“Climate Change Impacts and Adaptation for Coastal Transport Infrastructure in Caribbean SIDS”

The Convention for the Protection and Development of the Wider Caribbean Region – The Cartagena Convention

By

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The Convention for the Protection and Development of the Wider Caribbean Region – The Cartagena Convention

Vision 2030 Match

Jamaica ratified the Convention

Goal 4:
Jamaica has a healthy natural environment

11/6/12
The Caribbean Environment Programme (CEP)

- One of the 18 world Regional Seas Programmes - administered by UNEP
- Legal framework provided by the Cartagena Convention and three (3) technical Protocols addressing specific environmental issues
- Secretariat in Kingston, Jamaica, since 1986
The Contracting Parties shall take all appropriate measures to prevent, reduce and control:

- **Pollution from Ships** (Article 5)
- **Pollution from Dumping** (Article 6)
- **Pollution from Sea Bed Activities** (Article 8)
- **Pollution from Land-based Sources** (Article 7)
- **Specially Protected Areas** (Article 10)
- **Air Pollution** (Article 9)

The only legally binding region-wide agreement:

**Convention for the Protection and Development of the Marine Environment of the Wider Caribbean (1983)**
- Entry into Force 1986
- 25 Contracting Parties (28 possible)

**Protocol Concerning Pollution from Oil Spills**
- Adopted in 1983
- Entry into force in 1986
- AMEP Sub Programme
  - **RAC/REMPETC**

**Protocol on Specially Protected Areas and Wildlife (SPAW)**
- Adopted in 1990
- Entry into force in 2000
- SPAW Sub Programme
  - **SPAW RAC**

**Protocol on Land Based Sources of Pollution**
- Adopted in 1999
- Entry into force in 2010
- AMEP Subprogrammes
  - **RAC IMA and RAC CIMAB**

**AMEP Sub Programme**
- **RAC/REMPETC**

**SPAW Sub Programme**
- **SPAW RAC**
The Wider Caribbean Region

Island Nations
1. Antigua & Barbuda
2. Bahamas
3. Barbados
4. Cuba
5. Dominica
6. Dominican Republic
7. Grenada
8. Haiti
9. Jamaica
10. St. Kitts & Nevis
11. St. Lucia
12. St. Vincent & the Grenadines
13. Trinidad & Tobago

Continental Nations
1. Aruba
2. Curacao, St. Maarten
3. Caribbean Netherlands
4. Anguilla
5. Cayman Islands
6. Montserrat
7. Turks & Caicos Islands
8. British Virgin Islands
9. French Guyana
10. Guadeloupe
11. St. Martin – St. Barth
12. Martinique
13. Puerto Rico

Spatial Planning – towards transboundary management options
What are the Objectives of the Oil Spills Protocol?

Protect marine & coastal environment from oil spill incidents

Establish & maintain means to respond to oil spill incidents & to reduce the risks associated with such incidents

Jamaica ratified Protocol
N.O. 14 & 15: Hazard Risk Reduction Sustainable Urban and Rural Development

What are the Objectives of the LBS Protocol?

Reduce pollution through establishment of effluent & emission limitations and/or best management practices

Exchange information on land-based pollution through cooperation in monitoring & research

N.O. 13, 14,&15 – Contributes to all outcomes
GEF-Integrating Water, Land & Ecosystems Management in Caribbean SIDS (GEF-IWEco)

NGO Management & Use

Project Objective

- Sustainability of livelihoods
- Improved fresh and coastal water resources management,
- Sustainable land management
- Sustainable forest management
Participating Countries

- Antigua & Barbuda: Land Degradation
- Barbados
- Cuba: Biodiversity
- Dominican Republic: Biodiversity
- Grenada
- Bahamas has a complementary medium sized project

Jamaica: Biodiversity

Saint Kitts & Nevis: Land Degradation
Saint Lucia: Land Degradation
Saint Vincent & the Grenadines: Land Degradation
Trinidad & Tobago: Land Degradation

Project Components – National Component

Component 1: National Innovative Solutions

- Water Security & Improved Sanitation
- Wastewater Management
- Land & Watershed Restoration & Ecosystem Resilience
FROM
CReW
LACK OF FINANCING IN THE WASTEWATER SECTOR
TO
CReW+

Objective of “CReW+”
Implementing and Upscaling
Wider Caribbean-specific
Financial Mechanisms
that enable the use of
Integrated and Innovative Solutions for Water and Wastewater
Management
and reflect concerns of
Climate Change and Variability
The Partnership approach, Marine Litter in the Caribbean region

**EPA-UNEP-PEACE CORPS PARTNERSHIP ON MARINE LITTER**

The Partnership approach, Marine Litter in the Caribbean region

**Partnership Objectives**

The U.S. Environmental Protection Agency (EPA) and Peace Corps are partnering with the United Nations Environment Program – Caribbean Environment Program (UNEP-CEP) to enable local communities and governments in the Caribbean region to embrace marine litter policies and projects to reduce the amount of trash entering the Caribbean Sea.

- Jamaica and Panama are pilot countries.
- Involves Ministries of Environment in both countries
- Country approach bolstered by Peace Corps Volunteers working in local communities

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Solid Waste Management – Jamaica

• Trash clustered on beaches and along roads – insufficient waste collection

• According to NSWMA – 70% of waste is collected – 30% burnt or dispersed in waterways

EPA’s Trash Free Waters Approach

• Trash Free Waters - a stakeholder-based, community-driven approach to reducing and preventing land-based trash entering watersheds and coastal waters.

• Meaningful, achievable, measurable, replicable, collaborative, and proactive projects comprising stakeholder driven strategies.
GEF Project Proposal on Marine Litter
Approach: Focus on Plastics

**Avoid**: use of plastics, seek alternatives, redesign types of plastics in use

**Shift**: the concept of plastic ‘waste’ to a resource for recycling, recovery or reuse *(including piloting plastics to fuel facilities to reduce waste & generate useful byproducts)*

**Improve**: all aspects of plastic design, use, collection, sorting, & disposal

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**Indicative Activities**

- Promote behavior change, integration & cooperation among multiple sectors
- Exchange knowledge, experiences & best practices on marine litter & plastics management
- Improve infrastructure for managing plastic waste
- Enhance public private partnerships to implement technological solutions
- **Encourage a shift towards a more circular economic model for the plastic production cycle**
What’s at stake?

• Coral reefs ecosystems provide ~US $3-4.6 billion/yr (fisheries, diving, coastal protection) (WRI, 2004)
• Coastal protection even higher than fisheries
• Jamaica has lost US$1.3b in revenues from reef fisheries in over 25 yrs (WRI, 2009)
• US $245m/yr estimated value of ecosystems services provided (WRI, 2009)

Climate Issues

• Higher sea level
• Erosion of beaches
• More frequent and severe storm events
• More high-energy sea level-related hazards
• Ocean acidification
• Degradation of the five “NATURAL LINES OF DEFENSE”
The SIDS Conundrum?

- A small economic base requires that we exploit marine and coastal resources
- Ecosystems affected by human-induced pressures already
- Climate impacts make an already bad situation worse
- Climate change affect the very systems that can protect us from climate change!!!
Coral Reefs

- 80% of all coral reefs dead, dying or stressed
Discharge  Anchor Damage
Short-Term Gain

Foreign Species
Take Home Message
If you manage or use coastal transport infrastructure:
What the environmental scientists are doing on your coast must involve you!!!

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Thank you!