

Draft Document III

Toolkit for Harmonising and Enhancing Laws and Institutions to Implement IWCAM

For

GEF Project on “Integrating Watershed & Coastal Areas Management in Caribbean Small Island Developing States (GEF-IWCAM)”



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Glossary of Terms

- **sustainable development** – an ongoing process to improve the living conditions of the present generation that does not compromise the ability of future generations to do so and that ensures an harmonious integration of the economic, social and environmental dimensions of development;
- **right of future generations**- enshrined in Principle 3 of the Rio Declaration on Environment and Development, 1992 recommends that the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.
- **environmental impact assessment** - an assessment of the impact of proposed activities that are likely to have a significant adverse impact on the environment
- **precautionary principle** - states that if an action or policy might cause severe or irreversible harm to the public, in the absence of a scientific consensus that harm would not ensue, the burden of proof falls on those who would advocate taking the action
- **public participation in decision-making** – the public should participate in all aspects of decision0making including lawmaking, planning, strategic planning, resource management planning and permitting and licensing of industry.
- **best available techniques** - the most effective and advanced stage in the development of activities and their methods of operation which indicates the practicable suitability of particular techniques for providing the basis for emission limit values designed to prevent, and where that is not practicable, generally to reduce the emissions and the impact on the environment as a whole.

- **best environmental practices** - the application of the most appropriate combination of measures.
- **polluter pays principle – the polluting party** pays for the damage done to the natural environment
- **transboundary pollution** – pollution whose physical location is situated wholly or in part within the area under the jurisdiction of one state and which has adverse effects other than the effects of a global nature in the area under the jurisdiction of another State

Abbreviations

ANB – Antigua and Barbuda

CBH – Central Board of Health (Antigua and Barbuda)

CITMA- Ministry of Science Technology and the Environment (Cuba)

DOM: Dominica

DR – Dominican Republic

EHS – Environmental Health Services

EIA – Environmental Impact Assessment

GEF – Global Environmental Facility

GND – Grenada

IWCAM- Integrating Watershed and Coastal Areas Management

LBS – Land-Based Sources of Marine Pollution

MEA – Multilateral Environmental Agreement

NCEPA- National Conservation and Environmental Protection Act, as amended (SKN)

SKN – St. Kitts and Nevis

SVG – St. Vincent & the Grenadines

TNT – Trinidad and Tobago

UNCLOS – United Nations Protocol on the Law of the Sea

UNDP – United Nations Development Programme

UNEP/RCU – United Nations Environment Programme/ Regional Coordinating Unit

TOOLKIT FOR HARMONISING AND ENHANCING LAWS AND INSTITUTIONS TO IMPLEMENT IWCAM

1.0 BACKGROUND

The GEF “Integrating Watershed and Coastal Areas Management Project” (GEF-IWCAM) Project focuses on the demonstration of effective comprehensive, integrated watershed and coastal area management systems, based on an intersectoral management approach, in several Caribbean islands. This Legal and Institutional Toolkit is designed and structured as an evolving tool to assist legal practitioners, legislative draftsmen and policy makers in making the changes to the existing legal and institutional framework that will result in the improvement of governance of water resources in their countries. The Toolkit is based on the results of a GEF- IWCAM project activity to prepare national legal inventories of laws and institutions involved in integrating watershed and coastal areas management.

The integration of watershed and coastal areas management achieves multifaceted objectives, it – advances compliance with the obligations prescribed in the selected Multilateral Environmental Agreements (MEAs) including the Land-based Sources of Marine Pollution (LBS) Protocol, in a more efficient and effective way;

- (a) resolves the biggest practical challenge of inadequate resources –both human and financial for introducing national implementing legislation for multiple MEAs by providing an opportunity to harmonise the consideration of several related MEAs in a single drafting effort; and
- (b) ensures the establishment of a comprehensive approach to the prevention and control of marine pollution that takes all stakeholders into account.

The watersheds and coastal areas of GEF-IWCAM project countries have experienced a prolonged and intensive level of resource exploitation. Continuous high-density human settlement patterns and the more recent stresses of tourism development have resulted in high levels of marine

pollution in coastal and marine areas, significant deforestation, diminishing biodiversity and the loss of renewable resources. In the light of these consequences new resource management approaches must be introduced. Legislation provides the vehicle for facilitating this.

1.1 Scope and Objectives of Toolkit

The Aim of the Toolkit is to compile a resource that:

- Provides tools and instruments to key government officials
- Assists in building capacity at regional and national levels to understand the requirements of the LBS Protocol
- Increases the understanding, awareness and skills of personnel responsible for drafting laws protecting watershed and coastal and marine areas
- Facilitates the adoption of regional standards and thereby promote best practices in IWCAM

Enhance synergies between legal, technical and managerial approaches to implementing IWCAM

1.2 Who uses this Toolkit?

The Toolkit is intended to be both an educational guide, a reference document or as a series of stand-alone modules. It can be used to introduce newcomers to integrated watershed and coastal area management systems. It can also be used by practitioners such as planners, developers and

water managers as a reference source for case studies and model laws. The model laws provide a framework or starting point for countries to draft the necessary laws. They contain recommended regulatory language as well as annotations which provide guidance on how to customize the laws to best fit individual country needs. The laws are not intended to be adopted as is, but rather provide an approach for each country to follow in developing its own legal framework. We strongly recommend involving a team of technical, policy and legal experts in developing the final law.

It is acknowledged that when dealing with capacity building in the area of legislation, institutional frameworks and policy there can be no one size fits all product. It is also important to recognise that in many cases each GEF-IWCAM participating country has its own initiative including policies, governance guidelines and protocols related to GEF-IWCAM. In this regard this Toolkit has been designed to complement activities already in progress in the respective countries. To promote regional implementation, users of this Toolkit are encouraged to collaborate with other GEF-IWCAM participating countries in their efforts to build capacity and improve their legal and institutional frameworks for IWCAM.

The Toolkit is presented in five parts –

- Part I provides an overview of the key principles established in MEAs for inclusion in IWCAM legislative frameworks and provides examples of measures that should be established within legislation to incorporate them
- Part II presents the requirements of the LBS Protocol in the form of a checklist and makes an assessment of compliance within existing laws.
- Part III examines the institutional framework of the participating countries in groups according to the similarities among them.
- Part IV puts forward legislative and institutional templates for IWCAM.
- Part V advocates benchmarks against which we can assess progress.

PART I

2. 0 INCORPORATION OF INTERNATIONAL STANDARDS RELEVANT TO IWCAM

Summary: This Part sets out the MEAs that are of relevance to marine and coastal activities, their key principles and provides examples of methods in which they may be incorporated into national laws.

Caribbean countries participating in the IWCAM project are parties to several multilateral environmental agreements (MEAs) and regional Protocols that concern themselves with marine pollution. The Cartagena Convention (1983) is the premier Caribbean MEA and is supplemented by its protocols. The LBS Protocol is one of its protocols. It differs from other international instruments by being the first of its kind to set effluent limitations on discharges to the marine environment of direct application to contemporary watershed and coastal areas issues being experienced by IWCAM Caribbean countries. All of these MEAs establish an obligation for countries to enact supplementary national legislation to implement their provisions. With the exception of Antigua and Barbuda, Cuba, Haiti and the Dominican Republic these MEA's do not take effect until national implementing legislation is enacted in their parliaments. The following seven are relevant to IWCAM issues –

Table 1

MEAs Relevant to IWCAM

| Multilateral Agreement | Subject area it governs |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, adopted in Cartagena, Colombia in March 1983 (Cartagena Convention). | Marine and coastal activities in the Wider Caribbean Sea |
| Protocol Concerning Pollution from Land-Based Sources and Activities (LBS Protocol) to the Cartagena Protocol, 1999. | Protection of the marine environment from pollution from land-based sources |

| | |
|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protocol Concerning Specially Protected Areas and Wildlife (SPA) to the Cartagena Protocol, 1999. | Protects rare and fragile ecosystems and habitats thereby assisting with regional implementation of the global and more demanding Convention on Biological Diversity |
| United Nations Convention to Combat Desertification, 1994 | Encourages the global community to take action to combat desertification, Particularly in Africa and adopts a Plan of Action for accomplishing this. |
| United Nations Convention on the Law of the Sea, 1982 (UNCLOS). | Establishes principles for the management of the resources of the sea |
| United Nations Framework Convention on Climate Change, 1992 (UNFCCC) | Recognises the vulnerability of SIDS to the adverse effects of climate change and seeks global support in reducing harmful emissions that cause climate change. |
| United Nations Convention on Biological Diversity, 1992 (CBD). | Promotes the conservation of, inter alia, marine resources |
| Convention on Wetlands of International Importance, 1971(RAMSAR) | Requires parties to formulate and implement their planning so as to promote the conservation and wise use of wetlands in their territories. |
| Convention for the Control of Transboundary Movement of Hazardous Wastes, 1989 (Basel Convention). | Regulates the transboundary movement of hazardous wastes |
| International Convention for the Prevention of Pollution from Ships, as amended in 1978 (MARPOL 73/78). | Prohibits the operational discharge of marine pollutants from ships |
| Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other matter, 1972 (the London Convention). | Governs the sea disposal of wastes of harmful substances by dumping at sea |

Table II shows the record of acceptance of these instruments by GEF-IWCAM countries.

