



**CONSULTANTS REPORT**  
**Review of Local Watershed**  
**Management Committees and Local**  
**Government Reform in Jamaica**



# Ridge to Reef Watershed Project

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## **CONSULTANTS REPORT Review of Local Watershed Management Committees and Local Government Reform in Jamaica**

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Implemented by:

Associates in Rural Development, Inc.  
P.O. Box 1397  
Burlington, Vermont 05402



## **Preface**

The Ridge to Reef Watershed Project (R2RW) is a five year activity contributing to the achievement of USAID/Jamaica's SO2 – "improved quality of key natural resources in areas that are both environmentally and economically significant." R2RW comprises three Components, contributing to the achievement of the results under SO2. Component 1 is assisting targeted organizations to identify and promote sustainable environmental management practices by resource users. Component 2 focuses on identifying and supporting solutions to improve the enforcement of targeted existing environmental regulations, primarily in the Great River and Rio Grande watersheds. Component 3 provides assistance to key organizations to support, coordinate, and expand watershed management efforts in Jamaica. The Ridge to Reef Watershed Project is being implemented by ARD, Inc.

The purpose of this Scope of Work (SOW) is to review the different processes of local planning and local governance being undertaken within Jamaica, and to show how these processes interface with the establishment of Local Watershed Management and/or Local Forestry Management Committees. This review will highlight the different approaches undertaken at the local level, and recommend how LWMCs should interface with other ongoing local governance mechanisms and processes. The parish of Portland will be used as a case-study.

To achieve this goal, the Governance and Natural Resources Specialist (GNRS) of the R2RW Project, Trevor Spence led a three-person team that included Richard Lumsden, Institutional and Capacity Building Specialist and Alicia Hayman, Natural Resource Management Specialist to carryout these activities.



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## Abbreviations and Acronyms

AMC	Advisory and Monitoring Committee
CBO	Community-Based Organization
CCAM	Caribbean Coastal Area Management
CDC	Community Development Committee
CIDA	Canada International Development Agency
CWIP	Coastal Water Improvement Project - USAID
DAC	Development Area Committee
EEZ	Exclusive Economic Zone
EJASP	Eastern Jamaica Agricultural Support Project
ENACT	Environmental Action Programme - CIDA
ENGO	Environmental Non-Governmental Organization
EOC	Emergency Office Centre
FD	Forestry Department
F <sub>1</sub> D	Fisheries Division
GEF	Global Environmental Facility
GIS	Geographic Information System
GMBRC	Greater Montego Bay Re-Development Committee
GOJ	Government of Jamaica
GRWMC	Great River Watershed Management Committee
ICDP	Integrated Community Development Programme
IDB	Inter-American Development Bank
IGA	Inter-Governmental Agreement
IWCZMB	Integrated Watershed and Coastal Zone Management Branch - NEPA
JAS	Jamaica Agricultural Society
JCDT	Jamaica Conservation Development Trust
JCF	Jamaica Constabulary Force
KMA	Kingston Metropolitan Area
KSAC	Kingston and St. Andrew Corporation
LAC	Local Advisory Committee
LDUC	Land Development Utilization Commission
LFiMC	Local Fisheries Management Committees
LFMC	Local Forestry Management Committees
LFMP	Local Forestry Management Plan
LGCWG	Local Group Coordination Working Group
LICJ	Land Information Council of Jamaica
LIFE	Local Initiative Facility for the (Urban) Environment
LSD	Local Sustainable Development
LSDP	Local Sustainable Development Planning
LWMC	Local Watershed Management Committees
MLE	Ministry of Land and Environment
MLGCDs	Ministry of Local Government, Community Development and Sport
MOU	Memorandum of Understanding
MWH	Ministry of Water and Housing
NEPA	National Environment and Planning Agency
NFMCP	National Forestry Management and Conservation Plan
NGO	Non-Governmental Organization
NIC	National Irrigation Commission
NIWMC	National Integrated Watershed Management Council
NIWMP	National Integrated Watershed Management Programme
NLA	National Land Agency
NPC	National Planning Council
NPEP	National Poverty Eradication Programme

NR	National Resources
NRCA	National Resource Conservation Authority
NRM	National Resource Management
NSWMA	National Solid Waste Management Authority
NWA	National Works Agency
NWC	National Water Commission
ODPEM	Office of Disaster Preparedness and Emergency Management
PAC	Parish Advisory Committee
PAJ	Port Authority of Jamaica
PBFMC	Portland Blight Fisheries Management Council
PDC	Parish Development Committee
PIDP	Parish Infrastructure Development Project
PIOJ	Planning Institute of Jamaica
PSMP	Public Sector Modernization Programme
PSRU	Public Sector Reform Unit
RADA	Rural Agricultural Development Authority
RGWMC	Rio Grande Watershed Management Committee
RRA	Rapid Rural Appraisal
R2RW	Ridge to Reef Watershed Project - USAID
SD	Sustainable Development
SDP	Sustainable Development Planning
SDC	Social Development Commission
SDC-J	Sustainable Development Council of Jamaica
TCPA	Town and Country Planning Authority
TPD	Town Planning Department
UDC	Urban Development Corporation
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WM	Watershed Management
WMC	Watershed Management Committee
WMU	Watershed Management Unit
WRA	Water Resources Authority
WUA	Water User Associations

## Executive Summary

Over the past decade, we have witnessed a rapid shift in watershed management, at least in theory, from what has been characterized as top-down, command and control towards a more flexible, participatory approach to the management of the natural resources. This process has revolved in the establishment of Watershed Management Committees (WMC) to assist in managing the island's watershed areas.

This exercise was conducted by the R2RW Project at the request of the NIWMC and NEPA to determine the level of awareness and acceptance by government agencies, NGOs and other relevant groups (such as private sector representatives) of the role of local natural resources management groups in Jamaica. The analysis focused on participation of citizens in local governance, the planning processes and in the management of natural resources.

The purpose of the Scope of Work (SOW) was to review the different processes of local planning and local governance being undertaken within Jamaica, and to show how these processes interface with the establishment of Local Watershed Management and/or Local Forestry Management Committees. The scope of work was undertaken by a three-person team led by the Governance and Natural Resources Specialist (GNRS) of the R2RW Project, Trevor Spence. The Team included two very experienced environmental and organizational specialists in Richard Lumsden, and Alicia Hayman.

The review highlights the different tools used to undertake this assignment, the approaches undertaken at the local level, and recommend how LWMCs should interface with other ongoing local governance mechanisms and processes.

Section 1 of the Review examined a number of recent policy and planning initiatives in Jamaica, in order to identify the implications for the local management of natural resources and provide a comprehensive policy and planning context for the review of Local Watershed Management Committees. A Literature Review was also undertaken in this Section, and provides a summary reference to the findings on local planning and local watershed management initiatives included in previous reviews and studies as well as relevant policy documents.

Section 2 undertakes an "Assessment of the Mandate of Key Organizations for Local Resource Management Programs". It provides a comprehensive review of the mandate of a number of key organizations with respect to local natural resource and watershed management.

Section 3 – "Application of Watershed Management at the local level" takes a look at the development of local groups in watershed and natural resource management programs, with the increasingly emphasize on citizens involvement in program planning and decision making. It draws attention to the contradictions that while the concept is understood and clearly stated in theory, there are some fundamental issues that need to be recognized and addressed at the onset. Adding to this, it shows that the new roles of the government agencies, tend to conflict with years of experience, which emphasizes resource managers as expert decision-makers. Under the new inclusive watershed paradigm, local knowledge and socio-economic concerns of local people, resource users and other stakeholders can influence decisions as much as traditional science-based decisions of agency managers. The structure, organization and processes of local watershed decision-making groups can vary considerably. This can be particularly true given the unique complexities of most environmental education and action programs.

It points to the critical need to turn some attention to tasks associated with various stages of resource coalition development. The researches found out that local empirical data is scarce, with very few on-the-ground examples for analysis, especially for comparisons over time and different settings.

Section 4 reviews the perception and awareness for local governance and natural resources management. In conjunction with other techniques employed for this research project, questionnaires were utilized to acquire an understanding of the levels of awareness and acceptance of local natural resource management groups in Jamaica. Questionnaires, including a list of prospective respondents, were developed and comments solicited from numerous persons prior to the composition of a final draft.

A number of Focus Groups representing local initiatives through NEPA, Forestry Department, Fisheries Department, SDC, NGOs, and national Irrigation Commission were held to get a wide range of understanding between local governance and local involvement in natural resources management.

The major findings and conclusions drawn from the study, as well as the consultants' recommendations are presented in sections 5 and 6. The conclusions are presented in an institutional framework that draws on the tenets of integrated watershed management. These include: legislation and regulations, policies and guidelines, administrative structures, economic and financial arrangements, political structures and processes, historical and traditional customs and values, key participants and stakeholders. Chapter 5 also elaborates on various supporting core principles both at the international and national levels. Chapter 6 presents the key recommendations coming out of the study.

In general, the study points to several agencies with specific responsibilities establishing local groups. It was felt that groups established at the community level should over-ride all others, and that Task forces, or committees should represent sector interest, when prioritized by the communities.

# 1. Background

## 1.1 Context to Local Management of Natural Resources

Over the past decade we have witnessed a rapid shift in watershed management, at least in theory, from what has been characterized as top-down, command and control towards a more flexible, participatory approach. Prior to the 1980s, watershed management hardly ever involved consumers in decision-making and management (Ellison 2001). Recipients were referred to as beneficiaries and to the extent that assessments were made on felt needs, they were not made on the basis of wide consultation and participatory methods (Garcia 1998, Gordon 2003; Hayman 2003). As a result, the services provided often did not reflect user preferences or needs, and were often short-lived (Gaventa 1999). It is now widely accepted that for reasons of equity and efficiency, watershed management programs need to be responsive to people's felt needs based on genuine demand, whether it is expressed or latent demand. It is also a way of starting out with a genuine commitment to partnership and empowerment (Hayman 2003).

This process has revolved in the establishment of Watershed Management Committees (WMC) to assist in managing the island's watershed areas. The issue of garnering local participation in management has been identified as a critical activity for some time. The Draft Watershed Policy 2001, the Forest Act of 1996 and the Forest Policy of 2001 address the need for local management structures in the respective areas. As such, a significant amount of effort has gone into establishing such groups. The Rio Grande and Great River Watershed Management Committees supported by the National Environment and Planning Agency (NEPA) and the Ridge to Reef Watershed (R2RW) Project and the Local Forestry Management Committees (LWMCs) of the Pincar/Buff Bay Watershed are examples of these. Similarly, a number of user groups have been formed to undertake management of other natural resource assets. These include Water User Associations (WUAs) supported by the National Irrigation Commission (NIC) to manage distribution of irrigation water; farmer groups in eastern Jamaica supported by the Rural Agricultural Development Authority (RADA) and the Eastern Jamaica Agricultural Support Project (EJASP) to manage farming inputs; and the National Sanitation Task Force supported by Ministry of Health and UNDP/LIFE to advise on sanitation policy and low cost, local sanitation solutions. (Gordon 2003)

This exercise was conducted to determine the level of awareness and acceptance by government agencies, NGOs and other relevant groups (such as private sector representatives) of the role of local natural resources management groups in Jamaica. The analysis focused on participation of citizens in local governance, the planning processes and in the management of natural resources.

## 1.2 Policy and Planning Context

The purpose of this section is to review a number of recent policy and planning initiatives in Jamaica, in order to examine the implications for the local management of natural resources and provide a comprehensive policy and planning context for the review of Local Watershed Management Committees.

The following main policy and planning initiatives are analyzed in order to identify their implications for the local management of natural resources:

- a) Local Government Reform
- b) Integrated Community Development Programme (ICDP) of the SDC
- c) Modernization of the Planning Framework
- d) Public Sector Modernization Programme
- e) Sustainable Development Institutional Framework

- f) Local Sustainable Development Planning (LSDP)
- g) Sector- and Agency-Specific Initiatives
- h) Legislative Framework

**a) *Local Government Reform***

The current process of Local Government Reform in Jamaica began in 1993 and may be traced to the response of the Government of Jamaica to the Rio Conference of 1992, and the commitment of the GOJ to the resulting manifesto for increasing local governance known as Local Agenda 21. Ministry Paper No: 8/93 which initiated the subsequent process of local government reform in Jamaica spoke to the need to create structures “which will facilitate maximum participation by all elements of the local community in the management of local affairs”.

The local government reform process aimed to:

- ✍ Restore many functions and responsibilities for municipal services to local authorities,
- ✍ Increase their financial autonomy and institutional capacity,
- ✍ Revise and update the legislative framework, and
- ✍ Increase the participation of civil society stakeholders in the processes of local governance.

Of relevance to the local management of natural resources are the objectives of shifting the focus of the local authorities toward providing leadership and a coordinating framework for the collective efforts of parish residents toward local development, and examining the distribution of service responsibilities between central and local government, the private sector, NGOs and CBOs.

The movement towards increasing local participation began with the establishment of Parish Advisory Committees (PACs) in 1998, which were succeeded by the concept of Parish Development Committees (PDCs). The first PDC was officially launched in Portland in 2000 with support from ENACT/CIDA and the Portland Parish Council. To date a total of thirteen PDCs have been established island-wide with different structures at various stages of development. The PDCs are expected to undertake a range of functions, including:

- ✍ Providing a formal framework between the parish council, private and public sector groups, NGOs and community groups to allow for multi-stakeholder participation in governance at the parish level;
- ✍ Collaboration with local authorities, sector agencies and donors in sustainable development planning and projects at the parish and local levels;
- ✍ Oversight of public funds spent in the parish;
- ✍ Undertaking Public Education in each parish to enhance awareness of planning and environmental issues; and
- ✍ Assisting communities in developing strategies and integrating community-based plans with the sustainable development planning process at the parish level.

The most recent development in the local reform process was represented by Ministry Paper 7/2003 which calls for the:

- ✍ Creation of municipal management mechanisms by local authorities;
- ✍ Definition and rationalization of the roles and functions of central and local government;

- ✍ Establishment of dedicated financial resources to support local authorities; and
- ✍ Development of management mechanisms that allow for participation and representation of civil society on all local government structures.

The local reform process has achieved a number of successes in the decade since its inception. These include:

- a) An improvement in revenue sources controlled by the local authorities such as commercial services and user fees;
- b) Upgrading of some parish council buildings and computer infrastructure under the Parish Infrastructure Development Project (PIDP) funded by the Inter-American Development Bank (IDB);
- c) Establishment of PDCs in 13 parishes;
- d) Establishment of City Councils for Portmore and Montego Bay; and
- e) Improvements in the land development application processing system.

However the complexity of the local government reform process should not be underestimated. As stated in Ministry Paper 7/2003 the local government system has in excess of 100 statutes and regulations, of which 29 have been identified for immediate amendment. The same ministry paper proposes to initiate national discussions on whether the existing thirteen (13) Local Authorities should be rationalized or consolidated on a regional or other basis. These complexities make it more difficult to assess the impact of the local government reform process to date in increasing the effectiveness of the local authorities in natural resource management at the local level.

**b) *Integrated Community Development Programme of the SDC***

The Integrated Community Development Programme (ICDP) of the Social Development Commission (SDC) involves the establishment of community-based structures for local governance in all parishes of the island. The SDC has identified over four thousand community-based organizations (CBOs) throughout the island, which have been grouped into some 782 communities with distinct and defined identity. Each defined community forms the basis for the establishment of a Community Development Committee (CDC) with representation from the CBOs in that community. At the next level of governance structure, a number of development areas have been defined in each parish, based on economic development nodes which encompass a cluster of communities. Each development area forms the basis for the establishment of a Development Area Committee (DAC) with representation from the CDCs in that development area. Finally, the DACs and CDCs provide representatives to the PDC in each parish, at the highest level of the local governance structures for each parish.

The community-based structures for local governance established under the ICDP of the SDC are intended to serve a number of goals, including providing a mechanism for increasing community participation in the operations of the local authorities as required under local government reform, empowering communities to be active participants in the economic development process and contribute to the government's National Poverty Eradication Programme, and enabling communities to undertake community-based planning which can be integrated in LSDP processes at the parish level.

The formation of CDCs requires community sensitization and mobilization, and a representative structure with credibility and accountability. The functions of CDCs may vary based on the

priorities of the communities represented, but typically are expected to include the preparation of community development plans, lobbying and networking for implementation of priority community projects, public education and information dissemination, and participation in environmental task forces and committees as relevant to their respective communities. **However there is no explicit mandate for CDCs or DACs to undertake the responsibility for natural resource or watershed management at the local level.**

This has led to the formation of LWMCs, LFMCs, WUAs, and LFiMCs, and other local governance mechanisms that are explicitly focused on natural resource management, rather than the CDCs and DACs being used as community governance mechanisms, with sub-committees dealing with prioritized issues. Duplication and overlapping responsibilities is common place. The community of Tranquility in Portland provides an example here. There is a verbal agreement that were there is a LFMC that will also serve as the CDC and/or the LWMC. The reverse is also true. In Tranquility, the small Focus Group saw themselves as CDC, LFMC, JAS, as well PTA, and Citizen Association. **Persons were/are busy attending meetings, and holding several offices, but one was/is never too sure how much work actually got/is getting done. This example is true for many other communities.**

**c) *Modernization of the Planning Framework***

The current planning framework of Jamaica provides for national management and control of physical and land use planning under the Town and Country Planning Act. Adopted in 1957, the Act mandates planning through a system of development orders throughout the country and establishes the Town and Country Planning Authority (TCPA) with responsibility for physical planning in Jamaica. Under the Act, Development Orders may be prepared for a parish or other defined geographic area by the Town and Country Planning Authority in consultation with the Parish Council or Local Authority, and with technical planning inputs which in practice are provided by NEPA.

There are several related Acts which also provide the legislative context for planning, including the Local Improvements Act (1914) which makes Local Authorities responsible for processing and approval of sub-division applications; the Urban Development Corporation (1968) which establishes the Urban Development Corporation as the local planning authority in its designated areas; the Natural Resources Conservation Authority Act (1991) which provides the requirements for environmental permitting and environmental impact assessments of development projects; and the Parish Councils Building Act (1908) which provides for parish councils to make bylaws for building erection, alteration and repair throughout each parish.

The proposals for the modernization of the planning framework seek to update the existing legislation in order to increase the responsiveness of the planning process to local concerns, rationalize the responsibilities of central agencies and local planning authorities, and streamline the process of development control. These proposals have been summarized in a discussion paper by Dave Russell which outlines the recommendations to adopt a modern planning approach with input from local communities and parish councils for preparation of development plans with policy statements to guide planning decisions, and a development control approach to define what types of development are permitted “as of right”. Planning should be conducted in a transparent process at all levels and incorporate principles of sustainability. The proposals for modernization also go beyond introducing an updated and locally responsive planning system to include a commitment to building local government capacity and processes.

These proposals may involve the amendment or replacement of the existing Town and Country Planning Act to devolve the primary responsibility for forward planning at the local level to the Parish Councils within the context of a national policy framework. However the process of modernization of the planning framework has not made further significant progress since the completion of the discussion paper by Dave Russell in June, 2002.



**d) Public Sector Modernization Programme**

Another major policy initiative of the GOJ over the past decade has been the Public Sector Modernization Programme (PSMP) to improve the effectiveness and efficiency of public sector agencies, including those responsible for the execution of planning and environmental management policy such as NEPA and the National Land Agency. The White Paper on the PSMP entitled “Government at Your Service – Public Sector Modernization Vision and Strategy, 2002 – 2012” was released in September 2002 by the Cabinet Office. This definitive policy document identifies sustainable development as the overarching framework for the national goals associated with public sector reform, based on key principles of integrated and coordinated policy-making, full accounting for costs, and collaboration between various segments of society. The five (5) broad strategies to guide the PSMP include the following:

1. A national sustainable development strategy;
2. A planning strategy;
3. A policy reform strategy;
4. A regulatory strategy; and
5. A greening of government strategy

In addition to illustrating the inter-relationships between the PSMP and the other policy initiatives described in this policy review, the White Paper on PSMP also includes a number of proposals which are relevant to the local planning and management of natural resources.

Firstly, the strategic objectives of good governance include:

- ✍ The establishment of participatory and coordinated mechanisms that promote the demand for responsive and effective public policies; and
- ✍ Promotion of more efficient use of public resources for development through decentralization of decision-making

Secondly, the “Modernization Vision and Strategy Action Plan” attached to White Paper includes the following activities relevant to SD and LSDP:

- a) Establishment of a Cabinet Sub-Committee on Sustainable Development;
- b) Establishment of a National SD Division, with a high level technical team to act as an independent advisory committee to the Office of the Prime Minister on SD issues;
- c) Development and implementation of a National Sustainable Development Strategy;
- d) Development of an enabling planning framework;
- e) Establishment of participatory and coordinated mechanisms that promote the demand for responsive and effective public policies;
- f) Establishment of a framework for social inclusion with the establishment of Strategic Committees for the management of policy issues across government;
- g) Decentralization of decision-making with regional, parish and community development committees established and functioning nationwide

Progress in this area has also been slow, with discussions centered on who should be lead agency, or whether there should be multi-agency responsibility. The impression is therefore given

that central government agencies are still trying to figure out who should do what, and have not yet reach the point of how include local authorities and communities in the different processes.

**e) Sustainable Development Institutional Framework**

The institutional framework for sustainable development in Jamaica received its initial impetus following the Rio Conference of 1992, which encouraged participating countries to establish multi-stakeholder mechanisms to foster the implementation of sustainable development policies and strategies across agencies and sectors. In Jamaica, an interim Sustainable Development Council of Jamaica (SDC-J) within the National Planning Council (NPC) of the Planning Institute of Jamaica (PIOJ) was launched in February 1997, with secretariat support from the NRCA. However the SDC-J only convened four meetings over 1997 and 1998 before its activities were suspended due to lack of adequate institutional and funding support. Subsequently an Interim Council was re-established in March 2001 under the chairmanship of the Permanent Secretary of the MLE.

However the overall Policy and Institutional Framework for Sustainable Development in Jamaica remains unresolved. A coordinated and rationalized relationship is needed between the main agencies involved in SD policy development and implementation including the Ministry of Land and Environment, PIOJ, NEPA and the Cabinet Office. Each agency has key roles to play in the SD policy and institutional framework including the following:

- i. **Public Sector Reform Unit - PSRU, (Office of the Cabinet):** The PSRU has a central role in the public sector modernization process which includes redefine the public service with sustainable development as the underlying goal, developing and implementing a National SD Strategy which includes LSD with its own technical team, and reporting to a Cabinet Sub-Committee, development of an enabling planning framework, and decentralization of decision-making with regional, parish and community development committees established and functioning nationwide.
- ii. **PIOJ SDP Unit:** The Sustainable Development Planning Unit of the PIOJ also has a number of important roles which are relevant to the SD policy and institutional framework including producing sustainable minimum indicators for monitoring economic and social development, establishing geographic information system to monitor sustainable development indicators, improve collaboration with GIS users/stakeholders to facilitate increased GIS integration in the overall planning framework, conducting annual research on SD with findings to be provided at development council meetings, and providing technical advice to sustainable development network of stakeholders and workshops.
- iii. **NEPA:** As the lead agency in the implementation of integrated environmental and physical development planning in Jamaica, NEPA plays a central role in the implementation of SD policy and programmes. In addition, through the National Sustainable Development Planning Branch and Local Area Planning Branch of its Planning and Development Division, NEPA plays a leading role in the preparation of spatial and land use plans at the national and parish levels.
- iv. **MLE:** The Ministry of Land and Environment (MLE) has the overall responsibility for setting national policy on environmental and development planning, including the responsibility for national planning and land development agencies such NEPA and the NLA. The MLE has developed a comprehensive National Land Policy for sustainable strategies and the regulatory framework for the use of land resources. The MLE also has overseen the re-establishment of the Interim (SDC-J) under the chairmanship of the Permanent Secretary of the MLE, as well as overseeing the establishment of the Land Information Council of Jamaica (LICJ) and the National Integrated Watershed Management Council (NIWMC).

A multi-agency task force including the four agencies mentioned above is currently holding inter-agency meetings to develop and finalize the proposal for a national framework for SD, in order to support progress in infusing SD principles at all levels of government, and to expand linkages between government and other stakeholders in the SD process.

**f) Local Sustainable Development Planning (LSDP)**

The promotion of local sustainable development planning (LSDP) was supported the principles expressed in Chapter 28 of the Agenda 21 manifesto from the 1992 Rio Conference, known as Local Agenda 21. The principles of LSDP include transparency and accountability, long-term planning, local and national partnerships, a participatory approach, environmental stewardship, sustainable livelihoods, social equity, a concern for the future, and adherence to the principle of subsidiarity, and inter-disciplinary decision making. The application of LSDP in Jamaica has been supported by the ENACT programme, particularly in the parishes of Portland and Manchester.

