they go home... that is the value you can give to tourists... the experience here and the memory when they go away”.

The tourism product based on the Cockpit Country can also include the tour of the historical churches and the great houses scattered throughout the Cockpit Country. For example, the Moravians represent one of the most fascinating groups of Christians who ever lived in the Cockpit Country. These places offered a retrospective view of the past in terms of how community life was arranged and organized within the Cockpit Country. What about a Moravian tour, an Anglican Tour, etc.? The research team stayed at one of the Bread and Breakfast facilities in the Cockpit Country. This is about renting extra rooms to tourists or visitors. Schwartz raised the issue that many tourists who came to visit Accompong last January stayed at Christiana rather than Santa Cruz because few people knew that there are hotels in Santa Cruz. Hoteliers in Santa Cruz can package a tourism product which includes the Upper and lower morass, Appleton and a tour of the Cockpit Country. A tourism product based on the Cockpit Country will also benefit towns located in the vicinities of the Cockpit Country.

5.8 Summary of the views from the Town Hall Meeting in Santa Cruz

The views of the participants were also collected through notes which were manually written on flip chart tables by the research team during the Town Hall meeting. This information provides a summary of what was discussed (in addition to the digital voice recorder), the issues which were raised and the responses which were given. These views and opinions are presented in Box 5.1.

Box 5.1: Summary of the views from the Town Hall Meeting in Santa Cruz

Town Hall Meeting, Santa Cruz

- Location of the Cockpit Country
- Jamaica, Western region, Clarendon, St Elizabeth
- Central part of the island, North West Region of the island, South East to Western Side of St. Elizabeth, Trelawny, Clarendon
- Western St. James, Hanover
- North Central part of Jamaica
- North St. Elizabeth to South Trelawny, St. James, St. Ann, Clarendon
- Maggoty, New Market

Question from the audience: Are there any other minerals in the Cockpit Country apart from limestone and bauxite?

If the Cockpit Country is designated a World Heritage Site, will Jamaica lose out economically?

Response from Professor Mitchell

- Protect areas that need to be protected while keeping a balance of things we make money from
- Yes, Jamaica is more than 50 per cent limestone

Question regarding the differences between UWI proposed boundary and the Cockpit Country Stakeholder's Group (CCSG) boundary and the possibility for a compromise...

Question by a member of the audience: Is the aim to get a protected area?

Response from Professor Mitchell

- The Cockpit Country Stakeholder's Group proposed boundary has some inconsistencies. That boundary encloses area protected for own reasons – contiguous area. Area that has a "natural edge" of cockpit karst protecting predominantly water area

Response from Mike Schwartz

- The Cockpit Country Stakeholder's Group thinks their boundary is right
- A compromise can be found from the NEGAR boundary or Natural Ecological Gap Assessment Gap report – identification of ecological gaps
- The aim of the NEGAR report is conservation of biodiversity, ecology, water supply. The report includes room for addition of other areas

Box 5.1 cont'd

Response from Professor Mitchell

- In the report – strict definition of Cockpit Country (according to terms of reference)
- Extras characteristics should be excluded (even though places outside of border/ boundary has cockpit karst)
- Buffer zone included in The Cockpit Country Stakeholder's Group boundary? In previous meetings, Mike stated that they need buffer zone for the CCSG proposed boundary

Question by a member of the audience: Can the Cockpit Country /forest be developed?

Effect of Global warming on the Cockpit Country – reserved area

Response from Professor Mitchell

- What is a forest worth to us?
- Forest changes/affects climate
- We get medicines
- What are those resources worth to us?
- We need to consider the length of time in growth factor (trees)
- Removal of primary vegetation/forests lead to invasive species such as bamboos
- Bamboos destroy good forest...
- All these concerns need to be resolved before forest removal
- all the natural resources BELONG TO THE COUNTRY

Response from Mike Schwartz

- Forest can be used but sustainably – reforestation
- The focus is on you young people – I am an old man
- 5 year cycle rotations

Question from the audience: How important is the Cockpit Country to persons living outside the area?

Response from Professor Mitchell

- The Cockpit Country is important for water supply
- Important to the ecosystems
- It a source of water supply for parts of Jamaica

Box 5.1 cont'd

Question by the audience: Tourism in the Cockpit Country?

Response from Mike Schwartz

- Tourism – historical significance of area, ACCOMPONG
- Has value to tourists
- Moravian churches,
- Great houses
- Tourism compared to supermarkets – size and fresh goods with lower prices

Question by a member of the audience: Is tourism for the Cockpit Country viable to people living in Santa Cruz? For examples, Hiking trails in the Cockpit Country, Bread and Breakfast, Hotels in the Santa Cruz Area

Response from Mike Schwartz

- Bread and Breakfast accommodations already exist locally within the Cockpit Country
- Local coffee, rum – a small package versus a bigger package for a ‘personalized, individualized experience’ for tourists

Questions by the audience: How do settlements affect the boundaries?

What is the compromise (UWI proposed boundary and CCSG proposed boundary)?

Response from Professor Mitchell

- Boundary was defined according to terms of reference
- Looked at terms – Cockpit Country – changes over time associated with it
- Cockpit to Cockpit Country to cockpit karst
- Meaning changed over time as well
- Some places were excluded even though they have similar features – cockpit karst

Response from Professor Mitchell cont'd

- The Cockpit Country is not all the areas that have cockpit karst
- There are cockpit karst in St. Catherine
- “Disenfranchisement” of people if included in final boundary – yam stick cutting, charcoal burning

*Box 5.1 cont'd***Professor Dale Webber**

Area within boundary should be 'protected'

Response from Mike Schwartz

- Not protection, but conservation
- People live on yam sticks – reduce cutting of trees
- Specific guidelines are needed
- Limitation is needed (use of natural resources)
- People should explore ways to use the forest to gain a livelihood without destroying it

Question from the audience: What development and growth should Jamaica look forward to coming from the Cockpit Country?

Response from Mike Schwartz

- Foreign exchange earners – bauxite, tourism
- Doing something new is difficult – focus on something we know already
- Build a tourism product around the Cockpit Country – create an authentic experience
- Food (bammy, chicken foot soup) tourist experience
- Medicinal plants – pharmaceutical industry of Jamaica – Loss of money abroad by people who use our plants

Question from the audience: Why would it hurt to use the Cockpit Country Stakeholders' Group boundary?

Response from Professor Mitchell

- Agricultural lands do not look like Cockpit Country, not a contiguous area
- World Heritage site issue
- Problems with including large areas defined as agricultural lands may impact World Heritage Site nomination
- Compromise maroon and other cultural issues/ areas included in the buffer zone

Question from the audience: how would zoning affect area bounded by the Cockpit Country Stakeholders' Group boundary?

- Conservation action plan – Apply for funding
- Reduce threats and conserved areas

Box 5.1 cont'd

Question from the audience: With regards to boundary – attempts to define maroon lands?

- Maroons have internal dispute about amount of land that belongs to them.
- This project will not resolve that issue.

5.9 Considerations

The Town Hall meeting in Santa Cruz provided an avenue for community members and leaders outside the Cockpit Country to voice their views and opinions regarding the proposed boundaries. Several issues were discussed substantially in a very respectful manner. As stated in previous chapters, the Cockpit Country is about flora and fauna in relation to human needs and activities. Our main goal during the public consultations was to garner the views and opinions of community members and leaders and report them without any alteration. It is clear that the level of participation and the quality of the discussion are more meaningful when people are well aware and have a vested interest in the issues at hand.

Chapter 6

Views collected from the Town Hall meeting in Montego Bay

6.1 Introduction

This current chapter reports the views and opinions of the stakeholders who attended and participated at the second Town Hall meeting that took place outside the Cockpit Country in Montego Bay, St. James. Stakeholders from St. Ann, Trelawny and St. James participated in the Town Hall meeting. They voiced their concerns regarding the issues surrounding the definition of the boundary for the Cockpit Country. The main presenters were Professor Simon Mitchell, the lead researcher of the 2008 report on defining the boundaries of the Cockpit Country that had recommended the public consultations, and Mr. Mike Schwartz from the Cockpit Country Stakeholders' Group. The views and opinions are reported with no alteration.

This chapter is divided into two sections. The first section presents the views of the stakeholders as stated orally. These views are grouped according to respective themes. The second section presents a summary of the issues which were discussed and handwritten by the members of the research team in a box.

6.2 The Town Hall Meeting in Montego Bay

The Town Hall meeting in Montego Bay was fairly attended. Stakeholders came from the parishes of St. Ann, Trelawny and St. James. Several foreign students touring the Cockpit Country were brought to the meeting by Dr. Ivor Conolley from the Falmouth Heritage Renewal and Jamaica Caves Organisation (JCO). The Town Hall meeting was very interactive, passionate and controversial at time. The stakeholders were very aware and well-informed about the issues at hand. The discussions mostly revolved around the limitation of the terms of reference that was used by the UWI research team to define the so-called 'UWI proposed boundary.' Despite all the explanation provided, the UWI proposed boundary was severely criticised by

some of the participants for its concise methodology and the implications of the findings for bauxite and limestone mining, forest protection, community identity, culture and history around the Cockpit Country etc...



Some participants listen keenly to a presentation at the Town Hall meeting in Montego Bay

6.3 Methodology used to define the proposed boundaries

There are several proposed boundaries for the Cockpit Country. They all are based on different rationales and philosophies. Some participants wanted to know the methodology used by the experts to define the boundary. Did the experts use satellite image to get a map of the Cockpit Country or did they tour the Cockpit country? The Maroon boundary was described by some members of the Accompong Maroon Council to Dr. Balfour Spence from the UWI research team in 2007. The Maroon had rejected that boundary by claiming the entirety of the Cockpit

Country as theirs. Professor Mitchell explained the methodology used to come up with the UWI proposed boundary in these terms: *“we went around the whole boundary, we drove around and we went in, we went everywhere we could... we got very, very good off-road and everything. So yeah we went around and we looked. We didn’t just figure out by satellite”*. According to Mr. Schwartz,

“the Cockpit Country Stakeholder’s Group boundary was done by people having knowledge of the area and numerous different people put in their input based on the part of Cockpit Country they knew. This area over here which is outside the UWI boundary is actually JCO ... Stefano actually brought that up, because there were caves over here. He was completely interested in that area. I was probably the first person to think this was the right boundary and we all and Wendy was particularly interested in this boundary here, but we all looked in all of the areas. I can’t tell you how many times I’ve driven over last week, let alone last year and even 2006 and so on... But satellite images were really important in telling us where to go because until we saw satellite images, speaking personally, I didn’t know even in the 90’s about many of these areas of cockpit karst. It was Paris Lyew-Ayee Jr who talked to us for instance about this area down here, southwest of Retirement, just as we got our satellite image and I said go and look”.

6.4 Reasons for Defining the Boundary of the Cockpit Country

The Terms of Reference that was formulated by the Ministry of Agriculture and Fisheries did not make any mention of bauxite or limestone mining when commissioning the 2008 report on defining the boundaries of the Cockpit Country. According to Professor Mitchell, they were asked to come up with a scientific definition of the boundary for the Cockpit Country based on geological and geomorphological characteristics. Most participants severely criticised the use of geology and geomorphology as major parameters to define the boundary of the Cockpit Country. They objected to the use of the word ‘scientific boundary’ by the UWI research team as the opinions of the community members and leaders from the Eastern part of the Cockpit Country (Stewart Town, Jackson Town) were not sought and collected during the research on defining the boundary of the Cockpit Country in 2007. Professor Mitchell argued that they had a

number of meetings with community members throughout the Cockpit Country. A member of the audience explained the major reasons for defining the boundary of the Cockpit Country and her objection to the parameters used by the UWI team in this way:

“my comments on the use of scientific ‘boundary’, scientific reverts to knowledge or the study of something. What has not been said or made clear is why are we defining the boundary... the whole reason for the study was in response to the threat of mining and quarrying, so they were asked to define the boundary in a geological sense, but I believe we ought to be defining what we loosely call the Cockpit Country by what we want to protect or what we should be trying to protect and to me the most important thing we should be trying to protect are the forest and their biodiversity, the forest as re-charged areas for the aquifers, the forest as part of the landscape and the source of sustainable resources for the people of Jamaica. We call the Cockpit Country, the Cockpit Country has a variety of origins... the English or the Maroons and it has been used loosely over the past. You can’t stick to one of those threads that you dragged up from the past what we need to do is look to the future and who cares what we call it as long as... Cockpit Country is that knight on a plain and what we ought to be looking at is are most worthy of long term protection and management for sustainable use for the people of Jamaica no matter what you call it, no matter whether it has cockpit karst underneath it or yellow limestone underneath it and at the heart of wherever you’re going to protect is an area loosely called Cockpit Country. So that’s why we are all here today... we’re here to define to fight for something that should be protected... I think that the boundary is going to determine where mining is allowed or not, where quarrying is allowed or not and if that is the case and that is the reason for the geological parameters for the defining the boundary by UWI, then we need to reject the whole basis of the study and say look... let us look at an area that’s worthy of protection for all the criterion that are worthy ...”

Professor Mitchell reiterated that the UWI research team was not concerned with mining when conducting the study on defining the boundary of the Cockpit Country. He further stated that:

“we look at the boundary in terms of using the criteria we could come up with to actually define it, that’s what we did... We, in the report, say where the problem areas are... you can’t define it

very easily there. If you look at the yellow limestone areas is just not where the ring road runs through, there are big faults that bring the yellow limestone up that define the areas... When you actually start looking at the water courses, the water courses invariable start off in the crustaceous and then they sink into the limestone. So it's just not even where the forests are, which the water areas are... There is a lot more other things going on in there".



The UWI had also included some historical and cultural dimension to the study. That is why Accompong was included in the UWI proposed boundary for the Cockpit Country. A participant questioned why the historical connections to the maroons were even included in the UWI study since the parameters were geological and geomorphological. Professor Mitchell replied that *"the primary ones were actually to come up with the physical definition which was based on the distinct criteria, but we also had to take into account the historical things, we were asked to do that..."* He further stated that *"because we were asked to do it, because it's obviously important, but it's not the only thing that is going to define it... if you read some of the things, you can include half of Jamaica into Cockpit Country"*.

Considering the significance of the geological and geographical parameters in the UWI proposed boundary for the Cockpit Country, a participant questioned the exclusion of many places with similar geomorphological characteristics by the UWI research team. He made the following statement:

"If Geomorphology and all of that are important to Cockpit Country, why ... narrow it down to the Ring Road when you have sections like Cuffie Ridge, you also have the section over-looking Montego-Bay, the Panacus Mountains?... because Maroon Warfare is very much important and if you leave off Cuffie Ridge, right? That's a look out section over-looking Clarendon and that area over Aenon Town, that's above Aenon Town. Now over on this side, is that section now over-looking the valleys of Montego Bay towards the sea and that's important to the Maroons because that what they used to identify the approach of the red coats... And to know when they will be coming up to launch their warfare and their attack and ambush..."

Professor Mitchell returned to the terms of reference which guided the paths of the UWI research team. He spoke in these terms:

"We put together a boundary based on the criteria we were asked to put it together with... that's what we had to do... we were asked for a scientific boundary and so we put that in. Now you can extend Maroon influence elsewhere as well... you don't just have to stop there, you can extend it over to St. Catherine and other places... what you have to look at is what is Cockpit Country in particular area and that's what we were looking at".

The issue here is that the terms of reference, which clearly set the parameters for the study will influence to some extent the expected conclusions. The UWI research team was unable to answer why the terms of reference were based only on geological and geomorphological parameters. Only the governmental entity or entities which set the terms of reference for the study in 2007 will be able to address that question. Were the terms of reference limited, flawed, and predicting the results of the study...? A participant explained her disappointments in these terms:

"I don't understand why the parameters stop at Geology and Geomorphology and a little bit of history. I don't understand the reason for the terms of reference you were given, when the reason for the opposition to mining is so broad and that the reason for this whole exercise was in response for the public demand to save Cockpit Country for its biodiversity, forest, culture... whatever, all the other... there is a host of criteria that ought to have been looked at in my

opinion and the opinion of the Cockpit Country Stakeholders' Group in order to define the area that would be called the Cockpit Country for a variety of reasons".

6.5 The Maroon Warfare in defining the Cockpit Country

Despite the fact the UWI proposed boundary had included Accompong, most participants argued that culture and history were not the dominant features when defining UWI proposed boundary for the Cockpit Country.

They further argued that the use of the Ring Road by the UWI research team at time as a Proxy would divide places that are historically related. A participant expressed his concern in this way: *"while we looking at it from the historical point again, why didn't the interest of mining raised as it will impact ... what is being done here, the research to define these boundaries... Take for instance if you look at the Shoona section and the Lavlan section... that would be that section is taking into to Chesterfield and going out to Maggoty... Now you're using the Ring Road to define all of that, so history then, take for instance an area like Horse Guard, if you should use just the Ring Road to define such sections, you'll be dividing a community that has a very historical impact on the maroons, because Horse Guard reflect that 100 horses in relation to the Cudjoe Town and you'll be using the Ring Road to divide a particular community that has historical significance and it will be more so to the right of the Ring Road using the inner section right or the left. Say space in there, you'll be having a vast section of the space being left out or probably even fall outside of a buffer zone, so how do you explain that because Chesterfield would be in the Lavlan section, Maggoty would be in the Shoona section and Horse Guard would virtually be in the centre, as it would be outside of the buffer zone based on how they are defining that boundary so how you explain that?"*

Professor Mitchell replied in this way: *"I still maintain that where you get the yellow limestone coming in that's where you get a significant change. Now that is a physical change, when you come off you can actually see the physical change in the mountains up to a particular point.*

Now again the boundary is defined on the terms of the reference that we were given... I can't say that they're other things that I can actually make you now add to it because of the terms of reference. But if you look at the physical features there you run into something different and that's the point."

Using the Map on the screen, Professor Mitchell re-explained the reasons behind the exclusion of yellow limestone or alluvial as well as cockpit and tower karst outside the Ring Road. The UWI research defines the boundary based on geological and geomorphological changes in the landscape. In other words, the boundary stops wherever cockpit karst and tower karst stops and the landscape or physical change is yellow limestone or alluvium. By contrast, the Cockpit Country Stakeholders' Group argued that the physical change in the landscape is temporary since few meters or miles away you can identify cockpit and tower karst repeatedly. Professor Mitchell did not deny that the new landscape is not Cockpit karst, but the UWI team cut the boundary based on the change of the physical landscape from cockpit karst and tower karst into yellow limestone or alluvium.



The two presenters Professor Simon Mitchell and Mr. Mike Schwartz at the Town Hall meeting in Montego Bay

Another point of contention is the inclusion or exclusion of Appleton Estate within Cockpit Country. The Accompong Maroons had claimed Appleton Estate as maroon lands. One of the participants was categorical and argued that Appleton Estate can be included in the Cockpit Country when following the holistic definition presented by Mr. Schwartz from the Cockpit Country Stakeholders' Group. However, he brought a number of questions regarding the reasons for the Town Hall meeting and what can possibly be achieved. The participant called for a compromise between the two proposed boundaries. Here is a summary of his intervention:

"We see nowhere where we are going...Why are we trying to define it (Cockpit Country)? What is the goal of us being here? Are we looking at setting up a national park? ...They don't have to be mutually exclusive within zoning... Are we looking at a value placement ... Are we looking at a potential for long-term income. Are we looking at mining, places where we can and cannot mine? Or we can fish in the marine parks and we can grow coffee in the terrestrial parks. So you wouldn't want to see mining? ... Is this a debate between two things necessarily, why are not you working together? Why is not a conversation rather than a butting heads for a lack of a better word?"

Unfortunately, the questions were not addressed by any of the presenters. One of the major limitations of the public consultations is the difficulty to have other presenters. Mr. Schwartz from the Cockpit Country Stakeholders' Group expressed his frustration, but also stated his conclusion of the decision which will be made by the Government regarding the proposed boundary. According to Mr. Schwartz

"what the government is trying to do is to get the opinions of the people of Jamaica, so that the government can carry on and do what it has planned to do in the first place. But what we should do and what Simon has proposed in his report is that the people should be consulted. Consulting can be where you're told about things and people don't take any notice or you can have control and my feeling is that is the purpose of these meetings... I think what should have happened was that if there are 6 boundaries, then 6 different organizations should have come along to present these boundaries and then the public should then have said, look, why not take part of that one and part of this one. The public should say what they think is right. The public should take over

the whole meeting, in fact by all means come up here to the front stand up and say that this is a load of rubbish. Here is what I think the boundary should be. So it should be a participative process which is the best part but it's up to the audience to make it so... I try to present one group's ideas, Simon has presented another group's ideas, somewhere somehow, somebody needs to choose, the government is not going to choose the Cockpit Country Stakeholders' Group boundary unless the people say they need to review it".

6.6 Definition of a new proposed boundary

As stated above, most participants severely critiqued the UWI proposed boundary for having excluded many cockpit karst and historical areas from the Cockpit Country. They believed that the terms of reference were supposed to be as wide as possible to that a wider boundary could be proposed. One of the participants expressed his views of the boundary of the Cockpit Country in the following:

"I believe in setting up a boundary for the Cockpit Country, just like a City... you have the different zones for the city, you have the outer city, the suburb... You have to set an outer limit. You cannot say the Cockpit Country, because what's going to happen is that when mining come about, not if, when, the boundaries will be redefined upper where more richer minerals are found. You have to set the boundary as an outer limit, so Cockpit Country may be here, that where you see the definition of the mountain, the different mountainous range would have to say it least outside of it.... If you say start right here... They can destroy the surrounding ... Destroy the biodiversity thus you have to set the limit as wide as possible, you know a for example the UWI Map ... I realize that they only focus on the hilly interior, the core, but there is other areas to be focused on I know Horse Guard, Horse Guard is Cockpit Country, Horse Guard is there, Flagstaff is over there, Accompong is there, you're in the middle of Cockpit Country. It doesn't look different... So if you say that you're going to focus on the core only you'll be wrong, and that's the reason why I asked about a tour, because unless you really tour the area, helicopter, driving on the road, you will not see the true area, so you have to set the limit as wide as possible".

The UWI proposed boundary has also been chastised for not equating the historical factors and biodiversity with the geological and geomorphological characteristics. Many participants resonated with the Maroon history and the biodiversity of the Cockpit Country. A participant who claimed to have originated from the Cockpit Country expressed his views in this way:

"I know this study, the main aim is about the whole idea of mining in the Cockpit Country, but sitting here looking at both presentations, this is the problem I have, you cannot define the Cockpit Country, I grew up in the Cockpit Country, you cannot define the Cockpit Country by just the whole limestone features or anything else, you have to take into consideration the biodiversity. For example, when you look at the map there, you realize that within the Cockpit Country, you have different ranges, different features, for example you talk about that ridge which is not Cockpit Country but if you look two miles over it is Cockpit Country. So if you're going to look and try and define it by just a set area alright, like here is a cloud and here is everything is packed up right here that looks like Cockpit Country, you'll be wrong. You have to take in everything and look at the entire landscape and then come up with something and look and say alright this is Cockpit Country. Yes it involves something a little bit different here, but if you look outside of it ... and take in the historical reference as you said, it probably will include all of Jamaica and you're correct, because the interior part of Jamaica is hilly, so if we are going to define it only by the hill, then we are going to be wrong. Yes you have to take a scientific approach, a geographical approach, but the historical approach is also necessary. So I'm trying to understand the map but I'm still not getting it. Because you cannot just take a scientific approach or geographical approach, you have to use biodiversity. That is my opinion; you have to use biodiversity to define the Cockpit Country".