Table II - Record of Acceptance of MEA's

| | Cartagena Convention | SPAW | LBS | UNCLOS | CBD | UNFCC | RAMSAR | UNCCD | Basel Convention | MARPOL 73/78 | The London Convention |
|-------------------------------------------------|---------------------------------|-------------|------------|---------------|------------|--------------|---------------|--------------|-----------------------------|-------------------------|----------------------------------|
| Antigua & Barbuda | * | * | | * | * | * | * | | * | * | |
| Bahamas | | * | | * | * | * | * | * | * | * | |
| Barbados | * | * | | * | * | * | * | * | * | * | |
| Cuba | * | * | | * | * | * | * | * | * | * | |
| Dominica | * | * | | * | * | * | | * | * | | |
| Dominican Republic | | * | * | * | * | * | | * | * | * | |
| Grenada | * | * | | * | * | * | | * | | | |
| Haiti | * | * | | * | * | * | | * | * | * | * |
| Jamaica | * | * | | * | * | * | * | * | * | | * |
| St. Kitts & Nevis | * | * | | * | * | * | | * | * | | * |
| St. Lucia | * | * | | * | * | * | * | * | * | | |
| St. Vincent & the Grenadines | * | * | | * | * | * | | * | * | | * |
| Trinidad & Tobago | * | * | * | * | * | * | * | * | * | | |

These MEAs enshrine a bundle of common principles and actions, which provide the source of a coherent international practice which when incorporated within national laws to prevent and control marine pollution; can be translated into actionable programmes and activities. These principles for which a broad legislative framework should be established are as follows –

- **sustainable development**
- **adoption of appropriate financial mechanisms**
- **economic, social and cultural values of the marine environment**
- **right of future generations**
- **appropriate institutional framework**
- **national planning for protected areas and species (including environmental impact assessment)**
- **co-operation and co-ordination**
- **precautionary principle**
- **public participation in decision-making**
- **use of the best available techniques and best environmental practices development**
- **monitoring systems and programmes**
- **technical and scientific cooperation**
- **liability and compensation for damage (enforcement and penalties)**
- **duty not to cause transboundary damages**
- **duty of not transforming one type of pollution to another**
- **periodical reports**
- **provision of information and education to the public**
- **exchange of data and information**

The most effective legislative strategy to implementing these principles are those which lay out sound but practical environmental standards, when it provides practical mechanisms of control, when it sets wise mechanisms to early detect unlawful and/or sub-standard conducts, when

it outlines thorough programmes of remediation and when executive power and institutional arrangements complement legislative action by establishing strong, trained, well-capacitated, effective and appropriate enforcement provisions. The following provides examples of the key principles mentioned above. They are suggested as guidelines for incorporating these principles into national legislation specific to IWCAM.

Issue: How to incorporate sustainable development principles within the legislation?

Option: Legislative provisions must go beyond stating these general principles and establish linkages with existing national development policies programmes for relevant sectors such as tourism, agriculture, forestry, health and water resources.

Examples of actions to incorporate sustainable development principles

In the context of watershed and coastal areas the legislation should –

- (a) clearly define the objectives of watershed and coastal areas management;
- (b) establish that all projects be implemented in accordance with the defined objectives;
- (c) call for watershed and coastal areas to be managed in a holistic manner in connection with the other environmental media, health, economic development and programmes;
- (d) include awareness-raising measures and community involvement in project formulation;
- (e) Include provisions to provide adequate funds and adequate institutional structures to sustain the programmes are in place.

Issue: How to incorporate the rights of future generations?

Option: These rights are not secured by simply stating that they exist in the law. To secure them the law should establish provisions for environmental impact assessments, effective waste management and reliance upon such principles as the polluter pays and precautionary principles and should take account of the ecological, cultural, archaeological, historic and scientific significance of proposed development sites.

Examples of actions to incorporate rights of future generations

The legislation should -

- (a) establish a requirement that any development in coastal or inland areas needs to provide a study that explains the physical and biological processes
- (b) provide guidelines on how the study should be conducted
- (c) take into account contingency measures to be undertaken in the event of environmental disaster or emergency.

Issue: How to incorporate the polluter pays principles, the duty not to cause transboundary damage or transforming one type of pollution to another?

Option: Comprehensive enforcement of legislation goes beyond instituting penalties but also involves the introduction of innovative measures. Lack of enforcement stems from several factors including limited human resources and lack of buy-in to the underlying principles of the enactment by the enforcement personnel. In this context there is the need to conduct an assessment of enforcement capabilities for

enforcement. The polluter-pays principle is enshrined in the regulatory regime of IWCAM countries through the system of fines and penalties that is established in existing laws.

Examples of actions to incorporate the polluter pays principle, etc.

- (a) comprehensive revision of the regime for fines and penalties
- (b) utilise alternative enforcement strategies e.g. such as the investigation of offences, inspections, monitoring, enforcement notices, tickets, compounding of offences, the use of incentives to promote enforcement and the use of administrative measures to resolve, name and shame.
- (c) Introduce a system of permits e.g. In Trinidad and Tobago the process for obtaining a Certificate of Environmental Clearance (CEC) for development purposes foresees the need for a discharge permit and makes it part of the application process itself.
- (d) Implement monitoring system that will inform managers that pollution levels have exceeded regulated levels (indicating illegal or unregulated discharges are occurring).

Box 1: PROCEDURE FOR OBTAINING A CEC

Apply for CEC to EMA containing information on operations, with fees
EMA may ask for further information, including EIA
EIA submitted for public comment
EMA establishes conditions for all discharges
EMA grants CEC (with conditions)

Issue: What is a suitable institutional structure for IWCAM?

Option: Because multiple agencies discharge duties in relation to these areas, the key to ensuring a holistic approach in all areas concerned managing them is to establish a central co-ordinating entity and vesting it with the responsibility for policy, goal-setting and programme development and delivery.

Examples of actions for an appropriate institutional structure

- (a) Vest entity with leadership role for coordinating all sectors on all IWCAM-related issues including programming, policy-making.
- (b) promote collaboration with relevant sectors and stakeholders.
- (c) Identify and allocate the responsibilities of each primary stakeholder for specific actions including those of communities and local governments
- (d) encourage communities to establish themselves into organisations and community groups.

Issue: How should the precautionary approach be incorporated?

Option: Environmental impact assessments (EIAs) provide a fundamental tool for preventing and controlling marine pollution from all sources. It implements the precautionary principle and it provides an integrated approach to the review of environmental consequences. It also includes a systematic, holistic approach to the consideration of socio-economic and cultural as well as biophysical systems (taking account of non-quantified values and using ecological information and concepts); gives consideration to indirect effects; and involves the community in the evaluation of proposed changes.

Examples of actions to incorporate EIAs

This legislation should -

- (a) require the conduct of an EIA to assess impacts on watershed and coastal and marine areas
- (b) provide opportunities for the public to participate in the process e.g. through public hearings
- (c) ensure that the effect of proposed developments on biodiversity, indigenous knowledge and traditions and other cultural conditions are appraised
- (d) Provide for mitigation measures and the minimisation of conflicts with other coastal activities as a fundamental principle.
- (e) include provisions to cooperate with regional partners to address concerns
- (f) require local government authorities to adopt LBS-compliant discharge standards when they issue appropriate building permissions.
- (g) Institute the taking of remedial action to restore the environment when it has been degraded.

Issue: How should provisions for best practices, monitoring systems and technical scientific cooperation be incorporated?

Option: The watershed and coastal and marine areas are of economical, ecological and social importance to Caribbean SIDS and requires the use of scientific techniques to prevent these fragile ecosystems.

Examples of actions to incorporate scientific techniques etc.

The legislation should –

- (a) rely upon such tools as ecological, economic and social indicators in developing programmes to respond to adverse changes; feasibility studies to reassess the relevance and appropriateness of the step-by-step project / programme and, if necessary, reformulate it and /or modify it accordingly; risk assessments; and valuation methods.
- (b) require contingency plans to take mitigation measures in a timely manner.

- (c) include early warning systems capable of detecting serious or irreversible damage and unacceptable cumulative impact to coastal or marine ecosystems based on appropriate indicators.
- (d) encourage cooperation with other governments, international and regional organisations, industry and related NGOs in the development and transfer of appropriate environmentally sustainable methodologies and technologies.

Issue: How to incorporate exchange of data, provide information to the public?

Option: There are many IWCAM-related agencies and the task of ensuring that all actors have access to relevant information and are functioning at the same policy and technical standard is quite a daunting one.

Examples of actions to incorporate exchange of data, provide information to the public etc.

The legislation should –

- (a) require that all EIAs submit/post data collected as part of the investigation (along with meta data on methodology, adherence to standards, etc.)
- (b) establish access to information as a right of citizens
- (c) establish registers of information to which the public has access (on the payment of a prescribed fee)
- (d) promote consolidated reporting on compliance requirements to Secretariats including harmonised document cover sheets
- (e) promote the development of information system models that would explore synergies between the multiple MEAs
- (f) adopt standard definitions

Box 2: Non-legislative techniques for exchange of data, provide information to the public

- harmonising web sites
- developing a meta-database to indicate the information that is available and its location
- developing an inter-Protocol web site and search engine, satellite images, as well as a lessons-learned network to encourage the sharing of experience
- developing interactive function to provide flexibility and promote timely responses to stakeholders

Issue: How should IWCAM responsibilities be discharged in a timely manner?

Option: Timeliness is a critical factor in the taking of measures to prevent pollution discharges and ultimate damage to the environment.

Legislative regimes should give powers to act as the circumstances require.

Examples of actions to incorporate timeliness

The law should-

- (a) set time frames within which activities are to be undertaken and completed

(b) establish powers to issue stop orders, closures, notices at administrative level

(c) establish powers to institute interim remedial measures and the recovery of costs.

Global concern over the impacts of marine pollution is borne out in the increasing number of MEAs that bear relevance (directly or indirectly) to this concern. These Guidelines have identified seven of them and have singled out the LBS Protocol as the source instrument that brings focus to marine pollution concerns. While an extensive examination of all the related MEAs on the issue was not undertaken in this exercise, their key principles that should be included in legal frameworks to implement them were discussed. The multiplicity of similar-themed MEAs makes it attractive for countries to employ this mechanism that combines these related obligations into a single mechanism for meeting their numerous commitments.

For IWCAM countries the weakness is further compounded by the fact that the provisions MEAs are not routinely considered as relevant to the drafting exercise to prepare national legislation. And while this may be due the limited availability of specialist expertise on international environmental law or even generally the insistence that international environmental law is outside the framework of the legislative system a significant breakthrough needs to be made by revising our understanding of the role of international environmental law in national legislative regimes and encourage the integration of IWCAM-related principles established in the listed MEAs into legislative frameworks at the national level. The effect of this would realise not only substantive progress in the implementation of MEAs but also improvements in the comprehensiveness of national legislation and institutional effectiveness on the prevention and control of marine pollution.

Integrating watershed and coastal areas management presents a multi-faceted appeal. The consequence of IWCAM countries accepting to become a party to multiple MEAs is that they confront the responsibility, inter alia, to introduce several enabling laws to implement them.

Many of these MEAs overlap in their focus making it feasible and attractive for Countries to harmonise the requirement for national implementing measures and comply with multiple instruments simultaneously. There is no argument that land-based (watershed) activities make a significant contribution to marine pollution and that efforts must be made to regulate it. In taking up the challenge the LBS Protocol and the GEF-IWCAM Project have conceived that integrating watershed and coastal and marine areas management provides a useful mechanism for addressing marine pollution. The management framework for watershed and coastal areas is established within policies, laws and institutional arrangements and MEAs are included in that framework.