The milestones for LSDP in Jamaica have included the establishment of a LSDP Framework (LSDPF) multi-stakeholders group in 1999, the development of two Draft LSDP Training Modules in 2000, the establishment of a LSDP Management Committee in 2001, the selection of Portland as a pilot parish for LSDP under ENACT, the support for LSDP in Manchester under the CIDA Local Government Reform and Enhancing Civil Society projects, the preparation of a Sustainable Development Plan for Kingston and St. Andrew with funding support from the World Bank over 2003 –2004, and the holding of two National Consultations 2001 and 2002 to build consensus around a common set of goals, visions, principles, and strategic directions and actions.

Under the Research Framework for the Port Antonio Sustainable Development Plan has been prepared with support of ENACT, the Portland Parish Council would play the lead role in coordinating the activities of the Project Steering Committee which would be responsible for managing the process of preparing the plan for the town. The Portland PDC also would be represented on the Project Steering Committee along with NEPA and other sector agencies, and would have the main responsibility for coordinating the process of community stakeholder input into the planning process for Port Antonio and the parish of Portland, including ensuring the inclusion of the community development plans prepared by CDCs and DACs under the process facilitated by the SDC.

While the LSDP process clearly emphasizes the importance of local participation in sustainable development planning, it has not addressed the role of local agencies and organizations in the actual delivery of environmental management services at the parish and local levels, apart from participation in early actions and action planning and implementation of specific project interventions.

**g) Sector - and Agency - Specific Initiatives**

There have been a number of initiatives at the sector and agency levels which also have implications for natural resource or watershed management at the local level.

- i. **Watershed:** The watershed sub-sector has seen the formation of the National Integrated Watershed Management Council (NIWMC) in 2001, a multi-agency council to improve the coordination of watershed management activities by various agencies. The NIWMC has a number of working groups including the Local Group Coordination Working Group (LGCWG), which seeks to promote the formation and activities of LWMCs and to build linkages between local groups and the NIWMC. The watershed sub-sector also has seen the formation of Local Watershed Management Committees (LWMCs) in the Great River and Rio Grande watersheds with support from the Ridge to Reef Watershed project.

- ii. **Forestry:** The forestry sub-sector also has seen the formation of Local Forestry Management Committees (LFMCs) in Buff Bay and Pencar with support from the Trees for Tomorrow project. LFMCs are described in The Forest Act (1996) which sets out their method of appointment, composition and their functions which include monitoring, public mobilization and education, advising on forest management planning and regulations, proposing incentives, and assisting in the design and execution of conservation projects.
- iii. **Agriculture:** The Eastern Jamaica Agricultural Support Program (EJASP) implemented over 2001 –2004 with funding support from the European Union is aimed at poverty alleviation and seeks to increase the production of crops which have a distinct competitive advantage in the domestic, tourism and export markets. The Program has focused on extension and commodity development, land husbandry and road rehabilitation in the eastern parishes of St Mary, St Andrew, St Thomas and Portland, and works through farmers groups identified through RADA's Area Development Committees, with program inputs delivered via existing mechanisms of the Jamaica Agricultural Society (JAS). The results of the EJASP include rehabilitation of deforested lands by farmers, reduction in soil erosion, and workshops on sustainable watershed management.
- iv. **Water:** Within the water supply sector, the National Irrigation Commission (NIC) has initiated the establishment of Water Users Associations (WUAs) in order to find more participatory and efficient ways of delivering and managing irrigation water, within the policy context of the Water Policy (1998) and based on the recommendations of the Master Plan for the Water Sector. The establishment of WUAs is supported by the Inter-American Development Bank (IDB) and forms part of the National Irrigation Development Plan. The specific mandate of the WUAs includes the maintenance and operation of an inter-farm irrigation system, to independently manage water from the intake through to its drainage system, to assure the equitable and timely supply and delivery of water based on a system of water shares, to be financially self-sustaining, and to govern the process through democratic processes.
- v. **Sanitation:** The management of sanitation concerning waste water and human waste has seen the establishment of Advisory and Monitoring Committees (AMC) in Negril, Ocho Rios and Port Antonio which have been established with the support of the CWIP project with funding from USAID. The AMCs have membership from a number of public sector agencies including the National Water Commission (NWC), community organizations and environmental NGOs. The functions of the AMCs include monitoring the performance of the NWC with respect to its management of sewage treatment plants, developing sewer connection policies, and providing a multi-stakeholder forum for discussion of issues related to sanitation and water quality. AMCs are now recommended by the NWC for all its new water supply and sewage treatment projects island-wide.

#### ***h) Policy and Legislative Framework***

The Watersheds Protection Act (1963) is the overarching framework for watersheds in Jamaica and is administered by the National Environment and Planning Agency (NEPA). The primary focus of the Act is the conservation of water resources by protecting land in or adjoining the watersheds. The Act is intended to: ensure proper land use in vital watershed areas; reduce soil erosion; maintain optimum levels of groundwater and promote regular flows in waterways. In addition to the Watershed Protection Act, 1963, several pieces of legislation are pertinent to watershed management. The major ones are listed below:

- ✍ Country Fires Act (1942)
- ✍ Wildlife Protection Act (1945)
- ✍ Mining Act (1947)
- ✍ Irrigation Act (1949 amended 1999)
- ✍ Town and Country Planning Act (1958)

- ✍ Floodwater Control Act (1958)
- ✍ Land Development and Utilization Act (1966)
- ✍ River Rafting Act (1973)
- ✍ Fishing Industry Act (1976)
- ✍ Quarries Control Act (1984)
- ✍ Public Health Act (1985)
- ✍ Rural Agricultural Development Act (1990)
- ✍ Natural Resources Conservation Authority Act (1991)
- ✍ Disaster Preparedness and Emergency Management Act (1993)
- ✍ Water Resources Act (1995)
- ✍ Forest Act (1996); Forest Regulations, (2001)
- ✍ National Solid Waste Management Act (2001)

NEPA has overall responsibility for the management of watersheds under the NRCA Act (1991). At the same time, the Forestry Department of the Ministry of Agriculture has responsibility for the island's forested areas under the Forest Act (1996), with a focus on the management of the nation's forests to maintain and to increase their environmental services and economic benefits. Local authorities, including Parish Councils have responsibility under the Town and Country Planning Act (1957) for processing applications for planning and land development. Other legislation with a focus on resource management include the Local Improvements Act (1914) and the Public Health Act (1974).

The following are the major policies and guidelines relevant to watershed management:

- ? The Draft Watershed Policy (2003)
- ? The National Land Policy (1996)
- ? The Forest Policy (2001)
- ? The National Forest Management and Conservation Plan (2001)
- ? Towards a National Strategy on Biological Diversity in Jamaica (2001)
- ? Water Sector Policy (1999)
- ? Policy for Jamaica's System of Protected Areas (1997)
- ? National Solid Waste Management Policy (2000)
- ? Irrigation Master Plan

### **1.3 Summary Findings from Literature Review**

This section provides a summary reference to the findings on local planning and local watershed management initiatives included in previous reviews and studies as well as relevant policy documents.

The following documentary sources are covered in the literature review:

- a) Kenn Ellison (2001) - Governance and Watershed Management in Jamaica
- b) Valerie Gordon (2003) - Review of Local Watershed Management Committees In Jamaica
- c) National Integrated Watershed Management Council – Concept Paper on Local Watershed Management Committees
- d) GOJ - Draft Watershed Policy (2003)
- e) Trevor Spence (2003) - Multi-Agency Strategic Action Plan for Institutionalization of LSDP
- f) NEPA Corporate Plans 2002/3 – 2004/5
- g) Ridge to Reef Review - Mid-Term Internal Assessment (2003)
- h) Winston McCalla and Wilberne Persaud (2003) - Development of Incentives for Private Sector Investment in Improved Watershed Management in Jamaica

**a) Kenn Ellison (2001) - Governance and Watershed Management in Jamaica**

In February 2001 Dr. Kenn Ellison, a Local Governance Specialist for ARD, undertook a study of Governance and Watershed Management in Jamaica on behalf of R2RW Project, which assessed the local governance options for natural resources management, especially watershed management, in the context of local government reform in Jamaica at that time. His paper focused on the existing and emerging range of institutions for local governance and resource management, including PDCs and the community representative structures promoted by the SDC such as community development committees (CDCs). His main findings included the following:

- i. The degree of local involvement in watershed management depends on the mode of decentralization used. In the cases of *deconcentration* and *delegation*, local authorities will have relatively smaller supportive and secondary roles in managing environmental issues such as watershed conservation. Under true *devolution*, local authorities move to the center of the environmental management decision-making process, with a concomitant assignment of expenditure authority at the local level.
- ii. The notion of “stakeholders” for watersheds may be difficult to actualize in practice, as people think of themselves as citizens of villages, communities and parishes, but rarely of watersheds.
- iii. It is important to distinguish between area-based issue management versus sector-based issue management. Area-based management may be a more useful concept for watershed management given the cross-sectoral nature of both problems and interventions.

His main recommendations included the following:

- i. PDCs should be supported as much as possible as cross-sector coordination and planning mechanisms at the local level for agencies operating in a Parish;
- ii. The SDC's Integrated Community Development process of organizing communities is the most viable means by which various single-interest activities intersect with communities;
- iii. The new Watershed Management Policy (Green Paper) should state policies and strategies regarding how both national and local watershed management strategies will relate to the PDCs and Parish Councils;
- iv. The concept of Inter-Governmental Agreements (IGAs) should be explored as simple legal mechanisms that can enable local governments and national agencies to jointly act on matters of mutual interest such as watershed management, including as a coordination mechanisms for Parish Councils sharing watersheds;
- v. When possible and workable, the CWIP and R2RW Projects should try to formally relate project activities with PDCs and Parish Councils.

**b) Valerie Gordon (2003) - Review of Local Watershed Management Committees in Jamaica**

In February 2003, a local consultant to R2RW Project, Valerie Gordon undertook a review of local watershed management committees in Jamaica, as well as a range of other local resource management groups including local watershed management committees, water user associations and farmer groups. The study focused on the process and status of group formation, the proposed functions of LWMCs, the policy and legislative framework, the institutional framework and linkages, and identified policy gaps relating to local management of watersheds. The paper also reviewed concept papers prepared for the NIWMC on the strategic directions for the Council

and the criteria and procedures for registration of LWMCs, and made recommendations for changes to the Draft Watershed Policy document. The study highlighted the following main findings:

- i. The groups shared common elements of group formation including donor/ government agency led support for the process, and faced common constraints including the inadequacy of financial and human resources to facilitate and sustain local management efforts.
- ii. The lessons learned included the need to build technical capacity in watershed management at the local level, and the need for improved coordination especially among community stakeholders and institutional actors.
- iii. The institutional framework governing watershed management includes the following categories of stakeholders: regulatory; custodial; technical information, advisory, extension and research; coordinating committees; NGO's and external agencies; and local level support.
- iv. There are different levels at which LWMCs can be established: a) the Watershed Management Unit level, such as the Great River and the Rio Grande Watershed Management Committees; b) the sub WMU level, such as Buff Bay or Pencar Local Watershed Management Committees; and (c) the community level, such as Retrieve, Cambridge, or Boundbrook.
- v. Despite the naming of LWMCs and LFMCs as management committees, their roles as outlined in the Forest Act for example appear to be more advisory in nature.

The paper recommended the following functions for LWMCs:

- i. Mobilization and facilitation of broad community participation in the planning and management of designated watershed management units or sub units
- ii. Collecting and maintaining local information on the social cultural and economic attributes of the watershed management unit (WMU)s and sub-units where these exist
- iii. Development and implementation of project activities to conserve and protect watersheds in collaboration with local and national public and private sector agencies
- iv. Encouragement of general stewardship of watershed management areas
- v. Development and implementation of income generating activities which make sustainable use of watershed resources
- vi. Undertaking public awareness within the designated areas and link the community with other agencies concerned with watershed management
- vii. Supporting enforcement and compliance of relevant laws and regulations
- viii. Supporting advocacy on behalf of local watershed area interests and resolution of conflicts relating to uses
- ix. Provision of advice to relevant authorities and field staff, and monitoring of activities of watershed users.

The main recommendations of the paper included the following:

- i. The Draft Watershed Policy and Watershed Protection Act be modified to:

- ✍ Clarify the role of the NIWMC;
  - ✍ Address the role of LWMCs and their linkages with community level structures such as PDCs and CDCs;
  - ✍ Address the issue of registration of LWMCs with the NIWMC to facilitate their independent operation as legal entities; and
  - ✍ Define arrangements where other groups such as LFMCs or WUAs can be designated to operate as LWMCs in specified areas.
- ii. The Forest Act, Watershed Protection Act and the respective policies should be harmonized to reflect a common view of the identity and role of the institution responsible for overall implementation of watershed management.
  - iii. The NIWMC should facilitate local level action by sourcing operational funds for the LWMCs and a process by which local management plans feed into a national watershed plan and should convene an annual forum at which reports from the LWMCs is taken, lessons learned documented, and successes publicized and rewarded.
  - iv. The criteria for registration of groups as LWMCs by the NIWMC should be expanded to include designated signatories who have been vetted and approved by the group, and submission of an annual report of activities including a financial report which also reflects income generated by group and fund raising.
- c) *National Integrated Watershed Management Council – Concept Paper on Local Watershed Management Committees***

The National Integrated Watershed Management Council (NIWMC) is an inter-agency council that was established in 2001 to improve the coordination of the planning, resource allocation and implementation of watershed management activities by various agencies. The Integrated Watershed and Coastal Zone Management Branch of NEPA acts as the Secretariat for the NIWMC and is also responsible for chairing the Local Group Coordination Working Group of the NIWMC.

The initial outline of the NIWMP called for the establishment of Local Forestry and Watershed Management Committee (LFWMCs) with representatives from PDCs, CBOs, and the private sector and state agencies, who would be appointed by the NIWMC. However the approach now taken by the NIWMC through its Local Group Coordination Working Group seeks to recognize existing organizations as LWMCs rather than to create new entities by direct appointment of membership.

The NIWMC Concept Paper on Local Watershed Management Committees lists the criteria for organizations to be registered as LWMCs, which include:

- i. Keeping regular meetings;
- ii. Having officers and a list of its membership;
- iii. Having a financial system in place;
- iv. Providing a description of the geographic area in which the LWMC will operate and a statement of the organization's mandate;
- v. Identifying the programmatic areas of greatest concern to the organization;



- vi. Indicating the planned actions to be carried out by the LWMC;
- vii. Registered LWMCs are included in a national network and directory of watershed management groups, have enhanced access to technical assistance on the establishment and operation of LWMCs, and the opportunity to provide feedback to the NIWMC and participate in seminars and workshops organized by the NIWMC.
- viii. In return the LWMCs are obliged to provide annual reports to the NIWMC on their activities to implement their action plans within their geographic areas.

However, while the Concept Paper on LWMCs appears to envisage the registration of organizations covering varying geographic areas as LWMCs, the NIWMC Retreat held on February 1, 2002, proposed that LWMCs should be established for each of the twenty-six watershed management units in the island, with the NIWMC to play a key role in coordinating the activities of the LWMCs.

**d) GOJ - Draft Watershed Policy (2003)**

The main existing legislation governing watershed management in Jamaica is the Watersheds Protection Act (1963), which focuses primarily on the conservation of water resources, and which provides for the establishment of Watersheds Protection Committees with relatively broad and unspecified functions in support of the Act. However there has been an ongoing process in recent years to update the legislative and policy framework for watershed management, including preparation of a new Watershed Policy which has included wide consultation among public sector agencies and civil society stakeholders. The final draft of the Watershed Policy for Jamaica was produced in November 2003, and includes the background, current situation, vision, policy goals and objectives for the watershed management.

The main goals of the Watershed Policy include putting in place a coherent and rationalized legislative and institutional framework, provision of adequate human, financial and technical resources for effective watershed management, increased public awareness for improved participation in watershed management, and support for initiatives to encourage proper land use.

The Watershed Policy outlines the existing institutional framework for watershed management in Jamaica, including the recognition of local watershed management entities at the watershed management unit, sub-unit and community levels. Under the objective to promote the governance system for watershed management, the Watershed Policy provides for the establishment of local watershed management committees which may comprise local and national NGOs, local community organizations, public and private sector interests, and local authorities. The authority to act as LWMCs may be conferred on local forestry management committees or other appropriate organizations. The policy also provides for linkages with local government to ensure support for and coordination of watershed protection and management activities at the parish level. The policy also explicitly calls for integration of LWMCs with the relevant PDCs as task forces or subcommittees, as well as linkages to community-level structures such as CDCs and DACs, as well as to the Local Group Working Group of the NIWMC.

Under the description of institutional mandates for watershed management, the policy document suggests that the advisory and management roles of civil society groups will be integral to the design and implementation of specific watershed management functions at the local level. However the policy document does not identify these roles in any greater detail. The policy document also describes the roles of the local authorities in watershed areas as technical and advisory. However the specific roles of the local authorities which are listed in the policy document include management and service delivery functions such as road maintenance, river training, assistance in rural development work, and maintenance of rural water supply systems. Within the action plan appended to the policy document, the establishment of LWMCs is seen as

a medium to long term action with the responsible agencies including NEPA, Forestry Department, NIC, SDC and donor-funded projects.

**e) Trevor Spence (2003) - Multi-Agency Strategic Action Plan for Institutionalization of LSDP**

This Paper on Local Sustainable Development Planning (LSDP) was prepared in 2003 by Trevor Spence for the ENACT Programme and the National LSDP Working Group made up of key agencies. The purpose of the paper was to survey the progress made toward preparation and implementation of Local Agenda 21 plans, and to prepare a draft Strategic Action Plan for LSDP for implementation by key agencies. The paper provides a summary review of recent literature on SD and LSDP in Jamaica, and also reviews the institutional and policy context for LSDP in Jamaica including Local Government Reform, the Reform of the Planning Process in Jamaica, the Public Sector Modernization Programme (PSMP); Reform of the PIOJ, the National Industrial Policy, and other reform processes.

With respect to the application of LSDP at the local, parish and regional levels, the review highlights a number of initiatives, including the development plans of the Greater Montego Bay Re-development Committee (GMBRC); the selection of Portland as a pilot parish for LSDP under ENACT; the support for LSDP in Manchester under the CIDA Local Government Reform and Enhancing Civil Society projects; the collaboration of the Kingston and St. Andrew Corporation (KSAC) and the Kingston and St. Andrew Parish Development Committee (KSA PDC) in the preparation of a Sustainable Development Plan with funding support from the World Bank's Cities Alliance Programme; the signing of the "Black River Accord" by the PC, PDC, and the SDC in St. Elizabeth; and the staging of national consultations on Local Sustainable Development in 2001 and 2002.

The paper also conducts a summary capacity assessment of a number of key organizations with respect to their LSDP mandates, including NEPA, SDC, MLGCDS, PIDP, Local Authorities and PDCs, MLE, JSIF, and ENACT, with a description of their core functions and a mapping of institutional and programmatic frameworks. The paper discusses the long-term institutional issues and prerequisites for LSDP, and the strategic framework supporting the preparation of LSD plans, including the key visions and principles of LSD, as well as the strategic goals for LSD. An important part of the paper is the presentation of a Multi-Agency Action Plan for an enabling and empowering environment for LSDP with Priorities for 2003-2004. In an Appendix the paper includes a Concept Paper for the establishment of a National Focal Point for LSD in Jamaica.

While the issues of local watershed management committees or local forestry management committees are not directly addressed in the paper, the implications of LSDP for local management of natural resources which are identified in the paper include the following:

- i. No single government agency has the mandate to spearhead a national movement to accept and implement LSDP.
- ii. The PDC movement offers the best opportunity to implement LSDP in Jamaica.
- iii. The principles of LSDP require that the process be owned, controlled and driven from the local level, and achieved through the effective devolution of administrative and political authority in respect of local planning, development and environmental management functions to local governments.
- iv. Local government in turn will exercise such authority through a participatory process of local governance, in which all stakeholders and local interest groups will be able to participate.

**f) NEPA Corporate Plans**

NEPA prepares 3-Year Corporate Plans for its departments which form the basis for the preparation of its annual 1-year Operational Plans and budgets for funding by central government, revenue enhancement and cost recovery mechanisms.

The 3-Year Corporate Plan for the Sustainable Watersheds Branch for the period 2003-2005 includes secretariat support for the NIWMC, the development of watershed management plans, updated watershed database, community participation in watershed management through the formation of LWMCs, coordination of initiatives to address watershed degradation, establishment of demonstration projects, certification programme for farmers who adopt environmentally friendly farming practices and support improved land use practices by farmers.

The 3-Year Corporate Plan for the Local Area Planning Branch of the Planning and Development Division of NEPA for the period 2003-2005 includes the preparation of development plans and development orders, training seminars and workshops for parish planning officials, preparation of brochures on planning issues for public education, delineated settlement boundaries, and increased participation of civil society and parish councils in the planning process.

**g) Ridge to Reef Review - Mid-Term Internal Assessment (2003)**

The Ridge to Reef Watershed project (R2RW) funded by USAID aims to improve natural resource management in the lowland and upland areas by improving natural resource management capacity of public sector agencies and NGOs, to encourage sustainable use of watersheds and protected areas and provide an enabling policy environment. The activities of the R2RW have included support for the establishment of Watershed Management Committees for the Great River and Rio Grande Watersheds, the implementation of projects for income-generation, water harvesting and sewage disposal, and the implementation of public education, compliance and enforcement and water quality monitoring programmes.

The R2RW project undertook a Mid-Term Review in 2003, which was carried out by three (3) consultants, Dr. Christopher McGahey, David Green, and Cordia Thompson. As a part of the assessment, the review considered the challenge of improving local governance and co-management of natural resources within watersheds, including the support the R2RW project has provided for the formation and conduct of Watershed Management Committees (WMCs).

The review noted that the WMCs are a new institutional creation, and are advisory versus management in nature. WMCs do not serve a management role, as they do not have actual legal status or the legal authority to make rules associated with access to and use of resources within the watershed, to levy user fees or taxes, or to enforce laws and regulations. In fact, they have no authority as a political entity or special district. A principal beneficial function of the WMCs is the facilitation of coordination, collaboration, and sharing of information among community organizations and government agencies, a role that that no other organization was serving.

The sustainability of WMCs can be enhanced by developing constructive collaboration among its members, and by focusing on key functions which would not require continued external assistance. The report listed the following recommended functions for WMCs:

- i. Mobilizing and facilitating participation
- ii. Strengthening communication and collaboration (especially interagency collaboration)
- iii. Raising awareness of environmental issues

- iv. Identifying issues and problems and suggesting interventions
- v. Identify and nurture critical professionals and citizens toward future leadership positions
- vi. Advising government agencies (including informal lobbying and advocacy) around watershed issues
- vii. Supporting law enforcement and compliance
- viii. Identifying, obtaining and managing funding for implementation
- ix. Assisting with conflict resolution
- x. Collecting and analyzing data.

The review suggested that WMCs would not immediately have to take on all of these functions, but could be assume additional functions as institutional capacities develop and as authorities devolve and the policy environment is clarified. This evolutionary approach to development of the WMCs is supported by the draft watershed policy. Because the draft watershed policy is not explicit as to what the WMCs are supposed to be, WMCs should continue to explore various forms of organization, while discussion at the local and national level should investigate how the committees might be institutionalized within other bodies, whether they be NGOs or government participatory mechanisms (e.g., the PDCs), as well as the respective roles and coordination functions of the WMCs and the NIWMC.

***h) Winston McCalla and Wilberne Persaud (2003) - Development of Incentives for Private Sector Investment in Improved Watershed Management in Jamaica***

In February 2003, two local consultants to the R2RW Project, Winston McCalla and Wilberne Persaud undertook a study on incentives for watershed management in Jamaica. The study described the current incentives regime as in its infancy, with a range of measures including property tax exemptions, income tax relief against profits derived from agricultural activities including forestry, and zero rating of General Consumption Tax (GCT) on certain types of planting materials.

The study recommended that a successful strategy for encouraging private sector involvement in sound watershed management should address positive and negative activities. Incentives should provide readily observable economic or financial benefits, which can be privately appropriated and should be simple to apply and monitor. Other incentives can provide community benefits that cannot be privately appropriated, and should be credible, participatory and transparent.

The study concluded with a series of recommendations for creating new incentives including legal tools for private conservation, tax incentives for watershed management and conservation, and other instruments to support watershed management. These proposed incentives are relevant to local watershed management as they are targeted primarily at local stakeholders within the watersheds including farmers and other landholders.

**Legal Tools for Private Conservation**

- i. Donations
- ii. Conservation Easements
- iii. Conservation Agreements
- iv. Land Exchanges

## Tax Incentives for Watershed Management and Conservation

- i. Income Tax Deductions for Contributions
- ii. Tax Deductions for certain types of land use
- iii. Tax Exemptions for activities devoted to Watershed Management

## Other Instruments to Support Watershed Management

- i. Tax Allocation
- ii. User Fees to support Watershed Management and Conservation
- iii. Controlling Access to Shared Resources
- iv. Tradable Development Permits
- v. Eco-Labeling
- vi. Biodiversity Prospecting and other Benefit-Sharing Mechanisms
- vii. Elimination of Negative Incentives

The introduction of these recommended incentives will require changes in the relationships between government, the private sector and communities, and will involve legislative changes as well as mechanisms for administration.