The significance of the maroon legacy in the Cockpit Country was expressed even stronger by other participants. There is a direct connection between the different ponds and rivers with the encampments of the maroons within the Cockpit Country. That is why these participants would the buffer zone to be extended to Aenon Town. They argued that *"the Maroons them from Clarendon straight back through Maroon Town, Accompong, has shown clearly seh ... even from 1690, the whole of the section right there was Cockpit Country... because the Cockpit Country is*

where warfare arise from, right? I feel clearly within myself and other people views as well, that there should be no mining in or around Cockpit Country, because even in these areas from Maroon Town straight to Accompong, Quickstep and the LFMC southwest divisions... the whole of them place... was the battle field for the maroons, it was Cockpit Country and is still Cockpit Country. So we really would like to see no mining in those regions because it is going mess up all of our heritage structures so we have to show the whole place as well, that standing now, helping us and sustaining because we have a project going on there now where we have community sustainable livelihood, which part we defend our forest, not to destroy it, for landscaping everything like that. So we're definitely against mining in our community... for the whole southwest, no mining".

Another participant was even more radical with the issue of mining in the Cockpit Country. She simply stated: *"so far we just want to say, we don't want mining in Cockpit Country. ...We would like the area 'declare closed to mining' at the administrators' discretion".*

A clear boundary definition was proposed by a participant. That new proposed boundary covers more parameters than the Terms of Reference which were set for the UWI proposed boundary. Participants would like the largest possible boundary, which allows the conservation of the standing forest. The suggested boundary definition was stipulated in the following terms:

"the boundary of the Cockpit Country should include all of the standing forest that is already included in the Cockpit Country Stakeholders' boundary, all of the standing forest, a very important parameter regardless of the geology or geomorphology or history because we're obviously involved in an exercise that will determine protection and management. So on that basis, the reason I think the boundary should be as large as possible to include as much of the standing forest that is obviously seen on the map and kinda included in the Cockpit Country stakeholders' boundary and that's one of the main reasons why I support that boundary, so different criteria".

That new boundary proposition was supported by another participant who lacked trust in the political system in selecting a boundary as large as possible. His choice for the Cockpit Country stakeholders' boundary was determined by its size. He argued that:

"...Considering that we are going to be depending on parliament to determine this at the end... we should make the boundary as wide as possible before the politicians start to select what they want ... where they are going to be getting their personal funding from... Mike has made a very good presentation; it encompasses everybody else's boundary which means, it's the boundary of choice for me... The fact that we are going to be depending on parliament, politicians for the final decision I think we should go as wide as possible... we are not just wide because we are going wide, we are going wide with reasons. Mike has expressed all the reasons that I can really concur... I would suggest Mike's proposal as the one to go through and everybody backs it".

6.7 Summary of the views from the Town Hall Meeting in Montego Bay

The research team has also created a handwritten version of the views expressed by the participants during the Town Hall Meeting in Montego Bay on flip chart tables (Box 6.1). This information represents a summary of the discussion in addition to views recorded on the digital tape recorder.

Box 6.1: Summary of the views from the Town Hall Meeting in Montego Bay

Town Hall Meeting, Montego Bay	
•	Location of the Cockpit Country
•	Most of Trelawny
•	St. Elizabeth, Manchester
•	Area bounded by the Cockpit Country Statekolders' Group border
•	South of Montego Bay, part s of St. James, Trelawny

Box 6.1 cont'd

Question from the audience: Why is it imperative to leave out sections g, Cuffie ridge, Aenon Town (some places important in historical context?)

Response from Professor Mitchell

- We were asked to define a boundary based on scientific parameters

Member of the Audience

- I have problem with the use of word/term 'scientific boundary'

Response from Professor Mitchell

- Due to the terms of reference, the boundary is scientific

Member of the Audience

- The Cockpit Country should be defined based on what people want to protect: forests-aquifer, landscape, source of sustainable resources
- The area must be worthy for long-term management and sustainable use for the people of Jamaica
- The boundary is going to determine where mining and quarrying is allowed or not geology and geomorphology

Member of the Audience

Question from a member of the audience: why was the connection to the Maroons included if the commissioned study was based on geological and geographical specifications only?

- Opposition to mining was very broad, therefore other criteria should have been examined to create boundary
- UWI terms of reference too small to define boundary
- Why were the terms of reference as they were for the study?

Response from Professor Mitchell

- Presence of limestone important for karst definition → physical features of landscape
- Can we include Appleton into the Cockpit Country?
- What is the goal of trying to define the Cockpit Country?

*Box 6.1 cont'd***Response from Mike Schwartz**

- The Government is trying to get opinions of the Jamaican people in order to fulfil his mandate
- The Cockpit Country cannot be defined by limestone features only
- The definition should include biodiversity and the entire landscape
- The historical factors are also necessary

Member of the Audience

Have public stakeholders seen enough to make informed decisions about the Cockpit Country?

Professor Dale Webber

- Informed decisions can be made after establishing a personal vision for the area
- “What do I want to see the area used for?”
- Will persons know about the final boundary?

Member of the Audience

- The boundary should include all forests included in the Cockpit Country Stakeholders’ Group boundary
- It should be as large as possible to allow conservation of standing forests

Member of the Audience

Was a tour done for each of the boundaries?

Responses from the Presenters

- Satellite images useful for exploring area
- Exception of the maroon boundary, which was described by some Accompong Maroons
- An outer limit is important when setting a boundary for the Cockpit Country as wide as possible for conservation of biodiversity

Member of the Audience

- Horse Guards, Flagstaff are included in the Cockpit Country
- No mining in the Cockpit Country

Box 6.1 cont'd

- This would destroy the historical heritage of Maroon Town, Accompong, Quickstep which are in the Cockpit Country – That is all southwest area
- Eastern section of the Map – Hog river – Aenon Town – Buffer zone should be placed outside of these areas – cascade, Damaria pond, Hog River
- The Cockpit Country Stakeholders' boundary encompasses all other boundaries
- The boundary should be as wide as possible
- The Cockpit Country area should be closed to mining

6.8 Considerations

The Town Hall meeting in Montego provided an avenue to collect the views of the stakeholders residing in the Northern and Western sections of Jamaica regarding the proposed boundaries for the Cockpit Country. Some of the participants came from communities which fall within the Cockpit Country. As stated in previous chapters, the Cockpit Country is about flora and fauna in relation to human needs and activities. The main goal of the public consultations was to collect views and opinions of community members and leaders and report them without any alteration. The level of participation and the quality of the discussion are more meaningful when stakeholders have a vested interest in the issues at hand.

Chapter 7

Views Collected from the Town Hall Meeting in Kingston

7.1 Introduction

This chapter presents the views collected from the last Town Hall meeting which sought to engage the stakeholders who reside in the Kingston Metropolitan Area and St. Catherine. Professor Simon Mitchell presented the UWI proposed boundary for the Cockpit Country, while Mike Schwartz presented the boundary proposed by the Cockpit Country Stakeholders' Group. The views and opinions reported here are not altered, except when they are unpleasant (such as cursing and bad words) and inappropriate.

This chapter is comprised of two sections. The first section reported the views of the stakeholders as stated orally. These views are grouped according to respective themes. The second section presents a box containing a handwritten summary of the meeting collected by the research team.

7.2 The Town Hall Meeting in Kingston

The Town Hall meeting in Kingston was largely attended. The first two hours of the meeting were retransmitted live on Nationwide FM Radio [arranged by the Jamaica Environment Trust (JET)] and recorded by Cable News and Sports (CNS) for delayed retransmission. The audience was comprised of representatives from several governmental agencies which have vested interests in the use, protection and management of the Cockpit Country, politicians, a delegation from the Accompong Maroon Council, members of Non-Governmental Organisations, professionals, students and ordinary citizens, etc... The Town Hall meeting was very interactive, passionate and controversial. Most of the stakeholders had demonstrated a great deal of knowledge regarding the issues at hand. The UWI research team was severely criticised for proposing a primarily geological and geomorphological boundary for the Cockpit

Country. The discussions also revolved around the ownership rights of the Accompong Maroon, the issue of bauxite mining, biodiversity and the limitations in the terms of reference for the 2008 study on defining the boundaries of the Cockpit Country.



A member of the audience commenting on the issues of defining the boundary of the Cockpit Country at the Town Hall meeting in Kingston

7.3 Reasons for defining the Cockpit Country and the submission of the report

“Why exactly are we doing the boundary? ... How you define the boundary? what is it you are trying to do? Are you trying to conserve? ... What is the real motivation behind defining the boundary?” These were the questions asked by a participant. These questions have been repeated by different participants throughout the public consultation exercise. However, the terms of reference for the 2008 report on defining the boundaries of the Cockpit Country did not make any mention of bauxite mining, socioeconomic development, protection of forest cover and biodiversity, etc... According to Professor Mitchell, *“everyone is on the same sort of page; it is to conserve ... that’s the thing, we want to conserve... And you have to have a boundary to say ok this is the area we have to conserve... I think we got different sorts of agendas that have been mentioned, (that’s the area) is being defined so that it can be mined.*

But I would say even when we have a boundary wherever we end up as the boundary ... you are going to have a buffer zone around that as well. I mean you cannot mine up to a boundary. So I think there needs to be more than that ... we need a boundary because that's an area we can conserve. Now, whether it's the boundary we have suggested or it's something bigger ... I think the point is to define a boundary so that we can move forward. You can't go to the World Heritage unless you have a boundary. We can't go there, we can't even think about it. They would throw it out. So if you want to think about... the Cockpit country, everybody agrees it's an important place. We have to decide ourselves, the people of Jamaica, the Maroons, everybody has to decide what are we going to call the Cockpit Country. So we can go forward and protect it. That's what I would say on that front".

Another recurring question is the belief by some members of the public that there are some hidden agendas in defining the boundary for the Cockpit Country. Indeed, that's the reason for the terms of reference, which clearly highlights the objectives of the study. One may agree with a member of the audience that the level of suspicion is due to the fact that *"we don't clearly know what the various agendas are, that's maybe why we are having so much challenge with defining what it should be"*.

With regard to the process for decision making, the use of the results of the consultation and the final boundary, the Facilitator reiterated how the research team will proceed with the results:

"the process is that we are recording everything that is being said by each proponent, by each individual. We're going to document all the views. We're not going to edit... we're going to present those data whatever they are... When we can group them, for instance, the statement about no mining, we've heard that a couple of times so that's a clear statement that needs to be made in the document. Our report goes into the Ministry of Water, Land, Environment and Climate Change and that Ministry takes it to Cabinet for a decision... Cabinet is to make a decision about the boundaries based on a number of things. One of the things is clearly what did

the public have to say? This is why we're documenting, why we're recording, so it can't be said that your views were never, ever taken".

Considering that there are so many different proposed boundaries and having heard the decision making process that was explained by Professor Webber, a participant wondered how all the comments will be rolled up and the extent to which some kind of report will be provided to explain the rationale for the choice of the final boundary. It is certainly difficult for the research team to explain what the government will decide. However, the University is committed to making available the findings of the consultations to the public after submitting the original report to the Forestry Conservation Fund.

7.4 The issue of Quarry

The issue of quarry near Jackson Town, which falls outside the UWI proposed boundary for the Cockpit Country has also been raised by a member of the audience. This issue has also been discussed in previous community public consultation meetings within the Cockpit Country, especially at Jackson Town and Clarke's Town. Mr Schwartz from the Cockpit Country Stakeholders' Group stated that a particular area

"has been designated a quarry zone whatever that means, it's got signs on each of the four corners and so it is clearly the Ministry of Mining is setting up to do limestone mining there. Incidentally... it's Hyde Mountain Forest reserve... It's not only a part of the Cockpit Country it's also a forest reserve. And the Ministry of Mining has chosen a bomb place to set up as a quarry zone".

According to Professor Mitchell, *"a quarry zone means that somebody must hold a license for it"*. He argued that an environmental Impact Assessment might have been requested as the area is a forest reserve. He further explained that the designation of the area

“doesn’t mean they have everything in place... that they can remove things. So I mean an EIA which suddenly says that it’s a forest reserve they probably quash it like that... these things they end up with licenses being issued out, that’s why it’s a quarry zone if it wasn’t... it wouldn’t be there”.

7.5 Deficiency in the Terms of Reference for the UWI Boundary

The Terms of Reference which were set by the Ministry of Agriculture and Fisheries were harshly criticised by some members of the audience. Another major challenge was that some members of the audience did not have a chance to read the 2008 final report on defining the boundaries of the Cockpit Country, which was submitted by the UWI research team. The document was made available by the project team to many environmental and civil society organisations and associations. The reliance on the brief presentations during a Town Hall meeting to understand all the issues is a matter of concern, especially when you do not reside in the Cockpit Country. Some members of the audience needed some clarification with regard to the methodology used to define the proposed boundaries. Indeed, while the UWI proposed boundary was commissioned by the Government of Jamaica, the Cockpit Country Stakeholders’ Group developed the terms of reference for their proposed boundary after a long consultation process.

Some members of the audience questioned the basis on which the Department of Geography was able to secure funds to conduct the 2007 study on defining the boundaries of the Cockpit Country. According to a member of the audience,

“those must be the shortest terms of reference I have ever heard in my life. And for these terms of reference to be issued by a Government agency is highly irresponsible. Because on what basis would they have evaluated what you have done. There is just methodological deficiency being demonstrated here tonight... I would like to place that on record that I think for the purpose of honesty and for the purpose of the decision making of Cabinet, I am not understanding what is

to be tabled before Cabinet. What is Cabinet deciding on? A boundary for the purpose of conservation... A boundary for the purpose of demonstrating appropriate land use mixed within the Cockpit Country ... A boundary for the purpose of World Heritage conservation... A boundary for the purpose of preserving Maroon heritage... What is the boundary for? This is what you are not telling us. Is it a state secret?"... Let it be on record that I said that there is no decision therefore that Cabinet can come to because Cabinet has no real information on which to make that decision".

The participant further stated that:

"What has been discussed tonight has evolved clearly from what I know to be the original argumentation. And this is why the terms of reference are so important. This is why the point that was made earlier about deception... Intellectual deception is a very valid point and we need to be intellectually honest. The University of the West Indies is an institution of higher learning and we must preserve certain ethics in its conduct".

7.6 Limitation of the geological and geomorphological definition of the boundary

The geological and geomorphological parameters were considered to be limited to define the Cockpit Country. From a Social Sciences' standpoint, the Cockpit Country is more than physical and biological. Some level of attention has to be paid to the social factors. In fact, the Cockpit Country has a historical and cultural component. The ignorance of these two components brings about some fundamental contradictions in the UWI study where the Cockpit Country was defining the boundary based on geological, geomorphological and biological parameters. The participant has observed similar issues with the Cockpit Country Stakeholders' Group with the absence of a notion such as livelihood in a rural context. The participant stated that that:

"the intervention by the Colonel brings forward one of the contradictions. I don't think it's a problem, but one of the basic contradictions that I think needs to be carried forward in the

message and that is while the geological and geomorphological, biological considerations must clearly be taken into consideration, there are some additional and I think several people here would say equally important considerations: historical, cultural, socioeconomic in relation to the livelihood which I think even with the Cockpit Country Stakeholders' Group that is a limitation."



A Deputy Colonel of the Accompong Maroon Council reading a statement at the Kingston Town Hall Meeting

The public consultation process was another issue which needed to be clarified. According to a member of the audience, there is need to understand to look at the nature of the consultative process that is required for an issue such as defining the boundary of the Cockpit Country. For instance, the Colonel from Accompong argued that He was not consulted during the UWI study on defining the boundary in 2007. This was denied by Professor Mitchell as untrue because Dr. Spence who was an expert on 'Maroon farming system' at the UWI Geography and Geology Department met with members of the Maroon Council. The reality is that the new Colonel is part of a new Council.

A participant who is a social worker and community organizer alluded to a similar problem. From a research perspective, it is impossible to meet with everybody. The meeting may take place when people are absent. It appears that community members do not communicate with other. She spoke in these terms about the issue:

"I hear the Colonel from Accompong saying you came to Accompong and spoke to his people without my knowledge. I have confronted that. I've been to Accompong, I've been in Flagstaff and in many of those communities and there are several issues. I would make the unpopular statement that there is not a complete consensus among the residents. I've done some research on this. Part of this is because of what you encountered which is that communication between the various districts is very difficult and the professionals....you know... have just swooped in and swooped out. Some are with them longer than others like Mike, but we have to look at what is a culturally appropriate way of consulting with the elders as against the young people. Like the young people in Quickstep for example who see mining as an opportunity to have money jingling in them pocket."



A member of the audience making some comments, while other participants awaiting in line at the Town Hall meeting in Kingston

For some participants, the public consultation process has just begun. The research team concurred because discussion will continue after the Government would have made a decision about the boundary. It is clear that a more culturally appropriate mechanism for consultation has to be found. With regard to the limitation of the two boundaries which were presented, a participant argued that

“whatever the outcome ... we have to seek to ensure that the persons for whom Accompong and the Cockpit Country in general is part not just as history but identity and also a source of livelihood need to be meaningfully involved in the decision making and the on-going management of the terrain. So we can’t just you know do the form and not pay attention to the substance.”

The inclusion of other features in defining the boundary of the Cockpit Country was further discussed by a biotechnologist who has done research in the Cockpit Country. He criticised the limitations of both boundaries presented, while recognizing that the boundary proposed by Mr Schwartz is more encompassing. His argument was based on the biological features of the Cockpit Country and the social aspects which have been excluded by both presenters. He stated the following:

“we have looked at some of the plants in that same area as outlined by Mr Schwartz, and we’ve seen preliminary results at least have shown that there is a great deal of biological activity in many of the plants in that area because of the uniqueness attributable to the features there. Now I think the basic controversy we are having regardless of agenda or who wanted what map? We have a tale of two maps. Is our problem, ... the UWI report simply has a very narrow, short sighted terms of reference looking at geology and geomorphology and I think based on that he created a map that best suits those criteria. Though he mentioned for preservation that map cannot be used for preservation purposes. It doesn’t take into account biology, heritage culture or any of the social factors. Because land is a social enabler, it enables people to do things and if people don’t have land and if they don’t use it for their own purposes, then there is no point in preserving it. You have to be able to see the social aspect of it and sorry to say your report does not take into consideration people who lived there for many hundreds of years. So Mr Schwartz map is more encompassing, it has more criteria, more terms of reference and it looks at the very harsh feature that is present within the Cockpit Country. Therefore, his map is a more complete map if you’re looking at preservation and World Heritage site, which is clear from the diagram.”

7.7 Discussion on the methodology of the Cockpit Country Stakeholders' boundary

With regard to the Cockpit Country Stakeholders' Group (CCSG), which is based on cockpit karst and tower forests where the two Maroon wars took place, a member of the audience wanted to know CCSG boundary excluded a portion of the Maroon war boundary from Carey Robinson book that has been heavily referred by Mr Schwartz of the CCSG. The participant asked the following question *"can you just explain to me why it is what would be the North Western end of that Maroon Boundary was excluded from your boundary"*? According to Schwartz,

"Indeed the Maroon boundary that I showed you, which comes from the Carey Robinson book, actually follows the great river...so that its boundary corresponds with the great river. Here is the great river and the Maroon boundary as per the book clearly aligned with the great river boundary. Now we set our boundaries as being the clearly defined boundaries of the Cockpit Karst where the Maroon war took place. This clearly defined boundary is this dark green area if you like. The great river is some mile or two away from that so that's why we excluded it. Our boundary is clear it is the base of the cockpit karst where the Maroon wars took place because we thought that the Cockpit Country is related to the name cockpit and cockpit can mean the Karst formation and the Maroon war for the British soldiers... that's why we defined our boundary as we did. Now if the Maroons had land over by Montego Bay or Negril or wherever, that wasn't our boundary of Cockpit Country. It's the Maroon boundary goes down here, that's fine but we think that portion outside the portion of the Cockpit country."

Given the rationales of the Cockpit Country Stakeholders' Group in definition their boundary based on the Maroon cultural heritage, a member of the audience asked the following question to Mr. Schwarz: *"wouldn't you have had to explain the basis of that boundary or get validation from the Maroons as to why the boundary extended into the north-western quadrant or why it was rational not withstanding your looking you know where the Maroon wars took place?"* According to Mr. Schwartz

“we did not ask the Maroons specifically about the significance and we worked closely with the Maroons, my good friends live there, but ... we had our definition which was cockpit karst where the Maroon wars took place and we did not explore... and indeed if you believe that Cockpit Country is something in addition to what we said which is cockpit karst and maroon wars then that would be fine. If that criterion is included that area, but we would be delighted...would be very happy. But we didn’t see any criteria to call that Cockpit Country...”

The difficulty to reconcile the Maroon wars boundary which was defined by the Maroons with the boundary proposed by the Cockpit Country Stakeholders’ Group, which is based on the relationship between cockpit karst and the two Maroon wars, is perceived as a methodological limitation by a member of the audience. The participant expressed that that limitation may weaken the pressing appeal to the Government of Jamaica to resolve some of the controversies surrounding the Maroon Treaty in terms of self-governance, ownership rights and land allocation. She made the following statement:

“that it goes back to my first point about terms of reference because if it is that you have criteria which are weighted to make a final determination which is going to the Cabinet of all places, on what basis then are you asking the Cabinet of Jamaica when we have spoken about the Maroon treaty and the inherent right of the Maroon people to protect what has been accorded to them? And then you are in fact de facto concurring that in fact segment of the land that the Maroons identified themselves can be excluded from this boundary. So there is just all cop-out here that I don’t see how Cabinet can reasonably do justice to the Maroons or to whatever it is that they are going to understand what they are trying to decide upon”.

However, the participant did not grasp the issue properly. The representatives of the Cockpit Country Stakeholders’ Group also failed to adequately explain to the participant that the CCSG proposed boundary for the Cockpit Country is not based on anywhere the two Maroon wars took place in Western Jamaica. Rather, the CCSG proposed boundary is defined in the cockpit and tower karst region where the two Maroon wars took place.

7.8 Ownership of the Cockpit Country

The ownership of the Cockpit Country was another controversial issue which was raised by some participants. The Accompong Maroons have clearly stated that the Cockpit Country belongs to them. They questioned the authority of the Government of Jamaica to authorise the prospecting for bauxite on lands they claim belong to them without seeking their permission. What is worse, the prospecting licence has been renewed every year. According to the Commissioner of Mines, the policy is that the licence should be either renewed or cancelled. The public consultations are even perceived by some participants as a strategy used by the Government of Jamaica to seek consensus on the bauxite mining issue in the Cockpit Country. A participant expressed the following:

"There is a license for prospecting which will expire in November 2013. This is a 'hocus pocus' arrangement to try to see if they can get some sort of consensus for the extension of this prospecting license. Why, I don't know. The whole controversy about the ownership of Maroon lands and the ownership of the Cockpit Country arose some time ago over that very issue. Someone wanted to mine bauxite from the Cockpit Country. We are told it has a lot of bauxite, we're now told it has yellow limestone and that it is essential... I'm so sorry that the University has gotten involved and become so used in this Machiavellian plan... to tell us about boundary based on Geology and Geomorphology... Here is what is happening, the Government agencies... This is a document dated October 2012... They state for public consultation but before the Government agencies agreed to support the boundaries as proposed by the study for the Cockpit Country based on geology and geomorphology. These Government agencies agreed before the consultation to agree on that. So this has been a Reggae Boys match with a lot of dribbling and no goals scored. Now we have a thing that's not been now perhaps, we have a copy of the original Maroon Treaty over there signed in 1738. Those lands have been ceded, given to the Maroons in Perpetuity. Who the hell are we to go and talk about the boundary and what the Maroons own and don't own? These are a sovereign people like them or don't like them who live on the most ecological important part of Jamaica."