PART II

3.0 LBS PROTOCOL REQUIREMENTS AND THE EXISTING LEGISLATIVE FRAMEWORK

Summary: This Part sets out a checklist of provisions that should be established in national legislation to implement the LBS Protocol. As a pre-requisite, countries should assess their existing laws to avoid duplication.

The checklist below is meant to be a tool for GEF-IWCAM countries to assist them in fully implementing their obligations under the LBS Protocol. Countries should always consult the provisions of the Protocol in conjunction with the checklist as it is the text of the Protocol which prevails.

The Checklist seeks to identify the most fundamental matters that should be addressed in national implementing legislation. It does not, however, address all matters that a legislator could choose to address in national legislation. The Checklist is aimed at the legislator who will be drafting the national implementing legislation. Accordingly, it does not address the obligations of States under the LBS Protocol which would normally be implemented administratively, such as ensuring the availability of adequate laboratories for sampling of water quality, as these would not normally be addressed in domestic legislation. However, it does address some obligations that could be implemented through

legislation or administrative measures. For example, it may be useful to ensure that both governmental and private sector is required to comply with the regulations and therefore subject to national law.

There may be additional measures that may be appropriate under national law to support the enforcement of such laws implementing the Protocol. These models are included as part of the Toolkit. In addition to the present Checklist, the legislator should also refer to the Model Legislation that has been prepared as part of this Toolkit to implement the LBS Protocol.

Table III
(Land Based Sources of Marine Pollution Protocol)
CHECKLIST OF MANDATORY REQUIREMENTS FOR THE LEGISLATIVE DRAFTSMAN

| | <u>Legislative, Administrative or Other Measure Required</u> | <u>Relevant Protocol provision</u> | <u>Notes</u> |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SCOPE OF THE MEASURE AND GENERAL PROVISIONS | Define the scope and purpose of the legislative or administrative measure, for example, to introduce measures to prevent, control and reduce pollution from land-based sources and activities, develop plans, programmes and measures including regional and sub-regional plans. | See Article III | For most jurisdictions this can be found in the provisions of Environmental Health Acts or their equivalent or implied in dated Public Health Acts |
| | Identify the sources categories that are covered and associated pollutants of concern. Establish activities that are excluded e.g. household discharges. May wish to define “land-based based sources”, “inland and coastal waters/territorial waters”. | Article IV, also para. (3), Article I (4). Annexes I, II & III Article XVII | It should be noted that Annexes to the Protocol are subject to amendment from time to time by the Conference of the Countries. Such amendments become effective for all Countries in the absence of a notification by a Party to the contrary (see para. 2 and 3 of Article 19 of the Cartagena Convention). Accordingly, Countries may wish to ensure that the waste lists are adopted in a form that will minimize the legislative procedures for incorporation of amendments e.g. include provision for amendment by negative resolution if measures are introduced as enabling legislation. |

| | <u>Legislative, Administrative or Other Measure Required</u> | <u>Relevant Protocol provision</u> | <u>Notes</u> |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Define which activities are covered, i.e. “point” and “non-point” discharges into the marine environment including primary pollutants of concern. | Article IV, Annex I A –C, Annex III E. | May wish to examine legislation for Water Authorities as regards ensuring sewage collection systems are constructed to prevent contamination of groundwater and surface waters. |
| | Make general provision requiring persons to take such steps as are necessary to prevent pollution due to discharges into the marine environment and if such pollution occurs, to minimize the consequences for human health and the environment. Also may have legislation bind the State. | Article 4(2)(c) | Countries should identify the ministries, departments or agencies that will be responsible for monitoring and ensuring compliance with pollution control requirements. It may be that existing legislation already designates such authorities and should be cross-referenced. Legislation may also establish punitive measures in respect of failure to control discharges. |
| DISCHARGES | Specify types and constituents of discharges prohibited. | Annex I C, Annex III A, C | |
| | | Article XII Annex II C 1. and 2 | Annex II B. recognises that States may decide to introduce more stringent measures, source controls or management practices to take account of for e.g. receiving water characteristics, discharge site, capacity of marine environment. These enhanced measures should be notified to the Secretariat for onward transmission to all Countries pursuant to Article XIV. The Secretariat should list these measures on their website to benefit all Countries. |

| | <u>Legislative, Administrative or Other Measure Required</u> | <u>Relevant Protocol provision</u> | <u>Notes</u> |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | For determining effluent discharges, elaborate the Protocol requirements. These requirements, including the application of environmental impact assessments, should be laid out. | Article IV Article VII Annex II | Provision may be made for a general requirement for environmental impact assessments. Legislation should also demand the performance of Science Assessment and Risk Assessment. Provisions should be made to streamline the process and facilitate the interexchange of information among relevant agencies. Physical Planning and Development Acts should be cross-referenced to avoid duplication. Legislation may introduce a system of permits or other written authorisation for discharges. The permit will establish monitoring and other requirements for the permit holder. The application form to be used outlining the information required to make a sound assessment should be annexed to the legislation. A sample permit, may be found as a Schedule to the Model Regulations |
| | The agency issuing the permit should formulate and implement monitoring programmes. | Article VI | Countries should collaborate with existing regional agencies such as CEHI to develop harmonised approaches and avoid duplication of effort. The issuing agency should be entrusted with this task. |
| | Countries should consult other Countries in cases of transboundary pollution of their coastal and marine environment. | Article IX | Countries will need to consider how to ensure that generally accepted and recognized international rules and standards are known by those who will be discharging into the marine environment. In addition, the agency issuing the permit should be vested with the power to halt discharges that cause transboundary pollution and the duty to verify compliance with the Convention Secretariat. |

| | <u>Legislative, Administrative or Other Measure Required</u> | <u>Relevant Protocol provision</u> | <u>Notes</u> |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INFORMATION SYSTEMS | <p>May wish to promote the establishment of informations systems and networks. Ensure the allocation of funds for this purpose.</p> <p>Data must be freely available</p> <p>Developers must submit their data to national data base</p> | <p>Article VIII</p> <p>Article V</p> | <p>For countries that have established Registers of information under their respective environmental Acts information on the country's compliance initiatives with regard to the LBS Protocol may also be included.</p> <p>Countries will need to consider who will verify the information that is placed on the register.</p> <p>Countries may request assistance from the Secretariat to establish in-country information systems.</p> |
| PARTICIPATION | <p>Countries should promote access to relevant information and documentation concerning pollution and public participation in decision-making processes.</p> | <p>Article X</p> <p>Article XI</p> | <p>EIA legislation should involve all stakeholders from the beginning and ensure transparency in management and decision-making processes. They could also be members of any Intersectoral Committee established to implement provisions of the Protocol.</p> <p>Communities and non-governmental organisations should be included in pollution control programmes.</p> |
| NATIONAL AUTHORITIES | <p>Any legislation, administrative or other measure must clearly set forth a competent ministry, department or agency to be responsible for controlling and monitoring discharges, to comply with the procedures to be followed under the Protocol, e.g. of these duties are established in Appendix III to this report.</p> | <p>Article XIII</p> <p>Article XIV, XV</p> | <p>Countries may choose from a variety of administrative options taking into account such determining factors as availability of human resources, experience and existing institutional structures.</p> |
| ENFORCEMENT | <p>Consider establishing an obligation on various types of generators to have insurance, bond or other form of guarantee.</p> | <p>Article III</p> | <p>More stringent measures may be considered to promote enforcement e.g. closure, stiffer penalties, continuing offences, liability of company leadership, retaining guarantees in the event of intentional breach. Establish a regime of strict liability offences and breaches</p> |

| | <u>Legislative, Administrative or Other Measure Required</u> | <u>Relevant Protocol provision</u> | <u>Notes</u> |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p>Provide for offences for discharges exceeding the prescribed parameters as defined in the Protocol.</p> <p>Establish appropriate procedures and penalties to prevent and punish offences.</p> | | <p>which may be remedied administratively.</p> <p>There is no specific requirement for a country Party to require insurance, bond or other form of guarantee under the Protocol; this is a matter of national law.</p> <p>Early warning systems, investigation of violators, seizure of items used to commit offence, and monitoring of activities can be useful techniques to prevent extensive damage by violators.</p> <p>Countries should explore the use of financial incentives to promote enforcement e.g. cost recovery for waste disposal.</p> <p>Care should be taken to formulate the appropriate penalties.</p> <p>Judiciary should be aware of the importance of environmental protection to the public welfare, the compatibility of environmental protection with traditional legal values, and a consequent willingness to strictly enforce environmental law.</p> |
| SECRETARIAT DUTIES | Parties are required to attend meetings of the Parties, reporting, submit reports to Scientific, Technical and Advisory Committee. | Article XIV, XV, XVI | Countries should commit financial resources for implementing the requirements of the Convention. |

3.1 Summary Checklist for incorporation of LBS Requirements into National Legislation

√Retain suitable drafting skills and technical expertise

√Where possible seek assistance of Secretariat of the Convention(s) for technical assistance

- √Ensure that the implementing legislation provides for institutional, policy-making and administrative tools and mechanisms
- √Ensure that the implementing legislation provides for adequate enforcement measures including incentives to promote compliance
- √Resolve conflict between MEA principles and domestic legislation
- √Ensure that the national legislation implements all of the mandatory MEA obligations (at a minimum)
- √Include provisions to include amendments to the MEA when they occur in the national legislation

Part III

4.0 GUIDELINES FOR INSTITUTIONS FOR IWCAM

Summary: This Part shows the current status of the framework that governs watershed and coastal areas management in GEF-IWCAM project countries. Though there are a multiplicity of enactments, they neither singly or combined, establish a comprehensive framework for controlling and managing pollution of coastal and inland waters.

A sound institutional framework is a prerequisite to the sustainable management of coastal and marine areas. This framework consists of an identification of a suitable institutional structure for authorizing the tasks of the institutions. The institutional structure constitutes an important building block element in the building to the successful functioning of any organisation charged with the management of coastal and marine resources. It is typical for this institution to be a coordinating body rather than a sectoral institution. In its functioning, the institution ensures the participation of all relevant stakeholders the provision of adequate financial resources to perform necessary tasks and the availability of human and technological resources.

A preview of the World Water Assessment Report, acknowledged that the world water crisis is largely a governance crisis, in which the major problems are lack (or multiplicity) of institutions, weak legal frameworks, limited human and financial resources and limited involvement of

major stakeholders. The way forward therefore requires the delegation of powers and resources into sound institutions. But...these institutions need to be embedded in national and regional policies and strategies. Integration is key both bottom-up and top-down.