## **2. Assessment of the Mandate of Key Organizations for Local Resource Management Programs**

This section provides a comprehensive review of the mandate of a number of key organizations with respect to local natural resource and watershed management. The following organizations are covered in the institutional review:

1. NEPA
2. MLE
3. SDC
4. Forestry Department
5. Fisheries Division
6. National Irrigation Commission
7. Local Authorities
8. PDCs
9. NIWMC

### **2.1 NEPA**

The National Environment and Planning Agency (NEPA) is the lead agency in the implementation of integrated environmental and physical development planning in Jamaica, and was created in 2001 by the merger of the NRCA, the LDUC and the TPD, with the mission to promote sustainable development by ensuring protection of the environment and orderly development in Jamaica. NEPA also has the overall responsibility for the management of watersheds under the NRCA Act (1991), and performs a number of watershed management functions with at the national level, including formulation of national policy and strategies, development of national plans and programmes, maintenance of databases and information systems for watershed monitoring and management, developing criteria for land use and zoning, initiation of enforcement actions, and promotion of national awareness of watershed conservation.

NEPA recently has undergone an internal restructuring, which aims at increasing the integration of its environmental management and spatial planning functions, and will be provided with an updated legal basis by the new NEPA Act (see below). Under the restructuring plan, the planning and environmental divisions of NEPA have been merged to create a new division called the Integrated Planning and Environment Division. Within this new division there is a Planning Branch, and the previously existing Sustainable Watersheds Branch and Coastal Zone Management Branch have been combined into a single new Integrated Watershed and Coastal Zone Management Branch.

Since its creation, NEPA in practice has undertaken the conservation and environmental management functions provided for under the NRCA Act. However, a working group led by NEPA with representatives from other agencies including MLE, Cabinet Office and the Attorney General's office is conducting the development of a new omnibus NEPA Act. It is proposed that the new NEPA Act will replace the Town and Country Planning Act, the LDUC Act and the NRCA Act, as well as other relevant environmental legislation such as the Beach Control Act, Endangered Species Act, Watershed Protection Act and the Wild Life Protection Act. A preliminary Draft Act has been prepared for review by the working group and for consultation with other agencies and stakeholders, and full public presentations and consultations will be held when the final Draft Act has been prepared. The new NEPA Act is being fast-tracked by the agencies involved; however, the delays in the process of development of environmental policy and legislation suggest that the new NEPA Act and associated regulations may not be fully in place for another 1-2 years.

In addition to its national responsibilities, the following functions and activities of NEPA are relevant to natural resource and watershed management at the local level:

**a) *Integrated Watershed and Coastal Zone Management Branch (IWCZMB)***

The IWCZMB focuses on monitoring and coordination of activities within coastal zones and watersheds, providing oversight of the sub-sector and promoting public awareness of watershed and coastal zone management issues. The IWCZMB also serves as the Secretariat for the NIWMC and chairs the Local Group Coordination Working Group. In this role, the IWCZMB is responsible for guiding the registration and coordination of LWMCs and supporting the process of watershed management at the local level.

**b) *Planning and LSDP***

NEPA at present is responsible for a range of functions including: preparing development plans at the national, parish and local levels; preparing development orders; processing applications for sub-division and development of land; monitoring and promoting use of agricultural lands; issuing of transfer certificates for the sale of agricultural lands; and providing advice and formulating policies on planning issues. NEPA has particular technical responsibilities in local area planning and the preparation of SD plans at the parish level, including collection and analysis of spatial and socio-economic data, coordination of preparation of research papers and sectoral reports, and preparation of land use maps and draft plan documents.

**c) *Regional Office in Port Antonio***

NEPA also operates a regional office in Port Antonio which is staffed by a conservation officer of the Sustainable Watersheds Branch and a compliance officer from the Compliance and Enforcement Branch. The staff of the regional office participates in the activities of environmental task forces and committees in the parish including the RGWMC and the CWIP2 Task Force, carry out inspection and enforcement duties, and undertake public education on environmental and watershed management issues at the parish and community levels.

**d) *Parks and Protected Areas***

NEPA has overall responsibility for Jamaica's system of Parks and Protected Areas, which include important centers of biodiversity in upper and lower watersheds. Under the prevailing national policy NEPA engages in the delegation of management responsibility of selected parks and protected areas to ENGOs such as JCDT and CCAM. The management of these parks and protected areas includes the formation of Local Advisory Committees (LACs) to enable community participation in monitoring, public education and income-generating projects within the parks and protected areas.

**e) *Representation on Task Forces and Committees***

It is important to recognize that, in addition to its responsibilities in fostering the establishment of LWMCs, NEPA also participates directly through the representation of members of its central and regional staff on existing committees and task forces which are engaged in various aspects of watershed and forestry management, including the GRWMC, the RGWMC, the CWIP Task Forces, and LFMCS in Buff Bay and Pencar.

## **2.2 MLE**

The Ministry of Land and Environment (MLE) has the overall portfolio responsibility for environmental policy making in Jamaica. The MLE has developed a comprehensive National Land Policy that identifies the implementation of sustainable strategies and the regulatory

framework for the use of land resources, including the establishment of a land information management system, the provision of affordable and legally secure access to land, innovative approaches to land use planning and development, and the protection and conservation of scarce and sensitive environmental resources. The National Land Policy (1996) identifies a number of issues which are relevant to watershed management including the lack of a national plan and coordinated programmes to manage and conserve watersheds, and the need to address severe watershed degradation.

Following the lapse in activity of the Sustainable Development Council of Jamaica (SDC-J), which had been appointed in 1996 in an attempt to mainstream sustainable development in public policy, an Interim Council was established in March 2001 under the chairmanship of the Permanent Secretary of the MLE. The MLE has also overseen the establishment of the Land Information Council of Jamaica (LICJ) and the National Integrated Watershed Management Council (NIWMC), which is also under the chairmanship of the Permanent Secretary of the MLE.

### **2.3 SDC**

The Social Development Commission (SDC) operates under the Jamaica Social Welfare Commission Act, 1958, and currently falls under the responsibility of the Ministry of Local Government, Community Development and Sport (MLGCDS). The SDC is the main government agency responsible for the promotion of community development and the empowerment of communities to participate in the process of governance at the local level.

The Integrated Community Development Programme (ICDP) of the SDC involves the establishment of community-based structures for local governance in all parishes of the island. Under the ICDP, the SDC is involved in facilitating the formation and establishment of Development Area Committees (DACs) and CDCs through a process of community mobilization and visioning, and provision of organizational support and capacity building. The SDC has identified some community-based organizations (CBOs) island wide, which are grouped into a total of ( ) defined communities for the purpose of formation of Community Development Committees (CDCs). The CDCs are allocated to a total of Development Areas in the fourteen parishes of the island.

While the SDC is not directly involved in the provision of environmental management and planning services, the staff of the SDC as well as members of the DACs and CDCs established with the assistance of the SDC participate indirectly in the provision of environmental management and planning services through a number of mechanisms which are also relevant to watershed and forestry management at the local level.

#### **a) Representation on Watershed Management Committees**

Some members of the DACs and CDCs in the Rio Grande Watershed are represented on the RGWMC established under the Ridge to Reef Project. In addition the SDC Field Services Manager and Community Development Officer for the Rio Grande Development Area are members of the RGWMC. Similarly members of CDCs in the Great River Watershed are represented on the GRWMC established under the Ridge to Reef Project. In addition the SDC Regional Manager and Regional Programmes Officer for the Western Region are members of the GRWMC.

#### **b) Representation on Other Environmental Task Forces and Committees**

The SDC also is represented on the CWIP2 Task Force based in Port Antonio, and participates in the environmental management functions of the Task Force, with the SDC representative acting as the Chairman of the CWIP2 Task Force. While the SDC is not currently represented on the



Advisory and Monitoring Committee (AMC) for Port Antonio established under CWIP, it has been proposed by the AMC to include the SDC as a resource organization to the AMC in the future.

**c) ODPEM Zonal Committees**

The SDC provides support to ODPEM in the establishment of zonal committees at the community level to assist in monitoring waterways to provide early flood warnings, in mobilizing resources for emergency response, and participating in public education activities within communities. Under a draft Memorandum of Understanding (MOU) between ODPEM and the SDC, it is proposed that Parish Disaster Committees would become sub-committees of the Parish Development Committees (PDCs), while zonal committees would become sub-committees of the DACs for each Development Area within each parish. However this MOU has not yet been executed, nor is it apparent that PDCs or DACs in general would have the capacity to assume these increased responsibilities for disaster preparedness and emergency response at this time.

**d) Local Sustainable Development Planning**

The SDC also is involved in facilitating the participation of CDCs in the preparation of community-based plans, involving the preparation of community profiles, community visioning and participatory action planning, and formulation of community projects for implementation. The community development plans prepared at the CDC level are important inputs into the planning process at the DAC and parish levels. Under the Research Framework for the preparation of the Port Antonio Sustainable Development Plan, the community development plans prepared by CDCs and DACs under the process facilitated by the SDC would be important components of the civil society participation coordinated by the PDC.

## **2.4 Forestry Department**

The Forestry Department of the Ministry of Agriculture has the primary responsibility for the management and conservation of the island's forests. The Forestry Department operates a Head Office in Kingston and Regional Offices in Montego Bay and Moneague. The functions of the Forestry Department are mandated by The Forest Act (1996) and focus on the sustainable management of the nation's forests to maintain and increase their environmental services and economic benefits. The main regulatory and management functions of the Forestry Department include management of forests on Crown lands and forest reserves, controlling the harvesting of forest resources, licensing and enforcement, forest research, public education, and promotion of agro forestry and private planting programmes.

The functions of the Forestry Department which are relevant to watershed management at the local level include the role of the department in establishing mechanisms that will allow for wider participation in forestry management at the community, parish and regional levels. The Forestry Department has been instrumental in the establishment of two (2) Local Forestry Management Committees (LFMCs) in Buff Bay and Pencar, with funding support from CIDA's Trees for Tomorrow project. The LFMCs have membership from local CBOs, the JAS local chapters, ENGOs, relevant donor agencies and sector agencies, including representatives from the Forestry Department.

The Forestry Department also liaises and coordinates with NGOs and CBOs in the implementation of forestry programmes in watershed areas including re-forestation programmes, provides extension services at the local level, carries out a forestry education programme for schools and communities, and has collaborated with ENGOs such as the JCDT with delegated responsibility for management of parks and protected areas which include forested areas.

## 2.5 Fisheries Division

The Fisheries Division of the Ministry of Agriculture is responsible for the conservation and sustainable utilization of the fisheries resources of Jamaica including its Exclusive Economic Zone (EEZ), through proper fisheries management, research, monitoring of environmental quality, education and training, enforcement licensing and registration, data collection and community outreach. The Division has two (2) main branches – Marine and Aquaculture. The marine responsibilities of the Division include:

- ✍ Beach development;
- ✍ Exploratory fishing;
- ✍ Data collection;
- ✍ Licensing and registration of fishermen and fishing vessels;
- ✍ Resource assessment and development of fishery specific management plans;
- ✍ Provision of support services including distribution of outboard motor fuel;
- ✍ Administration of credit facilities;
- ✍ Monitoring and regulatory programmes;
- ✍ Fish importation and quality assurances;
- ✍ Research and development;
- ✍ Evaluation of the fisheries sector;
- ✍ Provision of fisheries infrastructure; and
- ✍ Participation in the development of fisheries policies and laws.

The responsibilities of the Division in the area of aquaculture include oyster culture, pond construction, fingerling production, extension training, research and development, fish inspection and quality assurance and support services including rental of fish farming equipment.

As part of the efforts to address the decline of the island's fishery resource, to relieve the pressure on local fish stocks, and to develop sustainable fishery resource management in Jamaica, there has been recognition by both fishers and those in governance of the importance of increased local participation in the management of this important natural resource. As such, the Caribbean Coastal Area Management (C-CAM) Foundation has been experimenting with fisheries management councils as a vehicle for co-management (see Section 3.2 below).

## 2.6 National Irrigation Commission

The National Irrigation Commission Ltd. (N.I.C.) was established in 1986 with the objectives of managing, operating, maintaining and expanding irrigation schemes in Jamaica, fixing, and collecting the rates or charges to be paid for the use of irrigation water. The NIC maintains six (6) district offices in key irrigation areas, and operates five (5) main systems with the aim of enhancing agricultural production in the areas that they serve. The main functions of the NIC include delivering irrigation water to farm gates, developing water users' groups/associations, maintaining irrigation infrastructure, and developing new irrigation systems.

The National Irrigation Commission (NIC) has initiated the establishment of Water Users Associations (WUAs) in order to find more participatory and efficient ways of delivering and managing irrigation water, within the policy context of the Water Policy (1998) and based on the recommendations of the Master Plan for the Water Sector. The establishment of WUAs is supported by the Inter-American Development Bank (IDB) and forms part of the National Irrigation Development Plan. The specific mandate of the WUAs includes the maintenance and operation of an inter-farm irrigation system, to independently manage water from the intake through to its drainage system, to assure the equitable and timely supply and delivery of water based on a system of water shares, to be financially self-sustaining, and to govern the process through democratic processes. In the longer term, it is proposed that the role of the NIC will focus on planning, regulating, monitoring and evaluating the irrigation sub-sector.

## **2.7 Local Authorities**

Under the Town and Country Planning Act (1957) the Parish Councils are named as the local planning authorities with the power to process applications for planning permission, and as the local authority with the power to issue stop notices and enforcement notices, to issue tree preservation orders and to regulate the public display of advertisements. The Local Improvements Act (1914) makes Parish Councils responsible for processing and approval of subdivision applications, while the Parish Councils Building Act (1908) provides Parish Councils with the responsibility for processing and approval of building applications throughout each parish. Under the Public Health Act (1974) Parish Councils are named as the Local Boards of Health with responsibilities in the areas of sanitation and public health in general, many of which are carried out in practice by the Departments of Health at the parish or regional levels.

Despite the process of local government reform which was initiated by Ministry Paper No: 8/93 and which sought to restore and rehabilitate the functions of local authorities, a number of important environmental management services have been centralized at the national or regional levels. The main areas of environmental management and planning functions in which Parish Councils have responsibilities include solid waste management; sanitation (human waste and waste water); drains and gullies; hazard mitigation, disaster preparedness and emergency response; sustainable development planning; and development control.

### **a) Solid Waste Management**

The responsibility for the disposal of solid waste at the parish level has been assumed by the regional offices of the National Solid Waste Management Authority (NSWMA) under the National Solid Waste Management Act of 2001. The involvement of the Parish Councils has been reduced to the oversight of the activities of these regional bodies, with limited recourse in the event of unsatisfactory performance. The local authorities are also responsible for disposal of solid waste recovered from parochial drains and gullies, the removal of derelict vehicles from parochial roads, the disposal of vegetative and other bulky solid waste generated by ‘bushing’ and the maintenance of road verges and embankments, and the disposal of solid waste from markets and municipal facilities.

### **b) Sanitation**

Many of the responsibilities in the areas of sanitation and public health which were formerly assigned to the local authorities as the Local Boards of Health have been transferred to Regional Health Authorities. However the local authorities retain responsibility for municipal sanitary convenience facilities. The local authorities also has the responsibility to ensure that new buildings and development projects have adequate provisions for disposal of waste water and human waste by obtaining comments from the Ministry of Health for sub-division and building applications. The Portland Parish Council is also represented as a resource organization on the Advisory and Monitoring Committee (AMC) for Port Antonio which was established with support from the Coastal Water Improvement Project (CWIP), an environmental project funded by USAID. The Parish Council is also represented on the CWIP2 Task Force, and the Director of Planning of the PPC is the Vice-Chairman of the Task Force.

### **c) Drains and Gullies**

The local authorities have retained the responsibility for the cleaning and maintenance of drains and gullies in their parishes, with the exception of the drains associated with the major roadways which are the responsibility of the National Works Agency (NWA). The Ministry of Local Government has undertaken a comprehensive mapping of drains and gullies island wide including in the parish of Portland, which will identify the drains and gullies which are the responsibility of the local authorities and those for which the NWA is responsible. The maintenance of drains and gullies is also connected to other environmental management tasks,

as siltation of municipal drains is increased by soil erosion in upper watersheds, and prevention of flooding particularly in low-lying communities is dependent on effective clearing of drains and waterways.

**d) Hazard Mitigation, Disaster Preparedness and Emergency Response**

The local authorities also have responsibilities in the area of hazard mitigation, disaster preparedness and emergency response, including hosting the Parish Disaster Committees, which are responsible for coordinating the first response to disasters at the parish level, and operating the Emergency Office Centres (EOCs) for their parishes. The local authorities are responsible for providing aid in emergencies affecting up to 20 families, with the central government responsible for providing aid in disasters affecting more than 20 families. In addition to emergency response, the Parish Disaster Committees increasingly will be required to assume responsibilities for disaster preparedness and hazard mitigation, including hazard mapping, identification of emergency shelters, establishment of stores of supplies, and promotion of sound environmental practices to reduce the impact of floods and other hazards.

**e) Forward Planning**

The area of forward planning or sustainable development planning) represents one of the more complex areas of responsibility for the local authorities. Under the existing planning framework which is governed by the Town and Country Planning Act, Development Orders may be prepared for the entire parish by the Town and Country Planning Authority in consultation with the Parish Council or Local Authority, with technical planning inputs which in practice are provided by the Planning and Development Division of NEPA. However under the LSDP framework the local authorities would play a lead role in coordinating and managing the planning process. In addition, the preparation of community-based plans for communities and development areas should be integrated by the local authorities and the PDC into the planning process at the parish level.

However the role of local authorities is made more complex by the unresolved status of local government reform and the modernization of the planning framework. For example, Ministry Paper 7/03 on Local Government Reform Policy proposes to initiate national discussions on whether the existing 13 Local Authorities should be rationalized or consolidated on a regional or other basis, while the proposals on the modernization of the planning framework may involve the amendment or replacement of the existing Town and Country Planning Act to devolve the primary responsibility for forward planning at the local level to the Parish Councils.

**f) Development Control**

The Parish Councils also have responsibilities for development control, including planning and building approvals, sub-division of land and enforcement of building regulations. Under the Town and Country Planning Act the Parish Councils are named as the local planning authorities with the power to process applications for planning permission in areas under confirmed Development Orders. Under the Local Improvements Act the local authorities are responsible for the processing and approval of sub-division applications, while the Parish Councils Building Act provides the local authorities with the responsibility for processing and approval of building applications. Sub-division and building applications are circulated to a number of agencies for comments during the approval process, including the Fire Department, Health Department, NEPA and the NWA. Housing developments and sub-divisions of 10 lots and over also require environmental permits from the NRCA/NEPA. The officers of the local authorities also carry out site inspections during construction to ensure compliance with building standards and the conditions of approval, and carry out ongoing surveillance for identification of illegal structures and monitoring and enforcement of building regulations.

**g) Other Environmental Management Functions**

The local authorities also have responsibilities in other areas which have indirect environmental implications, including cemeteries, abattoirs, licensing of trades, municipal open spaces, and minor rural water supplies.

**2.8 Parish Development Committees (PDCs)**

The PDCs created under the process of Local Government Reform typically are not directly involved in the provision of environmental management services in their respective parishes. However PDCs do participate indirectly in the provision of environmental management services through a number of mechanisms which also have relevance for watershed and forestry management at the local level.

**a) Attendance at Parish Council/KSAC Committee Meetings**

Representatives of PDCs usually have access to attend the meetings of a number of Parish Council/KSAC Committees which have varying degrees of responsibility for the provision of environmental management services, including overseeing solid waste management and reports on water quality testing and public health issues, municipal sanitary conveniences and cleaning and disposal of solid waste from municipal markets, the maintenance and cleaning of parochial drains and gullies, and Disaster Preparedness Committees responsible for emergency response coordination.

**b) Representation on Watershed Management Committees**

Representatives of PDCs are members of the Rio Grande Watershed Management Committee (RGWMC) and the Great River Watershed Management Committee (GRWMC) established with the support of the Ridge to Reef Project, and participates in the environmental and watershed management activities of these committees.

**c) Representation on Other Environmental Task Forces and Committees**

The Portland PDC also has been represented on the Task Forces for CWIP I and II which have undertaken environmental activities in the parish of Portland, including coastal clean-ups, public education campaigns, installation of water quality testing equipment, capacity building of key agencies and community organizations and promotion of Blue Flag certification for beaches in Portland. The Portland PDC also is represented on the Advisory and Monitoring Committee (AMC) for Port Antonio which was established with the support of CWIP with membership from a number of public sector agencies including the National Water Commission (NWC), community organizations and environmental NGOs.

**d) Planning and Development Control**

The PDCs also have an important role to play in the process of forward planning for their parishes. The KSA PDC is playing a leading role in the preparation of the Sustainable Development Plan for KSA, including representation on the Project Steering Committee responsible for the management of the planning process under the leadership of the KSAC and the main responsibility for coordinating the community stakeholder inputs into the planning process. Similarly the PDCs of Manchester and Portland have played significant roles in the LSDP processes in their respective parishes, including participation in the preparation of Parish Profiles. The PDCs also have the opportunity to participate in the process of development control within their parishes through the attendance of PDC representatives at the meetings of the Planning and Building Committees of the Parish Councils, at which applications for sub-division and building approvals are considered.

## 2.9 National Integrated Watershed Management Council

The National Integrated Watershed Management Council (NIWMC) was established in 2001 to improve the coordination of the planning, resource allocation and implementation of watershed management activities by various agencies, and is an inter-agency council, which is chaired by the Permanent Secretary of MLE and reports to Cabinet through the Minister responsible for the environment. The NIWMC is responsible for coordinating the implementation of the National Integrated Watershed Management Programme (NIWMP), which promotes the integrated protection, conservation and development of land and water resources in the island's watersheds, and the reversal of watershed degradation. The NIWMC is also responsible for designing and seeking funding support for watershed interventions for the benefit of communities and sectors, and for establishing desired operational and governance structures such as task forces and committees.

The NIWMC is multi-disciplinary and cross-sectoral, and is organized into a number of working groups, including for Incentives, Programmes and Projects, Local Group Coordination, and Financing and Economic Activities. The Integrated Watershed and Coastal Zone Management Branch of NEPA acts as the Secretariat for the NIWMC and is also responsible for chairing the Local Group Coordination Working Group.

The initial outline of the NIWMP called for the establishment of Local Forestry and Watershed Management Committee (LFWMCs) with representatives from PDCs, CBOs, and the private sector and state agencies, who would be appointed by the NIWMC. However, the approach now taken by the NIWMC through its Local Group Coordination Working Group seeks to recognize existing organizations as LWMCs rather than to create new entities by direct appointment of membership. The approach taken by the NIWMC in recognizing LWMCs is described in its Concept Paper as outlined under Section 1.3 above.