With regard to the agreement between the Governmental agencies to support the UWI boundary, the Centre for Environmental Management had never received that document. Yet, a clear statement issued by the Governmental agencies reading their unified position supporting a particular boundary would have provided more substance to the discussion. The argument and counterargument between the stakeholders have been very vague at times because of the lack of information on the position of various governmental stakeholders. The Cockpit Country is such a natural treasure that most participants agreed that it must be protected and preserved. That is why they all support the idea to seek recognition for the Cockpit Country to be declared a World Heritage site. The real question is how much of the area should be sterilized or sustainably used and exploited. A member of the audience made the following comments:

"If you destroy the Cockpit Country you destroy the water supply of at least the Western Jamaica and eventually you destroy the whole Jamaica. We are lucky though... in Jamaica we are very lucky... we can leave here and drive across Jamaica and see what bauxite mining has done to this country. So why would we want to go and shoot ourselves in the foot again. So consequently, I think sadly it is a little trick, but it hasn't worked and it cannot work. I think pages 8 and 9 of the Cockpit Group puts it very well: 'If you were to op for limestone as far as we see or bauxite mining you would be increasing the arid wasteland of Jamaica... you would create another set of mud lakes.' So that option is out regardless of how you want to present it to the Government and what you want to call the boundary that is just absolute rubbish! Mining is totally out as far as we are concerned. Instead, clearly by the valuation and the logic of it, a world heritage site is the option. If you told me you were going to determine the boundaries to improve the environmental nature of the Cockpit Country and to work it out to be one of the world's greatest heritage site then I would be in total agreement and nobody would dispute that."

While seeking World Heritage Status for the Cockpit Country is the ultimate goal, the process cannot even begin without resolving the boundary issues and the ownership status of the

stakeholders. A participant explained who really own the Cockpit Country and should be done with it:

“who own the Cockpit Country? ... the Maroons, the Government and some private landowners. Because when I listen to the presentations I was wondering what you were going to do with Appleton estate, which is part of the Cockpit Country and owned by a Trinidadian company. You see the problem you getting yourself into. So therefore, mining is out of the question. World heritage site, preservation of the ancestral Maroons living site, in perpetuity definitely. Clarify the land ownership patterns in the Maroons, in the Cockpit Country and let us work out on that basis how to maximize the benefits for Jamaica of having the Cockpit Country being one of the most preserved and improved and sustainable World Heritage Site and environmental treasures.”



A member of the audience commenting on the Ownership rights and other issues at the Town Hall meeting in Kingston

According to a participant, the first step toward World heritage site is for the Government of Jamaica *“to demonstrate the good faith to all the community interest... it must not just declare a moratorium but as the Colonel Kernel says... If it is not able to cancel then it must indeed suspend all licenses prospecting and so on. And this is not just about bauxite; it’s also about limestone and other mineral by-products ... the Government needs to stop doing things to contradict its policy stance that says we were not going do anything until we have defined the boundaries. It has to act in good faith.”*

7.9 Preferred boundary for the Cockpit Country

Members of the Cockpit Country Stakeholders' Group had harshly criticized the research team for failing or refusing to ask the public or the community after each meeting about which boundary they would prefer or support. The research team justified the decision by the fact that a public consultation is not a quantitative survey or census; the meeting is open to whosoever wants to come, which means it is not statistically representative; only people with vested interest deliberately attend and effectively participate in public consultation meetings. However, we have ensured that everybody hears about the meetings through direct communications, letters, emails, town crier, and public announcements on radio and advertisements in Newspapers. Another key challenge was that most of the presenters were not there to justify the rationale behind their boundary. The public consultation process was well explained in the methodology that the Government of Jamaica will make the final decision regarding the official boundary. The purpose of the public consultation was to collect the views of the public regarding the issues and not necessarily to ask members of the public about a preferred boundary. However, participants are free to state which boundary they prefer.

For instance, a member of the audience stated the following about the boundary proposed by the Cockpit Country Stakeholders' Group and the inclusion of the physical features, the biodiversity and the cultural features in defining the boundary for the Cockpit Country:

"I have the pleasure of getting to know the Cockpit Country through working there... I've really come to know... well ... a little about the history, culture, the biodiversity and the real value of this Cockpit Country... I find the boundary as defined by the Stakeholders' Group to suit me because what I am concerned about is finding an area where we can demonstrate how, through sustainable agriculture, through sustainable use of plants growing there and of sustainable tourism, we can develop an area that has not the short term gain.... but long term sustainable development. I've also seen it to an extent in practice where I've worked on the Northern side of the Cockpit Country near Bunkers Hill... the Farm has just won the Food Producer of the Year Award and the Observer Food Award ... these two farms are just using organic methods

producing food which is sold to tourists in hotels and on top of that tourists wanted to who go there to see these farms and to drive into the cockpit country and see this area and also where there is a tour going on... In defining the area of the Cockpit Country, it is both the physical features and the biodiversity but also the cultural features which are very strongly important in the Cockpit Country. And therefore this boundary that the Stakeholders' Group produced seems to cover all the definitions and probably there should be a buffer zone outside of the World Heritage Site."

Another young member of the public complained about the media coverage of the Town Hall meeting. He would like the major Radio and Television Stations to cover the event given the importance of the Cockpit Country for Jamaica, particularly the youth. The media was in fact invited by the research team. Nationwide provided live retransmission for two hours based on an agreement with the Cockpit Country Stakeholders' Group. His boundary of choice has been the Cockpit Country and he stated the following:

"what we can do is protect what we do have. The boundary proposed by the Stakeholders' Group I believe is the best boundary...even though it looks nonsensical, really and truly it is the best boundary because after he explained I understood that the cockpit actually goes further out and we need to protect every cockpit because each and every cockpit is unique. I'm going to read a little... Soil in the cockpit bottom is highly fertile and has a natural pH. The slope has little soil and is alkaline. The rounded hilltops have generally an acidic PH due to the rotting leaf litter. This shows that the top, the middle, and the bottom are totally different so they grow totally different plants. So this suggests that each and every portion should be protected. This is important as plants adapted to acidic soil cannot spread to the alkaline slope; alkaline adapted plants on the slope cannot compete with other species on the pH neutral bottom land. Some plant species are restricted to a single slope of a single hillside." So I say no, please record this, do not exclude a single cockpit and I believe that the Maroons should have the first say because I believe it is their right and I have no talk over any one Maroon. It is their right firstly as a Jamaican, it is ours secondly and we all should be able to come... This is an important matter it concerns all and I say and I repeat not a single cockpit should be removed."

7.10 Proposal to Define a New boundary

Given the limitations of each boundary, advantages and disadvantages, a member of the public had proposed the definition of a new boundary for the Cockpit Country. For instance, the UWI proposed boundary is based on geology, geomorphology and a bit of the Maroon history, while the boundary proposed by the Cockpit Country Stakeholders' Group is based on cockpit and tower karst forests where the two Maroon wars took place. Some members of the public would like to see more on the maps presented by the panellists. Given the paucity of information, they suggest the definition of a new boundary that will create different maps and include all the features through a zoning system. A member of the public argued the definition of the new boundary in this way:

"what is the real objective? One if it is preservation then Mr Schwartz's map covers the relevant areas, it has the heritage sites concerning the Maroons; it has the karst features represented in the satellite pictures. Now, our dilemma I think here is the same tale of two maps. If we are looking for a biodiversity map something with clear delineation between karst area and the rest of the country then the Schwartz map wins. If we are looking at a political map, which is what is necessary for the Maroons, they have to come together to create a political map. The same way that you have presented has a political map which divides parishes, which divides constituencies then a second map is necessary to accommodate the Maroon treaty and the concerns of the Maroons. I don't see why we have to go with one map that encompasses the biodiversity areas or a conservation area. For my recommendation I would say that we create different maps and they don't have to have the same boundary. The Maroon map can encompass the greater areas to the North East or the North West or even the more southerly areas. That could be incorporated as a part of their treaty and then the Government would have...yes this is Maroon country and it would be defined as such. For the World heritage site, for the biodiversity, for the preservation, it's clear and quite simply the Schwartz map. I don't see any more...I don't see what the argument is about."

7.11 Declaration of a Protected Area

According to a participant, the declaration of the Cockpit Country as a protected area or National Park should be able to resolve the endless discussion regarding the proposed boundaries. He argued that: *“shouldn’t we be looking at how we can prepare this area under the protected system as a National Park or protected area because a lot of the issues that came up this evening, in terms of whose map, what map, should consider the Maroons, all of that...Those are issues that should be clearly defined and sorted out under declaring the area, protected area. So I think one of the things we should be really be looking towards is how can we move forward declaring Cockpit Country a protected area because even then we would have to be looking at various different kinds of boundaries that would be a part of the protected area.”*

The Government of Jamaica through the National Environmental Planning Agency (NEPA), the Institute of Jamaica (IOPJ) and in collaboration with other entities has conducted a study to identify gaps in the current protected area system. This was called the National Ecological Gap Assessment Report (NEGAR). Mr. Schwartz who was a member of the working group explained the NEGAR-Add on boundary:

“what it did was identify the gaps in the current protected area system and worked out what had to be added to the existing protected areas. So the existing protected areas here ... are the various forest reserves. In addition to appropriately conserve our biodiversity in Jamaica, all these areas coloured light green should be added to those forest reserves. That’s what we call the NEGAR-Add-on down here so that would be a very minimum boundary for a conservation protected area that would need a buffer zone to... I respectfully propose that the Cockpit County Stakeholders’ Group boundary pretty much matches those criteria.”

7.12 Summary of the views from the Town Hall Meeting in Kingston

This section presents a summary of the views from the participants during the Town Hall Meeting in Kingston. The research team has created a handwritten version of the views expressed by the participants on flip chart tables (Box 7.1).

Box 7.1: Summary of the views from the Town Hall Meeting in Montego Bay

Town Hall Meeting, Kingston
Members of the audience
<ul style="list-style-type: none"> • The Accompong Maroons made a statement to voice their concerns (See Chapter on Views of the Accompong Maroons) • Terms of reference excludes economic, social and environmental impacts. What is going to happen 50 years down the road? • Cost of relocation? • Maroons of Accompong will not allow any type of mining on the land that belongs to them • There are also the issue of endemic plants and animals in the Cockpit Country • The Interventions by the Accompong Maroon brings forward contradiction • Scientific references should be used but historical, cultural, socioeconomic (livelihoods) have equal importance • The Government needs to stop contradicting itself and act in good faith • Suspend the prospecting licence after the boundary is done. • Mining – NO • World Heritage Site. Decision is yes
<p>Why exactly are we doing a boundary?</p>
<p>What is the motivation for the boundary definition?</p>
Response from Professor Mitchell
<ul style="list-style-type: none"> • The motivation is Conservation • This important for World Heritage Status
Members of the audience
<ul style="list-style-type: none"> • What is the process for decision making with regards to the boundary? • How will the results of the public consultation be used?

*Box 7.1 cont'd***Professor Dale Webber**

- Qualitative and quantitative data will be grouped into a report which will be sent to the Ministry of Water, Housing, Land, Environment and Climate Change through the Forest Conservation Fund.
- The Ministry will develop a position to be submitted to Cabinet

Members of the audience

- Boundary by the Cockpit Country Stakeholders' Group – Is there acreage? - 250,000 acres
- If cockpits are disturbed – that will- damages island.
- Contradictory to NEPA's agenda - Conservation

Members of the audience

- Quarry zone in Jackson Town – What does it mean? Is the lease out? Is it being quarried?
- What are the DOGG's terms of reference?
- What is the basis of the public consultations?
- Who was the client?

Response from Professor Mitchell

- The Government of Jamaica

Member of the audience

- The Terms of reference has problem so does the methodological definition

What is the purpose of the boundary?

- Cabinet can come to no decision because they have no information to make such a decision
- This is an intellectual deception

Members of the audience

- The end of the boundary described by the Accompong Maroons was excluded from the Cockpit Country Stakeholders' Group boundary – why?
- The UWI boundary is narrow
- It cannot be used for presentation
- It excludes too many factors including social factors
- The Cockpit Country Stakeholders' Group boundary includes more factors
- It is more complete for preservation and for World Heritage Site

Box 7.1 cont'd

- A second map is necessary for the Maroon Treaty
- Different maps for different purposes – Maroons

Members of the audience

- Concern about finding an area through which sustainable development can be promoted
- Physical features and biodiversity are important in defining a boundary
- The Cockpit Country Stakeholders' Group boundary – buffer zone
- It is important to declare the Cockpit Country a protected area

Response from Mike Schwartz

- The NEGAR boundary identifies gaps in current protected areas system and suggests what should be added
- The Cockpit Country Stakeholders' Group boundary matches these criteria

Members of the audience

- If people are not properly informed, they will miss out
- The Cockpit Country Stakeholders' Group boundary is preferred though it appears nonsensical
- All areas of the Cockpit Country are important
- "do not exclude a single cockpit"
- Maroons should have first say

7.13 Considerations

The Town Hall meeting in Kingston provided an avenue to garner the views of the stakeholders residing in the Kingston Metropolitan Area and St. Catherine within the context of the public consultations on defining the boundaries of the Cockpit Country. The level of participation was remarkable and the quality of the discussion was very outstanding. The meeting was mainly by stakeholders with vested interest in the issues at hand. The delegation from Accompong came from the Cockpit Country. As stated in previous chapters, the main goal of the public consultations was to collect views and opinions of the stakeholders and report them without any alteration.

Chapter 8

Views from Non-Governmental and Community-based Organisations and Private Land Owners

8.1 Introduction

The current chapter analyses the views and opinions of representatives from several Non-Governmental organisations, private land owners and communities-based organisations located within the Cockpit Country. These organisations and individuals have displayed remarkable interest in the issues surrounding the protection, conservation, management and use of the natural resources of the Cockpit Country. A formal letter and an interview guide were sent to the Chief Executive Officer of each organisation at least two weeks before the date of the formal interviews. Some land owners have contacted or were referred to the Centre for Environmental Management for a formal interview, while those residing in the Cockpit Country were informally interviewed during the period of the community public consultation meetings. With regard to the Non-Governmental organisations and Communities-based organisations, the Chief Executive Officer and senior Staff members met with the research team for a formal interview regarding the public consultations on defining the boundaries of the Cockpit Country. An identical process was followed with land owners who resided in Kingston. Each interview was a conversation regarding the relationship between each organisation or individual and the Cockpit Country, the parameters that should be used to define the boundary, related economic, social, cultural and management issues and the classification of the proposed boundaries as ideal, compromise or acceptable and unacceptable.

8.2 Names of the Non-Governmental and communities-based organisations

Table 8.1 contains a list of Non-Governmental organisations, private land owners and communities-based organisations which were interviewed during the public consultations. Most of these organisations are members of the Cockpit Country Stakeholders' Group, which is

an umbrella group comprising of local, national and international environmental organisations and associations. The Windsor Research Centre (WRC) was not individually interviewed. This was due to the fact Mr. Mike Schwartz, Manager of the WRC, was one of the presenters at all the community public consultation and Town Hall meetings. The views and opinions expressed by the Non-Governmental organisations, and communities-based organisations have reshaped the discussions at times and provided the research team with considerable information on various conservation projects implemented in the Cockpit Country. These conservation projects had significantly reduced the considerable level of deforestation that was documented by Dr. Allan Eyre in his seminal work on the continued degradation of Jamaica's rainforest (Eyre, 1989, 1991, 1992, 1995). New empirical research conducted in 2006 had showed a significant increase in the forest cover within the Ring Road as a result of the conservation projects carried in the Cockpit Country by both Governmental agencies and the environmental Non-governmental and community-based organisations (Newman 2007).

Table 8.1: Names of the Non-Governmental and communities-based organisations

NAMES OF INSTITUTIONS (NON-GOVERNMENTAL)	INTERVIEWED
Jamaica Conservation and Development Trust	√
Jamaica Environment Trust	√
The Nature Conservancy	√
Jamaica Caves Organization	√
Local Forest Management Committee s	√
Southern Trelawny Environmental Agency	√
Northern Jamaica Conservation Association	√
Lecturers from the UWI Mona	√
J Wray & Nephew Ltd	√
Several Private Land Owners	√

8.3 Relationship between the Non-Governmental organisations, private land owners, community-based organisations and the Cockpit Country

The relationship between the Non-Governmental organisations, private land owners and communities-based organisations which were consulted and the Cockpit Country ranges from protection, conservation and management, use of the natural resources of the untouched

forested area. All these organisations read the 2008 final report on defining the boundaries of the Cockpit Country which was submitted to the Government of Jamaica by the UWI research team from the Department of Geography and Geology. The formal circulation of the 2008 final report was a prerequisite to effectively and comprehensively carry out the public consultation which was recommended by the authors of that report. The knowledge and reading of the report provided a common frame of reference to structure the discussion and enhance the quality of the conversation during the formal interviews.

The Jamaica Environment Trust (JET) has a vested *“interest in all the remaining natural resources of Jamaica and their survival.”* Representatives from JET considered the Cockpit Country as one of the best remaining natural resources in Jamaica. They stated that they became involved after learning of the granting of prospecting licenses for bauxite mining in the Cockpit Country in 2006. JET began advocating with several other organizations for the immediate and definitive suspension of all the prospecting licenses for bauxite mining in the Cockpit Country.

Similarly, the Northern Jamaica Conservation Association (NJCA) is concerned with the conservation of natural and cultural resources in Jamaica in general. According to representatives from the NJCA, the Cockpit Country is an area of outstanding importance for both natural and cultural resources. This organisation works in the Cockpit Country and would like to see the conservation and sustainable management of the natural and cultural resources of the Cockpit. The NJCA describes *“the Cockpit Country as a wilderness, a place of forest, high endemism of plants and animals which tied to the history of Jamaica as a refuge for the maroons.”* Representatives from the NJCA further stated that *“the Cockpit country is a place of huge potential for sustainable livelihoods for the residents through conservation and sustainable farming... ecotourism, bird watching ... high hydrological importance based on its contribution to Jamaica’s’ water security.”*

The Southern Trelawny Environmental Agency (STEA) is located within the Cockpit Country in Albert Town. The mission of the organisation is to promote development through conservation and economic opportunity projects in and around the Cockpit Country. Representative from the STEA stated that the Cockpit Country is their target area. Members of the organisations are working for the conservation of this biosphere, while ensuring that there is some amount of economic opportunity offered in a sustainable way to the people living in the communities. The description presented by representatives of the organisations ranges from the geological and geomorphological characteristics of the Cockpit country, its micro climate and high level of endemism of plants and animals, its contribution to water resources and watershed management, the opportunity it had offered to the ancestors to fight for their freedom and the fertility of the land for farming activities.

The Jamaica Caves Organisation (JCO) also works in the Cockpit Country by providing caving and hiking tours in the Cockpit. Some members of the JCO began exploring a lot of the caves in the Cockpit Country in the 90's and in the early 2000s. The Jamaica Caves Organisation was involved in the early planning for the Parks and Peril Project, especially the Caves component. The JCO did the field work and produced the report in 2005. The work of the JCO was mostly restricted to the caves rather than the sinkholes. They stated that the sinkholes are not biologically valuable and interesting in terms of biodiversity as the caves in the twilight zone.

The Nature Conservancy (TNC) was deeply involved in the management of the USAID Funded Parks and Peril projects and the Protected Area for Rural Enterprise (PARE). The TNC collaborated with several Governmental agencies and Non-Governmental organisations to conduct several studies in the Cockpit Country. These projects were implemented in several communities within the Cockpit Country. The initial projects looked at exactly what was there to be protected, what was the value, what were the resources that exist in the Cockpit Country. The organisation produced a document called "the Cockpit Country Conservation Action Plan" which resulted from a lot of consultations, community outreach, education and discussions about what members of the community wanted or did not want in their communities. The Ring

Road was used as the convenient boundary to limit the extent of the conservation activities. The TNC has also helped with the formation of the Local Forest Management Committees (LFMC) under the PARE Project.

The Jamaica Conservation and Development Trust (JCDDT) is a Non-Governmental Organisation, which currently manages the Blue and John Crow Mountains Protected Area on behalf of and in partnership with the National Environmental Planning Agency and the Forestry Department. The Cockpit Country was expected to have been declared a protected area around the same time in the early 90s (Smith, 1995). A representative of the JCDDT was interviewed in order to provide the research team with quality information related to the challenges of managing a protected area, boundary issues as well as the similarities and differences between the Cockpit Country and the Blue and John Crow Mountains.

Members of the Local Forest Management Committees, who were formally and informally interviewed, work toward the conservation of the natural resources of the Cockpit Country. They are working with members of the communities in the area of conservation of forest, sustainable farming and ecotourism.

Among the private landowners, the J. Wray and Nephews Limited is an important land owner which operates the Appleton Estate in the Nassau Valley. The Nassau Valley lies between the contiguous cockpit and tower karst forest and the Nassau Mountains. The Nassau valley is a fertile flat terrain where the Company grows sugar cane for its distillery. Appleton Estate has been mentioned many times during the Town Hall meetings. Other land owners have independently expressed the views on the physical characteristics of the Cockpit Country while complaining about taxation and the use of the forest.

8.4 Vision of the Non-Governmental organisations, private land owners and community-based organisations for the Cockpit Country

There are no major differences between the vision of the Non-Governmental organisations, communities-based organisations and private land owners for the Cockpit Country. Their vision falls within the framework of conservation strategies, which ensure the protection of the natural resources, sustainable and controlled use. A precautionary approach is suggested with regard to issues for which there are no or little scientific evidence regarding their impacts on the ecosystems. Private land owners urged the inclusion of tax incentives to encourage forest conservation practices. The major of coherence among all these organisations is a vision for a Cockpit Country free of bauxite and limestone mining.

Box 8.1: Summary of the Vision of the Non-Governmental organisations, private landowners and community-based organisations for the Cockpit Country

- Take a precautionary approach and use a larger boundary with zones within it for different aspects
- The Government of Jamaica to make a commitment to protecting and conserving valuable natural and cultural resources that lie in and around the Cockpit Country.
- Complete ban of any form of mining and quarrying in the Cockpit Country
- Consider the area protected, regulated for especial features
- Zone the Cockpit Country for the sustainable use of its resources for generations to come
- Multi-layered protected area system according to different ICUN categories
- Preserve the unique characteristics of that define the area and keep it undisturbed
- Important biological resources are protected
- Preserve ecological systems and values
- Promote ecological research on plants and pharmaceuticals
- Secure economic opportunities and livelihood
- Respect for habitats and cultural heritage

Box 8.1 cont'd

- Small scale tourism
- Promoting bird watching, trails
- History and the culture are
- The Cockpit Country as a source of income and livelihood for the people
- Provide incentive to private land own by reducing taxation
- Promotion of organic farming

8.5 Factors in Defining the Boundary for the Cockpit Country

Representatives from Non-Governmental organisations, private land owners, communities-based organisations and the Cockpit Country recommended a combination of factors when defining the boundary of the Cockpit Country. Geological and geomorphological features were identified as lower priority since members of these organisations placed the focus on the hydrological, environmental, historical and cultural characteristics of the Cockpit Country. Only the representative from Appleton Estate selected the geological and geomorphological features as important when defining the boundary of the Cockpit Country. Some members of the other organisations had disaggregated the environmental features into forest cover with endemic species of trees and plants, habitats and endemic species of animals. The reluctance to consider the geological and geomorphological characteristics as basic features of the Cockpit Country is consistent with the specific interests of these stakeholders for the protection and conservation of the Cockpit Country. The rationale used to determine the boundary is an indication of the types of resources they deem essential to protect and may help with the zoning possibilities.

For most stakeholders, the goal of defining the boundary is to ensure forest conservation, protection of biodiversity, preservation and improvement of traditional livelihood and the creation of new economic opportunities from nature tourism. Therefore, geological and

geomorphological characteristics were given low ranking. Forest cover, biodiversity, hydrology and history were highly ranked as major factors to define the Cockpit Country.

8.6 Principles and their relevance in defining the Boundary of the Cockpit Country

Given that the boundary must be unambiguous in order to protect the natural and cultural resources against external threats, the research team had included in the discussion several issues and challenges that need to be resolved in order to achieve expected results. For example, people living in the Cockpit Country must make a living, while the natural resources are protected. All proposed boundaries adjoined private lands and Maroon lands to the Cockpit Country forest reserve, which is owned by the Government. This section analyses the views of the stakeholders regarding these relevant issues and challenges.