The Tables below examine the varieties of institutional structures that discharge IWCAM related responsibilities, none of which are comprehensive. There is no deliberate attempt within these institutions to integrate activities to produce the common objective of managing watersheds and coastal areas to prevent marine pollution. The result therefore is a “patchwork quilt” of organisations that lack a cohesive policy for IWCAM but whose duties and responsibilities may be refocused in an effective manner through the creation of appropriate institutional strategies to achieve greater impact.

TABLE IV

STATUS OF CURRENT INSTITUTIONAL ARRANGEMENTS FOR IWCAM

ANTIGUA AND BARBUDA, DOMINICA, ST. LUCIA, GRENADA AND ST. VINCENT AND THE GRENADINES

| KEY IWCAM ACTORS | INSTITUTIONAL WEAKNESSES | RECOMMENDATIONS FOR IWCAM |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Antigua and Barbuda</u> Central Board of Health (CBH) Pesticides Control Board Forestry Division Soils and Water Conservation Unit | The institutional powers for marine areas management are established in a severely outdated <u>Public Health Act</u> which limits the scope of responsibility to the abatement of nuisances. A <u>Draft Environmental Health Act</u> establishes a governance structure for pollution control in the CBH. The Draft Act has been proposed for some time and is itself in need of revision to focus on IWCAM. | The choice of institutional arrangement for ANB is wide open. Taking into account the limited available resources and institutional experience the establishment of an Intersectoral Commission is preferred. The membership should in the first instance be small, limited to the actors that are relevant to pollution control aspects of IWCAM. Annex III is instructive. |

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| <p>Environment Division Development Control Authority</p> | <p>Although the Environment Division is not yet established in law it shares some enforcement capacity with the CBH.</p> <p>A <u>draft Environmental Health Act</u> and a <u>Draft Environmental protection Management Bill</u> have been prepared. Conflicts exist between these two instruments particularly as regards the pollution control.</p> | <p>The DCA could assume Chairmanship of the Commission.</p> |
| <p><u>Dominica</u></p> <p>Fisheries Division</p> <p>Forestry and National Parks Division</p> <p>Department of Environmental Health Services (DEHS)</p> <p>Dominica Water and Sewerage Co. Ltd. (DOWASCO)</p> <p>Solid Waste Management Corporation</p> <p>Physical Planning and Development Authority</p> | <p>Due to the importance of watersheds to Dominica the Forestry Division has been active in regulating them. DOWASCO regulates the discharge of wastes in watercourses through a licensing system.</p> <p>The Environment Division monitors activities in the marine environment and there is a high level of interagency cooperation on the management of marine areas.</p> | <p>Although there is room for improved interagency cooperation, a high level of environmental stewardship exists in Dominica.</p> <p>There is a need for improvements in programming, planning techniques, monitoring environmental quality and the availability of financial resources.</p> <p>The establishment of an Intersectoral Commission is the recommended choice for Dominica. DOWASCO should be involved A Assistance in programme development and implementation should be given to the Commission. The Commission should address land management, deforestation, quarrying and solid waste disposal in watersheds as a priority.</p> |
| <p><u>St. Lucia</u></p> <p>Sustainable Development and Environment Unit (SD&EU)</p> | <p>Very small staff</p> <p>Limited experience in coordinating activities among sectors. The SD&EU was established</p> | <p>The SD&EU Department already carries a very large portfolio and an acute staff shortage. This appears to be the trend for all the relevant entities.</p> |

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| <p>Ministry of Planning Water and Sewerage Company</p> <p>Environmental Health Department</p> <p>Department of Fisheries (DOF)</p> <p>Water Resources Management Unit</p> <p>Department of Forestry</p> <p><u>Doesn't Laverne (Walker?) run a CZMU their now?</u></p> | <p>as recently as 2000 to coordinate environmental functions.</p> <p>Fisheries Plan focuses on conservation aspects primarily and should be revised to include pollution control.</p> | <p>Though this may appear initially to defeat capacity-building initiatives, with resources so thin, it would seem to be practicable to appoint an external Consultant for a short period and with specific terms of reference to assist the organisation to implement IWCAM. The Consultant should report to the DOF as the entity responsible for the management of the country's coastal and marine resources.</p> <p>Barbados has adopted a similar approach for its National Commission on Sustainable Development.</p> |
| <p><u>Grenada</u></p> <p>Environment Department</p> <p>Physical Planning and Development Authority</p> <p>Forestry Department</p> <p>Solid Waste Management Authority</p> <p>National Water and Sewerage Authority</p> <p>Waste Management Authority</p> | <p>Institutional structure very weak for IWCAM. Environmental legislation which is still in draft form does vest the Department with responsibility for coastal and marine pollution. Serious staff shortage however.</p> | <p>The execution of IWCAM programmes will face challenges. Need for Commission to be appointed at the highest political level to give sufficient clout to the organisation.</p> <p>In an effort to keep the membership small a choice should be made between the waste management representative of both Waste Management Authority and the Solid Waste Management Authority.</p> |
| <p><u>St. Vincent & the Grenadines</u></p> | <p>This country provides yet another example of acute staff shortages making it extremely unrealistic to expect efficient discharge of</p> | <p>Like St. Lucia the services of an external Consultant could be sought to assist with the implementation of IWCAM initiatives for a short term and with specific objectives. The</p> |

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| Environmental Services Division Physical Planning Unit Fisheries Division Forestry Division | responsibilities for IWCAM. | Consultant should report to the Environmental Services Division. |
|------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------|

TABLE V
STATUS OF CURRENT INSTITUTIONAL ARRANGEMENTS FOR IWCAM
THE BAHAMAS, JAMAICA, ST, KITTS AND NEVIS AND TRINIDAD AND TOBAGO

| EXISTING INSTITUTIONAL ARRANGEMENTS | INSTITUTIONAL WEAKNESS | RECOMMENDATIONS |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><u>Commonwealth of the Bahamas</u></p> <p>Department of Environmental Planning and Protection</p> <p>Department of Physical Planning</p> <p>BEST Commission</p> <p>Department of Environmental Health Services (DEHS)</p> <p>Department of Marine Resources</p> <p>Water and Sewerage Corporation (WSC)</p> | <p>There is a need to strengthen the DEHS to discharge responsibilities for IWCAM.</p> <p>The involvement of the WSC needs to be enhanced to that of a key partner.</p> | <p>The BEST Commission is the National Focal Point for GEF-IWCAM and because of its institutional structure promotes a multi-stakeholder involvement in environmental matters in the country.</p> <p>The DEHS has a lengthy experience with the regulation, monitoring and control of pollution and has performed functions within the entire ambit of marine pollution control. It issues discharge permits. This agency with improved capacity may be considered for active involvement in</p> <p>The Bahamas has a sufficiently mature institutional framework. An Intersectoral Commission that brings focus to IWCAM considerations could advance the process in a short time.</p> |
| <p><u>Jamaica</u></p> <p>National Integrated Watershed Management Council (NIWMC)</p> <p>Natural Resources Conservation Authority</p> | <p>Jamaica also boasts an accomplished experience with coordinating</p> | <p>The scope of functions of the NIWMC should be expanded to include coastal and marine areas and marine pollution.</p> |

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| <p>Town Planning Authority</p> <p>Forestry Department</p> <p>National Water Commission</p> <p><u>St. Kitts and Nevis</u></p> <p>Department of Environment</p> <p>Department of Physical Planning</p> <p>Department of Forestry</p> <p>Department of Fisheries</p> <p>Nevis Island Department of Physical Planning and Environment</p> <p>Solid Waste Management Corporation</p> <p>Water Services Department (Ministry of Works and Public Utilities).</p> | <p>environmental activities.</p> <p>The NIWMC is appointed at a very high level (Cabinet) but the scope of its governance does not include marine and coastal areas.</p> <p>The Environment Department has not established linkages with the Water Services Department as the agency responsible for the protection of watersheds.</p> | <p>Annex III is instructive in this regard.</p> <p>The focus on marine resources is as a result of the importance of tourism to its economy.</p> <p>The Environment Department has benefited from a recent capacity assessment. It is vested with extensive powers and works with NGO's to enlist their support for conservation programmes.</p> <p>An Intersectoral Commission should be established for IWCAM. It should include representation from the Tourism Department and the Water Services Department. The Chairmanship should be established in the Department of Environment.</p> |
| <p><u>Trinidad and Tobago</u></p> <p><u>Environmental Management Authority</u></p> | <p>Although no direct legislation addressing IWCAM there is a multiplicity of instruments and institutions that discharge some aspect of it resulting in either inaction or conflict when a remedy is sought.</p> | <p>There is much experience in coordinating efforts in the country.</p> <p>Harmonise and implement policies on marine and coastal areas</p> |

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| | <p>There are multiple policies on IWCAM including the National Environmental Policy, 2005 which proposes mechanisms for integrated management of coastal areas.</p> <p>Although it could be interpreted to be included, the EM Act does not bring sufficient focus to coastal and marine matters.</p> | <p>The EMAs responsibilities for water pollution, the issuance of permits and environmental quality generally makes it appropriate for the discharge of IWCAM responsibilities. The organisation is already vested with adequate responsibility for coordinating entities making it unnecessary to establish another entity for IWCAM. The organisation should be encouraged to expand its programme to include IWCAM.</p> <p>Annex II is instructive.</p> |
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TABLE VI

STATUS OF CURRENT INSTITUTIONAL ARRANGEMENTS FOR IWCAM

CUBA, DOMINICAN REPUBLIC, HAITI

| EXISTING INSTITUTIONAL ARRANGEMENTS | INSTITUTIONAL WEAKNESSES | RECOMMENDATIONS |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><u>Cuba</u></p> <p>Ministry of Science, Technology and Environment (CITMA)</p> <p>Ministry of the Fisheries Industry</p> | <p>CITMA is responsible with a broad range of IWCAM-related responsibilities including national parks, conservation and all aspects of pollution. Institutional and technical capacity is limited.</p> | <p>The organisation should obtain assistance to establish an Intersectoral Commission for IWCAM. It should also coordinate its activities with other sectors nationally and regionally.</p> |
| <p><u>Dominican Republic</u></p> <p>State Secretariat for Environment and Natural Resources</p> <p>State Secretariat of Agriculture</p> <p>National Institute of Potable Water and Sewerage System</p> <p>Urban Planning Office of the Municipal</p> | <p>There is a lack of coordination among agencies resulting in conflicts in policy implementation.</p> <p>No single entity is responsible for the broad range of IWCAM aspects.</p> | <p>An Intersectoral Commission or a Unit should be established under the national Institute of Potable Water and Sewerage Systems. That agency is responsible for wastewater discharges.</p> |