Table 1 below provides a summary of the institutional framework for watershed management

**Table 1 – Summary of Organizational Function for Administration of Watershed Management**

Agency	Existing Roles and Relevant Functions for Watershed Management
NEPA	<ul style="list-style-type: none"> <li>✍ Agency with main responsibility for environmental management and conservation</li> <li>✍ Preparing development plans and development orders at the national and parish levels</li> <li>✍ Processing applications for development of land</li> <li>✍ Providing advice and developing environmental/planning policies</li> <li>✍ Participation in strengthening capacity of parish councils</li> <li>✍ Counterpart implementing agency for major SD donor projects</li> <li>✍ IWCZMB of NEPA serves as Secretariat for NIWMC</li> </ul>
MLE	<ul style="list-style-type: none"> <li>✍ Setting national policy on environmental and development planning</li> <li>✍ Overall responsibility for national environment and land planning agencies with responsibility for watershed management including NEPA and NLA</li> </ul>
SDC	<ul style="list-style-type: none"> <li>✍ Main public sector agency involved in capacity development at local/community level</li> <li>✍ Implementation of Integrated Community Development Programme to establish CDCs and DACs at local level as participatory mechanisms of local governance</li> <li>✍ Representation on environmental task forces and committees</li> </ul>

Agency	Existing Roles and Relevant Functions for Watershed Management
Forestry Department	<ul style="list-style-type: none"> <li>✍ Primary responsibility for the management and conservation of the island's forests</li> <li>✍ Licensing, enforcement, forest research, extension services, public education, promotion of agro forestry and private planting, and controlling use of forest resources</li> <li>✍ Establishing mechanisms for wider participation in forestry management at the community, parish and regional levels</li> <li>✍ Liaising with NGOs and CBOs in implementation of forestry programmes in watershed areas and in delegating responsibility for management of parks and protected areas</li> </ul>
Fisheries Division	<ul style="list-style-type: none"> <li>✍ Responsible for conservation and sustainable utilization of fisheries resources of Jamaica and its EEZ, including proper fisheries management</li> <li>✍ Undertaking research, monitoring of environmental quality, education and extension training, enforcement, licensing and registration of fishermen and fishing vessels, data collection, provision of fisheries infrastructure, community outreach, support to aqua-culture sub-sector, and participation in the development of fisheries policies and laws</li> </ul>
National Irrigation Commission	<ul style="list-style-type: none"> <li>✍ Managing, operating, maintaining and expanding irrigation schemes in Jamaica</li> <li>✍ Fixing and collecting the rates or charges to be paid for the use of irrigation water</li> <li>✍ Delivering irrigation water to farm gates, developing water users groups/associations, maintaining irrigation infrastructure, and developing new irrigation systems</li> <li>✍ Supporting the establishment of Water Users Associations (WUAs) as participatory and efficient ways of delivering and managing irrigation water at local level</li> </ul>
Local Authorities	<ul style="list-style-type: none"> <li>✍ Responsible for processing applications for buildings, sub-division and development of land, and participation in forward planning at local level</li> <li>✍ Provision of some municipal, public health and environmental services</li> <li>✍ Co-ordination of Parish Disaster Committees</li> </ul>
PDCs	<ul style="list-style-type: none"> <li>✍ Consultation with central and local planners and mobilization of stakeholder participation during preparation of parish development plans and development orders</li> <li>✍ Advisory role to Parish Council in local governance, SD planning, development control and provision of municipal services e.g. in Portland and Manchester</li> </ul>
NIWMC	<ul style="list-style-type: none"> <li>✍ Established in 2001 to improve the coordination of the planning, resource allocation and implementation of watershed management activities by various agencies</li> <li>✍ Inter-agency council chaired by Permanent Secretary of MLE and reporting to Cabinet</li> <li>✍ Responsible for designing and seeking funding support for watershed interventions for the benefit of communities and sectors, and for establishing operational and governance structures such as task forces and committees</li> <li>✍ Local Group Coordination Working Group of NIWMC seeks to support local watershed management and to recognize existing organizations as LWMCs</li> </ul>

### 3. The Application of Watershed Management at the Local Level

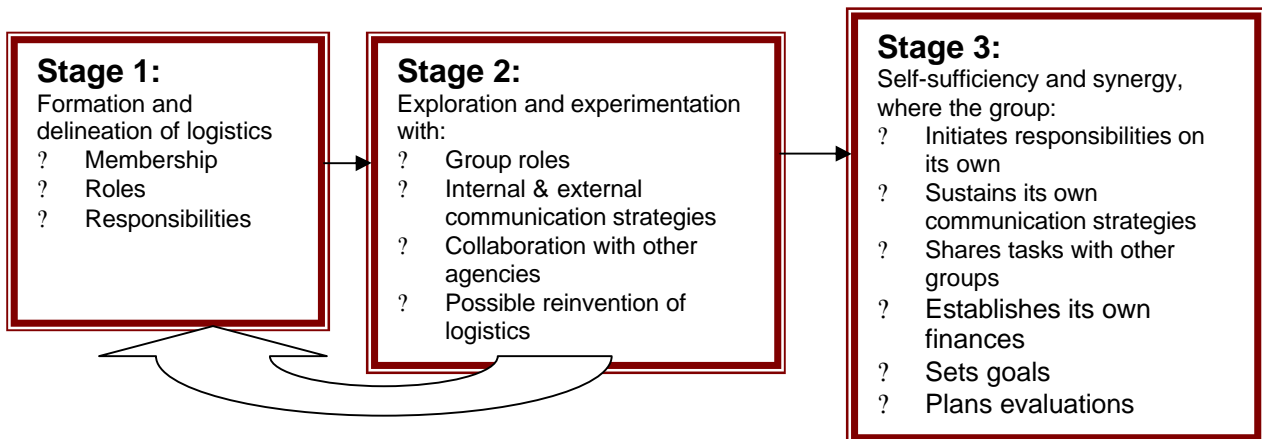
#### 3.1 The Development of Local Level Groups

Watershed and natural resource management programs increasingly emphasize citizen involvement in program planning and decision making. Yet, while the concept is understood and clearly stated in theory, there are some fundamental issues that need to be recognized and addressed at the onset. Adding to this, the new roles of the government agencies, tend to conflict with years of experience, which emphasizes resource managers as expert decision-makers. Under the new inclusive watershed paradigm, local knowledge and socio-economic concerns of local people, resource users and other stakeholders can influence decisions as much as traditional science-based decisions of agency managers.

The structure, organization and processes of local watershed decision-making groups can vary considerably. This can be particularly true given the unique complexities of most environmental education and action programs.

It is critical to turn some attention to tasks associated with various stages of resource coalition development. Local empirical data is scarce, with very few on-the-ground examples for analysis, especially for comparisons over time and different settings. Shepard and O’Keefe (2000) outline three stages of coalition development. These are presented in Figure 1.

**Figure 1 The Stages of Coalition Development**



In these stages, it is important to clarify the following:

- ✍ Initial engagement or organizational logistics
- ✍ Decision-making procedures and powers
- ✍ Internal and external communications
- ✍ Types of support/resource requirements
- ✍ Perceptions of stakeholder support
- ✍ Perceptions of the important elements of a Successful program

In Jamaica, there have been numerous efforts towards watershed/natural resources management at the local level. These efforts are all components of the strategies and action plans under various legislative mechanisms. Examples are offered in Table 1.



**Table 2 – Provision for Local Efforts under National Policies and Regulations**

Draft Watershed Policy (2001)	Local Watershed Management Committee
Forest Act (1996); National Forest Management and Conservation Plan (2001)	Local Forest Management Committee
Water Policy (2001); National Irrigation Development Plan (1998)	Water Users Association

These efforts at a national level have been implemented through various pilot local resources management groups. Specific examples include: The Great River Watershed Management Committee (GRWMC); the Rio Grande Watershed Management Committee; the Buff Bay Forest Management Committee; the Pencar Forest Management Committee; Water Users Associations (WUAs) such as Hounslow; Pedro Plains and Seven Rivers and; the Portland Bight Fisheries Management Council (PBFMC).

The following section highlights the various local natural resources management groups. It is followed by a brief relevance assessment of the groups, based on criteria found in the literature as well as elements of the programs that have been “successful”.

### **3.2 Types of Local Natural Resources Management Groups in Jamaica**

A previous study by Valerie Gordon (2001) reviewed the various committees in Jamaica. Table 2 has been adapted, with amendments, from the Gordon (2001) study.

**Table 3 – Summary of Groups Involved in Local Natural Resource Management**

Local management body	Organizing/ supporting body	When established	Mandate	Policy/ legislative context	Linkages with SDC, PDCs	Lessons learned	Elements in group formation
1. Buff Bay LFMC	Forestry Dept/ TFT  Incorporated by means of Constitution sanctioned by Forest Act;	2001	<ul style="list-style-type: none"> <li>☞ Monitor the condition of the natural resources in the relevant forest reserve, management area or protected area</li> <li>☞ To convene discussions public meetings and like activities relating to such natural resources</li> <li>☞ To advise the Conservator on matters relating to the development of the Forest Management Plan and the making of regulations</li> </ul>	<p>Forest Act 1996, Forest Policy 2001; Forest Management and Conservation Plan 2001;</p> <p>Also by Cabinet order, July 2001</p>	Not significant but developed where relevant	<p>Group formation has enhanced local understanding of the elements of good watershed and forest management</p> <p>CBOs probably not the best link in forest areas</p> <p>Training of agency staff in participatory techniques is very important</p>	<p>Pre-existing studies forest inventory, socioeconomic and agro-forestry.</p> <p>Meetings with potential stakeholders;</p> <p>Provision of training; demonstration plots at schools and on farms</p> <p>Provision of resources to facilitate travel</p>
2. Pencar LFMC	Forestry Dept/ TFT  Incorporated by means of Constitution sanctioned by Forest Act;	2001	<ul style="list-style-type: none"> <li>☞ To propose incentives for conservation practices in the area in which the relevant forest reserve, forest management area or protected area is located</li> <li>☞ To assist in the design and execution of conservation projects in the area</li> <li>☞ To do all such lawful things as are incidental or conducive to the attainment of the above objects</li> </ul>				

Local management body	Organizing/ supporting body	When established	Mandate	Policy/ legislative context	Linkages with SDC, PDCs	Lessons learned	Elements in group formation
3. Rio Grande LWMC	NEPA/ R2RW  Unincorporated committee	2002	To review and recommend project proposals for funding by the R2RW small grants fund; establish sub committees to deal with the issues affecting the watershed; and to provide technical advice and support to the Parish Development Committee	Draft Watershed Policy; Cabinet order July 2001; Forest Management and Conservation Plan.	Significant largely because of pre-existing initiatives to institutionalize local governance structures. MOU signed with Portland PDC	Task of institutionalizing LWMC easier when governance structure in place.  The same players in too many roles lead to non-performance; improved chances of continuity by integrating with SDC development areas; some uncertainty about future.	Significant civil society involvement in environmental management activities and the emerging local governance framework simplifies the process of group formation.  Stakeholder planning workshop helped to focus on issues with a solution development perspective
4. Great River LWMC	NEPA/R2RW  Unincorporated committee	2001	To review and recommend project proposals for funding by the R2RW small grants fund; establish sub committees to deal with the issues affecting the watershed; and to provide technical advice and support to the Parish Development Committee	Draft Watershed Policy; Cabinet order July 2001; Forest Management and Conservation Plan.	Significant links with St James PDC, SDC, NEPA wardens Public Health inspectors, CBOs, police youth clubs	Need to build on previous community animation/ engagement initiatives	Process built on community animation by NEPA, and SDC animation around solid waste.

Local management body	Organizing/ supporting body	When established	Mandate	Policy/ legislative context	Linkages with SDC, PDCs	Lessons learned	Elements in group formation
<p>5. Water Users Associations:</p> <p>Hounslow</p> <p>Seven Rivers</p> <p>Pedro Plains</p>	<p>Inter American Development Bank/ National Irrigation Commission</p> <p>To be incorporated as Benevolent Societies</p>	2000	<p>✍To maintain and operate an inter-farm irrigation system</p> <p>✍To independently manage water from the intake through to its drainage system</p> <p>✍To assure the equitable and timely supply and delivery of water based on a system of water shares</p> <p>✍To be financially self sustaining</p> <p>✍To govern the process through democratic processes</p>	<p>National Water Policy;</p> <p>Master Plan for Irrigation;</p> <p>Water Act</p>	<p>Specific linkages with SDC for some training; RADA for technical support, no linkages with PDC or other local governance institutions</p>	<p>Groups used to patronage are difficult to cohere, field trips socials and cultural activities valuable to pull group together;</p>	<p>Need to define area of designation early; emphasis on pre-assessment of group; culture and heritage powerful influences. Training in group dynamics, participatory workshops. Build trust and cooperation; training in how to keep meetings, record minutes etc</p>
<p>6. Local Watershed committees in Redwood, Retrieve Bangor Ridge and Mamee River</p>	<p>UNDP/NRCA (NEPA)</p> <p>No legal status</p>	1999	<p>✍Vaguely articulated in policy</p> <p>✍To advise on and coordinate environmental activities in watershed areas</p>	<p>None at the time of formation;</p> <p>Currently falls within Draft Watershed Policy; Cabinet order July 2001;</p>	<p>Linkages established between NRCA, Forestry Dept, WRA, RADA and some parish councils</p>	<p>Process of group formation is lengthy and involved.</p> <p>Intervention must have a tangible economic benefit to group to justify investment of time and effort.</p>	<p>Led by UNDP project team in collaboration with NEPA; consolidated in some areas by later efforts e.g. Retrieve in Great River watershed.</p>

Local management body	Organizing/ supporting body	When established	Mandate	Policy/ legislative context	Linkages with SDC, PDCs	Lessons learned	Elements in group formation
7. Farmers groups in Eastern Jamaica	RADA/ EJASP No legal status	2001	Generally to undertake poverty alleviation via rural development  ✍ To initiate and implement income generating and market led agricultural sub-projects  ✍ To establish sustainable agricultural production systems	No specific policy	Not significant. RADA main interlocutor, links also with beekeepers, Poultry, goat, dairy assoc.	Group formation is lengthy process-groups require a lot of handholding. Field days and outings are useful in pulling group together and getting sharing going	Process builds on where the farmers interest lie and facilitates them to do what they decide to do.
8. National Sanitation Task Force	UNDP/LIFE No legal status; not seen as a long term organization	1997	To coordinate interagency action on sanitation policy and programs for local solutions Islandwide.	Comprised of a number of policies relating to the health and environmental impacts of sanitation. Relevant laws and regulations include the Public Health Act; the NRCA Act, the building code; Water policy (1998)	Linkages with public health departments (within parish councils)		

Local management body	Organizing/ supporting body	When established	Mandate	Policy/ legislative context	Linkages with SDC, PDCs	Lessons learned	Elements in group formation
9. Portland Bight Fisheries Management Council	C-CAM By Constitution 1995	1995	<ul style="list-style-type: none"> <li>✍ By understanding the issues and options available, to agree on policies and management strategies towards sustainable development of the island's fishery resource</li> <li>✍ To oversee implementation and enforcement of these management strategies</li> </ul>	Relevant laws and regulations include: Fishing Industry Act, the Wildlife Protection Act and the NRCA Act	Linkages exist with PDCs through existing CDCs and C-CAM	<ul style="list-style-type: none"> <li>? Creating a better understanding of the cause-effect relationship of the depletion of the fishery resource is important.</li> <li>? Co-management as a means for local management of fishery resources is important as it ensures inclusiveness; transparency, accountability and clear reporting mechanisms, democracy in process and an integrated approach to management.</li> </ul>	Coordinated by C-CAM (designated NGO for Portland Bight Protected area). Committee elects council; members selected by local stakeholders.

### **a) Local Forest Management Committees**

The Forest Act (1996) stipulates the preparation of a National Forest Management and Conservation Plan (NFMCP). The NFMCP was solidified in March 2001 by the Forestry Department. The NFMCP not only articulates strategies for protection, conservation and sustainable utilization of the forests of Jamaica, but also establishes a lead on strategies for promoting participation in forest management and forest-related public education.

#### The Establishment of Local Forest Management Plans

A combination of technical and financial constraints has necessitated the establishment of high priority areas for intervention. These areas have been selected from a set of criteria comprising both biophysical and socio-economic factors.

The Forest Act (1996) requires that the Forestry Department prepares forest management plans for each priority area. The first Local Forest Management Plan (LFMP) has been prepared for the Buff Bay/Pencar area. This exercise was undertaken in a series of steps:

1. Biophysical inventory of the watershed areas
2. Socio-economic assessment of the main uses and users of forest land and forest products, including those key stakeholders for participation on a local forest management committee.

The Forest Act (1996) also provides guidelines for the content of Local Forest Management Plans. These include:

- ✍ Location and extent of the land to which the plan relates
- ✍ Description of the forests and other natural resources on that land
- ✍ Determination of allowable annual cut (if applicable)
- ✍ Proposed forest plantations to be established and other silviculture practices to be carried out
- ✍ A conservation and protection programme
- ✍ Description of portions of the land proposed to be leased, and details of the lease
- ✍ The role of the Forestry Department and other government agencies or statutory authorities in the implementation of the plan.

The LFMP involves key stakeholders early in the preparation and planning processes. A public awareness and implementation programme is also defined for each LFMP.

An integral part of the LMFP is the formation of Local Forest Management Committees (LFMC). While the Forest Act (1996) does not mandate the formation of local forest management committees, it provides requirements for them. As such, this flexible approach allows for definition of functions, organization and composition of the committee to be determined by a collaborative process with stakeholders.

LFMC consist of a grouping of stakeholders, including but not limited to, government agencies, NGOs, CBOs and individuals. To date, key stakeholders have been identified and have been participants in the process. There has been no real effort to incorporate the general public to any large extent.

## Role of LFMCs

The Committee's most important role is to monitor the implementation of the specific LFMP. This encompasses management of the forest within the specified area, in conjunction with the Forestry Department. Under the Forest Act (1996), this is defined as:

- ✍ Monitoring of the condition of natural resources in the committee's area
- ✍ Holding of discussions, public meetings and other open forums regarding the state of the natural resources
- ✍ Advising the Conservator on matters relating to the development of the LFMP and the formulation of regulations
- ✍ Proposing incentives for conservation practices in the committee's area
- ✍ Conflict resolution on issues related to forest protection and management
- ✍ Discussion and decisions to be made on issues such as encroachment, cattle trespassing and bush fires
- ✍ Assisting in the design and execution of conservation projects in the area; and
- ✍ Any other functions as may be provided for by or under the Forest Act (1996)

All administrative and organizational structures are agreed upon by the committee. The committee is chaired by an elected member. Members of the LFMC act on a voluntary basis, and as such are not paid. However, with the increased financial burdens, incidental expenses related to meetings and other travel is covered. This is a temporary arrangement through the Canadian International Development Agency's Trees for Tomorrow Project.

## Pilot LFMCs

In 2000, the Forestry Department decided to test the concept in the Buff Bay/Pencar watershed. Invitations were extended to a wide range of stakeholders<sup>1</sup> identified during earlier sociological fieldwork. National and local government agencies with an interest in watershed management were also invited.

The initial composition of the LFMCs included local police, citizens associations, NGOs, local chapters of the Jamaica Agricultural Society, business interests (St Mary Banana Estates, Coffee Industry Board), RADA, NEPA, Public Health Department, and National Water Commission etc.

While membership in the LFMC is open to "all community groups, NGOs and private sector entities present in the Buff Bay and Pencar sub-watersheds whose members are willing to participate" individuals must be nominated, their names submitted to the Conservator who recommends to the Minister of Agriculture that the individual be appointed to the committee. These stipulations are outlined in the Constitutions which the LFMCs developed in collaboration with the Forestry Department and under which they presently operate.

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<sup>1</sup> The FD broadly defines the watershed stakeholders as small and large farmers, local communities, government departments, community institutions including schools and churches, and NGO and CBOs. It is assumed that the interest of individuals could be represented by existing local and national organizations. While in theory, membership is open to all stakeholders; it is only legal entities and formal institutions that have been targeted.



Among the challenges facing the LFMCs is poor attendance at meetings, lack of ownership of the process by the stakeholders –much of the activities particularly in the Pencar LFMC are very much Forestry Department-led; lack of representation of private sector interest, particularly large agriculture interests, and inadequate participation by other state organizations.

The poverty and high levels of illiteracy within the watershed, particularly in the upper reaches, makes wider participation on the part of ordinary citizens difficult, and these voices are largely absent from the Committee.

Meetings are held every two months although; initially the timing of these meetings was intended to be monthly. However, the adjustment has been made given the realities of other demands on the committee members, many of whom have difficulty balancing the time demands of their job or other livelihood responsibilities with their work on the LFMC. As activities to date regarding the formation of the LFMC have been largely supported by the Trees for Tomorrow project, which provides support for meetings including travel stipends for members, there are concerns regarding the sustainability of the effort beyond the Project period, particularly in light of the very limited budget of the Forestry Department. It has been reported that currently, there is tension between field staff and management of the department because of inadequate compensation for travel and overtime work related to field activities (G& B 2002).

In response to the economic needs of the area, both LFMCs are working to develop opportunities for improved livelihoods through forest resources, with the Pencar LFMC establishing a plant nursery in the Enfield area and the Buff Bay LFMC moving to develop an eco-tourism and forestry project to include cabins, nature trails and recreational areas.

#### Status of LFMCs

There have been regular meetings of the LFMCs, even though their roles have not been clearly defined. They have been able to address matters ranging from licensing for tree harvesting within forest reserves; expansion of the FD's free seedling programme; creation of opportunities for local people to assist with reforestation and serve as honorary wardens. They have also contributed to the watershed's forest management plan, in conjunction with the FD. The Pencar LFMC has been successful in soliciting funding to establish a plant nursery and demonstration agro-forestry plot on forest reserve land. The Buff Bay LFMC is also trying to establish an ecotourism project in its portion of the watershed

The development of LFMC has resulted in greater awareness of local people of the value of forests and what constitutes effective management. Outreach to schools and community-based organizations have made significant local impact.

The formation and development of LFMCs has not only brought changes at the local level, but has also impacted positively on the institutional culture of the FD. Additional training of FD staff in community outreach and participatory forest management had assisted in changing agency perceptions and attitudes.

However, notwithstanding the steps towards successful implementation of LFMCs, the programme has been severely hampered by inadequate funding.

#### **b) Local Fisheries Management Councils**

The island's fishery resource is on a major decline, with annual catches decreasing dramatically. The methods of fishing have put tremendous pressure on the fish stocks. For yields to be replenished, fishing efforts will have to be carefully planned. As such, a sustainable fishery resource management has to be devised.

There has been recognition of this issue by both fishers and those in governance. As such, the Caribbean Coastal Area Management (C-CAM) Foundation has been experimenting with fisheries management councils as a vehicle for co-management.

The Portland Bight Fisheries Management Council was launched in 1995. The Council is guided by C-CAM and meets monthly. The PBFMC has over 32 members representing, fishermen's cooperatives, fishers' associations; local Gun Clubs; NEPA; Fisheries Division; Port Authority of Jamaica; UDC, JCF and C-CAM.

Some major achievements of the PBFMC include:

- ✍ Development of a Constitution and a Code of Conduct to govern its operations
- ✍ Reviewed numerous Acts and their regulations, including the Fisheries Industry Act; Wildlife Protection Act; and the NRCA Act.
- ✍ Prepared regulations for the management of the fisheries resources of the Portland Bight area, including penalties for breaches
- ✍ Informed local fishers on best management practices
- ✍ Engaged in capacity building efforts for local fishers
- ✍ Developed good relationships with government agencies
- ✍ On becoming a model of co-management of local fishery resource

Financial constraints do exist but has not derailed the progress of the Council. Dedication and commitment of Council members is evident, as attendance to monthly meetings is general high. Though faced with grave financial burdens, members have taken responsibility for their transportation and refreshments for the meetings.

Meetings are coordinated by C-CAM and proper documentation of minutes, agreements and discussions are kept.

The Council has over time, built close linkages with various agencies, including NEPA, Fisheries Division, The Coast Guard and the Parish Council. Members have been trained and certified as wardens, through NEPA, and as such, act on their behalf.

The Council has been instrumental at a policy level, a management level and on the ground. At the policy level, they have analyzed the Fisheries Industry Act, and provided comments to the Fisheries Division. At the management level, collaboration with NEPA, Fisheries Division and other agencies, has resulted in better coordination of efforts towards sustainable use of natural resources. At the local level, representatives report back to their local groups, on developments at the Council level. Trained members have assisted in community awareness programs, and these have helped to develop a better sense of ownership.

Enforcement is carried out by members, on behalf of NEPA. The delegation of such powers has been a vital element towards increased participation and support for the programme.

Stewardship is the hallmark of the PBFMC. Local ownership and buy-in are fundamental features of this local resource management group.

### c) **Water User Associations**

The National Irrigation Development Plan (NIDP) was developed in 1998, with the objective of providing an irrigation service in support of the agricultural sector in an efficient, cost-effective and sustainable manner, while encouraging broad-based participation. One of the strategies developed and being implemented under the NIDP is the establishment of Water User Associations (WUA), which is aimed at reaching the objective.

#### Definition of a WUA

A WUA is a private entity, organized as a company or cooperative, which is self-governing and has the responsibility for the maintenance and operation of an inter-farm irrigation system. It receives water from another authority or from its own source and independently manages it from its intake through to its drainage system. It seeks to assure the equitable and timely supply and delivery of water based on a system of water shares and is financially self-sustaining. Farmers are members and shareholders who have the power to govern the organization through democratic processes.

In an effort to find more participatory and efficient ways of delivering and managing irrigation water, the National Irrigation Commission has since 2000 moved to establish a number of Water User Associations. The mandate of the program is ***to ensure that water for rural development be provided in a cost effective manner to facilitate development with due regard to health and environmental considerations at a price based on economic considerations.***

The specific mandate of the WUAs include to:

- ✍ Maintain and operate an inter-farm irrigation system.
- ✍ Independently manage water from the intake through to its drainage system.
- ✍ Assure the equitable and timely supply and delivery of water based on a system of water shares.
- ✍ Be financially self-sustaining.
- ✍ Govern the process through democratic processes.

The activity is supported by the Inter American Development Bank and forms part of the National Irrigation Development Plan. The policy context for the activity comes out of the Water Policy (1998) and the Master Plan for the Water Sector which has mandated a participatory approach for the management, supply and delivery of water.

The pilot groups in St Elizabeth are located in Seven Rivers, Hounslow and Pedro Plains. A social organizer was hired to work with the groups that comprise mainly farmers, and the activity has extended over a period approaching 14 months. The extended length of time to get the groups to a state of readiness is due to the fact that there was very little tradition of community based action in the areas, and in one particular area, the task was particularly challenging given a tradition of political patronage and handouts to farmers over many years.

The process employed in formation of the groups followed the process: Public awareness; identification of champions who can sell the concept to others; community assessment/appraisal; establishment of ad hoc and management committees; capacity building workshops and the convening of meetings.

