

annex 6.4.

The World Bank (WB)

As stipulated in its Country Assistance Strategy for the OECS, the WB supports (granting assistance) regional integration through regional interventions, amongst others in the area of catastrophe risk insurance. Further, one of the two main pillars of the WB's lending strategy focuses on "reducing vulnerability, by promoting greater social inclusion and strengthening disaster risk management". The main regional initiatives receiving WB-support, include:

- The *Environmental Management Project*: To remain competitive in the tourism sector, the OECS countries need to enhance the management of their natural environment. This includes (i) strict enforcement of environmental policies for land use planning, urban-rural zoning regulations and landscaping; (ii) conservation and expansion of natural areas; (iii) monitoring of the quality of coastal waters and beaches; and (iv) additional efforts in solid waste management, waste water treatment and water and air pollution control. Moreover, to reduce vulnerability to natural disasters, measures to reduce erosion and promote reforestation are also necessary. To improve environmental management, the project focuses on policy reforms, region-wide monitoring of critical ecosystems and water quality, regional and national institutional strengthening, infrastructure investments and increasing public awareness. Cooperation with the private (tourism) sector and communities and participation in international environmental certification schemes are an integral part of the programme.
- The CARICOM-wide *Catastrophe Risk Insurance Project (CRI)*, institutionalising a comprehensive risk management approach. The concerned project strives to deepen insurance markets to allow for the improved sharing of insurable and uninsurable risks among the public sector, private sector, international insurance industry, international capital markets, and the domestic 'self-insured' population. The leveraging of scarce capital to diversify and better spread risks, as well as to significantly increase the efficiency of risk transfer mechanisms, requires a subregional risk pooling mechanism. The CARICOM countries indicated their commitment to increase their limited leverage while exploiting the best terms for reinsurance protection through shared risk diversification and faster accumulation of domestic insurance reserves. The project is designed to ensure that the "productive purposes" test is satisfied and efforts are made so that reporting mechanisms are in place to fully ensure that reconstruction of productive capacity is the primary target for such funding under a pre-planned risk mitigation approach, and used to reimburse the government for budgets displaced toward reconstruction due to emergencies.
- The *Mainstreaming Adaptation to Climate Change project* seeks to assist in the incorporation of climate change concerns in sector and regional planning for the OECS nations and to identify critical vulnerabilities.

Annex 6.4 presents some more (mainly national) WB-supported projects that address environmental issues in the region.

The Japanese International Cooperation Agency (JICA)

JICA is represented in the region through its Regional Support Office for Central America and the Caribbean located in Mexico and through national offices in Belize, Dominica, the Dominican Republic (also covering Haiti), Jamaica, St. Vincent and the Grenadines and St. Lucia. Subsequently, an overview is provided of JICA's support to the Caribbean region per relevant thematic line:

- *Water Resources and Disaster Management*: JICA is providing assistance to CDERA since 1997. The ultimate goal is to ensure that CDERA attains the ability to develop its own disaster-prevention plans. JICA programmes have included support for institutional capacity building, the establishment and strengthening of a system for flood hazard map creation, enhancing the regional disaster management planning capacity of member states, and increasing the functions of communication bases. JICA is currently concluding a technological cooperation project with the Regional Team composed of CDERA, the Caribbean Institute for Meteorology and Hydrology, and regional universities. Project topics include meteorological observation, flood analysis, creation of flood hazard maps, and the utilization of maps to prepare local disaster-prevention plans.

Besides disaster management, JICA is also very active in disaster relief. Though its activities in this respect date back to the late 1970s, disaster relief became a priority on the agenda with the revision of the JICA law which involved the addition of emergency relief supplies and led to the establishment of Japan's Comprehensive Emergency Disaster Relief System, also benefiting the Caribbean.

- *Fisheries*: JICA supports a Project for the Promotion of Sustainable Marine Fisheries Resource

Utilization in Trinidad & Tobago. To address problems of fishery resources depletion in the coastal waters, JICA embarked in 1996 on a project for training supervisory personnel, who subsequently conducted training sessions for fishing households. Currently, a second fishery project is under implementation including activities such as collection and analysis of data on resources, research on the introduction of appropriate fishing equipment and methods, and training in extension activities, all with a view to promoting an understanding of sustainable use of fishery resources.