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| City Councils | | |
| <p><u>Haiti</u></p> <p>Le Ministère de l'Agriculture des Ressources Naturelles et du Développement Rural (MARNDR)</p> <p>Le Ministère des Travaux Publics Transports et Communications (MTPTC),</p> <p>Le Ministère de l'Environnement (MDE)</p> | <p>The agencies discharge only narrow aspects of IWCAM - watershed management policy, risks posed by soil erosion, drainage and storm waters which transport sediments gray waters and wastes of all categories.</p> | <p>Although there are a large number of entities that are charged with relevant responsibilities there exists a very low level capacity for IWCAM.</p> <p>The country should obtain technical and financial assistance to build the necessary capacity. As a first step a capacity assessment should be conducted to determine what is required for IWCAM.</p> |

TABLE VII
STATUS OF CURRENT INSTITUTIONAL ARRANGEMENTS FOR IWCAM
BARBADOS

| EXISTING INSTITUTIONAL ARRANGEMENTS | INSTITUTIONAL WEAKNESS | RECOMMENDATIONS |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><u>Barbados</u></p> <p>Coastal Zone Management Unit (CZMU) of the Ministry of Energy and the Environment.</p> <p>Governmental Analytical Services Department</p> <p>Environmental Management Department</p> <p>Ministry of Economic Affairs</p> <p>Barbados Water Authority</p> <p>National Commission on Sustainable Development</p> | <p>Multiple agencies involved in some aspect of IWCAM resulting in inconsistent policy application.</p> <p>No requirement for CZMU to coordinate its activities with other agencies</p> <p><u>Draft Environmental Management Act</u> not yet enacted to equip the Department with the necessary powers to protect coastal and marine resources.</p> | <p>Barbados stands out among its Caribbean IWCAM project neighbours due to that country's historical focus on coastal and marine issues. The country recognises the significance of the oceans and marine life to its economy and well-being of its people.</p> <p>Barbados is at an advanced stage as regards IWCAM, even having at its disposal laboratory services for water quality monitoring. Given its history, the CZMU should lead the IWCAM initiative.</p> <p>Need to rationlise the responsibilities of the Unit with those established for the Department in the <u>Draft Environmental Management Act</u>.</p> <p>Unit should translate the policies established in National Sustainable Development Action Plan into specific actions that support IWCAM.</p> |

4.1 Summary Checklist of Institutional Requirements for National Legislation

- √Establishes a lead coordinating agency
- √Provides that the mandate of the agency includes coordination and collaboration with other sectoral agencies
- √Provides for public participation including private sector and non-governmental organisation
- √Identifies financial resources for the implementation of assigned tasks
- √Harmonise the discharge of responsibilities with those of other actors on marine pollution

Part IV

5.0 LEGISLATIVE GUIDELINES FOR IWCAM

Summary: This Part presents in three Annexes, model approaches for legislation on IWCAM.

The watersheds and coastal areas of GEF-IWCAM project countries have experienced a prolonged and intensive level of resource exploitation. Continuous high-density human settlement patterns and the more recent stresses of tourism development have resulted in high levels of watershed and land based contributions to marine pollution in coastal and marine areas, significant deforestation, diminishing biodiversity and the loss of renewable resources. Coastal areas are among the most sensitive zones around the world. With the countless fleet of fishing vessels, cargo ships, oil tankers and cruise ships that sail through Caribbean waters, coastal zones and the marine world are constantly under threat of pollution. Marine pollution has increased with the normal build-up of freight traffic to serve larger resident and visitor populations. These stresses have been compounded by the coastal siting of refinery terminals, docks and water/power/waste treatment facilities with inadequately designed marine outfalls. Since 1960, island coastlines have been substantially altered by offshore oil installations and trans-shipment terminals, sea-ports and airports, marinas and cruise ship calls... (Towle, 1985). Sand dredging, reef

blasting and the cumulative effects of upland erosion and sedimentation have also strongly undermined coral communities, destabilised shorelines and disrupted natural beach dynamics (Blommestein, 1985). Degradation of coral health and live coverage is also reducing the natural supply of carbonate sand to beaches, triggering long-term and irreversible erosion in some areas. Heavy sedimentation has destroyed mangrove and seagrass habitats and generally diminished coastal water quality. There are also unending examples of careless amenity consumption such as indiscriminate coral harvesting, reef trampling and discarded non-biodegradable refuse along shorelines or lagoons. These activities have even affected the productivity of Caribbean fisheries.

Box 3: Partnering to Reverse Marine Pollution

The International Coral Reef Initiative (ICRI) is a partnership among nations and organisations seeking to implement Chapter 17 of Agenda 21 and other international Conventions and agreements for the benefit of coral reefs and related ecosystems. The Initiative was established in order to stop and reverse the global degradation of coral reefs and related ecosystems. The ICRI partnership and approach thus far has been to mobilise governments and a wide range of other stakeholders in an effort to improve management practices, increase capacity and political support, and share information on the health of these ecosystems. The First International Coral Reef Initiative Workshop (June 1995) aimed to enable countries, donors, and development and funding agencies to work with coral reef managers, private sector representatives, non-governmental organisations and scientists to develop a Call to Action and a Framework for Action for achieving sustainable management of coral reefs and related ecosystems.

In the light of these consequences IWCAM countries must confront these fundamental environmental issues in the form of new resource management approaches to protecting coastal and marine resources. Legislation makes available one of the vehicles for achieving this. Several approaches are available to countries in order to set their legal frameworks for IWCAM on a sound footing. The choices include -

- revising all IWCAM-related laws to make the changes that are proposed;
- enacting stand alone legislation

- establish a regulatory framework, or;
- establishing or upgrading an existing institutional structure and task it with IWCAM responsibilities.

Annex I, II and III provide models of these choices.

Part V

6.0 BENCHMARKS TO ASSESS PROGRESS

Summary: *This Part suggests in a Table steps that countries may take towards establishing a legal and institutional framework for IWCAM.*

The Global Program of Action (GPA) for the Protection of the Marine Environment from Land-Based Activities is a driver for marine pollution issues in the Caribbean. As a policy instrument it is designed to be a source of conceptual and practical guidance for national and/or regional authorities to devise and implement sustained actions to prevent, reduce, control and/or eliminate marine degradation from land-based activities. On November 5, 1995, the GPA was adopted at an intergovernmental meeting in Washington, DC. The aims of the GPA are:

“preventing the degradation of the marine environment from land-based activities by facilitating the realization of the duty of States to preserve and protect the marine environment.”

The GPA is designed to assist States in taking actions individually or jointly within their respective policies priorities and resources, which will lead to the prevention, reduction, control and /or elimination of degradation of the marine environment, as well as to its recovery from the impacts of land-based activities. Achievement of the aims of the Programme of Action will contribute to maintaining and, where

appropriate, ensuring the protection of human health, as well as promoting the conservation and sustainable use of marine living resources. The objectives of the GEF-IWCAM project embrace the GPA ideals.

The numerous and complex links between watershed and coastal areas management and how to encourage an integrated governance to protect these areas from pollution are key issues for IWCAM project countries. Clearly, there are no universal blueprints or prescriptions to follow. However, countries and communities can draw on existing tools and learn from each other’s experiences –thereby increasing their chances of success. But the effectiveness of interventions and measures and the impact of policy reforms must be assessed to ensure that intended results can be achieved. Monitoring is critical given the regional scope of the LBS Protocol and the need for regional effectiveness. It is also critical to compare needs and prioritize action among the participating countries which implies a need for standardized approaches.

In the context of limited available resources and expertise, the GEF-IWCAM project provides critical impetus to establishing a legal and institutional framework for integrating watersheds and coastal and marine resources management. Executed as a regional project, its activities promote regional integration on the issue of marine pollution while simultaneously promoting the harmonisation of national implementing strategies among participating countries.

TABLE VIII

BENCHMARK SUMMARY OF PRACTICAL ACTIONS FOR IWCAM

| COUNTRIES BY GROUP | LEGISLATIVE ACTIONS | INSTITUTIONAL ACTIONS |
|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u><i>Antigua & Barbuda, Dominica, Grenada, St. Lucia, St. Vincent & the Grenadines</i></u> | <p><u>ANB</u>: Introduce regulatory framework for IWCAM under either Draft EP&M or EH Acts.</p> <p><u>DOM</u>: In the longer term, stand-alone IWCAM legislation should be prepared. The short term</p> | <p><u>ANB</u>: Establish Intersectoral Commission under DCA</p> <p><u>DOM</u>: Establish Intersectoral Commission under Forestry & National Parks</p> |

| | | |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p>should focus on strengthening Commission</p> <p><u>GND</u>: Regulatory framework for IWCAM should be established under Waste Management Act</p> <p><u>SLU</u>: Finalise <u>Draft Marine Pollution Management Act</u>. Include Effluent Limitations established under IWCAM</p> <p><u>SVG</u>: Focus should be on support for Consultant. Longer term, prepare regulatory framework for IWCAM under Environmental Health Services Act.</p> | <p><u>GND</u>: Appoint Intersectoral Commission at high political level under Physical Planning Department or Waste management Authority</p> <p><u>SLU</u>: Appoint External Consultant initially to jumpstart IWCAM activities. Report to Department of Fisheries</p> <p><u>SVG</u>: External Consultant to initially to jumpstart IWCAM activities. Report to Environmental Services Division.</p> |
| <u>Bahamas, Jamaica, St. Kitts and Nevis, Trinidad and Tobago</u> | <p><u>Bahamas</u>: Amend EHS Act to fill gaps in IWCA requirements</p> <p><u>Jamaica</u>: Introduce regulatory framework for IWCAM</p> | <p><u>Bahamas</u>: DEHS/BEST should chair Intersectoral Commission</p> <p><u>Jamaica</u>: Functions of NIWMC should be expanded to include responsibilities for coastal and marine areas</p> |
| | <p><u>SKN</u>: Enact regulatory framework for IWCAM under NCEPA</p> <p><u>TNT</u>: Review existing Water Pollution Rules for consistency with discharge standards in LBS Protocol</p> | <p><u>SKN</u>: Establish Intersectoral Commission under Department of the Environment,</p> <p><u>TNT</u>: Establish IWCAM Unit in EMA</p> |
| <u>Cuba, Dominican Republic</u> | <p><u>Cuba</u>: Review Law No 81 to assess gaps in framework for IWCAM</p> | <p><u>Cuba</u>: Establish Intersectoral Commission under CITMA. Technical assistance required to promote initiative however.</p> <p><u>DR</u>: Intersectoral Commission or Unit should be established under national Institute of Potable Water and Sewerage Systems as agency responsible for sewage discharges.</p> |
| <u>Haiti</u> | <p>Focus should be upon coordinating IWCAM activities.</p> | <p>External Consultant should be assigned to MDE to coordinate IWCAM activities.</p> |

| | | |
|-----------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <u>Barbados</u> | Rationalise provisions of Marine Pollution Act and Coastal Zone Management Act. | CZMU should discharge IWCAM responsibilities and coordinate the several relevant agencies |
|-----------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|

6.1 Conclusion

Water is an environmental resource with a profound impact on public health, economic activity, environmental and ecosystem quality.