The strength of this process is the significant emphasis on pre-assessment of groups and capacity building. This is particularly important where there has been no previous community based development activity in the area. There is also systematic assessment of progress via Capacity Progress Reports (Table 4) which feature the following Indicators:

**Table 4 – Capacity Progress Reports**

Phase	Indicators
Preparatory phase	Formation of organizing committee, keeping of minutes of meetings maintenance of accounting records; collection of dues
Formation	Establishment of Ad Hoc committee; management committee, advisory committee; holding of AGM; democratic election of executive; drafting of by laws and legal incorporation of entity

The establishment of clear relevant indicators to objectively track the capacity and general progress of groups over time is very effective, and a useful tool to identify areas requiring strengthening.

The main weakness of the process is the inability of the public sector agencies to deliver inputs required to have the groups move forward in a timely way. This created a hiatus which resulted in the loss on several of the members and necessitated redoubled efforts to bring them back into the process.

As in other groups, there are challenges regarding irregular attendance at meetings, low level of literacy, skepticism regarding the process, inadequate capacity of government agencies (in this case RADA) to service the needs of the farmers; and the NIC to provide irrigation systems in a timely manner. In addition, the lack of titles and in one community an expectation of handouts proved to be an impediment to timely progress.

#### Functions of WUAs

WUAs can also provide the following functions:

- ✍ Agricultural inputs , including credit
- ✍ Regulation of crop choices and scheduling plant dates
- ✍ Mobilizing additional sources or revenue
- ✍ Processing and marketing of agricultural produce
- ✍ Exercising land and soil conservation management practices

#### Role of WUA

A WUA organizes private farmers into a cohesive self-governing unit which manages an irrigation system, or a part of an irrigation system. Farmers are members and shareholders who have the power to govern the organization through democratic processes.

#### Goal of WUAs

The goal of WUAs is to decrease the government’s involvement in the construction, maintenance and operation of irrigation schemes by gradually increasing the participation of organized users

without having adverse impact on the effectiveness of the different stages of implementation of irrigation development.

#### Advantages of WUA

The mobilization of WUAs helps to reduce public expenditure and to ensure better operation and maintenance by making users responsible for the facilities that they enjoy. They provide a mechanism to:

- ✍ Increase farmers' awareness of the role of irrigation in farm productivity and the quality of life in general;
- ✍ Motivate farmers to utilize this scarce resource more efficiently; and
- ✍ Protect, operate and maintain the irrigation infrastructure, so that agricultural production can be increased and sustained.

Benefits include greater effectiveness; increased efficiency; more affordable water; equitable distribution; local capacity building; self-reliance and sense of ownership;

#### Formation of WUAs

The process of formation of WUA requires a transition period, whereby farmer groups are formed and strengthened in order for them to effectively manage their irrigation resources while not harming their productivity.

#### Strategies employed in formation of WUA

Initial formation of WUA has involved a series of steps. These include:

1. Assessment of the present level of organization and co-operation among farmers' groups;
2. Sensitization of stakeholders regarding the benefits of WUAs and encouragement of participation
3. Facilitating the formation of groups around discrete systems
4. Training groups, using a bottom-up' approach
5. Development of a new work ethic geared towards understanding the roles of the WUAs, the NIC and its staff
6. Co-operation between consumers in the distribution of water supplies and in the scheduling of irrigation
7. Technical training such as reading and recording of water measurements
8. Organizing and conducting meetings; and
9. Office procedures and organizational protocol

Initially, the NIC has taken the lead role in the formation of WUAs. However, once fully established, they will be independent, and will be responsible for procurement of the requisite skills to successfully manage the system. At this time, the NIC's role will be one of coordination, planning and regulation.

**d) Great River Watershed Management Committee**

The Great River watershed links the four parishes of Hanover, St James, Westmoreland and St. Elizabeth, has an area of 34,000 acres and supports a population of approximately 85,000 persons.

The GRWMC was established to:

- ✍ Advise R2RW, NEPA and other state agencies.
- ✍ Address identified and prioritized actions.
- ✍ Monitor grants projects procurements and other related project expenditures.
- ✍ Promote R2RW and other environment activities.
- ✍ Provide a forum for sharing lessons learned and for influencing national level policies (such as the level of the NIWMC).
- ✍ Monitor environmental activities in the watershed.
- ✍ Provide medium for addressing and integrating local community concerns and other relevant stakeholders.
- ✍ Facilitate coordination and collaboration of state agencies and private sector input and activities in the watershed.

The group comprises representatives of state agencies, NGOs, CBOs, and Private Sector, and meets on a quarterly basis.

The establishment of this management committee in 2001 with the support of the R2RW project, benefited from earlier efforts by the National Environment and Planning Agency (then the Natural Resources Conservation Authority) in the late 1990's to establish a watershed committee in the Retrieve area under the UNDP Watershed Management Program. In addition, the Social Development Commission had also been working in the area, building organizational capacity among groups around the issue of solid waste, and establishing Community Development Committees.

R2RW project-led Rapid Rural Appraisals and Strategic Action Planning workshops held early in the early developmental stages of the committee and facilitated the identification of a number of environmental and economic issues facing the area. Among these were sanitation and water and the need for income generating activities and marketing of craft and other products from the area. As a result, four task forces were established including:

- ✍ Production and Marketing
- ✍ Water and Sanitation
- ✍ Compliance and Enforcement and
- ✍ Public Awareness.

A number of activities have been undertaken through the task forces and their achievements to date are commendable.

The fact that the Great River watershed area encompasses four parishes presents a challenge as four local authorities and Parish Development Committees need to be involved in the management/operational structure of the committee. To facilitate this, the meetings of the

GRWMC are rotated from parish to parish. However, to date participation by these parties has been less than optimum.

Nonetheless, several other state agencies are integrally involved and their representatives have taken a number of leadership roles on the executive and in the working groups. These agencies include the National Water Commission, Rural Agricultural Development Authority, St James Health Department, Social Development Commission and NEPA to name a few.

In fact, concern has been expressed in some quarters regarding the predominance of state agency representatives in the leadership positions of the Committee. It can be appreciated, however, that given the current capacity on the ground, and the low attendance by community representatives, the accomplishments of the group to this time would be significantly less had it not been for the state agencies. The challenge remains, therefore, to build more capacity on the ground among the local groups, generate increased interest and participation so that local representatives can fill more leadership as the committee evolves.

Concern has also been expressed regarding the scale and scope of the current committee. Considerable expense is incurred in planning and convening the quarterly meetings to facilitate representation from the entire watershed area. In addition to planning and underwriting the rental cost of meeting facilities, the R2RW project also stands the cost of transportation for community participants. While the need for this support is appreciated given the economic circumstances of some members, there are clear implications for the sustainability of the committee in this present form and mode beyond the R2RW project period which is already at the halfway mark.

A critical evaluation needs to be undertaken to determine how best to sustain and develop on the initiatives undertaken by the Committee with a more cost effective mechanism. This mechanism could well involve the formation and strengthening of a number of smaller management units around the community development committees (CDCs) or other existing community based structures. The scope of the activities undertaken and the convening of meetings would be such that a well organized community structure, with some state support and guidance and local authority input could manage a sub watershed management unit. These would bi-annually.

#### **e) Rio Grande Watershed Management Committee**

The Rio Grande Watershed unlike the Great River Watershed is confined within one parish. Agriculture is the main activity in the watershed and chief among the environmental problems are soil erosion due to land clearing for agriculture, poor road construction, legal and illegal river sand mining, poor sanitation and pollution from illegal informal settlements. Other issues include disaster and flood management, solid waste management and sustainable livelihoods for youth.

The Rio Grande area and Portland parish as a whole has benefited from substantial development assistance support over many years. Most recently, this support has included CIDA's Environmental Action Program (ENACT) which is working to establish a Local Sustainable Development Planning Framework for the parish; CIDA's Trees for Tomorrow forest management project; the European Union's National Environment Action Plan and the Eastern Jamaica Agricultural Services Project (EJASP); and USAID's Coastal Water Quality Improvement Project (CWIP) which is involved in improving environmental conditions along the coast of Port Antonio.

The RGWMC was established in mid 2002 with the support of the R2RW project and NEPA. It is designated as a special task force of the Portland Parish Development Committee and has a mandate to:

- ✍ Review and recommend project proposals for funding by the R2RW small grants fund;
- ✍ Establish sub committees to deal with the issues affecting the watershed; and
- ✍ Provide technical advice and support to the Parish Development Committee.

The process of establishing the Committee was facilitated by prior activities to develop capacity to institute improved governance at the local level and participatory development planning in the parish. This has facilitated a fairly seamless incorporation of the LWMC into existing structures as follows:

- ✍ The Parish Development Committee organizational plan developed with the assistance of ENACT offers a framework into which the LWMC can fit.
- ✍ The PDC fiscal year is synchronized with the fiscal year of the Parish Council to facilitate the planning cycles of development partners.
- ✍ The establishment of six development areas by the Social Development Commission coincides with five watershed management units and the Port Antonio area.
- ✍ The forty-two (42) Community Development Councils established in Portland present a possible structure by which to undertake community level watershed management.

The RGWMC meets on a monthly basis, and has working groups and task forces some of which meet monthly. The groups are:

- ✍ Public Awareness Working Group
- ✍ Water and Sanitation Task Force
- ✍ Land and Conservation Task Force
- ✍ Compliance and Enforcement (parish wide) Task Force

The Compliance and Enforcement Task Force was formed as part of a previous initiative and co-opted as part of the RGWMC

#### **f) *Community Level Watershed Management Committees***

Local watershed management committees were established in three communities Retrieve, St James (Great River Watershed); Redwood, St Catherine (Rio Cobre Watershed); and Mahoe/Bangor Ridge, Portland (Buff Bay/Pencar Watershed) as part of the UNDP sponsored Capacity Building for Watershed Management project in 1999. In Retrieve, several public education meetings were held; signs were erected with a watershed message and a filter strip was established along the riverbank. In Redwood, public education activities were channeled through the school, churches and via tree planting exercises. Some preliminary work was done in the community of Mamma River (Hope Watershed) however the LWMC establishment activities were not completed.

An evaluation carried out at the end of the project reflected that while there was not a great deal of time and resources available to attend to these LWMCs, there had been some impact in terms of increased public awareness of watershed management and opportunities for community participation in the process. In the various communities, there was a high level of interest, activities such as river stabilization tree planting, soil conservation and public awareness were carried out and in the process, strong linkages were established between the NRCA, the Forest Department, the Water Resources Authority, RADA, some parish councils, CBOs and NGOs. In the process also, the capacity of the Watershed Protection Branch of the NRCA to undertake Rapid Rural Appraisals, to work closely with community groups and organize community events was created and/or sharpened.

As was expected, the ability to sustain the results of the project following the period of support was difficult without the time and resources to plan and implement follow -up activities. As such, the groups have not been able to accomplish much in the way of watershed management in the years that followed. Since the inception of the R2RW project, the Retrieve community has been



able to participate in the activities of the GRWMC; and similarly the Bangor Ridge community is able to participate in, and benefit from the activities of the Buff Bay/ Pencar LFMC.

**g) Eastern Jamaica Agricultural Support Program (EJASP)**

The European Union (EU) -supported and RADA-implemented EJAS Program was established in January 2000 and is expected to end in 2004. The objective is to establish and support farmers' groups in the parishes of St Mary, St Andrew, St Thomas and Portland by delivering training in order to sustain the impact of agricultural inputs also provided by the Project.

The Program follows on from another EU supported agricultural project-the Morant Yallahs Development Program which provided agricultural inputs to farmers in the eastern parishes over a 5 year period. An evaluation of the Program revealed a number of weaknesses, not least of which was the non-sustainability of the overall program impact, and it was determined that another approach be taken. The present approach works through farmers groups identified through RADA's Area Development Committees, and the inputs are delivered via existing mechanisms of the Jamaica Agricultural Society.

Once the groups are identified or formed they are facilitated to develop bylaws and a constitution. They are also trained in various management skills and facilitated to develop sub-projects. Once the sub-projects are developed, a feasibility study is done and a letter of agreement is drawn up which outlines the obligations and responsibilities of the parties i.e. the farmers' group, RADA and EJASP.

The process of group formation and capacity building among these groups has been found to be longer than anticipated. One of the major impediments is the low level of literacy among the farmers. Efforts are now being made to deepen the capacity building process by way of an institutional strengthening program carried out in collaboration with the Jamaica Business Development Centre. There is a significant effort to focus on business development within the sub-projects so as to ensure sustainability when the Program ends. There are significant linkages with the RADA, SDC, and the JAS. Some 74 sub-projects have been identified by the groups over the four parishes since the Program's inception.

The strength of the process is that groups which are formed or identified are immediately engaged in activities which put their newly learned skills to the test- a case of learning by doing. However, there seems to have been little assessment of group needs at the outset which could have informed more effectively the specific training needs of the groups. This assessment is just now being done by the Technology Innovation Centre.

**3.3 A Rapid Relevance Assessment of Local NRM Groups**

The literature presents various factors which can be used to assess the relevance and acceptance of watershed management groups at the local level. Often a lack of progress towards sustainable resource management is attributed to institutional inadequacy. It is necessary to define the spatial and temporal scales upon which the program is based. Recognition and definition of issues of complexity, uncertainty, contested values as well as property rights and responsibilities is also fundamental. An adaptive approach ensures that experimental programs and groups are able to learn from the experiences and modify the actions in order to ensure the program's success. An adaptive approach requires persistence, purposefulness, inclusiveness and flexibility. Table 3 presents a summary relevance assessment of the local resource management groups presented previously.

**Table 5 – Relevance assessment of Local Natural Resources Management Efforts**

Type of local RM Group	Local Forestry Management Committee		Local Watershed Management Committee		Local Fisheries Management Council	Water Users Associations	Local community based watershed management committees	Farmers groups of eastern Jamaica (EJASP)
Feature	BBFMC	PFMC	GRWMC	RGWMC	PBFMC	Pilot WUAs	Retrieve etc.	
Extent or limit in geographic space	Sub-watershed	Sub-watershed	watershed	watershed	Protected area	Agricultural areas (community level)	Sub-watershed/community areas	Rural eastern Jamaica
Degree of permanence or longevity	Undefined (2 yrs.)	Undefined (2 yrs.)	Undefined (2 yrs.)	Undefined	High (8.5 yrs.)	Undefined (3 yrs.)	Undefined (4 yrs.)	Undefined (2 yrs.)
Purposefulness								
Properly resourced	Not evaluated							
Transparency	Yes	Yes	Yes	Yes	Yes	Not evaluated		
Accountability	To FD	To FD	To LGGWG of NIWMC	To LGGWG of NIWMC	To Council (to local groups and C-CAM)	To NIC (currently)	Unclear	Unclear
Focus	Sectoral (forestry)	Sectoral (forestry)	geographic	Geographic/issues	Sectoral (water)	geographic	Sectoral (agriculture)	geographic
Principles	Sustainable development							
Independence	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>Yes</b>	<b>Not Yet</b>	<b>Not Yet</b>	<b>No</b>
Level of local application	High	High	High	High	High	<b>Undetermined</b>	High	High
Multi-functionality	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Integrative	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coordinating	Weak	Weak	High	High	High	Developing	Developing	Not significant

Type of local RM Group	Local Forestry Management Committee		Local Watershed Management Committee		Local Fisheries Management Council	Water Users Associations	Local community based watershed management committees	Farmers groups of eastern Jamaica (EJASP)
	BBFMC	PFMC	GRWMC	RGWMC	PBFMC	Pilot WUAs	Retrieve etc.	
Participatory	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ability to compare	Undetermined							
Adaptive	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politically supported	Yes	Yes	Yes	Yes	Yes (but not significant)	Yes	Yes	Yes
Representativeness	Not entirely inclusive	Not entirely inclusive	Not entirely inclusive	Not entirely inclusive	Inclusive	Inclusive	Inclusive	Inclusive
Organizing Body	FD/TFT	FD/TFT	NEPA/R2RW	NEPA/R2RW	C-CAM	IDB/NIC	UNDP/NEPA	RADA/EJASP
Existence under Policy/Legislation	Yes	Yes	Yes	Yes		Yes	Yes (none at initial formation)	No
Legal Status	By Constitution via Forest Act (1996)	By Constitution via Forest Act (1996)	None	None	By Constitution	To be incorporated as Benevolent Societies	None	None

In theory, that is, by relevant institutional frameworks, the features that define a relevant group are evident. However, given issues of resource constraints, traditional settings, historical presence and attitudes and behaviors, they have not been fully implemented. Demonstration of the features presented will take long time frames and will require the requisite capacities.

The literature has shown that success in local watershed programs may often only be seen after up to ten years of implementation. As such, step-wise, adaptive management is fundamental towards achievement in the relevant areas.

Most of the identified groups have a geographic focus, with the watershed as the basis for their actions. While WUAs exist specifically in agricultural areas and geared towards users of water resources for agricultural purposes, linkages are created with other natural resources, such as soil and land management.

The evolution of the groups has often emerged as spin-offs of government policies, programmes or internationally funded projects combined with national strategies.

Provisions are made for most of the existing groups under various Laws, Regulations, Policies, Guidelines and Action Plans. Notwithstanding this, most currently have no legal status.

The groups are still in their fetal stages of development, with most groups having only been in existence for an average of two years. One exception is the PBFMC, where the Council is over 8 years old. The PBFMC has shown a number of successes, but successes are directly related to time and persistence in program implementation.

In theory, the groups have mandates, with aims and objectives. However, in reality, their purposes are still unclear. Visioning sessions are held, which help to articulate the purpose, mandate, roles and objectives of the groups. Local community based watershed groups tend to have extremely vague purpose of intent. As they begin to realize their capacities and capabilities, and match them with the issues, it will become more defined.

### Capital

It is essential for local efforts to be properly resourced in order to effectively carry out its mandate. Requirements include human, financial, technical, informational and social capitals. This feature was not evaluated due to the details required for such analysis.

### Financial

The issue of resources seems to be very fundamental to the life of the local efforts. Funding for local management efforts have been from two main sources: government expenditure and external project activities. Progress towards implementation seems to be more rapid with the presence of adequate funding. Reduction in the levels of funding, especially under current economic instability, has resulted in slower rates of implementation. This raises a question of sustainability of local efforts.

### Human/Technical

Human resources is directly related to collaboration and coordination with other agencies, NGOs and private sector groups. Often, local efforts rely on the technical and administrative skills of agencies for their activities. As such, improved coordination and collaboration can only bring about positive effects on the groups' efforts.

### Information Resource

Information dissemination and two-way communication is important for the success of local efforts. Clear reporting mechanisms ensure that information, decisions and actions are communicated among members. Generally, the information resource is evident throughout all the efforts.

### Social Capital

The local efforts, while initiated by government agencies, often in conjunction with donor funding, relies on social capital available in communities. These are evident in the participation of local groups such as schools, churches, youth clubs, and environmental groups among other local community groups. The advantage of including these groups is that they are able to mobilize the community, and bring about local action. One advantage of placing focus on such groups is that they tend to exclude marginalized individuals and groups within the community.

### Principles upon which local efforts are derived

Sustainability and sustainable development principles are the primary principles upon which most of the local efforts are derived. There is a great focus on sustaining the natural resource base, while creating meaningful economic returns to society. These principles also work in tandem with the integrated approach, where the efforts focus on the environmental, economic and social aspects. Adding to this they also have a multi-functional focus, where their functions include policy development and implementation, advisory, advocacy, education and monitoring and assessments.

The levels of application at the local level in all cases are extremely high. Efforts aim at developing strategies that are locally relevant to the conditions of the specific areas. This is in keeping with the characteristics of a watershed perspective.

Coordination of local efforts with other bodies varies among the efforts. For example, coordination efforts in LFMC have been weak, due to the levels of participation of various agencies in Committee meetings. On the other hand, both the LWMC and the LFiMC show greater levels of coordination and collaboration.

All local efforts analyzed emphasize participation. The recognition of the capacity of local people, and the need for local buy-in has ensured that there is increased focus on stakeholder participation during all the stages of the process.

However, while the local efforts places emphasis on participation, the levels of participation also varies. Participation varied in two major ways: the stages at which participation is emphasized and, the openness of participation. In some cases, participation has been emphasized from initiation, while in others, it occurs during implementation. Participation ranges from information and consultation, to the highest level co-management.

The definition of stakeholders and the inclusive/exclusive nature of the effort determine 'representativeness'. For example, in LFMCs participation is not entirely open. Invitations were initially sent to "relevant" stakeholders, which did not include individuals. It was thought that individuals were represented by different NGOs and CBOs. This has further marginalized some persons and groups of the society including the poor, illiterate, and those not directly involved in project activities. Conversely, participation in LWMC has been open, but sustained participation is an issue.

Especially where external donor funding exists, there has been a concerted effort at building capacity of local efforts to ensure that they are better able to carry out their mandates. Capacity

building efforts have included training, financial support through venture funding, education and awareness programs, among others.

The success of the local efforts will depend on their emphasis on a number of key factors:

- ✍ Adaptive management – through experimentation and learning by doing
- ✍ Independence – the ability of groups to perform regardless of changes in the political and economic climate
- ✍ Persistence – continued drive to build local buy-in and action
- ✍ Good leadership – to motivate the group and their communities and to facilitate good management of the effort
- ✍ Flexibility – to changes as they occur
- ✍ Continued monitoring and self-evaluations

Additionally, efforts must be focused and not too broad, so that plans are more achievable. The factor of scarce resources and time and effort also means that volunteerism and stewardship must be promoted.

There is a tendency for local people to be skeptical about the process, with doubt over the genuineness of these approaches. It is essential to create local buy-in and ownership. One model that has worked in local efforts is co-management, utilized by the LFiMC.

### Summary

Local efforts for natural resources management are increasingly evident in Jamaica. An assessment of the various efforts reveals that:

1. Groups are formed out of the efforts of government and donor funding.
2. Most groups are in their infancy and have not yet developed clear mandates for their efforts.
3. The four capitals (natural, social, human and financial) are essential to the development of the efforts. A change in any one of them will affect the performance of the group.
4. With the novelty of local resource management efforts, an adaptive management focus is essential to ensure that appropriate changes are made once weaknesses are identified.
5. Participation must be open and should also encourage individual participation.
6. The success in formation of groups and implementation of their plans of action is highly dependent on the social capital and linkages with other of governance.
7. Two-way communication is key to the success of the efforts
8. Participation, via co-management, which is one of the ultimate forms of participation, is an appropriate model for local efforts for natural resource management.
9. It takes time to reap the rewards. Formation and sustainability of local groups is dependent on numerous factors.

## 4. Perceptions Analysis of Local Governance and Natural Resource Management

### 4.1 Methodology

In conjunction with other techniques employed for this research project, questionnaires were utilized to acquire an understanding of the levels of awareness and acceptance of local natural resource management groups in Jamaica. Questionnaires, including a list of prospective respondents, were developed and comments solicited from numerous persons prior to the composition of a final draft.

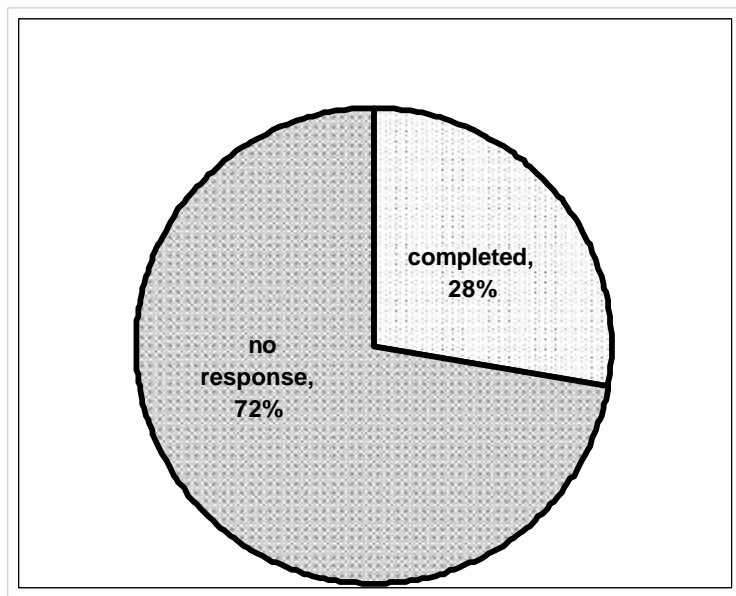
Packages were prepared, which included a cover letter and the questionnaire, to be given to the respondents (See Appendix). All packages were hand-delivered to the forty-three respondents. They were also sent electronically to those who had access to email. One week after delivery of questionnaires, follow-up calls were made to ensure receipt and for clarifications. Reminders were also given on the day of the deadline.

### 4.2 Results

#### *Questionnaire Response Rates*

Figure 2 provides a synopsis of the response rate of the questionnaires. A total of 43 questionnaires make up the valid survey mail-out. A total of 12 questionnaires were completed. This yields an overall survey response rate of 28 percent. While this response rate is acceptable in terms of a reasonable level of accuracy and error, it is considered in the survey research literature to be closer to the lower cut-off point for permitting detailed analysis.

**Figure 2** Level of Response to Questionnaire



Some persons never responded, while others gave reasons of short staff and not having the time to get around to responding. In some cases, persons indicated that no one else in their organization had sufficient knowledge to respond on their behalf. Already this was a clear

indication of inadequacies in the different agencies. This also emphasizes the extent to which agency staff has been overextended.