8.6.1 Economic opportunities for local communities and the Nation at large

Economic opportunities and livelihood strategies for the local communities were included in the vision expressed by the stakeholders. This is a very important issue as people are more receptive when they can identify the economic benefits. Respondents from all the Non-Governmental organisations, communities-based organisations and even private land owners were unwavering that the economic needs of the local communities should have priority in any decision regarding the boundary of the Cockpit Country. However, the economic opportunities and benefits for the local communities have to be examined in terms of their sustainability (short-term, mid-term and long term). As a respondent stipulated, *“once the resource is destroyed we have nothing else to depend on.”*

Another important point which was raised during the interviews was the idea of weighing the natural resources of the place and assessing the extent to which they can be used or exploited in a sustainable way. The weighting system offers clear indication about the short-term and

long term impacts and its ramification with the entire ecosystem in order to avoid a domino effect. As some interviewees argued we may destroy the entire ecosystem services offered by the natural resources that are on the surface by being greedy about one underground resource.

Most communities-based organisations cannot be sustainable without conservation projects or ecotourism activities that can provide a livelihood for members of the communities. The Windsor Research Centre (WRC) published various materials about alternative income generation in the Cockpit Country (WRC, 2011). A representative from the Nature Conservancy, which has collaborated with various community-based organisations in the Cockpit Country, put it this way:

“livelihood strategy was a critical part of the discussion... the foundation of the projects we've done up there have shown that there's no tolerance for strict preservation... since the people are living, walking and making a livelihood right there... we really need to factor it in... We really have to make sure, we're making good decisions about what it is we can sustain within the Cockpit Country and not lose the critical assets of the area, what makes it Cockpit Country and the features it already has, the ecological services that are provided.”

The Southern Trelawny Environmental Agency (STEA) had shifted from the protection paradigm to a conservation paradigm some years ago. The STEA had to include livelihood strategies as part of their mandate in order to remain relevant. The organisation had to reshape its vision of environmental management by including economic opportunities. A representative argued that

“... when we started 17 years ago, we were more aligned to tree hugging, to protection, lock up this very special place... but when you are working with the communities and interacting with people, you realise that the resources of this place provide a livelihood for people... we had to come up with alternative livelihood strategies which are sustainable to offer to residents.”

Another respondent raised a very interesting point about the botanical boundary defined by Dr. George Proctor and the Institute of Jamaica. While it is good to identify endemic plants and define a boundary to include, there is no guarantee that these plants on private lands will be

protected. A respondent concluded: *"If they don't have a livelihood, they have no reason to protect them."* That is why whatever boundary which may be selected or drawn by the Government, there is this truth to be agreed upon according to a respondent *"we can't manage this area without the community folk being involved and of such, that's why to me the local community? is important because if they can make a livelihood by using what is there in a sustainable way... then we stand a chance of managing it in a way that needs to be managed."*

The issues of bauxite mining and limestone quarrying were also discussed with the representatives of the Non-Governmental organisations, communities-based organisations and private land owners. The private land owners interviewed were all against mining. However, we never confirm the extent to which the private land owner will sell their land as there have no offer on the table. Secondly, we did not inform them of the existing mining policy where a legal land owner can invite any company to prospect for bauxite or limestone on his/her land. Some environmentalist land owners may remain inflexible and do not budge at all from their position. Some representatives were also vociferous about the contribution of bauxite mining to the Gross National Development (GDP) by stating the following:

"We are told since that's a national benefit and we are going to get bauxite royalty and that levy this is going to go into the consolidated fund and buy schools and clinics and all of that and then by a drop of a hand the bauxite company just have to sneeze and the government waved it, waved their taxes, waved the levy, waved the royalty and all they're really talking about is few thousand dollars. So you would have to really convince me that mining is actually over the long term..."

However, some interviewees were only against mining in the Cockpit Country. They stated *"we are not against mining anywhere in Jamaica... But we are against mining where there is significant remaining of primary forest of which there is what, under 10%, that's the figure, I mean, it's a no brainer, not one stick of primary forest shall fall."*

8.6.2 Protection of natural resources and the ecosystem

Some respondents stated that the protection of natural resources and the ecosystem is the main reason for defining the boundary. That is why most of these organisations and some private land owners were willing to support a boundary that is as wide as possible. However, according to a respondent, *“the way that these areas are going to be protected, it must be by the people who are in and round it.”* Based on an ecosystem service valuation of the Cockpit Country carried out by Dr. Peter Edwards, the price tag for carbon sequestration was approximately J\$ 1 billion per year. That is why it is imperative to ensure forest conservation and preservation of sustainable traditional livelihood concluded another interviewee.

8.6.3 Watershed Protection

Some of the interviewees estimated that the biggest contribution of the Cockpit Country to the national economy is the provision of water. The Water Resource Authority confirmed that 40% of Jamaica’s water production is supplied by the Cockpit Country aquifer (WRA, 2004). Some respondents indicated that the tourism sector in western Jamaica greatly benefits from the ecological services in terms of water supply provided by the Cockpit Country aquifer. Simply put, any disturbance or destruction of the Cockpit Country forest may result in Rio Bueno and Martha Brae being contaminated which may cause serious water shortage in western Jamaica and irreversibly damage the tourism industry in the North Coast of Jamaica. According to a representative from J. R and Nephews Ltd., *the Nassau valley is an extremely unique area which has a very fertile soil. If it is not protected, there will be severe impacts on the Black River and the surrounding wetlands.* Another interviewee lamented *“we already have water shortage in a serious degree and then again lose a 40% of the water that we have. What are we really doing?”*

8.6.4 Land tenure (Private versus Crown land)

Land tenure will be one of the most difficult challenges to implement the delimitation of the boundary of the Cockpit Country. According to a representative from the Jamaica Conservation and Development Trust (JCDDT), the boundary of the Blue and John Crow Mountains Protected Area is the forest reserve, which is owned by the Government. Any piece of forest and land beyond that boundary is part of the buffer zone. All the stakeholders are of the view that the Cockpit Country forest reserve cannot be the boundary of the Cockpit Country. This means that private lands will fall within the boundary. Fortunately, the private land owners interviewed stated that there have to be discussions and negotiation for a compromise solution. A specific land owner who resides in Kingston and owns land in the Cockpit Country argued that the return from people who reside as tenants on her property is insufficient to pay for the property tax. She stated that a trade-off is needed if her land falls within the boundary. In the case where people have to use the land, there is an agreement by land owners that zoning, organic farming and agro-forestry could be some alternatives. According to a land owner who lived within the Cockpit Country, the planting of Mahogany and Cedar on his land in the Cockpit Country was a safer investment than farming bananas, which can be destroyed by any hurricane. He stated that the harvest is longer but the return on the investment is greater and guaranteed.

With regard to private land within the forest, an interviewee explained that *“there are incentives in the Forest Act for private landowners who want to declare land as forest reserve and people are looking at conservation agreement so things that can be done to get private land owners on board.”* A representative from the Nature Conservancy stated that

“the organization worked with the Government to develop a drafting instruction for a Conservation Easement Act. And this Act looked at Property Tax Rebate for persons who signed off that they would protect their land for 30 yrs. If it's a forest, if it's a good quality forest or high biodiversity area and they would have it declared as a Conservation Easement Area and they would get Property Tax Rebate. This is what I think was a real stumbling block, we wanted 20yrs or more, if it was under 20yrs that you wanted to protect, you weren't really qualify and people

said " I don't want to prevent my children from using my land but there are some people who really are less worried about that and who said, this area is too important for anybody even my own children to cut up, divide and put these things."

Some interviewees preferred to deal with land ownership after defining the boundary. They stated that *"we think the land use issues should come after the boundary and when you try and merge the two then people are second guessing and going oh, but if you put the boundary here now we're going to have a problem"* However, whether the private land ownership and land use are addressed before or after, they are inevitable.

8.6.5 Controlled Use of the Natural Resources and amenities

Most people residing in the Cockpit Country are currently using the resources. Most of the respondents were willing to support the controlled use of the Cockpit Country. This had been advocated by many researchers when it was thought that the Cockpit Country was about to be declared a Protected Area and National Park (Barker, 1998; Miller, 1998). However, those authors discouraged the erection of new trails in order to reduce anthropogenic activities in the core area. Many originations within the Cockpit Country are engaged in a controlled of the area. For example, the Jamaica Caves Association makes an income from caving and hiking activities. The South West Local Forest Management Committee is involved in cultural and historical tour in flagstaff and Maroon Town. The Southern Trelawny Environmental Agency (STEA) provides guided tour of the Cockpit Country for local and overseas tourists. According to STEA, controlled use facilitates the ability to walk on existing trails. They stated that protection alludes to the sealing and sterilization of the area, while conservation called for restricted use.

Another area of controlled use of the natural resources is the exploitation of potable water by the National Water Commission. Many interviewees argued that the NWC should pay a fee for management and maintenance of the forest. The fee can be used in conservation projects.

8.6.6 Possibility for exploration of existing natural resources

Most of the interviewees alluded to the possibility for exploration of natural resources in the Cockpit Country with bauxite mining and limestone quarrying. Most of the interviewee's fiercely opposed any form of exploration in the Cockpit Country even if the money was taken from government coffers. There is a gap between the right to know and the fear that it will be exploited no matter the cost for the sustainability of the ecosystem. However, the greatest challenge to overcome is trust in the civil servants and the political directorate that good judgment, rationality and due process will prevail in making decisions that can jeopardize the wellbeing and future of unborn generations of Jamaicans. A representative from the Jamaica Environmental Trust (JET) expressed the fear of allowing mineral exploration in the Cockpit Country:

"they are not going there for exercise... If they find it they are going to exploit it... They don't need to go and explore there because we are just not going to do it right, but if you do it the other way, say go and look anywhere, knock yourself out. You don't think they are going to look... and then they go and find this fantastic thing right under the largest biodiversity, what? Somebody in Jamaica thinks it's not going to be exploited?"

The possibility for exploration of natural resources can also refer to research on medicinal plants. The Southern Trelawny Environmental Agency has been in some way critical of the environmental lobby community for not having conducted or sought funding to sponsor any research on medicinal plants in the Cockpit Country in order to present a better option to bauxite mining and limestone quarrying. Everybody knows of the richness of the Cockpit Country plant and animal biodiversity. That is why the deep part of the core forest should be excluded from the public as people may create havoc in removing rare species of plants and animals. Pharmaceutical research in the Cockpit Country is another concern that needs some attention. Some respondents were of the view that Jamaica should benefit from profits made out of medicinal plants legally or illegally removed from the Cockpit Country forest. They indicated that controlled use and exploration will increase accountability and sustainability as

well as integrated management of the natural resources. However, the issue of controlled use and exploration has been raised in many discussions. An interviewee stated that

“it came up in the Gap Assessment discussion. How can we use other things that are just there in the forest? How much can we take out before it's no longer viable? There is a lot we don't know and to me, one thing that is not here I would have added to other is the precautionary principle. How is it that we're making decisions? Because of lack of complete information, not that we may ever have it, but we have to be careful that we don't prevent ourselves from having certain uses down the road because we have taken the decision today.”

8.6.7 Realistic Management system and mechanisms

Most of the interviewees disagreed with realistic management system and mechanisms. They believed that the first step is to agree on a boundary and then look at the types of administrative arrangement that is necessary to manage. They argued that human and financial resources can be determined after the boundary is selected.

8.6.8 Archaeological and historical treasures

The Cockpit Country Stakeholders' Group has based the rationale to draw their proposed on the relationship between the two Maroon wars and the geomorphological characteristics of the Cockpit Country. Most of the interviewees believed that it is impossible to separate the Cockpit Country from the Maroon history. Therefore, the boundary for the Cockpit Country must include the archaeological and historical sites and treasures.

8.6.9 Establishment of National Parks and Protected Areas

The declaration of the Cockpit Country a Protected Area and National Park has been demanded by many Non-Governmental Organisations and Community-based organisations. An interviewee stated that the Government does need any consultation to begin by declaring the

forest a reserve a protected area as a gesture of good faith. The Cockpit Country as a national park is included in their vision for the Cockpit Country. Some respondents are wondering if the Government is serious about protecting the environment at all. Cockpit Country could become a World Heritage Site according to another representative. A respondent lamentably stated that:

“I sit in on a meeting called the Protected Area Committee with the heads of the governmental agencies responsible for declaring Protected Area and initially we were there, TNC was there as the secretariat to facilitate the meetings, take the notes and you know make sure things got done with regard to Protected Area System Master Plan. And I'm sitting there and I hear them lambast NGO's and I'm like 'remember me'. So NGO's we have no capacity, we are not thinking ahead. There is a lot of mistrust within the government and civil society itself that we are not in position. We either don't know enough or we're not savvy enough to make the right decisions.”

8.7 Classification of Proposed Boundaries

Table 8.2 presents the classification of the proposed boundaries by the interviewees. Most interviewees classified the boundary proposed by the Cockpit Country Stakeholder's Group as their ideal boundary. Many respondents did not bother to select a compromise boundary. The UWI proposed boundary was only accepted as ideal by one organisation. The Southern Trelawny Environmental Agency refused to select a boundary. They stated that the simple decision is to first define the contiguous cockpit as inner core of the boundary. You need to seal and then engage in a process of open discussions and negotiations about what other sensitive areas that need to be added to the core and what kind of zoning should take place.

Table 8.2: Classification of the proposed boundaries by the respondents

AGENCIES	IDEAL BOUNDARY	COMPROMISE	UNACCEPTABLE
Jamaica Conservation and Development Trust			
Jamaica Environment Trust	CCSG	NEGAR Add-on	FR – Ring Road – UWI
The Nature Conservancy	CCSG		FR
Jamaica Caves Organization	UWI	Ring Road	
Local Forest Management Committee s	CCSG		
Southern Trelawny Environmental Agency			
Northern Jamaica Conservation Association	CCSG		FR – Ring Road – UWI- Maroon NEGAR Add-on
J Wray & Nephew Ltd	CCSG		UWI
Several Private Land Owners	CCSG		FR
UWI lecturers			CCSG

FR= Forest Reserve UWI = University of the West Indies CCSG= Cockpit Country Stakeholders' Group
 NEGAR-Add-on = National Ecological Gap Assessment Report

8.8 Governance Structure

There was no clear agreement among the stakeholders interviewed regarding the governance structure. The Jamaica Environment Trust was critical of the current management of protected areas and national parks. They believed that the system the Government has set up to manage national parks is fundamentally wrong. Protected areas are mainly managed by a Non-Governmental Organization (NGO) on behalf of the Government. They argued that

“Non-Governmental Organizations have a role to play. I think the government can contract the NGO's to carry out services they are good at, they can contract UWI to carry out the services that they are good at, they can contract with local small farmers, PBO's and LFMC committee to do all kind of things, to do what they are good at. But the government of Jamaica hasn't started taking responsibility for the natural resources of Jamaica and not just handing it over to some people with this mystical ability to raise funds.”

Another representative thought that

“the Forestry Department can take the lead because in the Gap Assessment report what we said was Add-on to the Forest Reserve. So in hindsight we were really saying Forestry should continue to manage its area. But I don’t know how feasible that is. But it may make sense to just have forestry manage it. And they may do this with LFMC's, the existing ones.”

By contrast, the Southern Trelawny Environmental Agency presents another governance structure that begins with the Cabinet and the Parliament of Jamaica given the importance of the Cockpit Country for national development in terms of water supply and ecosystem services. There should be a Stakeholders’ Oversight Committee which consists of representative from different Stakeholders. There should a number of sectorial committees to report to the Stakeholders’ Oversight Committee which reports to Parliament. For example if there is a problem in a particular sector, the sectorial committee for that issue will address the issue and make recommendations to the Stakeholders’ Oversight Committees.

8.9 Considerations

This chapter presented the views and opinions of representatives of the Non-Governmental organisations, communities-based organisations and some private land owners who were formally interviewed by the research team. The vision of each organisation for the Cockpit Country was presented and their relationship with the Cockpit Country was discussed. Geological and geomorphological parameters were seen as less important by most of the interviewees. Some relevant principles in defining the boundary of the Cockpit Country were discussed and the classification of the proposed boundaries was presented. The next chapter will present the views and opinions of the formal interviews between the Ministries and the Governmental agencies.

Chapter 9

Views from the Governmental Agencies

9.1 Introduction

This chapter examines the views and opinions of representatives from several Governmental agencies which have especial interests in the protection, conservation, management, use, exploration and possible exploitation of the natural resources of the Cockpit Country. These Governmental agencies fall under five different Ministries of Government. A letter and an interview guide were sent to the Permanent Secretary or Chief Executive Officer of each Ministry at least two weeks before the date of the formal interviews. The Permanent Secretary or Chief Executive Officer decided to meet with us or assigned senior Staff members to meet with the research team for a formal interview regarding the public consultations on defining the boundaries of the Cockpit Country. The interview took the form of a conversation regarding the relationship between the agency and the Cockpit Country, the vision of the organisation for the Cockpit Country, the parameters that should be used to define the boundary, related economic, social, cultural and management issues and the classification of the proposed boundaries as ideal, compromise or acceptable and unacceptable.

9.2 Names of the Governmental Agencies

Table 9.1 contains a list of Ministries and Governmental agencies which were consulted during the public consultations. Their views have substantially assisted the research team in understanding various policies related to the protection, conservation, management, use, exploration and possible exploitation of the natural resources of the Cockpit Country. Representatives from different Governmental agencies, especially the Forestry Department attended almost all the community public consultation and Town Hall meetings. The research team was not able to formally meet with any representative from the Rural Agricultural Development Authority (RADA), neither at the Headquarters' Office in Kingston nor any of the

four parish Offices in Trelawny, St. James, St. Elizabeth and Manchester. Few councillors attended the community public consultation meetings and a parliamentarian (North East St. Elizabeth) briefly visited the Town Hall meeting in Santa Cruz. No formal interview took place with any councillor or parliamentarian. However, an envelope containing all the information with a formal request for an interview was separately posted or hand-delivered to their respective offices.

Table 9.1: Names of Governmental institutions consulted

NAMES OF GOVERNMENTAL INSTITUTIONS	INTERVIEWED	NO INTERVIEW
Ministry of Water, Land, Environment and Climate Change (MWLECC)	√	
Forestry Department (FD)	√	
National Environmental Planning Agency (NEPA)	√	
National Water Commission (NWC)	√	
Water Resource Authority (WRA)	√	
National Land Agency (NLA)	√	
Ministry of Science, Technology, Energy and Mining (MSTEM)	√	
Mines and Geology Division (MGD)	√	
Jamaica Bauxite Institute (JBI)	√	
Ministry of Agriculture and Fisheries (MOAF)	√	
Rural Agricultural Development Authority (RADA)		√
Jamaica National Heritage Trust (JNHT)	√	
Institute of Jamaica (IOJ)	√	
Ministry of tourism and Entertainment (MOTE)	√	
Jamaica Tourism Board (JTB)	√	
Members of Parliament (Trelawny , St. James, St. Elizabeth and Manchester)		√

9.3 Reading of the 2008 final report

The 2008 final report which was submitted by the UWI research team from the Department of Geography and Geology was a prerequisite to effectively and comprehensively carry out the public consultation on defining the boundaries of the Cockpit Country. The Ministry of Water, Land, Environment and Climate Change (MWLECC) had granted permission to release and circulate the document to all institutional stakeholders. The knowledge and reading of the report provided a common frame of reference to structure the discussion and enhance the

quality of the conversation during the formal interviews (Table 9.2). Most of the interviewees had a chance to read the document prior to the meetings. Representatives from only few Governmental agencies were not aware of the report.

Table 9.2: Representatives from Governmental institutions who read the 2008 report

NAMES OF GOVERNMENTAL INSTITUTIONS	READ THE 2008 FINAL REPORT	
	Yes	No
Ministry of Water, Land, Environment and Climate Change	√	
Forestry Department	√	
National Environmental Planning Agency	√	
National Water Commission		√
Water Resource Authority	√	
National Land Agency		√
Ministry of Science, Technology, Energy and Mining	√	
Mines and Geology Division	√	
Jamaica Bauxite Institute	√	
Ministry of Agriculture and Fisheries		√
Jamaica National Heritage Trust		√
Institute of Jamaica		√
Ministry of tourism and Entertainment	√	
Jamaica Tourism Board (JTB)	√	

9.4 Relationship between the Governmental Agencies and the Cockpit Country

The relationship between the Governmental agencies which were consulted and the Cockpit Country ranges from the protection, conservation and management, use, exploration and possible exploitation of the natural resources of the untouched forested area. According to staff from the Forestry Department, the Cockpit Country was re-gazetted in the 1950s by the Government of Jamaica as the 'Cockpit Country Forest Reserve.' The forested area is owned by the Commissioner of Land and managed by the Forestry Department. This may explain why the Forestry Department has been at the frontline in any discussion about the Cockpit Country. The Ministry of Water, Land, Environment and Climate Change considers the Cockpit Country as an absolutely critical area that needs to be preserved for its ecosystem services. That is why the

Cockpit Country is a priority area for protection. Similarly, the Institute of Jamaica (IOJ) had engaged in various collaborative research projects with the University of the West Indies at Mona, the Forestry Department and The Nature Conservancy (TNC) to identify rare and local endemic plants within the Cockpit Country and devise strategies to conserve the botanical aspects of the Cockpit Country. The relationship between the IOJ and the Cockpit Country has been highlighted through the intensive work of Dr. George Proctor. The last project looked at endemic plants outside the Ring Road. From 10 to 15 endemic species of plants were found outside the ring Road. This may explain why the botanical boundary extends the Cockpit Country beyond the Ring Road (Figure 9.1).