Therefore the prerequisite for achieving sustainable development is that organisations that are assigned with water management actually possess the ability to carry out the tasks.

The mechanisms identified in this Toolkit are not exhaustive, but are indicative of recent trends towards the establishment of appropriate laws and institutions to control and manage marine pollution. These mechanisms depend on a high level of political will and the availability of resources – financial, human and technological- to realise the goal of an improved water quality in marine and coastal areas. This Toolkit is not beyond refinement but nevertheless can serve as a guide to legislators and water managers in adopting measures for IWCAM. It provides materials legislators can use to revise the legislative and policy framework that governs water pollution.

Annex I

Strategy for a Regulatory Framework for Marine Pollution

he proposed strategy for a regulatory framework which follows is based on the premise that the current legislative framework of IWCAM participating countries establishes the following conditions and principles –

- Identifies an environmental coordinating entity and vests it with responsibility for controlling and monitoring water pollution;
- Provides the entity with the power to enforce standards using measures of permitting, sanctions/fines, pollution taxes, and economic incentives (prices as well as the potential for closing industries that are unable to comply with discharge standards and pose an immediate threat to human health and/or the environment in order to preserve water quality for the protection of the public;
- Sets basic principles and directives on the rights and responsibilities of economic agents regarding environmental protection as well as the ability to operate under the “polluter pays” principle.
- Defines baseline or target levels for marine health, possibly through selected bio-indicators and establishes a regulatory process and instruments to manage all inputs of point source and non-point source pollution such that target levels in bio-indicators are not exceeded.

These regulations govern issues pertaining to wastewater (as opposed to drinking water). They set standards for all facilities that discharge pollutants from any point source into inland or coastal waters of [Country]. These facilities are required to obtain a permit. Controls are also placed on non-point sources e.g. agricultural runoff and storm water discharges. Understanding how each of the key terms (“pollutant”,

“point source”, “non-point source”, and “inland or coastal waters of [Country] have been defined and interpreted by the regulations is key to defining the scope of the regulatory framework.

The standards may be established via three mechanisms:

GENERAL REGULATIONS

These regulations establish general procedures for obtaining permits/licences for any source. It prescribes inter alia the permit application process and the information that should be submitted in order to obtain a permit, grant of a permit, duration, whether permit transferable or not, renewal, suspension, modification, cancellation etc. As a stylistic measure, these provisions may be embodied either in the main regulations or in a separate set of regulations. This latter practice was adopted by Jamaica (Natural Resources and Conservation (Permits and Licences) Regulations, 1996) and by Guyana (Environmental Protection (Authorisations) Regulations, 2000). The attractiveness of this approach is that these procedures are standard and may be referenced for other follow-up regulations that the agency may require thereby avoiding duplication.

Sample provision

“An application for a permit shall—

- (a) be completed in triplicate and shall be submitted to the Minister together with the fee prescribed in the # Schedule;
- (b) be in accordance with the form prescribed in Form I of the # Schedule;
- (c) be in respect of one facility; and

(d) include the following information -

- (i) the company or corporate name, or name of the institution or individual, the names of directors if any, the name and position of the applicant, the name of owner or occupier and the mailing address of the facility;
- (ii) the location of the facility, including town or village, district, street name and lot number;
- (iii) a brief description of the process or activity generating the release including principal products, chemicals and raw materials used;
- (iv) age, energy use and water use of the facility;
- (v) existing or proposed point source and non-point source volumetric release rates;
- (vi) pollutant quality monitoring data which shall indicate characteristics of release, including flow rate, quantity, conditions and concentrations of constituents;
- (vii) an indication of whether or not the facility is proposed or is in existence;
- (viii) an indication of whether or not other approvals from any other governmental entity are required under written law and whether such approvals have been obtained;
- (ix) copies of any Environmental Impact Statement or Assessment Reports or environmental study which pertains to the facility;
- (x) description of any water pollution control programme;
- (xi) topographic map of the area with a scale of one in twenty-five thousand, extending to at least one kilometre beyond the property boundary;
- (xii) a description of the receiving environment into which the release is directed;

(xiii) any other relevant information deemed necessary.

Note: The Unit may choose to evaluate whether this project is acceptable from an cumulative impacts perspective? Perhaps the Unit could post the total load of nutrients/contaminants on a watershed basis in addition to the target maximum, then any development could proceed providing it did not push the cumulative load for all target contaminants over the watershed maximums (in addition to limiting PS and NPS discharges to regulated maximums).

MAIN REGULATIONS

In establishing the requirement for e permit the scope and objective of the regulations are set out. It includes-

- Key definitions (in its Interpretation Clause).

Sample provision

“agricultural activities” means pertaining to horticulture, fruit growing, seed growing, dairy farming, the breeding and keeping of livestock (including any creature kept for the production of food, clothing, or for the purpose of farming of land), the use of land as grazing land, meadow land, osier land, market gardens and nursery grounds, and use of land for woodlands where that use is ancillary to the farming land for other purposes and includes activities for the cultivation of crops and intensive animal-rearing operations;

“facility” (or point source) means—

(a) an industrial facility;

(b) a commercial facility;

(c) a medical facility;

(d) an institution; and

(e) a sewerage facility;

“inland or coastal waters ” means the territorial waters and internal waters of [Country], including all the bays, coves, inlets, sounds, channels, passages, marinas, ports and harbours, directly or indirectly opening adjacent thereto, whether natural or man-made, within the limits of [Country] and includes surface water, sea, groundwater, wetlands or marine areas within the environment; and includes territorial waters;

“non-process activity” includes the operation of a public carwash, hair salon or plant nurseries.

The definitions contained in the LBS Protocol should be considered for inclusion though they may need to be modified as appropriate.

- Permit specifications

The regulations will specify that the facility/source must comply with all applicable standards and any other conditions identified by the [Agency]. It will indicate whether and under what conditions a permit may be transferred, establish monitoring and inspection requirements, renewals and temporary extensions. Every facility/point source must perform effluent monitoring. This may be done by setting timetables in the permit or establishing conditions in the permit e.g.

Sample provision

“The [Agency] may establish in each permit, conditions, as required in the case of each facility, including the following requirements –

(a) that monitoring of the conditions of the permit is conducted in accordance with the methods specified in the permit;

(b) that measurements taken for the purpose of monitoring shall be representative of the release.”

- *Standards*

The regulations will specify the standards applicable to new and existing facilities/point sources. The LBS Protocol establishes parameters in relation to discharges and receiving waters. The standards should be in accordance with the requirements that are established therein. The regulations should specify the substances that are to be monitored. The regulations should also set aside a date for compliance in accordance with compliance schedules and may require an ‘environmental management and compliance plan’ to show that the operations of the facility/non-point source will meet the applicable standards.

Sample provision

(1) The [Minister] shall at any time after the commencement of these Regulations, establish the parameter limits of pollutants that may be discharged into any inland or coastal waters or land of [Country] with respect to any or all of the substances specified in the Second Schedule.

(2) No new facility shall discharge any substance, in concentrations greater than those established as parameter limits under paragraph (1).

(3) The [Minister], in imposing conditions on a permit shall be guided by the parameter limits established under paragraph (1) [and the considerations established under Annex II of the Protocol].

- (4) The [Minister] shall, on a case-by-case basis, fix in a compliance schedule, the date and the manner in which every existing facility shall comply with the parameter limits established under paragraph (1).
- (5) The [Minister] may amend the prescribed parameter limits established under paragraph (1), with respect to any or all of the substances and any other substance not listed anywhere in these Regulations.
- (6) Any person who contravenes paragraph (2) shall be guilty of an offence and shall be liable to a fine of [insert suitable fine] and imprisonment for [insert suitable term].

- *Recordkeeping and reporting*

Every facility/point source must keep records of the results of its monitoring up to a [period] of years. The results must be reported to the [Agency]. The regulations will describe circumstances when violations due to “upsets” may be excused and the procedure that should be adopted in those circumstances. They are usually those beyond the reasonable ability of the facility/source to foresee or prevent. Permit holders should also be required to report instances of non-compliance and exercise due diligence in mitigating damages caused by such non-compliance.

Sample provision

Records and information.

“(1) Every holder of a permit shall keep all records required by these Regulations including records of any environmental monitoring for a period of not less than two years.

(2) A holder of a permit shall keep records of all sampling and analytical procedures used in meeting the requirements of paragraph (1), including for each sample, the date and time of collection, the sampling procedures used and any incidents likely to affect the analytical results.

(3) A holder of a permit shall keep records of the results of all monitoring performed.”

(4) A holder of a permit shall keep records of all maintenance and calibration procedures and of all problems or malfunctions, including those related to sampling, analysis, acute lethality testing, chronic toxicity testing or flow measurement, that result or are likely to result in a failure to comply with the requirements contained in the environmental authorisation of these Regulations, stating the date, duration and cause of each malfunction including a description of any remedial action.

(5) A holder of a permit shall ensure that all records kept under this regulation are available to authorised officers of the Agency at the holder’s facility on request during normal office hours of the facility.

(6) A holder of a permit shall keep records required by these Regulations, in an electronic and hard copy format acceptable to the Agency.

Box 4: Major Components of a Permit

1. *Cover page*- Contains name and location of premises, statement authorising the discharges, specific locations for which the discharge is authorised
2. *Effluent limits* – The primary mechanism for controlling discharges to inland and coastal waters. These limits are based on applicable technology-based and water quality-based standards. See LBS Protocol Annexes for guidance. The limits could assess cumulative impact and how the activity may influence the total loads for key contaminants (sediment, nutrients and bacteria) from the watershed and to the receiving waters.
3. *Monitoring and Reporting Requirements* – Used to characterise waste streams and receiving waters, evaluate wastewater treatment efficiency and determine compliance with permit requirements.
4. *Special conditions* – Conditions developed to supplement effluent limit guidelines

one is best management practices

5. *Standard Conditions* – Pre-established conditions that apply to all permits. These establish the legal, administrative and procedural requirements of the permit.