While this is not an entirely representative sample, the responses have generally provided a meaningful range of information for utilization in the overall study.

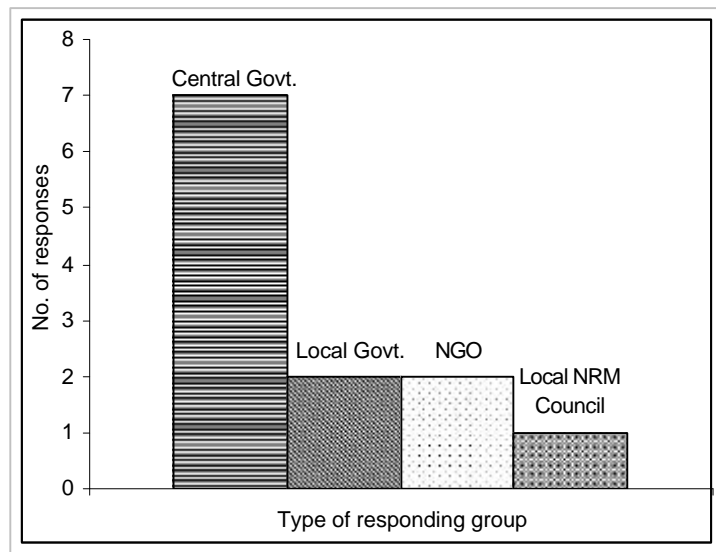
### **Questionnaire Analysis**

Completed questionnaires were indeed comprehensive and clearly elaborated upon. No respondent simply answered “Yes” or “No” but rather provided some detailed explanation for their response. Statistical analysis was not performed on the responses due to the low response rate. Rather, data drawn from the responses are presented in their entirety to provide respondents’ awareness and appreciation for local participation in natural resource management.

### **Range of Responding Groups**

The twelve respondents included representatives from central government, parish level representatives and NGOs. The range of respondents is presented in Figure 3.

**Figure 3 Range of Responses to Questionnaire**

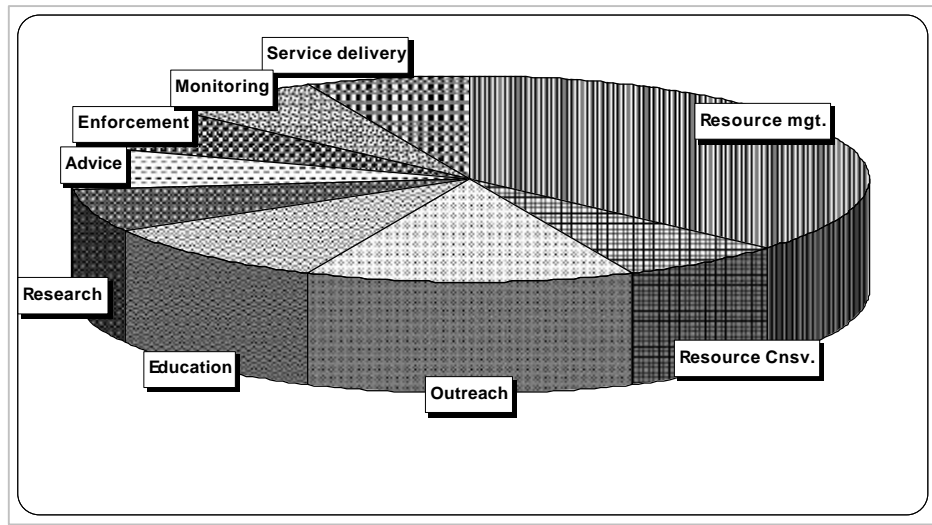


### **Functions of Responding Organizations**

Organizations indicated a range of functions that included both natural resources management and community development. Functions include provision of infrastructure, enforcement, monitoring, service delivery, advisory, education and outreach, research, capacity development and sustainable community development. Most organizations are multi-functional, offering a range of services. Figure 4 shows the breakdown of the functions of the responding agencies.



**Figure 4 Functions of Responding Agencies**



A common function of most responding agencies is community awareness and education. It is therefore expected that with the increased emphasis on local participation and community involvement, there should be a good foundation on which to create local action. However, other studies (Ellison 200, Gordon 2003) have shown that these areas are lacking and have to be given greater focus for enhancement.

#### ***Natural Resources Management (NRM) and the evolution of Local Watershed Management Councils (LWMC)***

With the need to bring NRM to the local level, where actions are taken and where people's lives are directly affected by the different strategies, there has been a move towards the establishment of LWMC. These local NRM groups are very young, with most being in existence for an average of 2-3 years. There are a few exceptions, those of which are going on 10 years in existence. These groups have had varied successes and critical evaluation of their failures and successes can provide meaningful information on which to build other local groups.

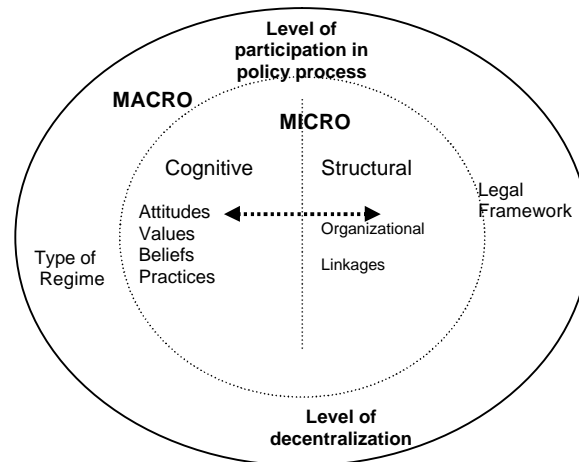
Respondents recognized that the top-down approach has failed to bring about success in NRM.

Consequently, respondents thought that the best model was a mix, not entirely top-down and not entirely bottom-up. There are some functions that are best achieved by government agencies and others that are best initiated by local communities. As such, a mix of approaches is necessary for the overall management of natural resources.

#### ***Key elements in a local model in order to deliver outcomes***

It is widely accepted that for reasons of both equity and efficiency, NRM programs need to be responsive to people's felt needs based on genuine demand. This is a way of starting out with a genuine commitment to partnership and empowerment. Figure 4 presents a conceptual framework of factors shaping the role of local actors in NRM. The macro level refers to the institutional context: the formal relationships and structures. The micro level refers to the potential contributions that horizontal and social groups make to resource management.

**Figure 5 – Conceptual Frameworks of Factors Shaping the Role of Local Actors in NRM**



Involvement of local people in resources management, under a top-down regime has been passive and has been via information or public consultations. It is common for consultations to be held after a program of action has already been drafted and agreed upon by select parties. Input from the public at this point can only have only a marginal effect on the tentative agreement that has already been worked out. Adding to this, most of the people who appear at consultations represent special interest groups, and there is generally little incentive for the average citizen to make a statement or comment on the matter.

It is important to note that these approaches tended to be more popular choices as means of involvement, even though respondents recognized that a top-down regime was ineffective. Often higher level actors may want to have access to relevant information, networks or target groups. It is often assumed that once the community views are known, the plan or program will better reflect their needs and fit into a social and economic reality. Participation of this type is often limited to consultation and information. This is a false indication of a bottom-up approach. True participation, as in a mix or bottom-up resource management model, is where it is used as a mechanism for social change. This engages people in a learning process and increases their self-confidence and critical awareness to allow for higher levels of participation.

***Participative Democracy***

Agenda 21 is so fundamental to natural resources policy and planning processes that the principles of democracy and social justice demand that people are given full opportunities to contribute (Freeman et al 1996). The underlying type of democracy (whether representative or deliberative) determines “representativeness” and the level at which local actors can participate.

***Knowledge***

Knowledge is a fundamental motivational factor for local action in natural resource management. Knowledge can contribute to the democratic character of the process and can be used for communication and as a strategic tool in decision-making. Knowledge is seen as an important factor, and as such it is also seen as the tool for increased communication and deliberation among interests, towards more informed decision making.

In order to facilitate NRM at the local level there has to be a number of support structures and mechanisms. Such structures and mechanisms constitute an institutional framework that includes political will; financial support; legislative framework; sector support; utilization of technology in

planning and management activities, for example, geographic information systems to link watershed components; closer linkages; education and training; enforcement mechanisms; policies and guidelines; strengthening existing management structure; two-way dialogue and capacity building. Extreme emphasis was placed on training and education.

There seem to be an overall consensus that education and training activities are vital elements in achieving success in NRM at the local level. A more aware and responsive citizenry will be better able to empower themselves to participate actively in the decision making process.

Currently, most of the responding organizations relate to local management structures through meetings, collaboration with other organizations, consultations, farmer training programs and the formation and development of local management councils.

Two-way communication seems to be more evident now than in previous years, as there are increased numbers of meetings with follow-up, workshops and associated proper reporting mechanisms. Increased utilization of visual aids to help demystify the science and technologies involved has helped to increase the level of two-way communication.

Despite the efforts, means of improvement are sought. The support of agency leaders is a critical factor in the linkages between agencies and local groups and individuals. Adding to this, with the emphasis on local management, there has to be more trained field workers, who are properly equipped to deal with issues on the ground. Meetings and community forums are essential to keep local people abreast with information and decisions as they are available. Increased understanding and awareness of local people will help to make communication more effective and thus help to ensure successful processes.

Monitoring programs, which are often extremely costly, need to involve local people. As such, training of locals in the different areas of monitoring will prove to be very effective. Planning processes need to become more user-friendly and will need to be executed using stringent timelines. Lengthy processes and actions from decisions are sources of fatigue. Processes that are drawn out and show no real and tangible outcomes tend to cause demotivation of local people. Having made the effort to offer their time, knowledge and skills, they expect to see returns on their investments. Transparency and accountability are also essential elements.

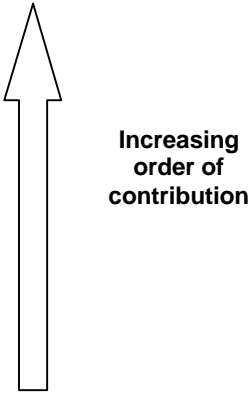
### ***Perception of the Role of Citizenry in the Planning Process***

All respondents view local people as being a very important force in the planning process. From the responses, local people are generally seen as vital stakeholders and thus participants in the planning process. As such they must be given equal opportunity to participate. They should be involved from early in the process and should participate in every stage of the process, from problem identification, through to implementation and evaluation. Respondents also expressed that local people have a right and a responsibility to participate.

### ***Local People's Capacity for Watershed Management***

Local people can contribute human, social and some financial capital to natural resource management. These are articulated in Table 6 below.

**Table 6 – Local Capacity for NRM**

Type of Capital	Attributes	
Human	Local, traditional and cultural knowledge; understanding of issues and their linkages	
Social	Ability to mobilize local action; empowerment through formation of citizen led groups	
Financial	Though a small contributor, through private landowners or via fund raising by local projects	

**Level of Participation**

To understand the factors that shape the role of local people in the planning process, different levels of participation were suggested by respondents. Most respondents perceive local people's role to be information and consultation, the two lowest on what is described as the "rungs of the ladder" of participation. A smaller group recognized local people's role to include joint decision making and actions to support community initiatives.

The general perception, however, is that local people has a wealth of local and traditional knowledge to offer. Local people have close ties with the natural environment and are the users of its resources. As such, they are a repository of information about the environment. While not providing scientific information, they offer historical, cultural and traditional information. In many instances these types of knowledge have proven to be very crucial to decision processes. Additionally, local people have the power, though organization, to mobilize the community to act.

Respondents expressed that politics was too prevalent in planning processes, and this often impedes local participation. Political affiliation often takes precedence over local group initiatives.

In order to maximize the levels of participation of local people in planning processes, most respondents thought that meetings and consultations were the best avenues through which it could be achieved. Generally, local participation was viewed as being reviews, consultations and stockholder's forum. These methods of participation tend to be geared, however, at specific stages of the planning process and not throughout its entirety. There were some respondents who thought that local participation would best be achieved through visioning processes, collaboration, organizing into legally empowered groups (lobby groups) and networking. Co-management was also recognized by one respondent as an important pathway towards achieving local participation.

### **Capacity Building for Local Participation**

In order to insure that local participation can be effective and symbiotic, there are a number of key areas for development. Public education and awareness were most often mentioned as a capacity building areas. Others included stewardship, skill development and training and techniques to develop local capacity to identify issues and determine actions to be taken at the local level.

### **Local Government and Natural Resource Management**

The focus on increased local participation in NRM has been coupled with a move towards the development of a more efficient local governance mechanism, through the Government of Jamaica's Local Government Reform Program. Consistent with the goals of the program, has been the establishment of Parish Development Committees (PDCs); Development Area Committees (DACs); and Community Development Committees (CDCs). These have been establishment in all parishes, with varying degrees of success. These mechanisms are closest to communities and aim to create awareness and motivation to participate in processes that affect them.

With successful implementation of these mechanisms, it is envisaged that local government will play a critical role in the activities of LWMC. However, to achieve this, local government will have to take a more holistic approach in their activities. There is a need for more local authorities with autonomy, for them to be better able to play their part. Capacity building will be an important driving force for this to occur.

Also, given the trends and demands, both internationally and locally, local government needs to become more proactive and take on a role of primacy as a governance mechanism.

Notwithstanding this, given the historical mode of local governance and the current socio-political climate in Jamaica, it is also possible that local government's role in NRM will not have any significant change over the next decade or so. As such, its impact on NRM will ultimately may ultimately stagnate.

There are a number of impediments that could cause this. These impediments, as offered by the respondents, are presented in Box 1.

#### **Box 1 Key impediments to achieving the desired role of local government in NRM**

- ✍ Lack of commitment
- ✍ Lack of understanding of linkages
- ✍ Lack of political will
- ✍ Lack of economic will
- ✍ Weak court system
- ✍ Lack of financial capacity
- ✍ Absence of local buy-in
- ✍ Overlapping interests and responsibilities
- ✍ Lack of cooperation and support

## **Key Drivers for Changes in Local Government and NRM**

Box 2 provides a list of key drivers for change in the relationship between local government and NRM over the next decade.

### **Box 2 Key Drivers for Change in Local Government and NRM**

- ✍ Focus on the economic and social costs and benefits presented through NRM
- ✍ Better enforcement systems
- ✍ Effective legislation
- ✍ Networking for discussion
- ✍ Increased international interest in environmental issues, tourism development
- ✍ Training
- ✍ Capacity building
- ✍ Pressure by communities
- ✍ Funding
- ✍ Aware citizenry

A range of measures to facilitate improved linkage between local government and NRM were suggested by respondents. These measures vary in scales of space and time, with some being at the national and others the local scale, some in the short term and others in the longer term. Issues of financial support were most often suggested. Issues suggested include:

- ✍ Improved legislative framework
- ✍ Institutional strengthening
- ✍ Restructuring
- ✍ Improved allocation of time, personnel and finances to support NRM
- ✍ Awareness and education programs
- ✍ Determination of issues and possibilities
- ✍ Strengthening enforcement mechanisms
- ✍ Methodological planning

The requisite powers and mechanisms for local government to carry out the desired roles must be in place before changes are likely to be seen. Changes in legislation can ensure that local governments possess the powers to carry out the mandates. It is also important for clarity in roles and responsibilities. Recognition of local groups is also key. At the same time, local government must be able to recognize and address the major issues for prioritization.

Respondents suggested a range of NRM areas for priority action including land management, pollution control, green area promotion, solid waste management, infrastructure development, environmental education, awareness promotion and soil/water management. Solid waste management and environmental education and awareness were high on the list of priority areas. However, one respondent stressed the need for prioritization by stakeholders, as environmental issues are site specific. This is an important point as the tendency is often towards prescriptive decision-making, using a one-size fits all approach. This generalization was offered by the majority of respondents. Each watershed or other area of focus will have different priority issues, which are a result of their specific economic, environmental and social realities.

Local government is poised to make important contributions to local NRM in numerous ways. Allocation of funds for NRM activities is essential as is the promotion of activities for conservation and rehabilitation. Local government's role in NRM as the coordinating body for different activities will prove to be vital. Ongoing data collection and monitoring activities, in collaboration with other agencies, is essential. Closely related to this, is the timely distribution of information in a manner that is easily understood by all stakeholders. This information can help in adaptive management, whereby as they become available, they are used to modify and enhance the programs, to suit the specific conditions.

### ***Allocation of Funds to NRM Activities***

While agency representatives are clear on the type of activities carried out by their organizations that are related to NRM, there is no clear picture of the budgetary requirement or allocation for NRM activities. It is evident that for NRM to succeed there has to be adequate financial support for activities. Allocations within organizations tend to be ad hoc and tied to other activities. Commitment to NRM requires a stable source of funding that is not affected by political changes or other external factor.

## 5. Conclusions

This chapter elaborates on the major findings and conclusions drawn from the study, and presents the consultants' main recommendations. The chapter begins by presenting the contextual setting for watershed management in Jamaica. The conclusions are presented in an institutional framework that draws on the tenets of integrated watershed management. These include: legislation and regulations, policies and guidelines, administrative structures, economic and financial arrangements, political structures and processes, historical and traditional customs and values, key participants and stakeholders. The chapter also elaborates on various supporting core principles both at the international and national levels.

The second part of the chapter presents the key recommendations emerging from the study.

### Contextual Setting

In at least the past fifteen years, there has been a major paradigm shift in natural resource management towards an approach that is more participatory in nature and involves all those who have an interest in the particular issue at hand. As such, participation and devolution of authority to those closest to the resources are the foundations of numerous international conventions and treaties, with emphasis on management of natural resources. For example, we see these principles emerging in *Agenda 21* at the international level, as well as *Local Agenda 21* at the national and local levels. While there has been a strong move to carry these principles through at the international level, at the local level they have only been translated in principle through those conventions to which we are signatory. While policy defines them succinctly, there has been no shift in the requisite resources, especially in budgets. It is therefore vital that resources are allocated from government and put into managing natural resources at the local level. If we really are to abide by the clauses and guiding principles of the treaties and conventions we are signatory to, then we will have to equip those making the change with the human and financial resources needed to carry out the duties. Adding to this, our own duty towards sustainable use and development of the country's natural resources make it vital that we contribute towards an approach to carry this through.

Local management is being undertaken, at least with initial focus, in the context of the paradigm shift. This is particularly evident in Local Agenda 21, Local Government Reform, and Local Sustainable Development Planning, all which seek to integrate the environmental, economic and social spheres of local level planning and management.

A weakness, however, in the envisioned process and structure has been the creation of various entities without the resources to enable them to act. Examples include LWMCs and the NIWMC. These groups must be given the support needed to function appropriately and adequately.

### Legislation and Regulations

*Watershed management is supported in general by a fragmented legal and regulatory framework.*

Many of the Acts make allowance and recognize the need for local management. In fact, it is the legislation that seems to somehow institutionalize the fragmentation that is evident. Each, in their own right, allows for local committees. However, the vast numbers of local groups formed tend to generally work in a vacuum with little regard for the others. Additionally, numerous laws and regulations exist to support the management of natural resources. However they generally operate in an uncoordinated fashion. For example, compliance and enforcement is supported in both the Forestry and NEPA Acts, giving local persons the authority through licensing to enforce various laws as it relates to various natural resources. The mandates of various agencies and



groups need to be streamlined to provide a coordinated approach to managing the natural resources.

A summary of the key laws and regulations related to watershed management are listed in section 1.2 (h) of this document

### **Policies and Guidelines**

As with the legal and regulatory framework for natural resources management, numerous policies and guidelines exist, generally in an uncoordinated fashion.

A summary of the major policies and guidelines for natural resources management are also listed in section 1.2 (h) of this document

These existing policies and strategies address the local component, as they emphasize the need for local level bodies to undertake various activities. Examples include the Draft Watershed Policy with the establishment of local watershed management committees; and the Forest Policy with the establishment of local forest management committees and forest wardens.

The various policies, plans and strategies while offering a window of opportunity for the involvement of local stakeholders, also present serious conflicts and issues. For example, the Water Sector Policy and the Water Resources Management Plan speak of river basin management, water resources management and watershed management. From these major areas of focus, it is evident that there is conflict in the scale of management. Conflict is also evident between sector-based (thematic), geographic-based and politically focused management areas. While some aspects of the Water Sector Policy are dealt with using parishes (political boundaries), others use the watersheds (natural boundaries).

It is also evident that the policy framework for watershed management has not yet caught up with the provisions of the National Integrated Watershed Management Programme (Chambers 1998). Currently, the new Watershed Policy is before Cabinet. It is timely for them to begin to work hand-in-hand towards guiding the development of watershed management in Jamaica.

### **Administrative Structures**

*The administrative framework for watershed management generally lacks synergy, with an absence of a clear leader to coordinate all policies, plans and programs towards effective watershed/natural resources management.*

The administrative framework for watershed management in Jamaica is comprised of a mix of management structures that exercise regulatory, technical, advisory and extension functions. Currently, management functions are undertaken by bodies established by statute, *ad hoc* coordinating committees, NGOs and external funding agencies. Table 3 presents the major organizations and their functions in watershed management.

A Summary of organizational functions for administration of watershed management is presented in Table 1 in this document.

### **Economic and Financial Arrangements**

*A very common trend for the majority of watershed interventions at the local level is via the inputs of external donor agencies, with some smaller inputs by government.*

Over-reliance on donor funding is not conducive to a sustainable approach to management of natural resources and often creates a false sense of security for a short period of time. Examples

of this include the establishment of an office in Port Antonio for NEPA and the Rio Grande Watershed Management Committee under the USAID/GOJ Ridge To Reef Watershed Project which may not be kept open after the project ends, and the establishment of forest management committees in the Buff Bay/Pencar watersheds under the CIDA/GOJ Trees for Tomorrow Project. In both cases, as with others, extensive long-term type projects with a view towards sustained activities are established under donor funding with no solution towards closing the resource gap. The tendency is for active involvement with the donor managers for the duration, and a struggle to survive once the project is complete. This often results in frustration among stakeholders, generally leading to a loss in the legacy of the inputs.

There is generally a trend of absence of a strategy for funding watershed management programs both at the national and local levels. Financial support for training programs to build the human and technical capacity for natural resources management has also generally been through project funds.

Within the scope of this study, it is extremely difficult to determine the amount of expenditure on watershed management and its related activities. Agencies are unable to determine accurately how much is spent on watershed management/natural resources management; as such contributions are not itemized or clearly stated.

While there has been some effort towards devolution of authority to local government agencies, these local bodies have not been allotted the requisite financial structures to carry out the activities.

Duplication of efforts by various agencies in some cases has resulted in a waste of the already scarce financial resources available to undertake natural resources management functions.

### **Incentives/Disincentives**

Worldwide, incentives have been proven to be an effective economic measure for sustained management of natural resources. Notwithstanding this, no such scheme has been established here. Studies have been conducted under the R2RW project that suggests numerous incentives that are applicable to our local context. Incentives for watershed management that could be developed and implemented are summarized in Table 7 below.

**Table 7 – Incentives for Watershed Management in Jamaica (adapted from Persaud et al 2003)**

Incentive Type	Examples
Legal Tools	Donation programs, conservation easement, conservation agreements, land exchanges, legal penalties, voluntary and legal declaration
Tax Incentives	Income tax deductions for contributions and certain types of land use, property tax exemptions/rebate, estate duty rebate, tax exemptions for activities devoted to watershed management
Other Instruments	User/conservation fees, grants and awards, eco-labeling, tax allocations, controlled access to common pool resources, tradable permits, bio-prospecting, subsidies, elimination of negative incentives

Incentive schemes can also include public awareness and cooperative agreements (e.g. with government and landowners).

### **Political Structures and Processes**

Civil society and local governance organizations such as PDCs and CDCs seem to offer a range of emerging opportunities for local natural resource management, which may provide opportunities and an appropriate context for management of natural resources in Jamaica.

However, the relationship between the different levels and scales of natural resources management (that is political, thematic and geographic) has not been operationalized. The various civil society organizations represent different levels of scale. For example, PDCs are based on political boundaries, while CDCs are more of a geographic/thematic nature. There also seems to be some confusion in using various combinations of these scales.

At the same time, there seems to be a very blurry understanding of the roles and functions of the various groupings. For example, the Development Area for the Rio Grande (based on the Integrated Community Development Programme of the SDC) is established on watershed boundaries. However, while the Rio Grande WMC functions as the Development Area Committee (DAC), the SDC does not yet give formal recognition to the group as such.

There is also a lack of clear distinction in policy and in practice between an advisory versus a management role for local groups. As such, the objectives and actions emerging from groups tend to be in conflict with the roles and functions.

These groups present useful opportunities for synergy but this synergy has not been explored and needs to be exploited.

Groups in existence such as WUAs, the LFIMCs and others such as the Montego Bay Marine Park offer some real and positive possibilities and as such should be explored as a driving force for natural resource management at the local level.

The study evidenced that there is no political framework that addresses watershed management that traverse political boundaries. The lack of a framework to undertake watershed management has presented many problems in attempts at setting up management structures that straddle more than one parish. Examples of this include the Great River and the White River watersheds.