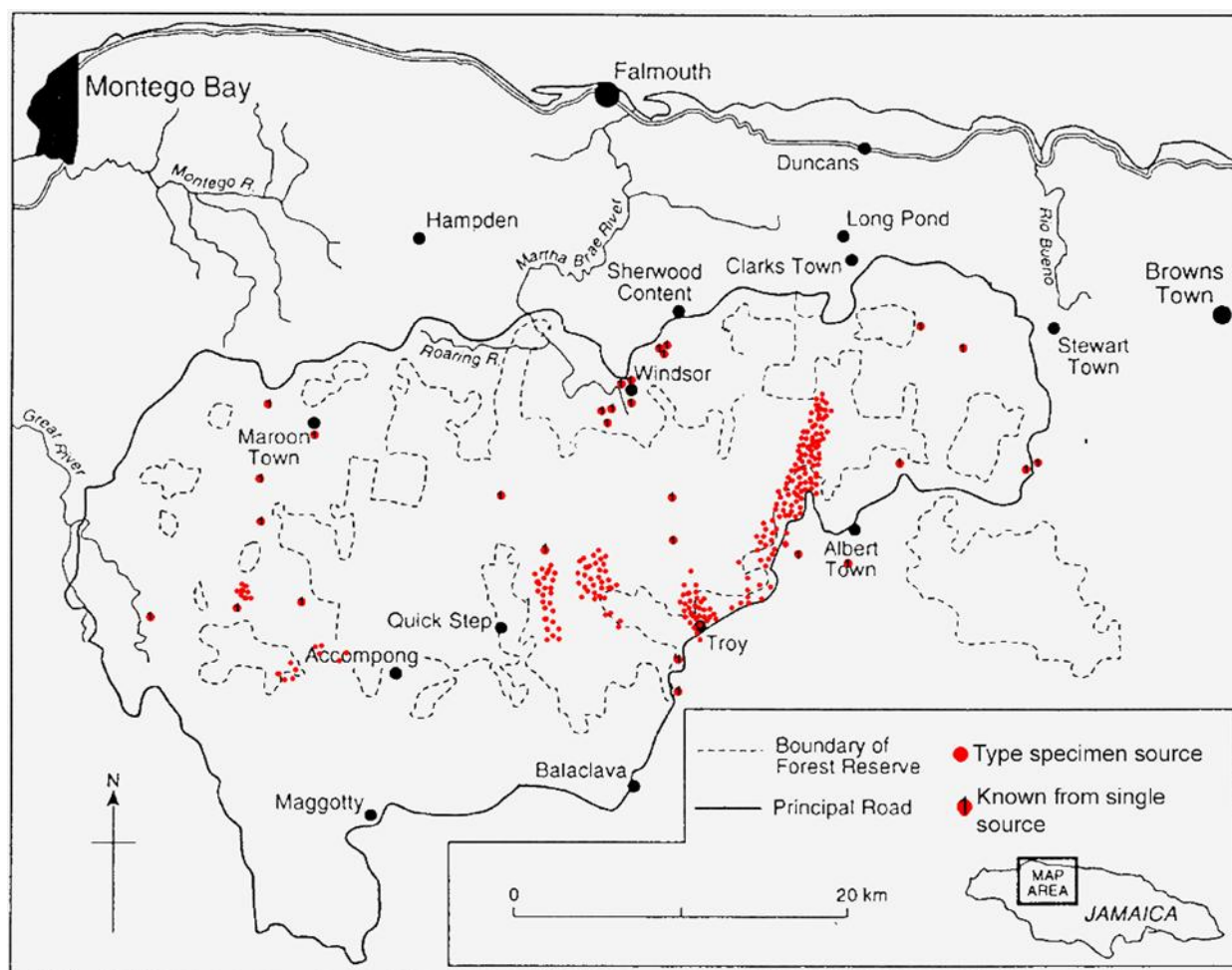


Figure 9.1: Presently-known distribution of plants endemic to the Cockpit Country by Dr. George Proctor

The National Environmental Planning Agency (NEPA) has a vested interest in keeping the level of endemism and biodiversity of the Cockpit Country at its original state. The Cockpit Country has been listed as a potential protected area in the policy on protected area system since 1997. Several studies during the 90s provided serious recommendations on declaring the Cockpit Country a protected area and a National Park (Barker and Miller, 1995; Barker, 1998; Miller, 1998). Eyre (1995) went even further by admonishing the Governmental authorities to seek World Heritage status for the Cockpit Country (Eyre, 1995). The Cockpit Country is an area which is yet to be significantly impacted by socioeconomic development. The Staff from the Water Resource Authority (WRA) stated that the Cockpit Country is also a water recharge area for several hydrological basins in Western Jamaica with the production of more than 200 million cubic meters per year. As argued in Chapter 1, the WRA had estimated that 40% of Jamaica's exploitable underground water resources originated from the Cockpit Country aquifer. Staff from the National Water Commission (NWC) posited that the Cockpit Country is a critical component of the affairs of the Company as the water source for several rivers such as Martha Brae, Black River, Great River, Rio Bueno, etc... Simply put, any intervention in the Cockpit Country can positively or negatively affect the ability of the NWC to supply potable water to its customers. The Ministry of Agriculture and Fisheries relates to the Cockpit Country through RADA and other agencies. The Ministry is also interacting with the Cockpit Country Yam Farmers' Association. The Cockpit Country is well-known for yam cultivation and the Ministry is very engaged in promoting agro-tourism and sustainable farming practices.

The Cockpit Country is more than endemic species of flora and fauna. The area is also a historical and cultural heritage. The Cockpit Country is known as the sanctuary for the Maroons and a nightmare for the British soldiers before they signed the Maroon Treaty in 1738. Many free slave communities took shape and survived within the Cockpit Country even before the British invasion (Mitchell *et al.*, 2008). Heritage sites (caves, old houses, churches, artefacts, etc.) are scattered throughout the Cockpit Country. This may explain the reason why the Government of Jamaica has mandated the Jamaica National Heritage Trust (JNHT) to assess the heritage resources of the Cockpit Country in 2009 (JNHT, 2009). Likewise, the Ministry of

Tourism and Entertainment (MOTE) and the Jamaica Tourist Board (JTB) were also mandated by the Government of Jamaica to develop ecotourism guidelines for the Cockpit Country as a potential ecotourism site with a focus on caves, trails and water features. This was seen as a way to create alternative livelihood strategies for people living in the Cockpit Country.

In addition to the unique and select biodiversity, the recharge area for several hydrological basins as well as a heritage and cultural site, the Cockpit Country also contains minerals such as bauxite and limestone. The Ministry of Science, Technology, Energy and Mining (MSTEM), Mines and Geology Division (MGD) and the Jamaica Bauxite Institute (JBI) have a direct interest in exploring the quantity and quality of the existing minerals deposited in the Cockpit Country. Indeed, bauxite mining has been the leading cause to commission the study on defining the boundaries of the Cockpit Country in 2006. The exploration study will provide these entities with necessary data in order to inform the Government on the volume and quality of the minerals that exist in the areas and the accrued national benefits if these resources are exploited. Staff from these agencies stated that the findings may also reveal otherwise.

9.5 Vision of the Governmental agencies for the Cockpit Country

The vision of the Ministries and Governmental agencies for the Cockpit Country largely derives from the relationship they entertain with the Cockpit Country.

9.5.1 Ministry of Water, Land, Environment and Climate Change

According to representatives from the MWLECC, no specific vision has been articulated by the Ministry for the Cockpit Country. The MWLECC is involved in the enactment of the mineral policy and will ensure that the core area with the critical natural resources is preserved. The Ministry is working to ensure:

- Protection of water sources
- Protection of biodiversity

- Improve the forest stocks
- Reduction of external threats
- Protection of watershed areas
- Balanced between short-term financial benefits versus long-term financial gains

9.5.2 Forestry Department

As stated above, the Forestry Department manages the forest reserve which is constantly under threats. Recent studies revealed that the forest cover continues to increase within the Ring Road (Newman 2007). Encroachment and deforestation due to yam stick also remain constant in different places (Barker, 1998, Miller, 1998). The Forestry Department has been working with squatters and enforcing different policies against encroachment *“keep your yam but I need to put some trees...”*. The Forestry Department works through the regional offices and the three Local Forest Management Committees (LFMCs) in the Cockpit Country. The major challenge has been with the Maroons who stated that they own the entire Cockpit Country. The Maroons also believed that they can do whatever they want with the forest resources such as cutting trees, logging, etc... The Forestry Department envisions the following for the Cockpit Country:

- Promote sustainable use of the forest resources
- Encourage alternative livelihood activities for community members
- Reduce encroachment activities and squatting

9.5.3 Institute of Jamaica

The main goal of the Institute of Jamaica (IOJ) is to protect and conserve botanical plants. However, the Cockpit Country is a vast area that falls within different jurisdictions. The conservation strategy will therefore necessitate collaboration with the Forestry Department, the Local Forest Management Committees, Governmental agencies and other groups. The IOJ envisions:

- Protection of species and biodiversity
- Sustainable use and management
- No mining of bauxite and limestone
- Study to guide carrying capacity about ecotourism

9.5.4 National Environmental Planning Agency

NEPA is also involved in and/or has facilitated various studies on biodiversity in the Cockpit Country. NEPA works with the Windsor Research Centre, which is located in the Cockpit Country. The Agency also works in tandem with the Forestry Department and has various watershed officers in the field who report to the Manager for the Ecosystems and Protected Areas Management. According to representatives from the National Environmental Planning Agency, they envisage the following for the Cockpit Country:

- Management and protected area status
- Protected area with a well-defined boundary that represents all the natural resources with connectivity to maintain the ecological services
- The protected areas should be larger than the forest reserve
- Inclusion of the Cockpit Country in the NEGAR-Add on
- Detailed assessment of the larger area and what are the threats
- Protection of biodiversity
- Zoning of the larger area
- There should be no bauxite and limestone mining

9.5.5 Ministry of Agriculture and Fisheries

The vision expressed by Representatives from the Ministry of Agriculture and Fisheries for the Cockpit Country is:

- Maintenance of the level of endemism
- Maintenance and preservation of biodiversity in delicate area

- Protection of the ecosystem which has implications for climate change
- Promotion of alternative farming system
- Promotion of ecotourism envision

9.5.6 Water Resource Authority

The Water Resource Authority (WRA) has been working in the Cockpit Country area. The WRA had conducted the hydrological assessment of the area with respect to hydrology, hydrogeology, water quality and water use of the area. The Authority has many gauging stations in the area and continues to collect critical data about water quantity and quality. The vision of the Water Resource Authority for the Cockpit Country can be summarised this way:

- To have an unambiguous boundary among relevant stakeholders
- To embark on an interagency process of watershed conservation management for the protection of water quality and to sustain current recharge
- To participate in the elaboration of a watershed conservation plan in terms of land use planning in order to ensure the protection of the forest area
- Sustain the level of water resources outflow from the Cockpit Country
- Maintain the supply and demand that we now have. It is anticipated a significant decline in precipitation in that region by 2038. There may a decline in the great River in precipitation by 40% by 2080 according to recent climate change models.
- We need to look at what can be done to put mitigations in place to maintain the system, improve it and reduce the impacts of climate change

9.5.7 National Water Commission

As stated above, the Cockpit Country plays a critical role in the affairs of the National Water Commission (NWC) as a major source of water in Central and Western Jamaica. The NWC is very concerned with the depletion of the forest cover of the Cockpit Country and the level of pollution and contamination that result from anthropogenic activities. For example, improper

solid waste disposal can contaminate the groundwater. According to Staff from the Water Resource Authority, it is very difficult to clean up contaminated groundwater, especially in karst terrain. Therefore, it would cost the NWC a lot of money to treat polluted and contaminated water. The vision of the National Water Commission for the Cockpit Country aims to:

- Provide assistance to prevent deforestation
- Improve and keep the watershed as pristine as possible
- Work with communities to improve watershed protection through education, training, planting and replanting of trees, etc.
- Improve water production and water quality
- Ensure the implementation of the water safety approach by protecting the sources
- Contribute financially if necessary for watershed protection
- Increase the coverage of access to water (Home, standpipe, etc...)

9.5.8 Jamaica National Heritage Trust

The Jamaica National Heritage Trust (JNHT) is the focal point in Jamaica with regard to nomination for World Heritage Status. The JNHT had conducted the Cockpit Country Heritage Survey in 2009 (JNHT, 2009). The JNHT collaborates with the World Heritage Committee which meets once a year. The vision of the Jamaica National heritage Trust for the Cockpit Country is:

- To have the Cockpit Country on the World Heritage list for a serial nomination by 2018.

9.5.9 Ministry of Tourism and Entertainment and Jamaica Tourist Board

The vision of the Ministry of Tourism and Entertainment (MOTE) and the Jamaica Tourist Board (JTB) for the Cockpit Country is to see:

- A Cockpit Country that is sustainably managed and well promoted

- A Cockpit Country that brings economic benefits to the country and local people through ecotourism activities
- A Cockpit Country that keeps its ecological landscape with no destruction

9.5.10 Ministry of Science, Technology, Energy and Mining

As stated above, the Ministry of Science, Technology, Energy and Mining (MSTEM) has a responsibility to explore minerals in Jamaica, which includes the Cockpit Country. The Ministry needs to know what is there both quantity and quality. However, exploration does not mean there will be exploitation. For example, there was an exploration conducted in Westmoreland about limestone quarrying and the final decision was not to exploit it. According to staff from the MSTEM, limestone is a material that can be used in a variety of operations in the industrial and pharmaceutical sectors. There has been a revolution in the price of limestone recently where the material is rivalling aluminium. High quality limestone is sold by kilogramme rather than tonne. The vision for the Cockpit Country includes the following:

- Some areas are off limits
- No support of any project which is intended on large scale mining throughout the entire Cockpit Country
- A sustainable approach should be promoted as we need some amount of balance
- Minimise the impacts on the environment.
- Creation of minerals development zone. We intend to keep them within these zones

9.5.11 Mines and Geology Division and Jamaica Bauxite Institute

The Mines and Geology Division (MGD) and the Jamaica Bauxite Institute (JBI) are stakeholders with vested interests in the cockpit Country. Bauxite and minerals belong to the Crown. According to Representative from these Governmental agencies, there is no certainty on what is in the Cockpit Country. With regard to mineral within the Cockpit Country, they envisage to:

- Introduce environment instruments in managing the resources in order to analyse the do's and don't
- Reduce the footprint as much as possible
- Use an integrated approach strategic planning for a cost benefit analysis
- Determine the extent and the value of the resources
- Make decision to exploit based on risk and other factors (economic, social, sustainability, etc...)
- Establish block research on pharmaceuticals

9.6 Factors in Defining the Boundary for the Cockpit Country

Formal meetings with representatives from the select Ministries and Governmental agencies have brought a new dimension into the controversy regarding the geographical and physical delimitation of the boundary of the Cockpit Country. All the interviewees from the Ministries and Governmental agencies agreed that a combination of factors should be considered when defining the boundary of the Cockpit Country. The forest reserve is the only area within that region, which legally and officially bears the name 'Cockpit Country.' That is why even people residing few miles from the forest reserve refer to it as the Cockpit Country. Many people tend to mainly state the name of their community rather than a generic name 'Cockpit Country.' According to Mr. Basil Fernandez from the Water Resource Authority, "*the Cockpit Country is the world leading best site for cockpit karst.*" The area continues to fascinate academic researchers with expertise on cockpit karst systems. However, academic definition of the boundary of the Cockpit Country may have little or no implications for the protection, conservation, use and exploitation of the Cockpit Country and its natural resources. Their examination using specific features as their main purpose may be to compare the geological or geomorphological formations of cockpit and tower karst found in the Cockpit Country to other karst systems that exist elsewhere.

The choice to include more than one factor in defining the boundary of the Cockpit may be derived from the fact the respondents came from different academic backgrounds and worked

in different Ministries and Governmental agencies. It also appears that the selection of factors may be influenced by the specific interest of the organisation in the Cockpit Country. The purpose for defining the boundary and the formulation of the terms of reference or rationales provides a window to assess the types of natural resources the boundary will protect and conserve (inclusion and exclusion), its geographical size, the restrictions it will impose and all the benefits that will ensue.

Most stakeholders were reluctant to rank the factors by order of importance because all the factors are entwined with each other. While some of them concurred that the geological and geomorphological features are foundational factors in identifying the Cockpit Country, they also argued that the biodiversity and the level of endemism of plants and animals are indivisible and amalgamated together. That is why some plants and animals can only survive within the Cockpit Country. Similarly, the history, culture and the arrangements of social life that have been created around and sustained by these natural resources cannot be separated from each other. This may explain why the heritage and cultural sites in the Cockpit Country provide lenses through which the present generation can interact with the past and determine what future generations will see.

9.7 Principles and their relevance in defining the Boundary of the Cockpit Country

The definition of the boundary of the Cockpit Country will also bring a number of issues and challenges that have to be resolved in order to achieve expected results. The Cockpit Country forest reserve alone covers three parishes. All the proposed boundaries are larger than the forest reserve. Therefore, private properties and Maroon lands may be included in the official boundary which cannot be fenced nor exclude the communities. The boundary must be clearly defined and the natural resources within the core area must be strictly protected against external threats. This section examines the views of the stakeholders regarding some of these relevant issues and challenges.

9.7.1 Economic opportunities for local communities and the Nation at large

While the urgency to protect and conserve the natural resources and the water sources may drive the definition of the boundary for the Cockpit Country, external threats have to be controlled and totally eliminated. This is the difficulty with the definition of this boundary as the terms of reference did not indicate the reasons to define the boundary in the first place. Livelihood strategies and economic opportunities for the local communities are permanent issues that will need to be addressed. Most of the respondents agreed that economic opportunities for the local communities and the nation at large should be part of the discussion regarding the boundary of the Cockpit Country. However, the local economy should be given priority because people in surrounding communities are the constant and direct threats to any conservation strategy within the Cockpit Country. Ecotourism activities as a part of the Country's tourism product could be a source of income for many community members. Some representatives stated that some areas within a buffer zone can be dedicated for specific economic activities. A respondent argued that *"we need to identify some new types of endeavours ...Introduce to alternative livelihood... Make them show the trees rather than cutting them."* Another interviewee put it this way *"persons have a long relationship with the land ... They live off the land... We need to educate and guide them along the line of sustainable practices... Balance is needed."*

A major challenge concerns the impacts of unsustainable farming practices on water quality through the use of agrochemical products and sedimentation due to soil erosion. Governmental agencies such as the Forestry Department and RADA should set initiatives to educate farmers to practice sustainable agriculture by selecting appropriate crops for appropriate soil, reducing soil erosion, not using fertilizers. The NWC is willing to assist the above agencies in that endeavour. Additionally, organic farming and ecotourism may provide great economic opportunities for farmers whose lands fall within the boundary. Economic opportunities and livelihood strategies must enhance the protection of the core area.

Another economic opportunity that is worth consideration is bauxite mining and limestone quarrying. According to a respondent, the Mining Law in Jamaica allows legal land owner to invite any company to prospect for bauxite or limestone on his/her land. However, with the growing and strong opposition to bauxite mining within the Cockpit Country, no bauxite company may be interested in prospecting activities for bauxite as it may be too expensive to operate in such a hostile environment. By contrast, with the rising price for high quality limestone which will increase the economic value of land containing limestone mine, one may invite any company to prospect for limestone on his/her land. A limestone mining company may be interested in prospecting for limestone on a private land. This option will only be advantageous for big land owners. A respondent concluded: *“in some of the biggest national parks or sanctuary, you do have some of the largest mining operations.”* This information is true. However, these national parks and protected areas may be more than 1,000,000 acres far away from urban and rural settings. It is a fact that mining companies are now the greatest threat to National Parks and World Heritage Sites.

9.7.2 Protection of natural resources and the ecosystem

Another important issue in defining the boundary is the protection of the natural resources and the ecosystem. The Cockpit Country is known for its biodiversity and high level of endemism. The Cockpit Country has its own micro climate. As stated above, the terms of reference or rationales determine the size of the boundary and what it will protect. As a respondent simply put it *“it is of critical importance that we need to know what we are trying to protect.”* In other words, there is a need to know what you could lose. The Forestry Department is categorical *“we don't want anything to be done in the Core, nobody to harvest, cut, walk in the Core.”* This point will be discussed in Chapter 11. The Forestry Department further stated that *“we are concerned with the boundary and we really would like to see the little bit and pieces that come out that have the fingers hanging out being enclosed in what is the Cockpit Country forest reserve.”* Most of the respondents concurred that the official boundary of the Cockpit Country should ensure watershed protection and the protection of the natural resources and the ecosystems.

9.7.3 Watershed Protection

Watershed protection is another principle that the boundary of the Cockpit Country has to ensure given the implications of water for national development. Watershed protection is critical in terms water resources. It is well accepted now that water has an economic value. This needs to be calculated and not speculated. However, residents are only charged for the cost of producing, treating and bringing water to their doorsteps. Watershed protection is part of national development planning as it ensures that water will be available for a number of years. As a respondent clearly stated, *“if you don't have water you cannot have national development.”* Simply put, you can purchase the other resources and commodities. The loss of forest cover in the Cockpit Country can compromise *“the ability to supply water to an entire area of the island”* argued another respondent. The Government of Jamaica has to do a cost benefit analysis to assess the impacts of potential development and mining on the hydrology of the Cockpit Country.

There is a fear that bauxite or limestone mining can be detrimental to watershed protection in the Cockpit Country. The NWC does not want to see an increase of pollution in the water basins as it is very expensive to clean up water. The Mining sector stated that bauxite mining and limestone quarrying will not significantly damage the aquifer because of new technologies that are now available in the mining industries. A respondent further added that *“ecologically sensitive and archeologically sensitive sites will be avoided.”* Another interviewee is categorical that *“some areas are off limits with regard to bauxite mining and limestone quarrying in the Cockpit Country.”* However, the Water Resource Authority (WRA) recommended a number of strategies to be put in place in order to reduce risks that may cause as a result of bauxite mining in the Cockpit Country (WRA, 2004). By contrast, the WRA is adamantly opposing limestone quarrying in the Cockpit Country because of *“the potential to degrade both the regional water quality and reduce recharge as well as alter the hydrological regime”* (WRA, 2004: 30). The potential for irreversible damages may be even greater in an area like the Cockpit Country which is karstic and very environmentally sensitive. Any polluted and contaminated substance that percolates through the rocks permeates into the underground water.

9.7.4 Land tenure (Private versus Crown land)

The Cockpit Country is jointly owned by the Government of Jamaica, private land owners and the Maroons. It is impossible to define the boundary for the protection and conservation of the Cockpit Country without the involvement of these three major stakeholders. The Forestry Department has put in place policies to encourage conservation activities on private lands in the Cockpit Country. According to the Forestry Department, there have been fewer incidents with the Maroons after the creation of the Local Forest Management Committees within the Cockpit Country. The boundary may also require an updated registry from the Commissioner of Land. While private properties will fall within the Core, the MWLECC is putting policy in place to encourage private land owners to partner with the Government to protect and conserve the Cockpit Country forest cover. The National Land Agency (NLA) stated that there are legal provisions to address these issues.

9.7.5 Controlled Use of the Natural Resources and amenities

Respondents disagreed about the use of the Cockpit Country's natural resources. The Cockpit Country's natural resources are being used by residents living in the area. People have to make a living. Some stakeholders would like a controlled use of the natural resource and amenities by establishing new farming practices, land use patterns, ecotourism activities, trails etc... It is of great importance to maintain a balance between supply and demand. Some respondents argued that the aim of a controlled use of the natural resources and amenities is to protect and conserve them for future generations as people only protect and conserve what they know and like. By contrast, other stakeholders would like the natural resources to remain as they have been. This radical position has never worked and may even lead to greater destruction.

9.7.6 Possibility for exploration of existing natural resources

There is an agreement that explorative research to know more about the level of biodiversity and endemic species should be controlled and allowed. Some stakeholders stated that

exploration should be allowed as long as the exploration will not lead to new road constructions and disturbance of the Cockpit Country micro climate. However, most stakeholders opposed exploration that may cause further destruction to a sensitive area. They were of the view that exploration of mineral resources will lead to exploitation and exploitation to devastation of the existing natural resources and endemic species of fauna and flora. By contrast, the Mining sector argued that *“we have a responsibility to know what is there. We have to provide an option about the quality and quantity of the material to the political directorate.”* They also stated that exploratory knowledge will allow a better cost benefit analysis which will be conducted and a decision will be made in the best interest of the country.

9.7.7 Realistic Management system and mechanisms

Some stakeholders put forward a principle of co-management for the Cockpit Country after defining the boundary. Several respondents believed that we need to be realistic in defining the boundary. We need to know how much we can manage. By contrast, other interviewees argued that the management system and mechanisms should be developed after the definition of the boundary. Another group pointed out that the boundary and the management system and mechanisms can be done simultaneously. However, there is a need to settle on the management plan after completing the definition of the boundary.

9.7.8 Archaeological and historical treasures

The Jamaica National Heritage Trust has stated that little archaeological work has been done in the Cockpit Country (JNHT, 2009). Their budget did not allow them to visit various sites in 2009. Most stakeholders agreed that controlled archaeological research should be permitted to know more about the Cockpit Country heritage and cultural sites.

9.7.9 Establishment of National Parks and Protected Areas

All the interviewees agree that the Cockpit Country should be declared a National Park and Protected Area. The National Environmental Planning Agency is working toward that goal. However, an official boundary is required for a national park and protected area to be declared. According to the Jamaica National Heritage Trust, the ultimate goal is to have the Cockpit Country on the World Heritage list by 2017-2018. The declaration of the Cockpit Country as a National Park and Protected Area may attract funding for conservation strategies. A World Heritage Status will put it on the international tourism map as a fascinating and mystic place. Nevertheless, mining does exist in many national parks and protected areas. Even nominated World Heritage Sites are under threat by some giant mining companies.

9.8 Classification of Proposed Boundaries

Representatives from the Ministries and Governmental agencies were presented with the proposed boundaries. Table 9.3 displays the classification of the proposed boundaries. In bulk, there was no clear consensus about the ideal, acceptable and unacceptable proposed boundary. Each proposed boundary has its own advantage and disadvantage given the criteria by which it was defined and proposed.