- Modifications to a Facility/Source

Sample provision

The regulations should require a holder of a permit to notify the [Agency] of any variances/modifications. It should also clarify what kinds of modifications to a facility/source will trigger a need for a new permit.

“(1) A person to whom a permit has been granted may make an application to the Agency to vary any provision thereof on submission of supporting particulars together with the fee specified therefore in the # Schedule.

(2) The particulars submitted under paragraph (1) shall be based on supported scientific evidence.

(3) For the purposes of paragraph (1), varying/modifying the provisions of a permit includes –

- (a) any change in the construction, structure, or arrangement of the facility or any plant, building, equipment, machine, apparatus, mechanism or thing serving the facility or any technology used or installed at the facility from which effluent may be discharged ;
- (b) any change in the construction, structure, arrangement, alignment, direction, or condition of any channelling device, system, or facility serving the premises;
- (c) any change in the position and design of any outlet at the point or points of discharge of effluent;

- (d) any change in the quality of the effluent, whether raw or treated at any time or point after it is produced at any facility so as to cause a dilution in the concentration of such effluent;
- (e) any change in the use of raw materials;
- (f) any material change in the quality, quantity, composition of the effluent;
- (g) any change in the process or rate of production or operational procedures;
- (h) any change in products being manufactured; and
- (i) any change in waste produced.

(4) The Agency may approve the application under paragraph (1) if –

- (a) there is no known practicable means of control to enable compliance with the existing conditions contained in the environmental authorisation; or
- (b) the estimated cost to be incurred for compliance will be prohibitive having regard to the nature and size of the industry, trade or process being carried out in the permitted premises discharging the effluent; or
- (c) the design and construction of any plant or other control equipment require a longer period than the period for compliance with these regulations; or
- (d) the imposition of the conditions as stipulated in the environmental authorisation is not, having regard to all factors, reasonably practicable or are contrary to the intent and spirit of these Regulations.

(5) Where the Agency approves an application under paragraph (1) the Agency shall cancel the existing permit and re-issue to the applicant a new permit.”

- *Non-point sources*

Pollutants can enter inland and coastal waters from a variety of pathways including agricultural, domestic and industrial sources. The LBS protocol seeks to control both point and non-point discharges. The primary focus of the existing legislative framework for water pollution control in GEF-IWCAM countries is on point sources however making non-point sources exempt from regulatory control. To meet compliance requirements under the LBS Protocol both sources must be regulated. Specific sources should include agricultural runoff and storm water discharges.

Sample provision

“1) Where it appears to the [Agency] that any inland or coastal waters have been or are likely to be polluted in consequence of the conduct of agricultural activities, lawn management (fertilizer/herbicide applications), construction and sediment release or any other non-process activity, the [Agency] may, in consultation with the Minister responsible for agriculture, serve on the occupier of the land where the act or omission took place, a notice requesting him to stop or prevent acts or omissions of that kind.

(2) The [Agency] may at any time after the commencement of these Regulations, direct by notice a person who engages in any of the activities specified in paragraph (1) to submit an application to the [Agency] for a permit.

- *Environmental impact assessment*

In addition to the requirement for a permit, the EIA requirement is the main mechanism for enshrining the precautionary principle and the rights of future generations. The regulations can provide a “one-stop shop” framework whereby a permit is granted as part of the development application process.

Sample provision

(1) The [Agency] may by notice in writing require an applicant for a permit or the person responsible for undertaking in a prescribed area, any enterprise, construction or development –

(a) to furnish to the [Agency] such documents or information as the [Agency] thinks fit; or

(b) where it is of the opinion that the activities of such enterprise, construction or development are having or are likely to have an result in the discharge of a pollutant, to submit to the [Agency] in respect of the enterprise, construction or development, an environmental impact assessment containing such information as may be prescribed, and the applicant or, as the case may be, the person responsible shall comply with the requirement.

(2) A notice issued pursuant to subsection (1) shall state the period within which the documents, information or assessment, as the case may be, shall be submitted to the [Agency].

(3) Where the [Agency] issues a notice under subsection(1), it shall inform any agency or department of Government having responsibility for the issue of any licence, permit, approval or consent in connection with any matter affecting the environment that a notice has been issued, and such agency or department shall not grant such licence, permit, approval *or* consent as aforesaid unless it has been notified by the [Agency] that the notice has been complied with and that the [Agency] has issued or intends to issue a permit.

(4) Any person who, not being an applicant for a permit, refuses or fails to submit an environmental impact assessment as required by the [Agency] shall be guilty of an offence and shall be liable on summary conviction to a fine of [insert fine].

- *Regulation of Private Auditors and laboratories*

To ensure independent findings, the Agency could rely on private auditors and laboratories. These must be certified however.

- *Register of water effluents.*

In keeping with the desire to promote public participation in environmental matters the [Agency] should develop a list water effluents in the form of a register. The register should be accessible to members of the public.

Sample provision

“(1) The [Agency] shall establish and maintain a Register of water effluents.

(2) The Register shall contain information identifying the quantity, conditions or concentrations relevant to the identification of each effluent.

(2) The Agency shall cause the Register to be updated periodically and published from time to time in the *Gazette* and in one or more daily newspapers.”

- *Register of permits*

The regulations should provide that permit applications and permits are public documents and should be made available for its review.

Sample provision

“A Register or Registers of Information, shall be maintained in any form containing the following additional particulars –

(a) every refusal to grant an environmental authorisation together with the reasons for the refusal;

(b) every refusal to vary the conditions of an environmental authorisation;

(c) information supplied under regulation x;

(d) any other information the [Agency] considers expedient to be included in the Register (this may include information on non-point sources loads (such as nutrient runoff from golf courses)

(1) Every Register to which paragraph (1) refers shall be open to the public for inspection at the [Agency's] principal office during normal working hours, free of charge, and the [Agency] shall supply a copy on payment of ten dollars for each page made from such Register.

- Penalties and Miscellaneous provisions

These could include provisions containing penalties for breach, the requirement for liability insurance requiring companies to purchase insurance to cover potential environmental liability resulting from damage to the environment and other incentive and market-based options.

Annex II

Provisions for the Establishment of a Framework Act To Coordinate Marine Pollution/LBS Protocol Activities

Section

Preliminary

1. Short title
2. Interpretation

Part I

Establishment and functions of [Authority]

3. Establishment of [Authority].
4. Functions of [Authority].
5. Permit required.
6. Revocation of permit.
7. Power of [Authority] to request environmental impact assessment.
8. Operations by [Authority] regarding water pollution.
9. Notice to abstain from agricultural practices.

Part II

Financial Provisions, Accounts and Reports

Article XVI of the LBS Protocol requires Contracting Parties to establishing funding mechanisms for the implementation of programmes. These are standard financial provisions and are not elaborated within the document

10. Expenses of Authority.

Borrowing powers.
Minister of Finance may guarantee loans.
Power to invest moneys.
Accounts and audit.
Annual report and estimates.
Exemption from taxes and duties.
Appointment of staff.
Etc.

Part III
General

11. Regulations

Preliminary

Short title

1. This Act shall be cited as the [Marine Pollution Authority] Act.

Interpretation

Introduces key interpretation clauses contained in Protocol

2. In this Act -

“agricultural activities ” means activities originating from the cultivation of crops and rearing of domesticated animals, excluding intensive animal rearing operations that would otherwise be defined as point sources, and animal husbandry and cultivation for domestic purposes;

“Authority” means the [Marine Pollution Authority] established under section 3’

“Chairman” means the chairman of the Authority;

“functions” includes powers and duties;

“inland or coastal waters ” means the territorial waters and internal waters of [Country], including all the bays, coves, inlets, sounds, channels, passages, marinas, ports and harbours, directly or indirectly opening adjacent thereto, whether natural or man-made, within the limits of [Country] and includes surface water, sea, groundwater, wetlands or marine areas within the environment; and includes territorial waters;

“permit” means a permit required under section 5;

“person responsible” in relation to an enterprise, construction or development includes any person at whose order or on whose behalf the enterprise, construction or development will be or, as the case may be, is being undertaken;

“sewage discharge” includes any disposal from sewage disposal or sewage works;

“territorial waters” means the area of the marine environment which extends no more than three nautical miles from the high water mark;

“waste” means liquid waste and includes domestic sewage;

“waters” means inland or coastal waters.

Part I

Establishment and functions of [insert name of Authority]

Establishment of [Authority]

3. (1) There is hereby established an Authority to be known as (insert suitable name of Authority) which shall be appointed by [the Minister] consisting of the persons appointed in accordance with this section –

- (a) a Chairman;
- (b) [insert number of members] members drawn from the governmental agencies and departments that discharge functions related to pollution control, pesticide control, agriculture, physical planning, water resources, environmental health, forestry, fisheries and tourism;
- (c) one member from the private sector; and
- (d) one member representing non-governmental organisation.

Functions of [Authority]

4. (1) The functions of the [Authority] shall be –

- (a) to take such steps as are necessary for the prevention of marine pollution so as to ensure the conservation, protection and proper use of its natural resources;
- (b) to promote public awareness of the ecological systems marine environment of [insert Country] and their importance to the social and economic life of the country;
- (c) to advise the Minister on matters of general policy relating to the management, development, conservation and care of the marine environment; and
- (d) to perform such other functions pertaining to the prevention of pollution as may be assigned to it by the Minister or by or under this Act or any other enactment.

(2) In carrying out its functions under this Act the [Authority] shall, in relation to the prevention and control of marine pollution –

Provisions below are relevant to Articles IX, XII and XIV of the Protocol (Attendance at meetings, Reporting, and cooperation), Article VIII (Information Systems) and XIV (Scientific and Technical Committee)

- (a) coordinate the activities of entities that discharge related functions;
- (b) develop and implement plans, programmes, measures and standards including public education programmes;
- (c) establish and monitor compliance with standards, criteria and programmes;
- (d) encourage and develop scientific, technical and management-oriented research
- (e) establish an adequate framework of laws and policies including policies and legal mechanisms directed toward the management of agricultural activities and the development of a plan to implement such modifications as may be necessary to achieve best management practices;
- (f) promote the availability of information and the participation of members of the public;
- (g) to co-ordinate the establishment and maintenance of national marine parks and protected areas systems;

- (h) take the necessary actions for the implementation of the international obligations of the [Country];
- (i) ensure that any developmental activity which may cause an adverse effect on the marine environment is assessed before such activity is commenced and that such adverse effect be taken into account in deciding whether or not such activity should be authorized;
- (j) establish linkages with the Secretariat of the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region and other relevant local, regional and international organisations;
- (k) perform such other functions pertaining to the prevention and control of marine pollution as may be assigned to it by the Minister by or under this Act or any other law.