### **Key Participants and Stakeholders**

A participatory approach to natural resources management is an effective means of management that creates local buy-in for the activities been undertaken and also empowers stakeholders to take an active role in ensuring sustainability of natural resources.

In theory, most agencies know of a more participatory approach to watershed management, one that entails participation of local people. However, while it is recognized that the traditional top-down approach has failed to deal with watershed issues, there seems to still be a struggle to accept a more flexible approach whereby local citizens are involved in policy processes and decision making throughout the entirety of a program. Involvement of local people is seen as an important element in any process. However, most agencies tend to view participation as information dissemination or acquisition and consultation. These forms of participation are very low, and strategically focus on a particular stage of the process. It limits the role of local people in decision making.

Watershed and natural resource management programs increasingly emphasize citizen involvement in program planning and decision making. Yet, while the concept is understood and

clearly stated in theory, there are some fundamental issues that need to be recognized and addressed at the onset. Adding to this, the new roles of the government agencies, tend to conflict with years of experience, which emphasizes resource managers as expert decision-makers. Under the new inclusive watershed paradigm, local knowledge and socio-economic concerns of local people, resource users and other stakeholders can influence decisions as much as traditional science-based decisions of agency managers. Local people have much to offer, especially given the constraints on agencies. As such, their capacities should be developed so that they can actively participate in program activities. Education and training are important elements in ensuring that participation of local people is emphasized.

Due to the ad hoc nature of watershed management activities as well as the harsh financial constraints placed upon those organizations involved, there seems to be limited opportunities for on-going training and skills improvement. Therefore, it cannot be over-emphasized that central government needs to provide local agencies and groups with the resources to carry out these activities and functions.

### **Historical and Traditional Customs and Values**

Effective watershed management needs to take into consideration the context of the area of management. A one-size fits all model cannot work for management of natural resources especially in a watershed. As such, planning and decision-making processes must include the historical and traditional customs and values of those stakeholders using and living in the watershed.

This approach has been evident in various projects analyzed. The Great River, White River and Rio Grande Watersheds have conducted rapid watershed assessments, while others have used needs assessment surveys, participatory rural appraisals and other methods to garner information and to determine how these can be incorporated into management and strategic action plans.

It is also important to involve local stakeholders in planning and management, as they understand clearly what could work for their watershed area based on their customs and values.

### **Principles upon which Watershed Management is Derived**

The cornerstone for natural resources management is Sustainable Development and Sustainability.

The institutional framework for sustainable development in Jamaica received its initial impetus following the Rio Conference of 1992, which encouraged participating countries to establish multi-stakeholder mechanisms to foster the implementation of sustainable development policies and strategies across agencies and sectors. However the overall Policy and Institutional Framework for Sustainable Development in Jamaica remains unresolved. A coordinated and rationalized relationship is needed between the main agencies involved in SD policy development and implementation including the Ministry of Land and Environment, PIOJ, NEPA and the Cabinet Office. SD concept includes environmental management, as well as those relating to social, economic and governance.

Though the LSDP process clearly emphasizes the importance of local participation in sustainable development planning, it has not addressed the role of local agencies and organizations in the actual delivery of environmental management services at the parish and local levels, apart from participation in early actions and action planning and implementation of specific project interventions.

## **Environmental Awareness**

Education and awareness are important elements of any program geared at managing natural resources. While various projects, including the R2RW project have sought to increase the awareness levels of the stakeholders, there still exists:

1. Limited knowledge of the existing environmental laws and regulations
2. Low levels of awareness of environmental issues and their sources (for example climate change, water quality, downstream water pollution)
3. Limited understandings of the value of watershed areas and watershed resources
4. Limited understanding of the linkages between human and land use practices and the degradation of watersheds
5. Lack of knowledge of options for improving the status of watershed areas.
6. A struggle between basic survival and utilization of current understanding of watershed issues and solutions.

## **Local and Ecological Knowledge**

Local users of the watersheds possess a vast amount of local and ecological knowledge that can assist in developing appropriate management strategies for watersheds. Engaging local stakeholders in continued dialogue can help to determine the greatest areas for intervention. Drawing on their knowledge and skills can also reduce the amount of financial resources required. Various projects have utilized participatory tools, knowledge and attitudes surveys, carrying capacity surveys and strategic action planning as tools for integrating local knowledge in the process.

## **Adaptive Management**

Given the approach to watershed management through “learning by doing”, it is important to take an adaptive approach to management. This approach is iterative and as new information arises, it is incorporated into plans and programs in order to strengthen the body.

## **Scale**

Various watersheds traverse political boundaries, with some traversing up to four parishes. This has proven to be a difficult problem to solve, especially where local agencies in as many parishes are involved. There needs to be a formalized agreement to allow for collaboration and coordination of local agencies sharing watersheds.

Some watersheds are extremely large, and effective management may prove to be too complex at the watershed level. Watershed management, where appropriate, can be effectively management at a sub-watershed or community level, as previously observed. This may also effectively allow for collaboration between and among various agencies and groups in different ways, in different scales of management.

Management needs to be individualized or site specific, at the smallest possible scale, that is manageable.

Building in monitoring and evaluation as part of the planning cycle to go with design and implementation

Evaluation is an important component of any management programme. NEPA as a lead agency need to begin to evaluate the interventions in watershed areas. Appropriate scales of time and space must be determined to provide accurate and effective mechanisms for evaluation. NEPA's role in providing the technical and evaluative mechanisms for watershed management should involve the use of cutting-edge technologies and useful methodologies in analyzing and evaluating changes and inputs required in the state of watersheds. GIS is a very useful tool in integrating the various components and types of information, for a holistic approach to not only implementation but also evaluation.

Monitoring and evaluation is also a crucial part of the LSDP cycle. As such, requirements for monitoring and evaluation should be structured and developed in the policies and plans.

Adding to this, at the local levels, LWMCs and other such structures must also undertake ongoing monitoring and evaluation of programme activities, in order to determine the effectiveness of the various approaches. This will help to determine greatest areas for intervention, and to continuously reformulate programs to address the changes following interventions.

## 6. Recommendations

This final section of the chapter presents the recommendations emerging from the study, which are grouped under the following headings:

- ✍ Strengthening the Legal and Regulatory Framework
- ✍ Developing the Relationship between National and Local Organizations
- ✍ Strengthening the Capacity and Leadership Role of the NIWMC
- ✍ Increasing Coordination between Stakeholders
- ✍ Providing Financial Resources and Incentives
- ✍ Deepening the Participatory Process
- ✍ Addressing Geographic and Thematic Issues

### Strengthening the Legal and Regulatory Framework

1. The legal and regulatory framework for watershed/ natural resources management needs to be developed and coordinated towards an integrated and strategic approach. The gap between legislation and planning is evidenced by the fact that the Policy Framework, which is still being developed, has not yet caught up with the National Integrated Watershed Management Programme (NIWMP) developed in 1998. The enforcement of laws to protect watersheds also need to be strengthened.
2. The new NEPA Act, which is expected to replace the Watershed Protection Act (1963), should address the following needs:
  - i. The Act needs to address the roles and functions of local governance and local government reform structures in natural resource management. It needs to give recognition to these groups as an avenue for NRM especially as it relates to watershed management.
  - ii. It must be ensured that the new law represents the principles of a bottom-up approach to NRM. The top-down command and control approach to watershed management is antiquated and fails to represent the new perspective of watershed management. The shift in paradigm towards an approach that is more participatory needs to be translated to the Act.
  - iii. The relationship between national and local watershed management entities should be defined. Within the purview of the NEPA Act, the following need to be addressed:
    - a. Clarification of the roles and functions of the NIWMC
    - b. Clarification of the role and functions of LWMCs and their linkages with community level structures such as PDCs and CDCs
    - c. Recognition and definition of arrangements where other groups such as LFMCs and WUAs can be designated to operate as LWMCs in specified watershed areas
    - d. Creation of a process to register/recognize LWMCs (all groups undertaking NRM functions as presented in Chapter 3.2) under the NIWMC.

### **Developing the Relationship between National and Local Organizations**

3. The new Watershed Policy should identify and elaborate on plans and strategies to relate watershed management plans/programs, at the national and local levels, to local authority and local governance structures.
4. When possible and workable, projects need to recognize not only the state agencies input but also the role of local government and civil societies in NRM activities. They should try to formally relate project activities with local governance and local authorities. As such, the PIOJ should seek to ensure that this linkage is realized in design and implementation.
5. In addition to a recent thrust towards utilization of Benevolent Societies in group formation of LWMCs, there needs to be an investigation into how the committees might be institutionalized within other bodies, whether they are NGOs or through government participatory mechanisms (e.g., those created under local government reform). Such group formation should emphasize independence so that they are not affected by a changing political climate, and local government reform structures needed to be provided with the requisite capacity to undertake activities.

### **Strengthening the Capacity and Leadership Role of the NIWMC**

6. Policies that reflect natural resources management should be reviewed to actively institutionalize the NIWMC, with more specific emphasis given to the roles and functions of a NIWMC in relation to each Policy.
7. Greater attention and support need to be given by member agencies to the role of the NIWMC. Increased emphasis on the roles and functions of the NIWMC and its importance as a national multi-stakeholder organization will help to give it the clout and the respect to make its operations successful. Requisite support will be the only way for NIWMC to survive and continue to exist. This support must be expected to come from Ministries and especially agency members. The NIWMC will need to build its human and financial capacities to fulfill its potential leadership role in watershed management at the national level, and in coordinating watershed management at the local level.

### **Increasing Coordination between Stakeholders**

8. The use of Inter-Governmental Agreements (IGAs), Memorandum of Understanding (MOUs), delegation instruments and other such structures should be expanded as simple instruments of agreement and coordination between stakeholders, that can enable national agencies, local governments and civil societies, to jointly act on matters of mutual interest such as watershed management, including as coordination mechanisms for local authorities sharing watersheds between parishes. This also helps to address the issue of duplication of efforts and wasting of scarce financial resources.
9. The process of local watershed management must identify a lead group or agency to coordinate the management and administrative functions of the various stakeholders. Until there is proper recognition of the leadership role of the NIWMC, NEPA should carry the lead role for coordination of the management and administrative functions of the various stakeholders.
10. Coordination between PDCs should be supported as much as possible as cross-sector coordination and planning mechanisms at the local level for agencies operating in a Parish. The SDC's Integrated Community Development process of organizing communities is the most viable means by which various single-interest and sectoral activities intersect with communities.



## **Providing Financial Resources and Incentives**

11. Local groups need to begin to develop some level of self-reliance, with less dependence on donor funding, as financial resources are possibly the most important support for watershed management in Jamaica. Self reliance can be actualized by the following three (3) recommended means:
  - i. Formalization of the registration process for LWMCs to give legitimacy to these groups. Consequently the identification and development of projects that can be supported via donor funding must be continuously undertaken.
  - ii. Partnerships with Private sector entities, such as hotels- I the tourism industry and bauxite companies in the mining industry. These kinds of partnerships will allow LWMCs to enter into agreements with such entities. These private sector partners will be expected to support the work of the local committees and work along with them as active stakeholders. This will help to promote corporate stewardship for natural resources management especially where the entity is a user of the natural resource base.
  - iii. Provision of appropriate incentives (for example a user fee or cess) towards watershed management. The range of potential incentives for watershed management is described above, and may involve the levying of fees or cess from those entities involved in the use or extraction of watershed resources (such as commodity boards, water bottling companies, bauxite companies, hotels and tour operators) at a stated rate based on the level of use or extraction, which will be pumped back into conserving, preserving or rehabilitating the resource base. Both private and public sector organizations use the natural resources available to generate income. The ecological footprints from these ventures are generally high, and should require an appropriate amount to be put into efforts at rehabilitation, conservation and protection, which will help to make these entities better stewards of the environment.
12. Central government's recognition of the need for devolution of authority to local agencies needs to be coupled with the appropriate mechanisms to accommodate mainstreaming of local level watershed management into corporate plans and budgets of the central and local government agencies. This can be accommodated by provision under a special line-item for watershed management. In conjunction with this, agencies need to begin to determine accurately how much is being spent on watershed management activities and functions. Support by central and local government agencies can also be achieved through legitimization of the local groups.
13. Environmental accounting models should be applied to determine the levels of inputs into watershed management, such as the human, technical and other components not easily amenable to quantification. Likewise, where environmental resources are used up, whether renewable or non-renewable, these should also be accounted for, in balancing the equation. These are extremely important especially where incentives are concerned. In the case of user fees or cess applied on various sectors, this is one means of keeping track of the changes in the natural resource base.

## **Deepening the Participatory Process**

14. Stakeholders, especially local level interests, must be meaningfully engaged in the processes of planning and decision-making, and should be involved throughout the entire process. Such involvement will help to empower them to act as stewards of the watersheds. Local participation is often measured by the level of attendance at meetings rather than the substance of that level of participation. This must then be measured based on their

integration into the processes of planning and decision-making shifting away from an information dissemination mode.

15. Government agencies need to begin to shift their approach to involving local stakeholders, towards one that is more flexible and move them away from a top-down regimen. The use of advanced methods of participation can allow for local stakeholders to be more actively involved in the development and implementation of activities in support of watershed management. The development of local government and local governance structures seems to offer an effective medium for participation at the local level. This should be pursued with greater effort.
16. Central and local government agencies should adhere to and adopt the principles of transparency and accountability and open communication with other partners. To support the shift in paradigm, to one that is participatory and involves local people in decision-making for natural resources management. This should include developing a sustainability plan for the entry and exits of donor funding.

### **Addressing Geographic and Thematic Issues**

17. The framework for natural resource management at the local level has to resolve the trade-off between three (3) bases for determining the scale of management:
  - i. Political - via parish boundaries and enumeration districts;
  - ii. Geographic - via watersheds, sub-watersheds, development areas and communities;
  - iii. Thematic - based on a sectoral divide, e.g. solid waste management, sanitation

The recommendation is for the geographic basis to predominate at the local level, as it most closely encompasses the natural boundaries of watersheds as well as the local governance mechanisms based on communities resident within watersheds. CDCs are strong community-based groups, and are capable of achieving an optimal level of participation. At the national level, the NIWMC will coordinate the overall strategies and plans. The NIWMC, through its LGCWG will coordinate at the local level. On the political scale, the SDC will interface with the communities, as part of their mandate. At the thematic level, once themes are prioritized and recognized as needing attention, the sectoral groups will provide guidance and oversight for addressing them. This structure is possibly underway in a number of CDCs including Boundbrook and Tranquility. These two CDCs are indeed potential models for replication as they are already undertaking a range of functions, including watershed management-related functions. State agencies also need to be more proactive at the local level, including via CBOs and CDCs.

18. There is a need for analysis of the synergy of governance mechanisms created to support programs and projects, which are often organized by themes or geographic levels. However, there is often overlapping in roles of the various mechanisms. For example in local government and watershed management, there is often no synergy in their creation and they tend to disappear after the project or programme is completed. Every effort must be made not to establish single purpose groups at the community level which may lead to several groups undertaking some of the same functions. Extensive dialogue and decisions are required amongst the various groups and mechanisms.

Table 5.5 below presents a summary of the proposed relationships between agencies, while Figure 1 provides a graphical representation of the proposed structure of local level management of natural resources and watersheds.

**Table 8 – Key Functions of Agencies in the Proposed Framework**

Organization	Function	Level of management
NIWMC	Leadership	National
NEPA	Technical, advisory, management	National, local
Parish Councils	Consultative, technical	Local
Social Development Commission	Facilitative, coordinating	Local
Sector-based agencies (e.g. RADA, NIC, NWC, JAS)	Implementation	Local
LGCWG	Liaison, advisory	Interface of national and local
CDC	Local leadership, implementation	Local

At the national level, the NIWMC will provide overall leadership, with representation from the stakeholders. At the same time, through the appropriate mechanisms as previously described, the NIWMC will give legitimation to the LWMCs.

Under this structure, NEPA, as the national agency for environmental management, will provide technical expertise, and coordination also at the national level. The use of GIS is a very effective means of allowing integration of various levels and types of information, coming from the different agencies and groups. As such, the use of this technology, will allow NEPA to constantly monitor and evaluate progress towards watershed management in as sustainable way.

The LGCWG of the NIWMC will liaise with the local groups such as LWMCs and CDCs. Again, through various sectoral representations, this group will be able to assist through the provision of advice and direction.

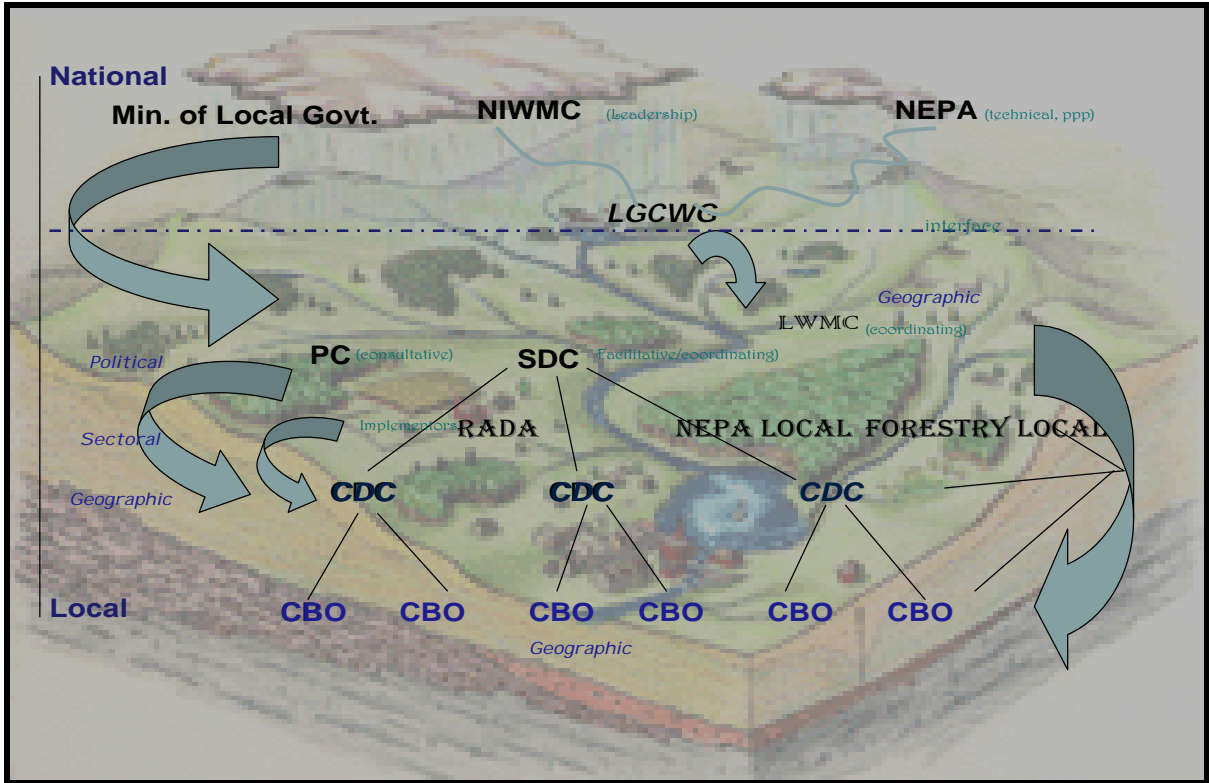
The Parish Councils will have to take on a more consultative role, including through its capacity for providing representation by stakeholders, as well as undertaking technical and planning leadership at parish level.

The SDC, in its capacity under the Ministry of Local Government, will take on a facilitative role, as they are in constant contact with the CDCs and other local governance mechanisms.

CDCs are best equipped and also in an appropriate position to mobilize communities within watersheds, and to undertake the management functions. At that level, there must be representation by both governmental and non-governmental stakeholders along with CBOs. Prioritization of issues at the CDC level will then require lead agencies to take priorities for implementation towards addressing the issues. Depending on the watershed management issue prioritized, the respective agency will then take a lead role in dealing with them. For example, if the issue is on sustainable agriculture, it would be expected that RADA, with the assistance of the JAS, will take the lead on developing options for dealing with the issues. Likewise, for water for domestic use, the NWC may take the lead role.

Indeed, a structure of this nature is essential, as we strive to reduce wastage of resources, yet enabling harmony and synergy within the existing realities. While recognizing the need for a geographic focus at the local level, there must be some means of accommodating those structures already in existence. This structure, as proposed, may offer the best possible way forward until we are better able to advance the mechanisms in other ways.

**Figure 6 – Proposed Structure of Local Level Management of Natural Resources**



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## 8. Appendices

### 8.1 Summary of Focus Groups Discussions

#### 1. What is the mandate of your local group?

##### ***Bound Brook***

The Focus Group came together as a CDC under the Local Government Reform. The Group considers its mandate to include:

1. Liaison group to link different groups within one community re social and environmental issues;
2. Advocacy role e.g. to improve road conditions;
3. Solid waste management, river usage, and concerns with health issues;
4. Manage main environmental issues within Bound Brook;
5. Develop problem-solving capacity with all groups coming together;
6. Allows wider participation of the community;
7. Allows for participation in DA
8. Information sharing
9. Allows the participation/interfaces with GOJ Agencies for discussions of relevant issues

##### ***Buff Bay***

The Focus Group came together as a group of the LFMC, but of the **eight** community persons present, **six** indicated being active in the JAS, and **five** were active members of the Citizens Association. It was established from early that this Focus Group was a multi-organizational one, and that several members of this community was active in several organizations. Persons were also active on School Boards, and PTAs, Church Groups, and there was also one Justice of the Peace

The Group considers its mandate to include:

1. Keep Forest and environs healthy
2. Keep water quality good
3. Help to stop soil erosion
4. Provide an advisory role to the FD
5. Build capacity of local management to implement Forestry Management Plan
6. Watch-dog of Reserve Area
7. Sustainable use of forestry products through community groups

##### ***CCAM***

1. Coordinate social services within the community - Fix roads and Clean drains/land areas;
2. Promote sports programs at community center;

3. Provide a computer lab;
4. Promote Jamaican heritage;
5. Provide organizational structures;
6. Increase awareness;
7. Provide skill training;
8. Enforcement services (through NEPA);
9. Assist the youth and elderly;
10. Provide and establish infrastructure (Classrooms, Postal agencies, Schools, Health center, and Community center)
11. Provide access to beach (facilities and boardwalk)

### **Cambridge**

To coordinate social services within the community e.g.:

- ✍ Streets are clean
- ✍ Street lights are working
- ✍ Local abattoirs in hygienic conditions
- ✍ General and environmental law enforcement
- ✍ Better working environment for police (Station facilities)
- ✍ Proper disposal of garbage

### **Redwood**

The Focus Group came together as a group of the LWMC,

The Group considers its mandate to include:

1. To ensure that activities in the watershed is managed in a sustainable way. Management concepts need to include livelihood issues;
2. To see that Farmers practice good land management, including animal husbandry;
3. Making sure that appropriate attention is given to forestry lands;
4. Seeing that attention is also given to Solid waste Management (including animal waste), and good mining practices; and
5. Support from agencies. This was considered weak, since other than NEPA there was very limited contact with other agencies.

### **Retrieve**

To educate the citizens of the Retrieve community as well as the general public about watersheds and their importance



## ***Yallahs***

To manage Irrigation Water System through an organized Water User Association

## **2. What Are The 3 Main Government Agencies That You Work With?**

### **Bound Brook**

#### ***SDC***

- ✍ Provides Information
- ✍ Link community with developmental projects
- ✍ Strengthen capacity of groups to work on own

#### ***CWIP/NEPA***

- 1) Solid waste management
- 2) Research and bring information to community
- 3) Provide support for community clean-up activities – equipment, skips etc
- 4) Promote green areas
- 5) Environmental education campaign
- 6) Support water quality monitoring –look at flooding, sanitation and solid waste

#### ***NWA***

- 1) Roads and gullies
- 2) Need to understand central government role vs. Local Authority

#### ***Others***

- ✍ MOH
- ✍ NSWMA
- ✍ NWC
- ✍ Fisheries

### **Buff Bay**

#### ***Forestry Department***

- ✍ Information and Technical Advisor
- ✍ Facilitator
- ✍ Twin Membership with JAS

#### ***RADA***

- a) Information and Technical Advisor
- b) Extension Services

#### ***Coffee Board and JAS***

- a) Technical Information on Land-use
- b) Extension Services

## **Others**

**NEPA** – LFMC set-up on WM basis dealing with broader issues- structure and issues are WM related. There is a joint meeting of Buff Bay/Pencar every 6 months. The group decides on meeting times. The Tranquility Group – Buff Bay meets every two months

**SDC** – Multi-group participation, with members being both active in governance issues as well as natural resources management. It became clear that members of the LFMC, and the SDC were seeing the group as a CBO, with a different CDC. It was however noted that the LFMC and the Development Area was one and the same. When the LFMC was established, there was no CDC or DAs in place. There were attempts at the very highest levels to achieve some collaboration.