9.9 Governance Structure

Some of the respondents have recommended that a new authority be put in place to manage the Cockpit Country. Given the importance of the Cockpit Country to water supply in Central and Western Jamaica, this new form of governance structure begins with the Cabinet and translates through a Board of Management comprising local organisations, governmental agencies, educational institutions and non-governmental organisations to oversee the management of the Cockpit Country. The structure will eliminate turf issues between governmental agencies in terms of power relations and authority.

Table 9.3: Classification of the proposed boundaries by the respondents

AGENCIES	IDEAL BOUNDARY	COMPROMISE	UNACCEPTABLE
Forestry Department	FR and Add-on	UWI	CCSG
Ministry of Tourism and E	NEGAR Add-on	Ring Road	CCSG
Jamaica Tourist Board	NEGAR Add-on	Ring Road	FR and CCSG
National Land Agency	Ring Road - Maroon	Ring Road	FR and CCSG
Ministry of Mines	UWI	Ring Road	CCSG
MLWECC	NEGAR Add-on		CCSG
MLWECC	Ring Road	In and out Ring road	CCSG-JBI
Institute of Jamaica	CCSG with reduction		CCSG
Water Resource Management	UWI		CCSG -MA
NEPA	NEGAR Add-on	Ring Road	FR
JNHT	UWI	Ring Road	FR
Ministry of Agriculture	CCSG	UWI	FR
Jamaica Bauxite Institute	JBI	UWI	CCSG
Commissioner of Mines	JBI	UWI	CCSG
National Water Commission	CCSG	UWI- NEGAR Add-on	

FR= Forest Reserve UWI = University of the West Indies CCSG= Cockpit Country Stakeholders' Group
 NEGAR Add-on = National Ecological Gap Assessment Report JBI= Jamaica Bauxite Institute

9.10 Considerations

This chapter has presented the views and opinions of representatives of the Ministries and Governmental agencies which were formally interviewed by the research team. The relationship between each agency and the Cockpit Country was presented as well as their vision for the Cockpit Country. All the respondents had included several parameters to define the Cockpit Country. 10 related principles in defining the boundary of the Cockpit Country were discussed and the classification of the proposed boundaries was presented. The next chapter will synthesise the views and opinions of the formal interviews between the Governmental agencies and Non-Governmental organisations, private land owners and members of the academic community.

Chapter 10

Synthesis of the views and analysis of proposed boundaries

10.1 Introduction

This chapter provides a synthesis of the views and opinions of the stakeholders who were formally interviewed, participated in the 18 community public meetings within the Cockpit Country and three Town Hall meetings outside the Cockpit Country. A major section of this chapter is devoted to a comprehensive analysis of all the proposed boundaries for the Cockpit Country. The research team will also make some recommendation on the way forward in Chapter 11.

10.2 The visions of the stakeholders for the Cockpit Country

- There are great similarities among all the stakeholders in terms of their vision for the Cockpit Country. Cockpit Country needs to be conserved in order to continue providing its ecosystem services.
- Conflicts arise in the method by which that vision could be fulfilled in a sustainable way.
- Most people living within the Cockpit Country would like it to be turned into an ecotourism site, a national park and World Heritage Site.
- There is disagreement on the kind of development that should take place within the Cockpit Country
- There is vehement opposition to bauxite mining and limestone quarrying within the Cockpit Country.

10.3 Ranking of the Factors worth considering in defining the boundary

- Most stakeholders agreed that many other factors other than geological and geomorphological are worth considering when defining the boundary of the Cockpit Country.
- The selection of factors to define the Cockpit Country depends on the organisation and its level of interest in the Cockpit Country.
- Some stakeholders believed that geology and geomorphology are foundational factors in identifying the Cockpit Country. However, these factors could not be the only factors to take into account when defining the boundary of the Cockpit Country.

10.4 Issues and principles of sustainability in defining the boundary of the Cockpit Country

- There is an agreement that economic opportunities for the local communities and the nation at large should be part of the discussion regarding the boundary of the Cockpit Country. As such, most attendees of all the community public meetings maintained that the local economy should have priority over the national interest. Few people agreed that the national economy should have pre-eminence. Several representatives from the Governmental agencies support a balanced approach between the local economy and the national interest.
- There is full agreement that the defined boundary of the Cockpit Country should ensure watershed protection and the protection of the natural resources and the ecosystems.
- Land tenure (Private versus Crown) should be addressed and incentives should be provided to Private land owners depending on the future of the Cockpit Country.
- Discussions should take place with the Accompong Maroon Council to resolve issues related to ownership rights, conservation and integrated management of the natural resources.

- There are conflicts between the stakeholders about the use of the Cockpit Country's natural resources. Some stakeholders would like controlled use of the natural resources and amenities by establishing new practices (sustainable farming, land use etc...). Other stakeholders would like the natural resources to remain undisturbed.
- There are conflicts in terms of exploration of existing natural resources whether for economic opportunities, simple curiosity or scientific research. The high level of scepticism has to do more with the issue of trust between the stakeholders and the motives for the enquiry. Some stakeholders are of the view that exploration will always lead to exploitation and exploitation to devastation of the existing natural resources and endemic species of fauna and flora.
- There is an agreement that the Forest Reserve should not be touched at any cost as a result of the primary forest, its level of endemism and biodiversity as well as its significance to watershed protection, climate change and other ecosystem services.
- There is agreement that more research should be conducted in order to explore the archaeological and historical treasures of the Cockpit Country.
- Stakeholders disagreed regarding when the management system and mechanisms for the Cockpit Country should take place. Should the governance mechanisms be envisaged before defining the boundary, after defining the boundary or simultaneously?
- There are full agreement on declaring the Cockpit Country a National Park and Protected Area.
- All stakeholders are of the view that the Jamaica National Heritage Trust should seek a nomination of World Heritage Site for the Cockpit Country.

10.5 The proposed boundaries

As stated in Chapter 1, the boundary of the Cockpit Country has been defined based on the following parameters, namely, geological, geomorphological, forest cover and biodiversity, historical and cultural. All proposed boundaries for the Cockpit Country fall at least within one

or more parameters. These parameters constitute the dominant features which have been used by experts to logically or scientifically justify the geographical delimitation of the boundary for the Cockpit Country. The Boundary described by the members of the Accompong Maroon Council to the UWI research is not included in the analysis as the Current Accompong Maroon Council has rejected that boundary for the Cockpit Country.

10.5.1 The Forest Reserve

The forest reserve represents a portion of the Cockpit Country that is owned by the Commission of Land and managed by the Forestry Department on behalf of the Government of Jamaica (Figure 10.1). The forest reserve is situated at the heart of the Cockpit Country forest and contains the primary forest and a large variety of endemic flora and fauna that require high level of protection and preservation against anthropogenic threats. The delimitation of the forest reserve is not based on any geological and geomorphological parameters. The forest reserve is bordered by privately-owned lands over which the Forestry Department has no control.

The forest reserve has never been strongly discussed at a proposed boundary for the Cockpit Country. It was rather seen as a strong statement made by the Government of Jamaica regarding the urgency to protect and conserve the forest cover of the Cockpit Country based on its level of endemism and ecosystem services. Most of the stakeholders from the formal interviews fully agree that the forest reserve is unacceptably small as the boundary for the Cockpit Country. In fact, it provides the basis for the considerations of any parameter in defining the boundary of the Cockpit Country. All the proposed boundaries can be considered as how much forest cover, protection and conservation should be added to the existing forest reserve. That may explain why all stakeholders formally interviewed during the public consultations concurred that the forest reserved should not be touched at any cost as a result of its geographical location, its level of endemism and biodiversity as well as its significance to watershed protection and management, climate change and other ecosystem services.

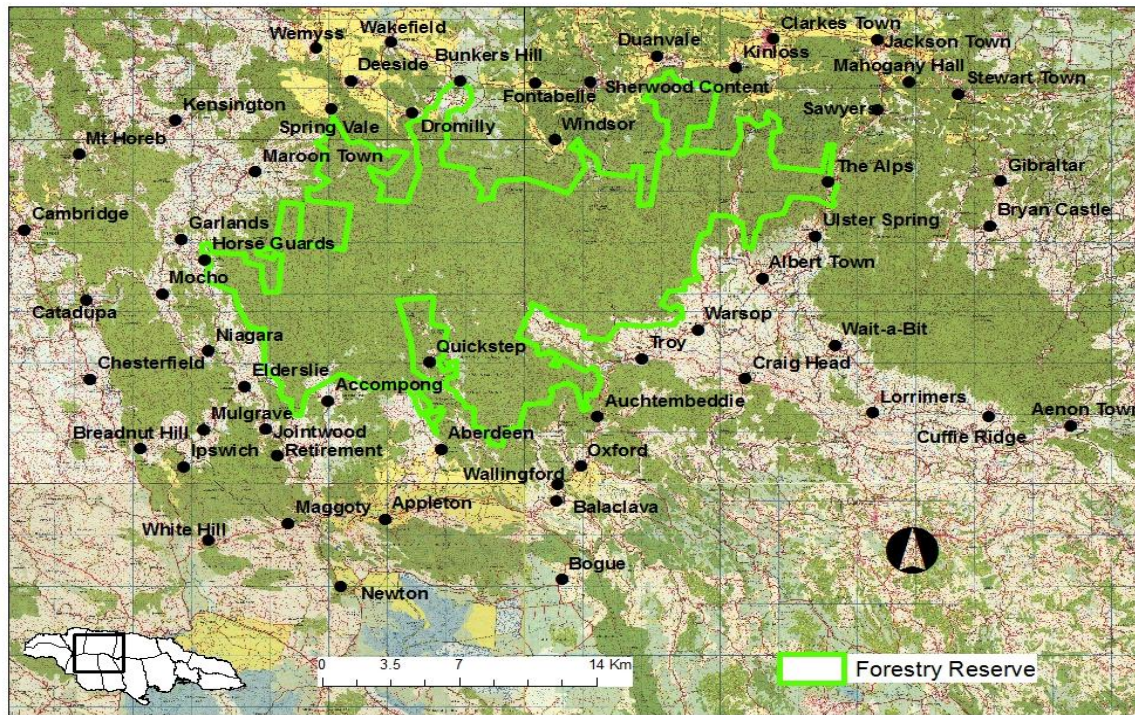


Figure 10.1: The Cockpit Country Forest Reserve

10.5.2 The Sweeting Boundary

The sweeting boundary is considered as an attempt to redefine the entire Cockpit Country in 1958 from a geological and geomorphological perspective (Lyew-Ayee, 2005). Later publications by other researchers did not add any significant modification to the Sweeting boundary, which was reproduced by Dr. Parris Lyew-Ayee Jr. (Figure 10.2). The Sweeting boundary was not included in the section that discussed the comparison of the UWI proposed boundary with other existing and previously proposed boundaries, mainly, the forest reserve, the Ring Road, the boundary verbally described by some Accompong Maroons to the UWI research team and the boundary proposed by the Cockpit Country Stakeholders' Group. However, three maps published by Sweeting in 1958 were inserted in the section which reviewed other previously proposed boundaries for the Cockpit Country. According to Mitchell *et al.* (2008), while the maps showed the position of the Cockpit country, they did not show the boundaries. Drafting errors were some of the reasons to exclude the map showing the Sweeting proposed boundary from the comparison with other geographical and geomorphological maps.

The Sweeting boundary has been mistakenly discussed in several community public consultation meetings and Town Hall meetings as the Parris Lyee-Ayee Jr. proposed boundary for the Cockpit Country. The Sweeting boundary was based on geological and geomorphological parameters. It can be considered as the first geomorphological delineation of the Cockpit Country region (Lyew-Ayee, 2005). It is larger than the forest reserve and includes areas surrounding the forest reserve with similar geological and geomorphological characteristics. The Sweeting boundary stops wherever there is a significant physical change from a fault system or white limestone to yellow limestone. That may explain the exclusion of the historical and cultural sections of Accompong from the Sweeting boundary. However, there is still a bone of contention with the Sweeting proposed boundary for the exclusion of the continuous cockpit karst area located east of that boundary, leading to the village of Oxford. Nevertheless, the Sweeting boundary presents a core geological and geomorphological forested area with a high level of endemism and biodiversity.

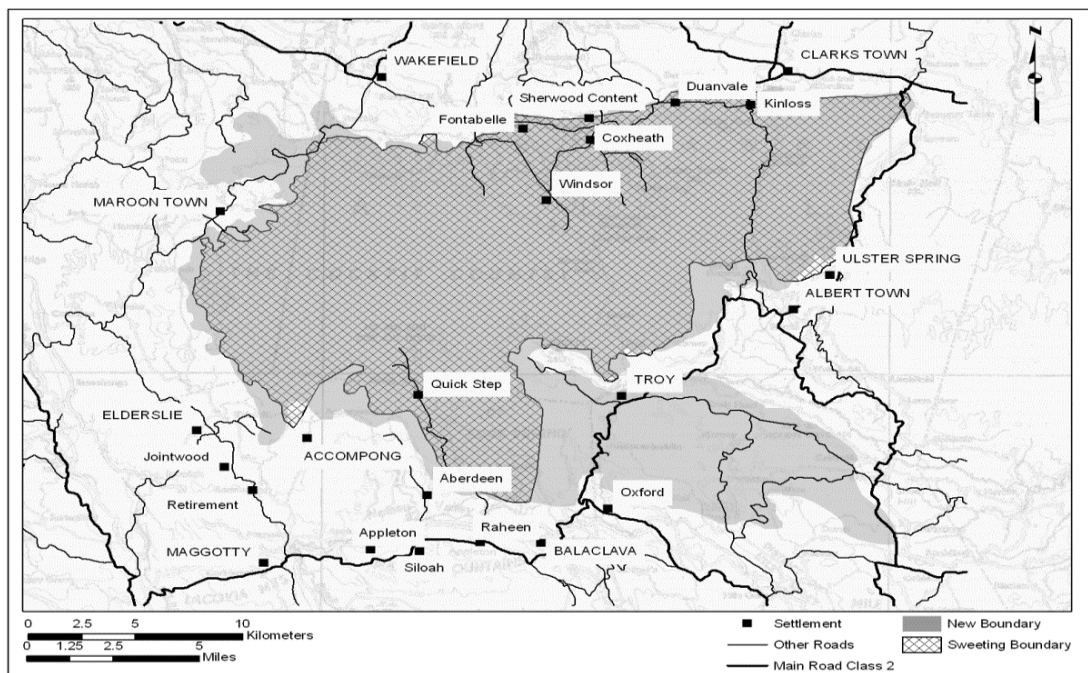


Figure 10.2: Sweeting proposed boundary of the Cockpit Country

Source: Parris Lyew-Ayee Jr., 2005

10.5.3 The Parris Lyew-Ayee Jr. Boundary

The Parris Lyew-Ayee Jr. proposed boundary was presented and discussed in a published article in *Caribbean Geography* in 2005. It is a geomorphological boundary for the Cockpit Country (Lyew-Ayee, 2005). Using a six-metre Digital Elevation Models (DEMs), the author was able to calculate and compare cockpit karst terrain with non-cockpit karst areas (Figure 10.3). The rationale behind the new boundary is that “cockpit karst is by no means exclusive to the Cockpit Country, and the Cockpit Country is not exclusive cockpit karst” (Lyew-Ayee, 2005: 114). That is why, using morphometric criteria, it becomes possible to examine the percentage of cockpit karst and non-cockpit karst in areas which has been defined as Cockpit Country based on their geomorphological landscape.

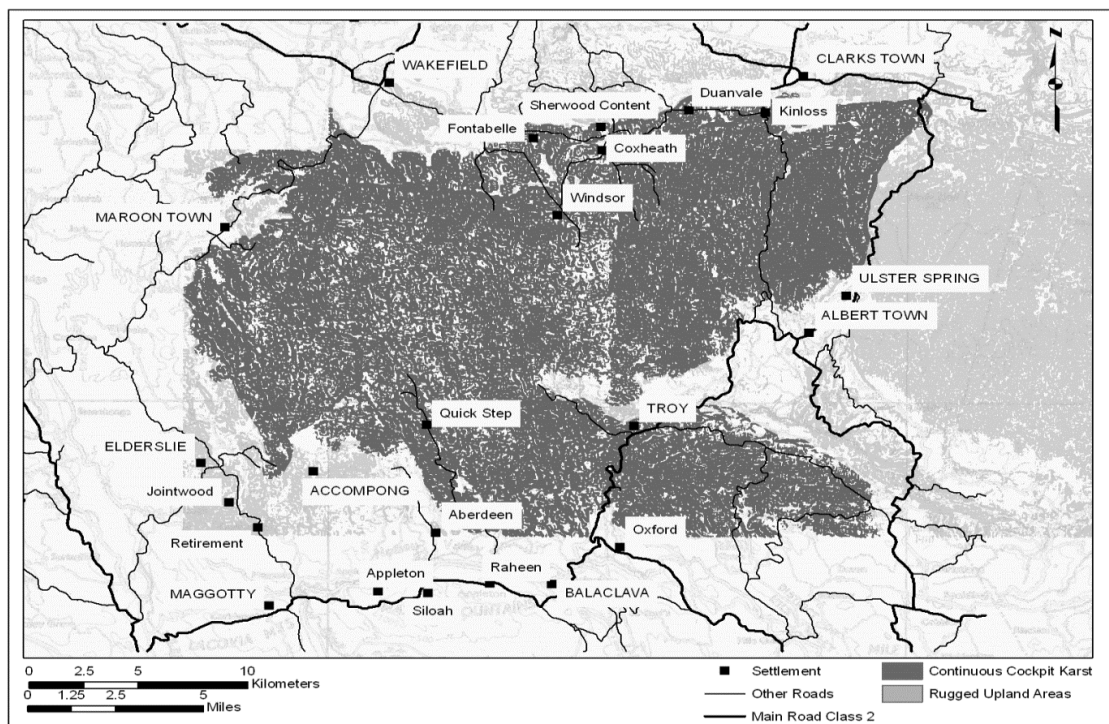


Figure 10.3: Distribution of Continuous cockpit karst region

Source: Parris Lyew-Ayee Jr., 2005

The Parris Lyew-Ayee Jr. boundary is in fact a modification and extension of the Sweeting boundary. The Sweeting boundary has arbitrarily excluded the continuous cockpit karst leading to the village of Oxford. The Parris Lyew-Ayee Jr. proposed boundary for the Cockpit Country includes areas of contiguous cockpit karst based on morphometric parameters and detailed datasets (Figure 10.4). Accordingly, “the enclosed region is composed of roughly 82% cockpit karst, with 18% made up glades and other enlarged depressions” (Lyew-Ayee, 2005: 114). The new boundary is roughly similar to the Sweeting boundary for the rest of the Cockpit Country. The Parris Lyew-Ayee Jr. boundary presents a continuous core geological and geomorphological forested area with high levels of endemism and biodiversity around the forest reserve.

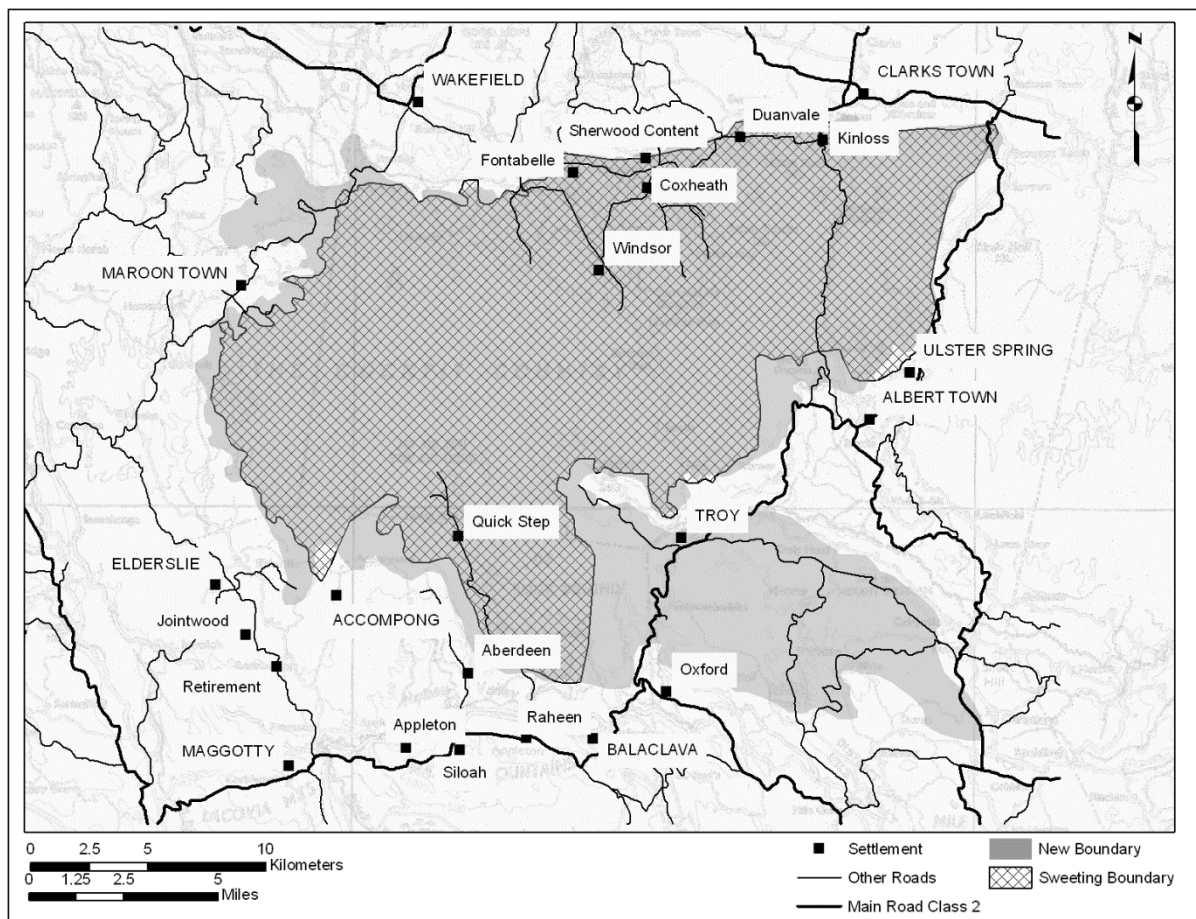


Figure 10.4: The Parris Lyew-Ayee Jr. proposed boundary of Cockpit Country

Source: Parris Lyew-Ayee Jr., 2005

10.5.4 The UWI Proposed Boundary

The UWI proposed boundary was commissioned by the Government of Jamaica (Figure 10.5). The definition of the boundary was largely determined by the terms of reference which were formulated by the Ministry of Agriculture and Fisheries. The UWI proposed “boundary was defined using geological, geomorphological and social-historical criteria” (Mitchell *et al.*, 2008: 1). Within the context the Cockpit Country is defined as:

“a contiguous area, largely consisting of primary forest with little agriculture and a geomorphology dominated by cockpit and tower karst formed in the White Limestone Group and Yellow Limestone Group (Ipswich and ‘Red Limestone’ formations), but including small areas of the Yellow Limestone Chapelton Formation either as enclosed valleys for socio-historical reasons. The boundary lies on or within the ‘Ring Road.’ The boundary is defined by a change from relatively primary forest to agricultural lands and corresponds to geological/geomorphological boundaries that control land use. This boundary is defined by contacts of the White Limestone/Yellow Limestone (with cockpit or tower karst) with the Cretaceous/Chapelton Formation (with internal drainage or doline karst) or alluvial deposits, or where such boundaries are not well defined by large-scale faults (defined from satellite imagery) or collapsed river cave systems” (Mitchell *et al.*, 2008: 1).

However, the UWI proposed boundary seems primarily based on geological and geomorphological parameters. Socio-historical criteria were included because they were requested by the Ministry of Agriculture and Fisheries. However, these criteria though important, were not totally determinant as key factors which were used to trace the UWI proposed boundary for the Cockpit Country. For example, the Ring Road was used as proxy to delineate the boundary in locations with socio-historical significance such as Accompong and surrounding areas. In bulk, The UWI proposed boundary never went beyond the Ring Road, which has been used as proxy when there is no significant physical change, especially near the village of Oxford.