Permit required

5. (1) Subject to the provisions of this section, no person shall –

(a) discharge on or cause or permit the entry into *waters, on the ground or into the ground, of any sewage or pollutant or any poisonous, noxious or polluting matter; or

(b) construct, reconstruct or alter any works for the discharge of any sewage any poisonous, noxious or polluting matter, except under and in accordance with a permit for the purpose granted by the Authority under this Act.

(2) Subsection (1) shall not apply to discharges of pollutants specified in the First Schedule.

(3) Any person who contravenes the provisions of subsection (1) shall be guilty of an offence and shall be liable to a fine [insert fine] and imprisonment for a term of [insert term]

(4) The Minister shall make regulations for the grant, suspension and revocation of permits and otherwise in relation thereto.

Revocation etc. of permits

6. (1) Subject to subsection (2), the Authority may by notice addressed to the person to whom a permit was issued revoke or suspend the permit if it is satisfied that there has been a breach of any term or condition subject to which the permit was granted, or if such person fails or neglects to submit to the Authority, in accordance with section 10, any documents, information or assessment required thereunder.

(2) Except as provided in subsection (3), the Authority shall, before revoking a permit, serve on the person to whom it was granted a notice in writing-

(a) specifying the breach or default on which the Authority relies and requiring him to remedy it within such time as may be specified in the notice;
and

(b) informing him that he may apply to the Authority to be heard on the matter within such time as may be specified in the notice.

(3) The Authority shall not be obliged to serve a notice pursuant to subsection (2) in relation to any breach if a cessation order or an enforcement notice is issued.

Power of Authority to request environmental impact assessments

Article VII requires Parties to develop Environmental Impact Assessments as a mechanism for preventing and controlling discharges to the marine environment

7.(1) Subject to the provisions of this section, the Authority may by notice in writing require an applicant for a permit or the person responsible for undertaking in a prescribed area, any enterprise, construction Or development –

(a) to furnish to the Authority such documents or information as the Authority thinks fit; or

(b) where it is of the opinion that the activities of such enterprise, construction or development are having or are likely to have an result in the discharge of a pollutant, to submit to the Authority in respect of the enterprise, construction or development, an environmental impact assessment containing such information as may be prescribed, and the applicant or, as the case may be, the person responsible shall comply with the requirement.

(2) A notice issued pursuant to subsection (1) shall state the period within which the documents, information or assessment, as the case may be, shall be submitted to the Authority.

(3) Where the Authority issues a notice under subsection(1), it shall inform any agency or department of Government having responsibility for the issue of any licence, permit, approval or consent in connection with any matter affecting the environment that a notice has been issued, and such agency or department shall not grant such licence, permit, approval *or* consent as aforesaid unless it has been notified by the Authority that the notice has been complied with and that the Authority has issued or intends to issue a permit.

(4) Any person who, not being an applicant for a permit, refuses or fails to submit an environmental impact assessment as required by the Authority shall be guilty of an offence and shall be liable on summary conviction to a fine of [insert fine].

Operations of Authority regarding water pollution

Related to Article III (3) – (Enforcement) measures to prevent, reduce and control pollution from land-based sources and activities.

8. (1) Where it appears to the Authority that any poisonous, noxious or polluting matter is likely to enter, or is or was present in any waters, the Authority may,

(a) after consultation with any agency or department of Government having functions in relation to water or water resources, carry out such operations as it considers appropriate for the purpose of preventing it from doing so; and

(b) where such matter appears to be or to have been present in such waters, for the purpose of removing or disposing of the matter, or of remedying or mitigating any pollution caused by its presence in the waters, or of restoring the waters, so far as it is reasonably practicable to do so, to the state in which they were immediately before the matter became present in the waters.

(2) Any amounts reasonably incurred by the Authority in carrying out operations in pursuance of subsection (1) are, subject to subsection (3), recoverable by the Authority as a debt incurred by the person or persons who caused or permitted the poisonous, noxious or polluting matter, as the case may be, to be present at the place from which it was likely in the opinion of the Authority to enter waters or, as the case may be, to be present in such waters; and accordingly, without prejudice to any penalty imposable on such person or persons, such sums may be recovered without limit of amount, as a civil debt.

(3) A person shall not be liable to pay any sums expended by the Authority pursuant to this section if he satisfies the court that such sums were incurred unreasonably .

(4) Any person who wilfully obstructs the Authority or any person authorized in that behalf in the exercise of its powers under this section shall be guilty of an offence under this Act and shall be liable on summary conviction to a fine of [insert fine] or to imprisonment for a term of [insert term].

Notice to abstain from agricultural activity

Implements ANNEX IV Agricultural Non-Point Sources of Pollution(could also include fertilizer on lawns/golf courses)

9. (1) Where it appears to the Authority that any internal or coastal waters have been or are likely to be polluted in consequence of an act or omission which is related to an agricultural activity the Authority may, in consultation with the Minister responsible for agriculture, serve on the occupier of the land where the act or omission took place, a notice requesting him to stop or prevent acts or omissions of that kind.

(2) Any person who refuses or fails to comply with a notice served under this section shall be guilty of an offence and shall be liable a fine [insert fine (usually a sever one due to the extent of damage that may be caused)] or to imprisonment for a term not exceeding [insert term] or to both such fine and imprisonment, and-

(a) where a person defaults in the payment of a fine imposed under this subsection, he shall be liable to imprisonment for a term [insert higher term];

and

(b) where the offence is a continuing offence, he shall be liable to a further fine of [insert fine] for each day on which the offence continues after conviction.

Notes: Other enforcement measures and procedures may be relied upon such as compounding of offences, cessation notices, and enforcement notices.

Part II

Financial Provisions, Accounts and Reports

10. This part will contain the usual powers with regard to finance, expenditure, borrowing and investment powers, staffing etc. of Authority. These provisions are crucial to the Authority's capability in discharging its functions and are one of the limiting factors regarding this choice option for marine pollution control.

Part III

General

Power to make regulations.

11. The Minister may make regulations for the purpose *of* giving effect to the provisions of this Act, and in particular but without prejudice to the generality *of* the foregoing, such regulations may contain provisions in relation to-

- (a) discharge standards and codes of practice with respect to the prevention and control of marine pollution;
- (b) the quantity, condition or concentration of pollutants substances that may be released into internal and coastal waters;
- (e) the design, construction, operation, maintenance and monitoring of facilities for the control of water pollution and the disposal of waste;
- (f) the conservation of marine resources;
- (g) the form and manner of, and the fees payable in connection with, an application for any permit that may be granted by the Authority under this Act;
- (h) the grant, refusal, revocation or suspension of any permit that may be issued by the Authority and the terms, conditions or restrictions subject to which or permit may be granted;

(p) the fees or charges payable to the Authority for services rendered by the Authority, its servants or agents in carrying out the provisions of any enactment under which the Authority exercises functions;

(r) any other matter required by this Act to be prescribed.

First Schedule (regulation 5)

LIST OF DISCHARGES TO WHICH THESE REGULATIONS DO NOT APPLY

Discharges from non-commercial motor vehicles;

Discharges from households except where such households contain industrial or commercial facilities;

Any housing or commercial development or both of less than 30 units, without affecting the generality of 2(3).

Processing, manufacturing, washing or servicing of any other products or goods –

(1) that produces pollutant or less than 60 cubic metres per day;

(2) that the pollutant does not contain those contaminants listed as parameters (vi) to (xvi) in the first column of the Second Schedule;

(3) where the total load of biochemical oxygen demand of the pollutant fixed at 20 degrees centigrade for 5 days or suspended solids or both, shall not exceed 6 kilogrammes per day (concentration of 100 milligrammes per litre);

Licensed water abstraction;

emergency activities to avoid a greater danger to the public

Domestic animal husbandry and crop cultivation

Domestic waste effected by means of absorption or soak-away pits or other prescribed waste disposal system.

Annex III

Provision to establish an Intersectoral Committee (by amendment to appropriate main Act)

Note: Article XIII of the LBS Protocol requires each contracting party to establish a focal point to serve as liaison to the Secretariat and to discharge certain specified functions. Article X requires parties also to promote public access to information and public participation. In light of the multisectoral nature of those duties and the need for an integrated approach it is recommended that an intersectoral Committee be established as the focal point according to the following illustration –

Establishment of Committee

(1) There is hereby established a committee to be known as the (insert suitable name of Intersectoral Committee) which shall be appointed by the Minister consisting of the persons appointed in accordance with this section –

(a) a Chairman;

(b) [number of members] members drawn from the governmental agencies and departments that discharge functions related to pollution control, pesticides management, agriculture, physical planning, water resources, environmental health, forestry, fisheries and tourism;

(c) one member from the private sector; and

(d) one member representing non-governmental organisation.

(2) In carrying out its functions under this Act the Committee shall, in relation to the prevention and control of marine pollution -

(l) coordinate the activities of entities that discharge related functions;

(m) develop and implement plans, programmes, measures and standards including public education programmes;

- (n) monitor compliance with standards, criteria and programmes;
- (o) encourage and develop scientific, technical and management-oriented research
- (p) establish an adequate framework of laws and policies including policies and legal mechanisms directed toward the management of agricultural non-point sources and the development of a plan to implement such modifications as may be necessary to achieve best management practices;
- (q) promote the availability of information and the participation of members of the public;
- (r) to co-ordinate the establishment and maintenance of national marine parks and protected areas systems;
- (s) take the necessary actions for the implementation of the international obligations of the [Country];
- (t) ensure that any developmental activity which may cause an adverse effect on the marine environment is assessed before such activity is commenced and that such adverse effect be taken into account in deciding whether or not such activity should be authorized;
- (u) establish linkages with the Secretariat of the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region and other relevant local, regional and international organisations;
- (v) perform such other functions pertaining to the prevention and control of marine pollution as may be assigned to it by the Minister by or under this Act or any other law.

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