- ✍ MOH
- ✍ NWA
- ✍ NWC

In fact, all state agencies, private sector, and civil society groups are encouraged to be involved, similar to the WMC at the WMU level.

## **CCAM**

- ✍ SDC
- ✍ JSIF
- ✍ Police
- ✍ Parish Council

## **Cambridge**

- ✍ SDC - Present
- ✍ NEPA - Present
- ✍ Police - Dormant
- ✍ Public Health
- ✍ Parish Council
- ✍ JSIF - Very Active

## **Redwood**

### **NEPA**

- ✍ Information and Technical Advisor
- ✍ Need more public education – people don't know what is a watershed

### **RADA**

Land husbandry

### **JAS (sleeping giant)**

Should be encouraging support and ownership by local community, which was presently lacking

## **Others**

**SDC** – Some contact

**4H** – work with, especially as it relates to training. It should be noted that the main 4H training facility is near by to this community. It was felt that all agencies had inadequate resources.

## Retrieve

### **RADA**

- ✍ Technical Assistance – tree planting and
- ✍ Participation in Annual Environmental Show

### **Forestry Department**

- ✍ Technical Assistance – tree planting (contours)
- ✍ Educational Programs
- ✍ Participation in Annual Environmental Show

### **NEPA/R2RW**

### **Yallahs**

- ✍ National Irrigation Commission – (NIC)
- ✍ Rural Agriculture Development Authority – (RADA)
- ✍ National Works Agency – (NWA)

### **3. What is the connection between your group and Local Government Reform (PDC, DA, & CDC)**

#### **Bound Brook**

Although part of local government reform, and has knowledge of sending representatives to Port Antonio DAC, and selecting representatives to the PDC, the group was still very inexperienced about how these should work. A great deal of the time was spent informing participants about the reform process, including the CDC, DAC, and PDC structure.

#### **Buff Bay**

The LFMC is now articulated as = Development Area which is = LWMC, with Portland's DAs being clustered on watershed basis. This may not have registered to many before as some saw the LFMC as a CBO, while others saw it as the CDC. The Buff Bay Development Area is made up of a number of communities that are all included in the LFMC, making it more than a CDC.

The matter has become more complicated as instead of individual DAs, SDC has established a Western Portland Cluster of DAs, which includes the three DAs in western Portland.

The LFMC do not attend CDC, DA, or PDC activities as LFMC, but individual members are active at all levels, except for the PDC. The Facilitator stopped in to one such meeting. It should be noted that very little of this governance process in Western Portland is reflected in the Portland PDC, given some credit to the observation that the PDC is a Port Antonio process. Even the Compliance and Enforcement Task Force of the RGWMC – a parish-wide process or the Public Education (also parish-wide) do not currently capture this process.

The informal WM role and functions that the Buff Bay LFMC undertakes need to be formalized with a meeting between FD, SWB of NEPA and the LFMC. Similarly, a meeting is needed with all the above stakeholders and SDC to confirm where the LFMC does fit into the local government reform process.

It is worthy of note that the community sees all the issues as community issues, and seek assistance in dealing with these issues. It is the agencies whose roles are specific that

encourages the thinking into boxes, and the community is forced to develop relevant governance mechanisms to respond to the agencies processes. So, as in the case of this LFMC, persons attending different meetings representing LFMC, CBOs, Western Portland Development Area, JAS Branches, Citizens' Associations, School Boards, PTAs, and on and on. This does beg for some coordination.

### **CCAM**

- ✍ PDC – on executive
- ✍ DA - existing, some persons are involved
- ✍ CDC - participants are members

### **Cambridge**

- ✍ **PDC** – None
- ✍ **DA** – Just know of Development Area through SDC
- ✍ **CDC** – Group members are CDC members

### **Redwood**

This Group had very limited contact with local government reform, and in fact one participant related this to inner-city development. Most of the time was spent information participants about the reform process, including the CDC, DAC, and PDC structure.

### **Retrieve**

- ✍ PDC – None
- ✍ DA – None
- ✍ CDC – None

### **Yallahs**

None

## **4. What is the connection between your group and the Parish Council?**

### **Bound Brook**

The group had no knowledge as to who there Councilor was, and only felt that there were no quality representations at the technical level. They had some knowledge that community members could write to their representatives.

The group had no knowledge about the Zonal Committees that were/should be established with the Parish Council, ODPEM, and the community. They were excited about this when it was explained to them

### **Buff Bay**

The former Councilor was actively involved in the LFMC. The new Councilor has not attended any meetings as yet. While the technical staffs do not attend, there is a belief that they are accessible if required.

## **CCAM**

Mostly very active, the Councilors have been generally involved in community activities, and are very cooperative. They have assisted in making some linkages for the groups. Further linkages with the PC are envisaged and should be enhanced.

## **Cambridge**

No connection as yet. But the new Councilor is active in the formation of the CDC and they look forward to positive links to the Parish Council

## **Redwood**

No connection was established

## **Retrieve**

None directly, but occasional Resource Person from Public Health Department – Public Health Department also participates in the Annual Environmental Show.

## **Yallahs**

No strong connection as yet, but we have worked successfully with the Public Health Department to deal with a potential Health Hazard in the area. We have also worked with the NWA to get major river training issues addressed.

## **5. What is the connection between your group and agencies in Natural Resource Management?**

### **Bound Brook**

The group had contact with CWIP, and was strengthening contact with CWIP2, and had some involvement in R2RW Project Public Awareness Task Force. They were also aware of PEPA's involvement in Schools programs. The Bound Brook District was preparing a proposal for EFJ through the JAS Group in Springbank District

### **Buff Bay**

This group is primarily established as a group in natural resources management. Please see question 2 above

## **CCAM**

- ✍ Portland Bight Fisheries Management Council works with CCAM, NEPA, and the Fisheries Division.
- ✍ Many are Game wardens (voluntary) through NEPA and relates to the Wild Life Protection Act
- ✍ The groups are also involve with CITES, Fisheries Protection Act
- ✍ Work with agencies involve in Educational activities, and Awareness programs

## **Cambridge**

Support from NEPA to “clean up” community through R2RW and MBMP

## **Redwood**

Although established as a natural resources management group, this group had limited contact with NRM organizations, except NEPA. The Group pointed to issues such as the lack of collection by the NSWMA, and the lack of water from NWC, or NIC, while water was taken from their resources to other communities. No actions have been undertaken by this group to deal with those issues.

## **Retrieve**

### ***NEPA/R2RW; MBMP***

- ✍ Supply of educational material e.g. posters;
- ✍ Participation in Environmental Fair;
- ✍ Advice regarding Natural Resource Management;
- ✍ LWMC formed under R2RW supervision and guidance. LWMC is a part of the GRWMC

### ***Forestry & RADA***

- ✍ Provide Technical Assistance
- ✍ Education
- ✍ Information
- ✍ Provides seedlings for contouring along the river banks

### ***Fire Brigade***

- ✍ Education & Fire Drills

### ***JET/SEP***

- ✍ First year participants in Schools for the Environment Programme
- ✍ Involved in “Clean Up” activities and beautification of the school and community

## **Yallahs**

- ✍ **NIC** – Through the National Irrigation Plan NIC is working with us to establish WUA, refurbish our irrigation system and train us through the provision of technical assistance
- ✍ **Underground Water Authority** - Works with group in the identification and maintenance of wells for water supply.
- ✍ **RADA** – Training in how to prevent soil erosion
- ✍ **National Land Agency** – Solutions to Land Tenure Issues
- ✍ **NEPA – Watershed Branch** – Awareness on the importance of Watersheds

**6. What would you consider to be your group's achievement in these areas?**

**Bound Brook**

- ✍ Established CDC
- ✍ Involve stakeholders who would not normally be engaged
- ✍ Undertake clean-up and water quality testing with CBOs
- ✍ Good participation in RRA
- ✍ Identified a number of concerns related to NRM
- ✍ Establish environment sub-committee
- ✍ Good involvement of youth

**Buff Bay**

1. The LFMC has remained very active for 3 years
2. Successfully deal with land-use issues re FIDCO land-lease
3. Community more educated and aware on Forestry and other environmental issues
4. Increased in the planting of private timber with over 30,000 seedlings planted in area since establishment of LFMC some 3 years ago
5. Undertaken both external and internal training for community and schools
6. Building the capacity of the LFMC, and the community to better manage local forestry issues
7. Undertaken Field Trips
8. Establish Demonstration Plots on private farms, and at the schools
9. Develop eco-tourism and sustainable watershed management project for Lancaster

**CCAM**

1. Formation of organized groups
2. Capacity building e.g. training of game wardens, enforcement officer through NEPA; training and certification from Red Cross, ODPEM; skill training
3. Project proposal writing
4. Conflict resolution
5. Soliciting funds for local projects
6. Tree planting
7. Honoring stalwarts
8. Fix roads
9. Constructed postal agencies, schools
10. Extended health center
11. Assist elderly, young children

**Cambridge**

1. Community Clean – Up
2. Closing down of “unhygienic fowl house and slaughter house”.
3. Got JSIF grant for expansion of Infant School
4. Lobbying for “Garbage Pick-Up” – Regular “Pick – Ups” now being done.

### **Redwood**

1. A number of seedlings have been planted
2. Develop and deliver Public Education Packages in schools across the watershed. The information passed on to schools is considered very good
3. Undertake soil conservation work- including gully plugs, and checking of dams (no follow-up as taken place since funding as stopped)

### **Retrieve**

1. Green Village Award 2002
2. Development of Action Boyz – Personal and Group
3. Talent enhancement
4. Income generation Activities
5. Promotion
6. Exposure
7. Sanitation Project – Demonstration Wetland System in School and Community, Environmentally Friendly, Solar Powered
8. Working well and increased awareness has been created in the community regarding sanitation issues.

### **Yallahs**

1. WUG meeting regularly to learn and organize for registration as a Specially Authorized Society for the management of the irrigation system we use.
2. Networking opportunities – visiting other areas in the island that are already using irrigation
3. The group has been identified and recognized by the community as the receptacle for information and problems in the community
4. Through collaboration with the NWA the river beds in Phillipsfield and in Norris have been cleaned of obstructive debris.

### **7. What needs to be done to strengthen your mandate?**

### **Bound Brook**

1. Establish Zone Committee for Disaster Preparedness
2. Develop and implement Public Education Strategy
3. Operationalize the Environment Sub-Committee
4. Ensure adequate representation at CDC, DAC, and PDC and its Sub-Committees and Task Forces



5. Expand active membership
6. Activate Community Notice Board
7. Prepare Community Development Plan

#### **Buff Bay**

1. Expand and deepen the role of the LFMC
2. Although a stakeholders' group, identify process to improve ownership by community
3. Procure resources to establish Office (use RADA Office)
4. Develop and implement project
5. Strengthen Public Education Programme
6. Continue to build the capacity of the LFMC and its members

#### **CCAM**

1. Dedication and commitment of community members
2. Removal of politics from activities and plans
3. Funding
4. Improved communication with government agencies
5. Collaboration/socialization of community members
6. Need to promote self-sufficiency through income generating projects

#### **Cambridge**

Improved community involvement at all levels.

#### **Redwood**

1. Need Resources – including providing incentives, stipends and capacity to undertake the mandate. This would assist to garner dedication and commitment
2. Need maximum and adequate information in order to get everyone involve
3. Need influence and contact – persons who have benefited do not give back
4. Need to build strategies for plastic bottles

#### **Retrieve**

Development of fundraising skills as money is needed to run the operations of the Committee e.g. finance training workshops

#### **Yallahs**

Get the Irrigation Systems in place

- 8. What needs to be done (including by you) to increase coordination at the local level especially in the areas of Local government and natural resources management?**

#### **Bound Brook**

1. Develop Community Develop Plan

2. Provide better, and more information to all stakeholders

3. Develop greater linkages:

- ✍ Community to Community
- ✍ Community to Agencies
- ✍ Community to Parish Council
- ✍ Agencies to Parish Council

### **Buff Bay**

It was observed that there are several GOJ Agencies (some 14 from earlier study) with responsibilities in the watershed. LFMCs cover watershed issues – so Group in fact a LWMC. The Buff Bay Group relates to the sub-watershed, while the Buff/Pencar group deals with the full WMU.

Participants saw the need to formalize this agreement. The LFMC was established as a prototype with discussions between the leadership of the FD, NEPA, and SDC at the highest levels.

The Buff Bay LFMC covers the Buff Bay watershed, and is also the Development Area Committee (DAC) – the development areas in Portland have been established on watershed lines. However, three DAs currently meet as West Portland Cluster of DAs. The discussions should try to maximize the capabilities of the Buff Bay LFMC under one governance structure.

The group therefore:

1. Work with SDC, LFMC and NEPA to coordinate the role and responsibilities of the different groups to ensure that community participation is consolidated, and persons do not have to attend several meetings (splinter groups), when less groups could achieve the same thing.
2. Review with the SDC the Buff Bay Development Area, and the role of the Buff Bay LFMC, given that a Western Portland Cluster of Development Areas is now in place.
3. Ensure that the Buff Bay LFMC – if it is to be considered the Buff Bay Development Area has representatives from all CDCs in the DA, and therefore take advantage of the breakout of Development areas in Portland on watershed basis, and that the LFMC was established with a watershed mandate.

### **CCAM**

1. Openness, flexibility
2. Removal of politics from the fore
3. Inclusion of all stakeholders

### **Cambridge**

1. Involve stakeholders' agencies in "Round-table" meetings.
2. Ensure communication is open and good and sustained.

### **Redwood**

1. Develop a vibrant group that can lobby and advocate

2. Strengthen the leadership. Several times during the meeting, the President spoke of being frustrated in not getting much support. Providing resources to the leadership was a repeated comment. It was identified that there was a lack of employment in the area
3. More community education programmes to enhance ownership and commitment
4. Provision of recognition to individuals and community
5. Advocate for water – pipelines provided, but no water.
6. Identify the champions, and determine who was missing, and developing strategies to get them involve
7. Give attention to succession leadership

The Group spoke for sometime after. The meeting became a motivation one, a persons gave there commitment to get involved

#### **Retrieve**

1. Establishment of better communication links
2. Establishment of legal structure for the community organization so it can enter into contractual arrangements especially for fundraising purposes

#### **Yallahs**

The group needs to be registered and is anxious for the development of model rules for the operation of a “Specially Authorized Society” is completed by the Department of Cooperatives and Friendly Societies.

The group feels it needs more Government recognition and “backing”. More communication between the major stakeholders is also necessary.

## 8.2 Draft Letter to Participants in Questionnaire

January 21, 2004

Dear,

The Ridge to Reef Watershed Project (R2RW) is undertaking a review of the different processes of local planning and local governance being undertaken in Jamaica. In addition, this undertaking will also utilize information collected to determine how these processes interface with the establishment of Local Watershed Management (LWMC) and/or Local Forestry Management Committees (LFMC).

This review will also highlight the different approaches undertaken at the local level, and will seek to make recommendations on how LWMCs should interface with other ongoing local governance mechanisms and processes. As such, one component of this project is the use of a questionnaire to gather pertinent information. The questionnaire is being sent to all relevant organizations and other stakeholders (both public and private sector).

We especially value your input as one of the key persons identified. Please find enclosed a copy of the questionnaire. We are kindly asking for your assistance and your participation in this process of information gathering by completing the questionnaire. Your response will be very important to achieving the objectives of the project.

We would appreciate a response by Monday, **February 2, 2004**. Please do not hesitate to contact me for any further information or clarifications that you may require. Again, thank you for your participation.

Yours sincerely,

Alicia A. Hayman  
*Consultant*  
Ridge to Reef Watershed Project

Encl: 1

### 8.3 Terms of Reference for the review of WMCs and PDCs

**Ridge to Reef Watershed Project (R2RW)**  
**Terms of Reference for the review of WMCs and PDCs**

<b>Title</b>	Review of LWMCs in Local Government Reform
<b>Activity</b>	Review how the establishment of Local Watershed Management, Local Forestry Management Committees and other related local watershed groups link with local government and the different participatory planning and governance mechanisms introduced at the local level such as PDCs, DACs, and CDCs
<b>Consultants</b>	1. Richard Lumsden, 2. Research Assistant TBD, 3. Trevor Spence
<b>Supervisor</b>	Technical and Contract: Mark Nolan, Chief of Party, R2RW
<b>Duration</b>	38.5 Days between November 10, and December 31, 2003

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#### Background

The Ridge to Reef Watershed Project (R2RW) is a five year Project contributing to the achievement of USAID-Jamaica's Strategic Objective #2 (SO2) – Improved quality of key natural resources in areas that are both environmentally and economically significant. R2RW comprises three Components contributing to the achievement of the Intermediate Results under SO2. Component 3 sets out to build the capacity of agencies involve in watershed management. The national situation impacting on R2RW implementation of the Component 3 activities of the Project, and the Project as a whole, includes the existence a multiplicity of environmental laws, several agencies with overlapping roles and responsibilities, and inadequate local governance mechanisms.

A comprehensive examination of watershed resource management programmes revealed that top-down planning did not include the importance of the local communities to the success of the planning and implementation process of programs and projects designed to protect the environment. Consequently, their needs were largely ignored and this has fed the cycle of unsustainable use of non-renewable resources. Recent modifications in planning and development strategies worldwide has increasingly benefited from bottom-up management of natural resources, with the concomitant formation of Community Based Organizations (CBOs) and Local Watershed Management Committees (LWMCs), and/or Local Forestry Management Committees (LFMCs). The National Forest Management and Conservation Plan of March 2001, and Green Paper No 2/99 *Towards a Watershed Policy for Jamaica* provides the mandate for these local management mechanisms in Jamaica.

The R2RW Project was cognizant of these complex governance issues at the local and national levels, and contracted Dr. Kenneth Ellison in April 2001 to review the Governance and Watershed Management situation, with a view of examining "options available for integrating watershed management into the governance reform processes already underway in Jamaica".

At the same time, the **Local Group Coordination Working Group** of the NIWMC was mandated to act as a facilitating agent that would promote collaboration between local watershed

stakeholders, Government agencies, NGOs and the Council in the support of watershed management initiatives. Local Communities would be the conduits for mobilizing CBOs in each watershed, to organize community consultations, distribute educational material, and liaise with the NIWMC on local level activities, and report to the Council to form a synergy at local and national levels.

Concurrent with the effort to obtain greater citizens participation in the management of the nation's natural resources has been the GOJ's Local Government Reform Program, and signature to Local Agenda 21 - increasing greater Local Governance through the Local Sustainable Development Program (LSDP). Local Government Reform and the Integrated Community Development Programme have seen the establishment of Parish Development Committees, Development Area Committees, and Community Development Committees. Several other State Agencies and international development programs are establishing local management mechanisms to implement their initiatives. These include Water Users Association under the National Irrigation Commission, Local Health Boards, etc

PDCs, DACs, and CDCs are now established in every parish with different degrees of success. There is an urgent need to examine how these interfaces with the different levels of LWMCs, and LFCMs, and what needs to be done to support greater collaboration.

The parish of Portland will be of special interest, and will act as a case-study for this consultancy. The Development Areas in Portland has been designated to coincide with watershed management units (WMUs). In addition the parish is the pilot project for LSDP, and three USAID projects (CWIP 2, EAST, and R2RW), Trees for Tomorrow (TFT) of CIDA and the FD, as well as the EJASP are all currently active in the parish. Special effort will be made to synchronize and coordinate with CWIP 2, since there is known common interest with the role of the PDC and its Sub-Committees, and the Portland Parish Council in the management of natural resources.

## **Purpose**

The purpose of this Scope of Work (SOW) is to review the different processes of local planning and local governance being undertaken within Jamaica, and how these processes interface with the establishment of Local Watershed Management and/or Local Forestry Management Committees. This review will highlight the different approaches undertaken at the local level, and recommend how LWMCs should interface with other ongoing local governance mechanisms and processes. The parish of Portland will be used as a case-study.

## **Activities**

To achieve this goal, the Governance and Natural Resources Specialist (GNRS) of the R2RW Project, Trevor Spence will be a part of a three-person team to carryout the following activities:

1. Review the different local planning, local government reform, local management of natural resources, and local governance applications now being undertaken in Jamaica. This will include the agencies with implementation responsibility, and should include how the PDCs and Local Authorities interface with WMCs. Specific attention should be given to Portland, where the Development Areas are determined by watersheds, and watersheds like the Great River that cuts across several parish boundaries.
2. Review the contents of Watershed level plans done to date including work in the Buff Bay/Pencar watershed by the Forest Department, and the Great River Watershed under the R2RW Project. Assess the need, usefulness and relevance of these watershed plans.
3. Analyze and incorporate the findings of the "Review of Local Watershed Management Committees in Jamaica".

4. Review documentation on the assessment of the capacity of local authorities to implement resource management programs including such aspects as water provision, garbage collection and drainage/flood control. Collaboration will take place with CWIP 2 around its specific mandate to review the capacity of the Portland PC, and its role in garbage collection etc.
5. Prepare a questionnaire to conduct interviews with relevant agencies including: Cabinet Office, MLE, SD Unit in PIOJ, NIC, MLGCDS, NEPA (Planning and SWB), SDC, FD, MOA – RADA, EJASP, NWC (AMCs), and NIWMC to determine the level of awareness and acceptance of the role of LWMCs, LFMCs, and other similar groups. The questionnaire should focus on participation of citizens in local governance, the planning processes, and in the management of natural resources.
6. Conduct working sessions with no less than 5 Focus Groups, representing groups than have existing and no present link with watershed/natural resources management. The SDC, FD, WUAs/NIC, and SWB/NEPA will assist the consultants in selecting the Focus Groups.
7. Based upon the research in items 1-6 above, develop recommendations regarding how WMCs should best interface with other local governance mechanisms – including Local Authorities, Parish Development Committees, Development Area Committees, and Community Development Committees.
8. Prepare a Draft Report to synthesize the findings;
9. Plan and make presentation at a Workshop to the NIWMC and other stakeholders. Representatives for the other stakeholders will be drawn from all agencies participating in the questionnaire, as well as from community groups involve in the focus groups, or that the partners belief should be included; and
10. Provide a Final Report that incorporates input from the Workshop in (9) above

### **Outputs**

The following outputs are to be delivered at the completion of this consultancy:

1. Documentation of review of existing local governance, planning processes, and local management of natural resources mechanisms;
2. Documentation on the relevance of Watershed level plans;
3. Analysis of the “Review of Local Watershed Management Committees in Jamaica”, and their relationship to (1) above;
4. Documentation on the assessment of the capacity of local authorities to implement resource management programs;
5. Analysis of the questionnaire administered to key agencies and stakeholders;
6. Analysis of the Focus Groups discussions;
7. Recommendation of how LWMCs should best interface into other local governance mechanisms;
8. A Draft Report incorporating 1-7 above;

9. A Workshop to review the draft Report; and
10. A Final Report incorporating comments from the Workshop.

#### Level of Effort & Illustrative Proposed Schedule

Activity	Level of Effort			Tentative Schedule
	Richard Lumsden	Alicia Hayman	Trevor Spence	
Meeting/s with key stakeholders to confirm TOR	.5	.5	.5	Nov. 10
Documentation of review of existing local governance, planning processes, and local management of natural resources mechanisms;	2			
Documentation on the relevance of Watershed level plans;		2		
Analysis of the "Review of Local Watershed Management Committees in Jamaica";			2	
Documentation on the assessment of the capacity of local authorities to implement resource management programs;	2			
Develop, administer and analyze the questionnaire given to key agencies and stakeholders;	1	5	1	
Analysis of Focus Group discussions	2	1	5	
Recommendation of how LWMCs should best interface into other local governance mechanisms;	1	1	1	
A Draft Report incorporating outputs above;	2	2	2	
A Workshop to review the draft Report;	1	1	1	
Prepare Final Report incorporating comments from the Workshop	.5	.5	2	
<b>Total LOE</b>	<b>12</b>	<b>12</b>	<b>14.5</b>	



## **8.4 Meetings Held**

Bradley Barrett – Superintendent of Roads and Works, Portland Parish Council

Noel Bennett – Forestry Dept

Richard Billings – Director, Governance, Social Development Commission (Kingston)

Rudolph Brown – Building Officer, Department of Roads and Works, Portland Parish Council

Jacqueline DaCosta – Permanent Secretary, Ministry of Land and Environment

Ethlyn Douglas – Director of Planning, Portland Parish Council

Thera Edwards – Manager, Sustainable Watersheds Branch, NEPA

Cradwick (Ralph) Falloon – Field Services Manager, Social Development Commission (Portland)

William Fong – Consultant, Local Government Coordinator, Ministry of Local Government, Community Development and Sport (MLGCDS)

Lorna Ford – Human Resource Department, MLGCDS

David Parkes – Acting Secretary Manager, Portland Parish Council

Lorna Perkins – Director, Physical Planning, MLGCDS

Hugh Porter – Municipal Services, Planning and Finance, MLGCDS

Sybil Rendle – Chairman, Portland Parish Development Committee

Thredroy Smith – Commercial Services Manager, Portland Parish Council

Maurice Swaby – ENACT/LSDP Coordinator, National Environment and Planning Agency (Kingston)