The UWI proposed boundary is significantly larger than the Sweeting boundary because of the inclusion of socio-historical context. The socio-historical component was implicit in the terms of reference. According to Spence (1999), the reality of the Cockpit Country is embedded in its socio-economic, socio-cultural and socio-historical context. This is why “the physical definition of the area in terms of its geology, geomorphology and biodiversity can only be relevant within a social context” (Mitchell *et al.*, 2008: 39). The UWI proposed boundary, the Sweeting boundary and the Dr. Parris Lyew-Ayee Jr. proposed boundary follow similar geological and geomorphological parameters. The major difference has been the use of socio-historical context to include Accompong and the use of the Ring as proxy in many sections with continuous cockpit and tower karst as well as the inclusion of the cockpit kart forest near the village of Oxford. Nevertheless, the UWI proposed boundary merges together a continuous core geological and geomorphological forested area with high levels of endemism and biodiversity around the forest reserve and the alluvial and yellow limestone sections of Accompong and surrounding areas located within the Ring Road.

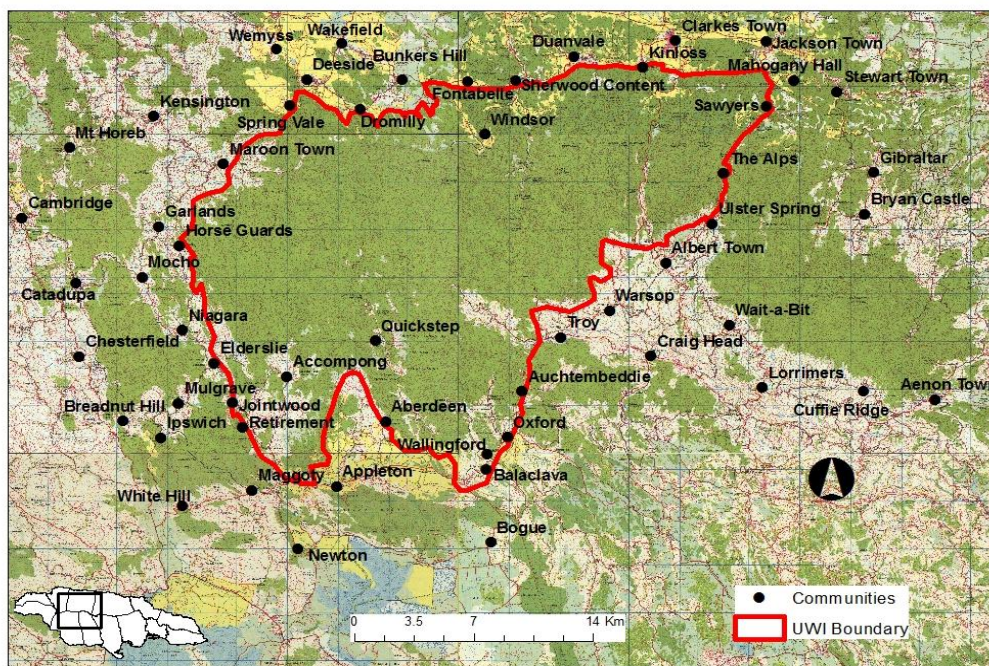


Figure 10.5: The UWI proposed boundary of the Cockpit Country

10.5.5 The Ring Road Boundary

The Ring Road is the historical road network developed by the British colonial soldiers to patrol the peripheral sections of the vast forested area inhabited by runaway or Maroon slaves (Figure 10.6). The Ring Road allowed the British soldiers to contain the Maroon slaves within the forest, thereby preventing easy communications with the other slaves as well as further expansion of the rebellion to adjacent communities (Robinson, 1969). The Ring Road connects most of the communities of the Cockpit Country depending on the proposed boundary used. The road is largely built on the yellow limestone sections of the Cockpit Country. The Ring Road has been conveniently used by many Cockpit Country forest conservation projects as a proxy boundary depending on the objectives and goals of the projects (Koenig, 2000, 2002; John and Newman 2006; Wright, 2006; Newman 2007; Forbes-Biggs, 2010). The Ring Road is roughly similar to the UWI proposed boundary, except in some sections of yellow limestone, which were excluded by the UWI proposed boundary such as the Nassau Valley, Jackson Town and Clarke's Town, etc...

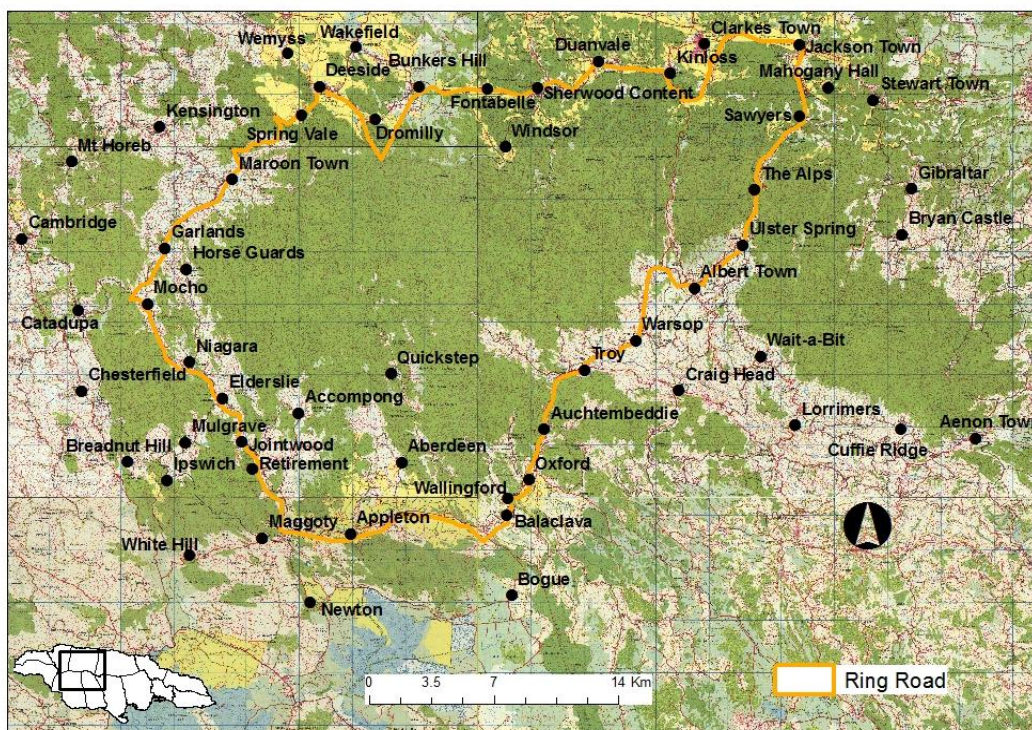


Figure 10.6: The Ring Road around the Cockpit Country

10.5.6 The Cockpit Country botanical boundary used by Dr. George Proctor

The Cockpit Country botanical boundary has been widely used by Dr. George Proctor, the Institute of Jamaica (IOJ), the Centre for Plant Diversity (CPD), the National Environmental Planning Agency, etc... The Cockpit Country botanical boundary was also used by Professor David Barker and Dr. David Miller from the Department of Geography and Geology at the University of the West Indies in various publications with regard to the Cockpit Country (Barker and Miller, 1995; Barker, 1998, Miller, 1998). The Cockpit Country botanical boundary was defined by Dr. George Proctor and his colleagues from the Institute of Jamaica. The boundary focused on identifying the location of endemic plants within the Cockpit Country. A convenience strategy was not to venture into heavily forested area within the forest reserve, but to conduct the observations around the Ring Road network (Figure 10.7).

The Cockpit Country botanical boundary was inadvertently omitted from the 2008 final report on defining the boundaries of the Cockpit Country. However, the boundary was included in the discussion during the community public consultation meetings and Town Hall meetings. The botanical boundary is much larger than the previous boundaries (Figure 10.7). It used the Ring Road as proxy in some sections of the Cockpit Country (North and South). The botanical boundary excluded the cockpit karst and tower karst forest between Auchtembeddie and Oxford, while extending the boundary to other forest reserves in Chesterfield, Cambridge, Catadupa etc... The botanical boundary paid less attention to geological, geomorphological and socio-historical parameters as well as the locations of human settlements within the Cockpit Country. That botanical boundary has been referred in various publications as the Cockpit Country proposed boundary of buffer zone (Barker and Miller, 1995; Barker, 1998, Miller, 1998) or the boundary of the Cockpit Country as a Centre for Plant Diversity (UNDP/GOJ/GEF, 2004).

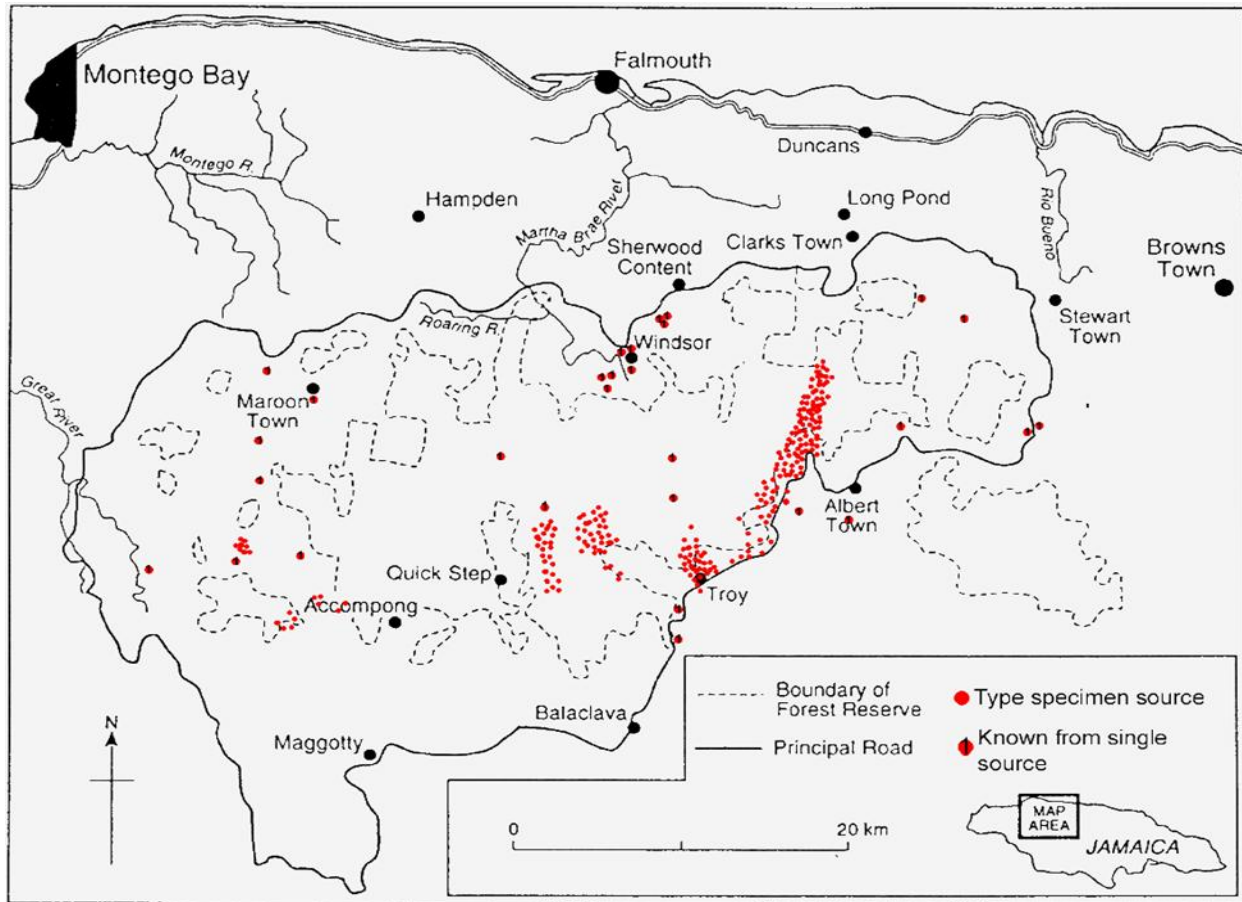


Figure 10.7: Presently-known distribution of plants endemic to the Cockpit Country by Dr. George Proctor

10.5.7 The National Ecological Gap Assessment Report (NEGAR) Boundary

The National Ecological Gap Assessment Report (NEGAR) boundary commonly called the Cockpit Country Add-on boundary was conjointly published in 2009 by the National Environmental Planning Agency, The Forestry Department and the Institute of Jamaica. The report was prepared out of laborious consultations with various stakeholders ranging from Governmental agencies, experts from the academic community, environmental Non-Governmental Organisations, independent environmental experts and other relevant stakeholders. The Cockpit Country Add-on boundary or NEGAR boundary focused on areas of importance to be added to the forest reserve (Figure 10.8). The NEGAR boundary is based on

10.5.8 The Cockpit Country Stakeholder Group Boundary

The Cockpit Country Stakeholder's Group (CCSG) boundary resulted from the inputs of various stakeholders from several environmental Non-Governmental organisations and community-based organisations within and outside the Cockpit Country (Figure 10.9). These stakeholders provided information on the Cockpit Country that they knew. The boundary proposed by the Cockpit Country Stakeholder's Group is wider than all the previous boundaries. The only similarity with the other boundaries can be identified on the Northern section of the Cockpit Country. The CCSG's boundary is the only to have included the Litchfield-Matheson's Run forest reserve and cut the boundary line vertically to Stewart Town.

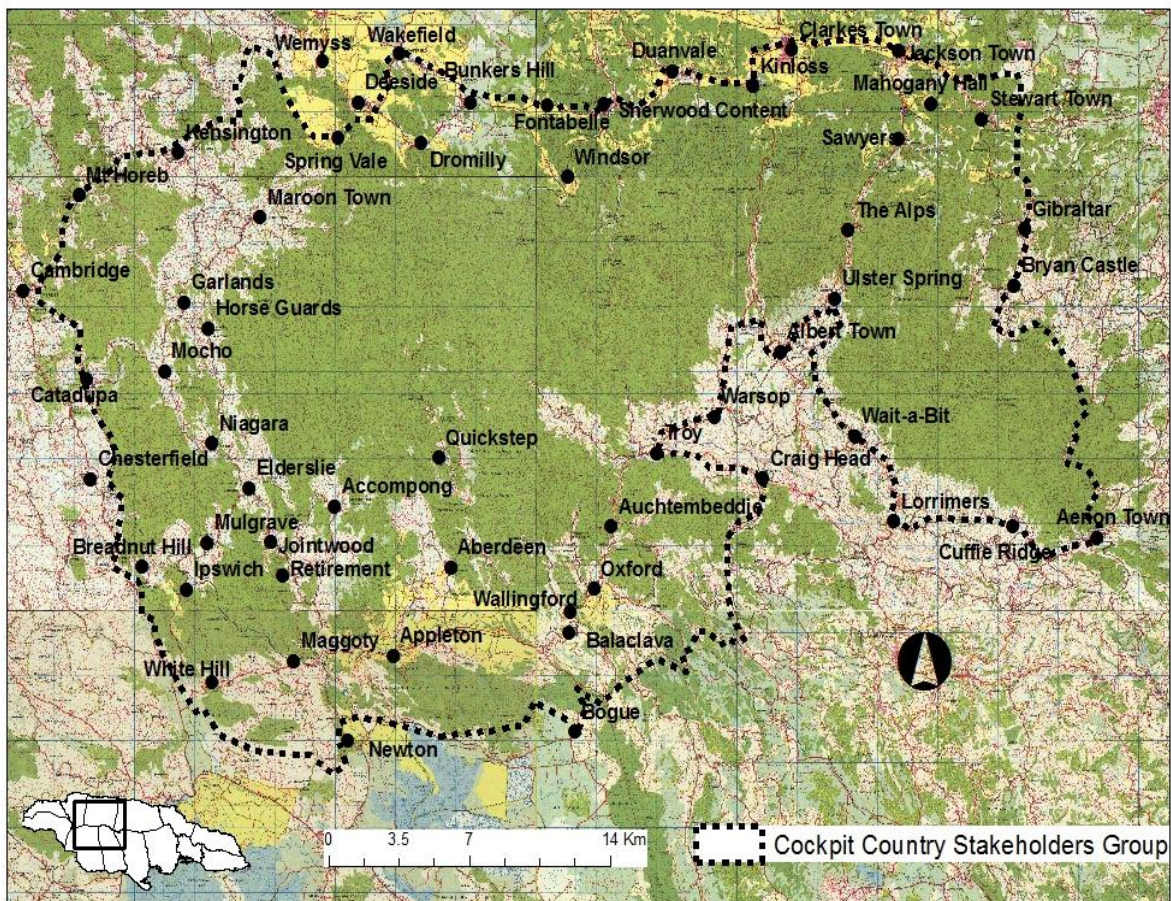


Figure 10.9: The Cockpit Country Stakeholders' Group proposed boundary

The Cockpit Country Stakeholder's Group boundary is mainly based on the relationships between the cockpit and tower karst forests and the Maroon wars. The boundary for the Cockpit Country is defined where the two Leeward Maroon wars took place. The Cockpit Country Stakeholder's Group (CCSG) proposed boundary reconciled the geological and geomorphological characteristics of the Cockpit Country with the two historical Maroon wars that took place in these forested areas between the British soldiers and the Leeward Maroons. That is why the CCSG's boundary has included the Litchfield-Matheson's Run forest reserve within the Cockpit Country because the first Maroon war originally began in that area. The boundary is also extended to the Nassau Mountains, Chesterfield, Cambridge, Catadupa etc... because of evidence of violent battles between the British soldiers and the Maroons in these forested areas (Robinson, 1969). However, the inclusion of Stewart Town is largely due to no significant physical change in the cockpit and tower karst forest after the Alps fault line near the Ring Road on the eastern section of the Cockpit Country.

10.6 Considerations

This chapter has largely presented a synthesis of the views and opinions expressed during the formal interviews between the Governmental agencies and Non-Governmental organisations, private land owners and academics. All the proposed boundaries have been reviewed in light of their dominant parameters and the extent to which they can contribute to the recommended official boundary for the Cockpit Country. Chapter 11 will present some recommendations and a possible way forward.

Chapter 11

Conclusions and Recommendations

11.1 Introduction

This chapter presents the conclusions and some recommendations in order to move the discussion forward. As stated in Chapter 1, the Cockpit Country is a very pristine area in Jamaica, which has been recognized nationally and internationally as a sanctuary for many endemic species of fauna and flora. The Cockpit Country will therefore continue to bring many people together either as investors who wish to explore and exploit its untouched high quality mineral resources and medicinal plants or as representatives of the Government of Jamaica, academics, environmentalists, conservationists and ordinary people who are ready to do whatever it takes to protect, conserve and keep the area undisturbed by irreversible anthropogenic activities for the benefit of present and unborn generations of Jamaicans and foreigners.

11.2 Scenarios to move forward

There is a general agreement among all the stakeholders that the Cockpit Country urgently needs to be preserved, protected, conserved and properly managed. The Government of Jamaica has started the Cockpit Country preservation and protection system by establishing the Cockpit Country forest reserve more than six decades ago. The critical issue now is to encourage the Government of Jamaica to make a bold decision by officially delimiting and declaring the official boundary of the Cockpit Country in light of the views and opinions collected from the public consultations. The following scenarios are being proposed:

11.2.1 Doing Nothing

- The Government can decide to do nothing and leave the Cockpit Country at it is right now. The Cockpit Country forest reserve is under repeated threats by increased anthropogenic activities in the form of sapling reaping and logging as well as destructive farming practices. The present level of instability and uncertainty regarding the boundary of the Cockpit Country may delay many ecotourism development projects and activities within and outside the Ring Road. The present situation makes it very difficult for Community-based organizations and Non-governmental organizations to develop conservation and integrated environmental management projects and approach national and international donor agencies for funding and grants. The 'Doing Nothing scenario' may make possible the slow death of the Cockpit Country tropical rain forest (Eyre, 1989). Fortunately, the Cockpit Country forest cover within the Ring Road has been significantly improved in recent years as a result of several nationally and internationally funded conservation projects (Newman, 2007). The 'Doing Nothing scenario' cannot be the best choice of the Government of the People.

11.2.2 Bauxite mining and Limestone quarrying, Water sources and supply

- The prospect for bauxite mining in the Cockpit Country had reached its peak in 2006. This had caused the commissioning of the 2008 report on defining the boundaries of the Cockpit Country. The terms of reference for that study have been severely criticised throughout the public consultations. There is a complete agreement that the Cockpit Country should be defined by its geology, geomorphology, hydrology, biodiversity, history and culture etc... The research team has observed and recorded strong resentments towards bauxite mining and limestone quarrying by members of the communities during the community public consultation meetings and Town Hall meetings. Proponents of bauxite mining had serious difficulty to persuade other members of the audience about the long-term benefits for the affected communities. However, these public consultation meetings cannot statistically represent the views

and opinions of all members of the communities who will be firstly and directly affected by bauxite mining or limestone quarrying. The public consultation exercise was of a qualitative nature.

- There is an urgent need to develop a long vision for the Cockpit Country and evaluate the true cost of ecosystem services provided by the Cockpit Country for Jamaica and the World vis-à-vis the permanent removal of mineral resources under current technological conditions. The Government of Jamaica should not authorise any mining and quarrying activities in the Cockpit Country as the level of emotion is too high and the level of opposition and resistance by community members and leaders, community-based organisations, civil society organisations, some governmental agencies and members of the academic community may not provide enough guarantee and certainty for potential investors.
- One of the biggest contributions of the Cockpit Country to the national economy is the provision of potable water. The Water Resource Authority insisted that 40% of water production in Jamaica is supplied by the Cockpit Country aquifer (WRA, 2004). The tourism sector in western Jamaica greatly benefits from the ecological services provided by the Cockpit Country aquifer in terms of water supply and water quality. The Cockpit Country Forest plays a critical role in maintaining water security in Jamaica.

11.2.3 Establishment of the Cockpit Country National Park and seeking World Heritage Status

- The proposal for the Cockpit Country to be declared a protected area and national park had reached its peak in the early 90s more than two decades after such a proposition was made to the Government of Jamaica (Cotterell, 1979; Aiken *et al.*, 1986). The proposal was made as a result of cumulative ecological degradation of the Cockpit Country and the need to protect and conserve endemic and endangered species of fauna and flora. All the stakeholders agreed that the Cockpit Country deserves some form of legal protection. The declaration of a protected area and national park is the first step toward the ultimate goal, which is the designation of the Cockpit Country as a

World Heritage site by the United Nations Educational and Cultural Organisation (UNESCO).

- The application for the Cockpit Country to be recognised as a World Heritage Status is well supported by all stakeholders formally interviewed or participants at the community public consultation meetings and Town Hall meetings. Eyre (1995) provided a rich discussion regarding the Cockpit Country as Jamaica's World Heritage Site. World Heritage Status may be able to boost community ecotourism development initiatives and help secure funding from national and international donor agencies for conservation and integrated environmental management projects. However, other structural and management conditions have to be put in place in order to reach that ultimate goal. The definition of the official boundary for the Cockpit Country is the first step toward that ambitious goal. Jamaica remains on the Greater Antilles with no nominated World Heritage Site. Various small Caribbean Islands have nominated World Heritage Site.

11.3 The Definition of the Boundary of the Cockpit Country

As discussed in Chapter 10, there is no clear consensus about the ideal, acceptable and unacceptable boundary for the Cockpit Country. Each proposed boundary has its own advantages and disadvantages based on the terms of reference or criteria upon which it was defined and proposed. However, it is urgent that the Government of Jamaica declares an official boundary for the Cockpit Country in order to put an end to the current level of uncertainty and tension among the relevant stakeholders. Based on the formal interviews with the institutional stakeholders and the discussions during the community public consultation meetings and Town Hall meetings, the Centre for Environmental Management recommends a progressive boundary definition in a three-layered process. That official boundary for the Cockpit Country should be comprised of a Core, a Transition zone and an outer boundary. There should be no need to classify the communities that fall within or outside the Cockpit Country boundary. There is no need to impose or destroy people's natural affinity with the name

‘Cockpit Country.’ In fact, most people do know where the Core (main forest) of the Cockpit Country is located; they just wonder how far the Cockpit Country should be extended. As a participant argued that:

“whatever the outcome ... we have to seek to ensure that the persons for whom Accompong and the Cockpit Country in general is part not just as history but identity and also a source of livelihood need to be meaningfully involved in the decision making and the on-going management of the terrain. So we can’t just you know do the form and not pay attention to the substance.”

11.3.1 The Core

The Core of the Cockpit Country boundary should be primarily based on the contiguous geological, geomorphological and biological parameters. The Core must be the centre of the primary and best forest within the Cockpit Country. It is better that the Core of the boundary be free of human settlements and potential anthropogenic activities. In the case of existing human settlements within the Core, new arrangements have to be made in terms sustainable farming practices, livelihood strategies and agroforestry. The Core is an area to be sterilised where any anthropogenic activity is scrutinised and controlled. The forest reserve cannot be a Core as it stands right now. The forest reserve is too small and needs some level of physical alignments that would allow easy protection and monitoring. The Core has to be defensible. The Parris Lyew-Ayee Jr. proposed boundary, which enclosed the forest reserve can stand as a Core as it fits the above characteristics (Figure 11.1). The 2005 Parris Lyew-Ayee Jr. proposed boundary is suggested as the Core of the boundary. The 1958 Sweeting boundary could be the core, as well. The 2005 Parris Lyew-Ayee Jr. proposed boundary is preferred over the Sweeting boundary because of the inclusion of the contiguous cockpit and tower karst forest reserve near the village of Oxford. The UWI proposed boundary cannot be a Core as it includes extensive farming and agricultural areas in the South-western sections of the Cockpit Country. Arrangements should be made with private land owners whose lands will fall within the Core of the Cockpit

Country Protected Area or National Park in terms of available options that will not affect their ownership rights and financial benefits.

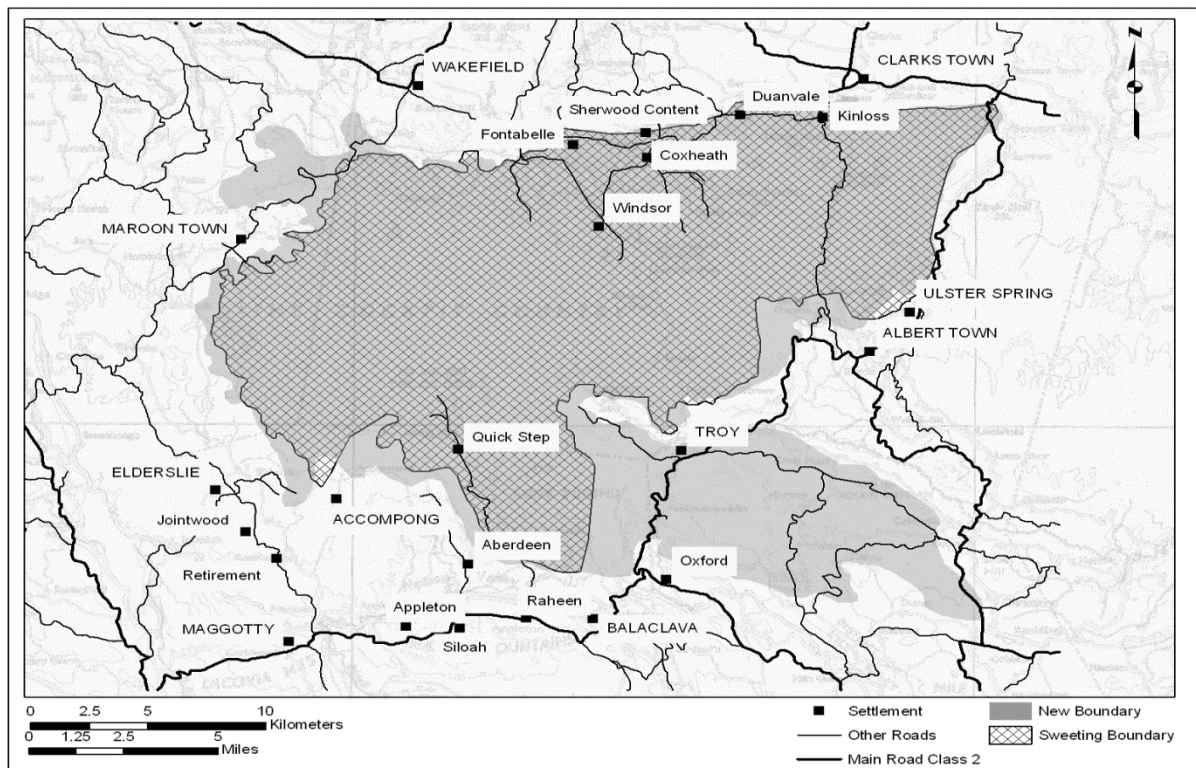


Figure 11.1: The proposed boundary as Core

11.3.2 The Transition Zone

The Transition Zone of the boundary should be legally protected as well. It is different from a buffer zone which is not legally protected according to staff from the Forestry Department. However, the transition zone will require fewer restrictions because it contains human settlement areas where anthropogenic activities take place, agricultural lands and other types of forest reserve. However, there should be a level of control in order to protect the Core. This is to say that there should be a high level of zoning. Alternatives have to be sought for economic activities which can threaten the sustainability of the Core. For example, the harvesting of saplings for yam sticks can be replaced by plastic lumber or other types of trees that grow faster rather than the cutting of trees that fall within the Core. Similar policies should be applied for trees such as Mahogany and Cedar that are located within the Core and belong to

private individuals. Conservation and environmentally friendly solutions have to be provided for a variety of issues within the Cockpit Country such as pit latrines, erection of trails, soil retention, sustainable agriculture, ecotourism, etc... The Centre for Environmental Management suggests the Cockpit Country NEGAR Add-on boundary as the Transition zone of the boundary (Figure 11.2). Several of the proposed boundaries can be accepted as well or a new boundary transition boundary can be re-defined in consultation with the communities and stakeholders who will be affected by the restrictions that the official boundary will impose.

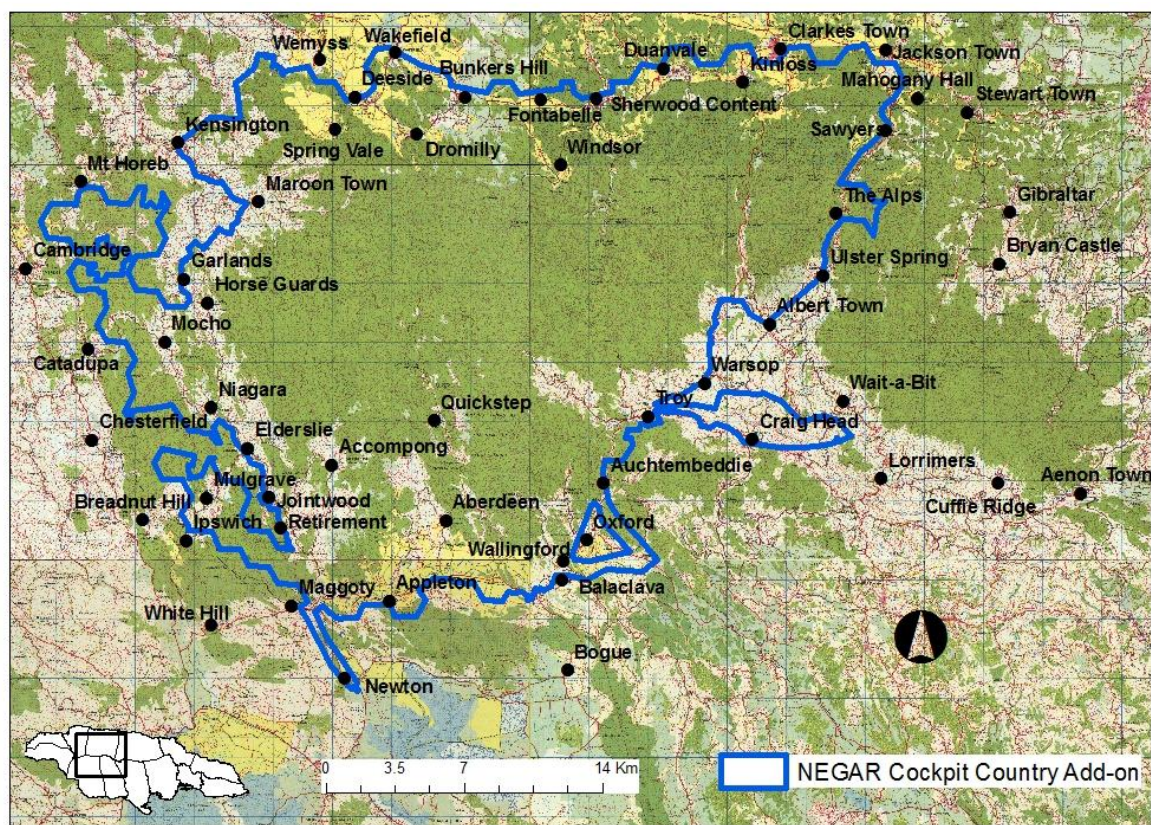


Figure 11.2: The Cockpit Country-Add-on Boundary or NEGAR Boundary

11.3.3 The Outer Boundary

The outer boundary should be legally protected. It can also be considered as a buffer zone depending on the arrangement as indicated by the International Union for Conservation of Nature (IUCN) or UNESCO's World Heritage Convention. There may be fewer restrictions in this

zone. The outer boundary may include other forest reserves or special areas that need to be placed under stringent protection and conservation measures. It is important to maintain some level of legal control over the outer boundary as economic and development activities can threaten the Transition Zone and the Core of the boundary. This is to say that less stringent protection is given, but conservation and environmentally friendly activities should be encouraged. The boundary proposed by the Cockpit Country Stakeholders' Group is suggested as the outer boundary (Figure 11.3).

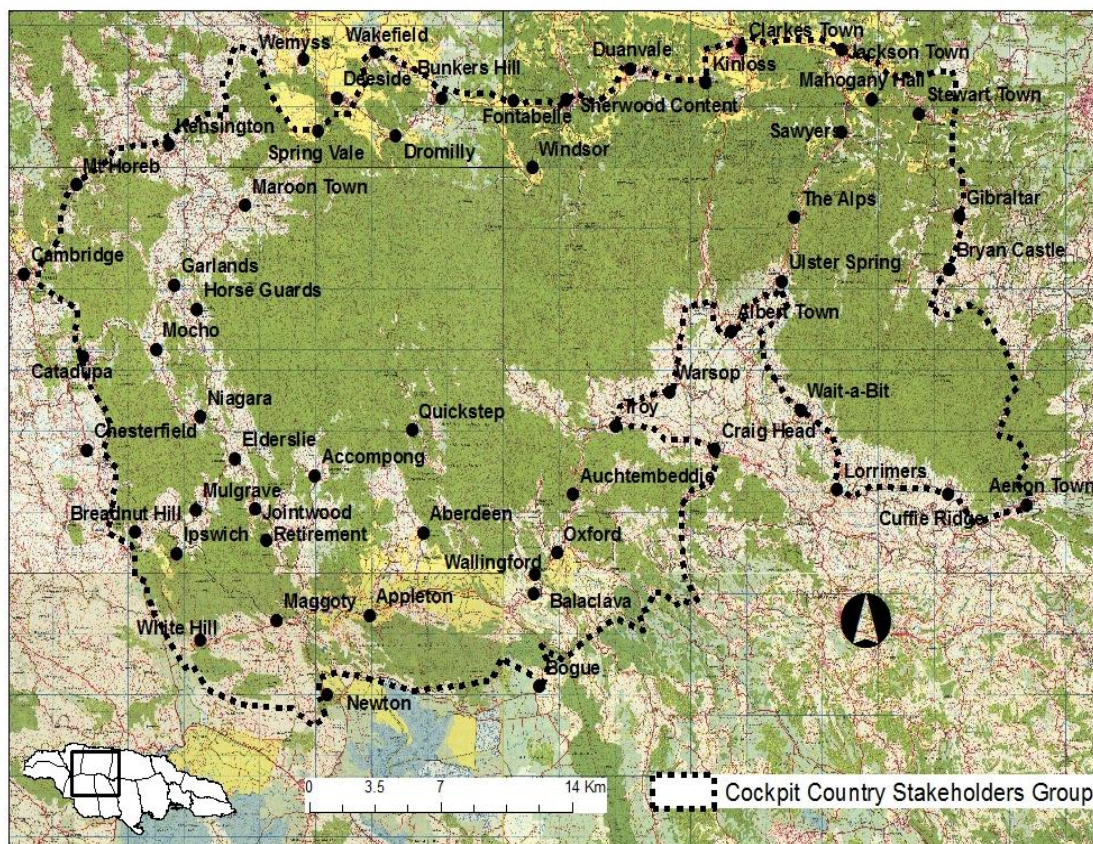


Figure 11.3: The Cockpit Country Stakeholders' Group proposed boundary

11.4 The issue of Ownership

The issue of ownership of the Cockpit Country should be addressed as soon as possible. It can jeopardise all initiatives to protect and conserve the Cockpit Country, if left unresolved. The Accompong Maroons claimed that the entire Cockpit Country belongs to them, even though

they could not say where it begins and ends. It is paramount that some level of communication and dialogue should be established between the Government of Jamaica and the Accompong Maroon Council to address the extent and legality of the Maroon ownership rights, a political boundary for the lands allocated to the Maroons by the Maroon Treaty and the development of a conservation and management action plan.

11.5 Management

Following the discussions with the formal stakeholders from the governmental agencies and Non-governmental organisations, it is recommended that the Government of Jamaica establish a new form of governance structure to holistically manage the Cockpit Country. The structure should eliminate turf issues between governmental agencies in terms of power relations and authority. The Centre for Environmental Management, based on the inputs of various stakeholders, recommends the establishment of a Board of Management or Oversight Committee comprising representatives from governmental agencies, the Maroon Council, Non-governmental organisations and community-based organisations, the business community and educational institutions to oversee the management of the Cockpit Country Protected Area or National Park. That Board will report to the Cabinet through the Ministry of Water, Land, Environment and Climate Change.

11.6 The Arnstein's ladder of participation and the Management plan for the Cockpit Country

As stated in the methodology in Chapter 1, this public consultation falls at the levels of 'Consultation and Placation' within the Arnstein's ladder of participation. The views and opinions of the stakeholders were collected through community public consultation meetings within the Cockpit Country and Town Hall meetings outside the Cockpit Country, formal structured interviews with institutional stakeholders, and informal interviews with community

members as well as a small quantitative survey to capture complementary data from members of the communities within the Cockpit Country.

One of the limitations of 'Consultation and Placation' is that the final decision will be made by the Political Directorate rather than the stakeholders. However, the views and opinions of the stakeholders are very relevant as they will assist the Cabinet to make the appropriate decision with regard to the boundary for the Cockpit Country. The Political Directorate is called to declare the official boundary of the Cockpit Country based on the inputs of a cross-section of stakeholders, partners and members of the Communities who will be affected by the restrictions of the boundary and institutional stakeholders who will assist in the holistic management of the Cockpit Country as a Protected Area and National Park. The effective and holistic management of the Cockpit Country calls for Partnerships and Consensus between all the relevant stakeholders. This may lead to Delegation of Power by the relevant institutional partners and stakeholders in the future. The use of the Arnstein's ladder of participation beginning with 'Partnership' can assure the success and sustainability of any comprehensive management plan and strategy for the Cockpit Country Protected Area and National Park.

References

- Aiken, K. E., Garraway, E., Boothe, R. *A case for Protected Forested Areas in Jamaica*. Technical, Jamaica: Zoology Department, University of the West Indies, Mona, 1986.
- Barker, D. "Yam Farmers on the Forest Edge of Cockpit Country: Aspects of Resource Use and Sustainability." In *Resource Sustainability and Caribbean Development*, by D. McGregor, D. Barker and S. Evans, 357-372. Kingston: The Press- University of the West Indies, 1998.
- Barker, D., and D. Miller. "Farming On The Fringe: Small Scale Agriculture on the Edge of the Cockpit Country." In *Environment and Development In The Caribbean: Geographical Perspectives*, by D. Barker and D. McGregor, 271-292. Kingston: The Press - University of The West Indies, 1995.
- Cotterell, C. *The Proposed Development of the Cockpit Country*. Technical, Kingston: Natural Resource Conservation Division, 1979.
- Eyre, L. "Depletion of the Jamaican Rain Forest: The Social and Cultural Consequences." *Universidad San Francisco de Quito*. Quito: Association of Academic Programs Latin America and the Caribbean, 1992.
- Eyre, L. "Jamaica's Crisis in Forestry and Watershed Management." *Jamaica Naturalist*, 1991: 27-44.
- Eyre, L. "Slow Death of A Tropical Rainforest: the Cockpit Country of Jamaica, West Indies." In *Environmental Quality and Ecosystem Stability*, by M. Luria, Y. Steinberger and E. Spanier, 599-606. Jerusalem: ISEQS Pub., 1989.
- Eyre, L. "The Cockpit Country: A World Heritage Site?" In *Environment and Development In The Caribbean: Geographical Perspectives*, by D. Barker and D. McGregor, 259-270. Kingston: The Press- University of the West Indies, 1995.
- Forbes-Biggs, K. M. *Environmental Education and its Potential Implications for Disaster Risk Reduction: a Case Study of the Southern Trelawny Environmental Agency (STEA)*. Mphil Thesis, Unpublished, 2010.
- JNHT. *Cockpit Country Heritage Survey Report*. Kingston: JNHT, 2009.
- John, K., and N. Newman. *Cockpit Country Conservation Action Plan: A Summary*. The Nature Conservancy Jamaica Programme, 2006.
- Koenig, S. *Cockpit Country Conservation Project: Biodiversity Assessment*. Natural Resources Conservation Authority, 2000.
- Koenig, S. *Site Conservation Planning: Biological Assessment: Final Report*. The Nature Conservancy, 2002.

- Lyew-Ayee, P. "Redrawing the Boundaries of the Cockpit Country, Jamaica." *Caribbean Geography*, September 2005: 102-115.
- Miller, D. "Invasion of The Cockpits: Patterns of Encroachment into the Wet Limestone Rainforest of Cockpit Country, Jamaica." In *Resource Sustainability and Caribbean Development*, by D. McGregor, D. Barker and S. Evans, 373-389. Kingston: The Press- University Of The West Indies, 1998.
- Mitchell, S., D Miller, S. Ganapathy, and B. Spence. *Defining the Boundaries of the Cockpit Country*. Prepared for the Ministry of Agriculture and Lands/ Mines and Geology Division, The Department of Geography and Geology, The University Of the West Indies, Unpublished, 2008.
- NEPA. *Jamaica's National Ecological Gap Assessment Report- A Component of the Protected Areas System Master Plan of Jamaica*. NEGAR, Kingston: National Environmental Planning Agency, 2009.
- Newman, M. *Assessing Forest Fragmentation In The Moist Forests of the Cockpit Country, Jamaica, Using Remote Sensing And GIS (1983-2003)*. MSc. Thesis, Unpublished, 2007.
- Robinson, C. *The Fighting Maroons of Jamaica*. Kingston: Collins and Sangster, 1969.
- . "The Maroons, The British and a treaty." *The Sunday Gleaner*, March 13, 1994.
- Smith, D. "Implementing A National Park System For Jamaica." In *Environment and Development In The Caribbean: Geographical Perspectives*, by D. Barker and D. McGregor, 249-258. Kingston: The Press - University Of the West Indies, 1995.
- Spence, B. *GEF Cockpit Country Land Management Report*. Prepared for the Latine Rooswood Conservation Authority and the World Bank , 1999.
- UNDP/GOV/GEF. *Piloting Natural Resource Valuation within Environmental Impact Assessments*. Technical, Kingston: UNDP, 2004.
- WRA. *Hydrological Assessment of the Cockpit Country*. Prepared for Water Resources Authority, The Nature Conservancy, 2004.
- WRC. *Story Based Income Generation In Cockpit Country Jamaica*. Kingston: Pear Tree Press, 2001.
- Wright, S. *A socio-economic study of the Cockpit Country*. The Nature Conservancy, 2006.

APPENDIX I

Interview guide for the Institutional partners and stakeholders

- 1) Did you have a chance to read the 2008 report that was submitted to the Ministry of Agriculture and Fisheries by the team of Consultants from the Department of Geography and Geology?

1. Yes

2. No

- 2) What is the relationship between your organization and the Cockpit Country?

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- 3) How often do you visit the Cockpit Country?

1. I live there 2. More than once 3. Once 4. Never 5. Plan to visit soon

- 4) What do you know about the Cockpit Country?

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- 5) What is the vision of your organization for the Cockpit Country and how could it be fulfilled in a sustainable way?

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- 6) Please select and comment on the factors that are worth considering when defining the Official Boundary of the Cockpit Country?

- Geological
- Geomorphological
- Hydrological
- Environmental
- Economic
- Historical and cultural
- Other, please specify.....

- 7) Which factor (s) should be given much consideration when defining the Cockpit Country and why?

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- 8) Please discuss any of these principles and their relevance in defining the Boundary of the Cockpit Country?

- Economic opportunities for local communities and the Nation at large
- Protection of natural resources and the ecosystem
- Watershed protection
- Land tenure (Private versus Crown land)
- Current use of the Cockpit country natural Resources
- Controlled use of the natural resources and amenities
- Possibility for exploration of existing natural resources
- Realistic Management system and mechanisms
- Establishment of National Parks and Protected Areas
- Archaeological and historical treasures
- Other, please specify.....

- 9) Looking at all the proposed Boundaries for the Cockpit Country, please select :

- The ideal one
- The compromised or acceptable one to some extent
- The unacceptable one

- 10) Why do you think so?

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- 11) Please state the strengths weaknesses of the Governmental agencies, Non-governmental and Civil Society Organizations, Local Forestry Management Committee s, etc...

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APPENDIX II

Interview guide for the general public

Gender: 1. Male 2. Female

Age group: Community name:

Occupation:

1) Were you born in this community? 1. Yes 2. No

2) If no, where were you born?

3) How long have you been living in this community?

4) What is so special about your community?

.....
.....

5) How do people in your community make a living?

.....
.....

6) Do you think it is a good idea that people from everywhere come to visit the Cockpit Country?

1. Very bad 2. Bad 3. Good 4. Very good 5. Great

7) Do you or members of your family own any property within the Cockpit Country?

1. Yes 2. No

8) If no, who own this piece of land upon which the house you live in is built?

.....

9) Are you a member of the Local Forestry Management Committee? 1. Yes 2. No

10) If no, why are you not a member?

.....

11) Are you a member of any local group or citizen association? 1. Yes 2. No

12) What do you know about the Cockpit Country?

.....
.....

13) Do you consider that your house is within the Cockpit Country? 1. Yes 2. No

14) What make you say so?

.....

.....

15) What kind of natural resources do you think exist within the Cockpit Country?

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16) What kind of benefits do you think that you and your family derive from the Cockpit Country?

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17) Do you think that other locations benefit from the Cockpit Country? 1. Yes 2. No

18) If yes, please name these locations.....

19) Please state any specific physical characteristic of the Cockpit Country?

.....

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20) Please state any historical or cultural characteristic of the Cockpit Country?

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21) Please state any archaeological characteristic of the Cockpit Country?

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22) How would you define the Cockpit Country?

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23) Please indicate any other locations that can be considered as part of the Cockpit Country?

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24) Looking at the map and the proposed boundaries, where the Official boundary of the Cockpit Country should be?

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25) What do you think so?

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