JICA provides no assistance to the region in other relevant areas such as *Natural resources and energy, Natural environmental conservation, and Environmental management*. Still, JICA's recent cooperation strategy for the Dominican Republic includes "environment and natural resources" as a priority thematic area. A number of concrete actions are being implemented with the State Secretariat for Environment and Natural Resources (SEMARN): rehabilitation of degraded forest areas and the establishment of a reforestation system; training of technicians in management of protected areas; and improvement of techniques and practices for watershed areas management. Further, the Santiago Corporation for Water Supply and Sewerage (CORASAN) is supported to establish and improve the sewerage system and the National Institute for Drinking Water (INAPA) receives assistance for the rehabilitation of the aqueducts.

The Canadian International Development Agency (CIDA)

At the regional level, CIDA provides assistance to the Caribbean through a new regional support programme, jointly developed with CARICOM. It was launched in 2008, will cover a period of 10 years and has been allocated CDN\$ 600 million. Environment / NR management / Natural disasters do not figure as focal areas in this programme. Nonetheless, it includes a major new project to increase the capacity of national governments and local communities to manage natural disasters such as hurricanes and flooding and thus reduce their impact on the people of the region. This project builds on Canada's \$20 million contribution to the World Bank's Caribbean Catastrophe Risk Insurance Facility, where Canada is the largest contributor.

Further, comprehensive bilateral programmes are carried out in Haiti and Cuba but neither in these programmes environmental issues are given high priority.

Most countries of the region do benefit from important disaster relief assistance provided by CIDA (Jamaica, Haiti, the Dominican Republic, Grenada, Cuba). In Cuba, in addition to coordinating international aid efforts in response to the damage and hardship caused by hurricanes and other natural disasters, CIDA has established the Post Hurricane Reconstruction Fund under the Canada-Cuba Community Development Fund (CCDF). Important reconstruction projects have already been approved and carried out under this Fund.

Though not being a priority area in the strategic cooperation agreements, CIDA does provide assistance to a number of environmental regional and national projects. They are listed in annex 6.4. Some examples: development of the forestry sector in Cuba, watershed management in Haiti/DR, Trees for Tomorrow in Jamaica, the Caribbean Regional Oceans and Fisheries Project, etc..

The Caribbean Development Bank (CDB)

Since 1974, the Caribbean Development Bank (CDB) has been responding to requests from its member countries for assistance in post-disaster rehabilitation. The preparation of the Natural Disaster Management Strategy and Operational Guidelines in 1998 laid the foundation for a more comprehensive approach. The CDB's Project Services Division is responsible for leading the Bank's work programmes on disaster risk management, climate change, environment, gender, governance, regional public goals, procurement and social development. Disaster risk management and environmental sustainability are identified as cross-cutting themes in CDB's 2005-2009 Strategic Plan, having direct impact on the Bank's four externally focused strategic objectives: broad based economic growth, inclusive social development, good governance, and regional cooperation and integration. Supporting environmental sustainability and advancing the climate change agenda has been identified as a core theme for the Seventh Cycle of the Special Development Fund (2009-2012). CDB also manages the regional multi-donor Biodiversity Fund, operational in 8 CARICOM countries.

The United States Agency for International Development (USAID)

USAID conducts cooperation programmes in the OECS subregion (operating from Barbados), Cuba, the Dominican Republic, Guyana, Haiti and Jamaica. Most of the programmes include environment- and/or natural disaster- related activities, though at the moment the environmental sector is not longer a priority in USAID's cooperation strategy:

- OECS sub-region: high priority is given to collaborating with government and civil society to target

activities that support biodiversity conservation and related policy development (mitigation of human impacts, institutional framework for managing protected areas).

- The Dominican Republic: USAID's work includes a component of safeguarding biodiversity and natural ecosystems. The related objectives are to be achieved through strengthening capacity to develop and enforce national environmental and natural resources legislation; through increasing public sector capacity at both the national and municipal levels to identify and implement activities that promote environmentally sustainable economic growth; and through assisting civil society groups that advocate for and contribute to a cleaner environment and greater biodiversity protection.
- Haiti: USAID supports the National System for Disaster and Risk Management through the provision of training. Further, new watershed management programmes are under preparation.
- Cuba: Environmental mainstreaming in agricultural production projects is prominent.
- Jamaica: The USAID-Jamaica Rural Development programme clearly recognises the crucial importance of effective and sustainable natural resources management for development and economic growth. As a consequence, the programme include expected outcomes such as (1) improved management of ecosystems; (2) institutional capacity to manage natural assets increased and (3) more environmentally sustainable rural enterprises.

USAID also financed/carried out assessments of tropical forests and biodiversity conservation needs in the Dominican Republic (2002), Guyana (2008), Haiti (2006) and Jamaica (2003).

The United Nations Development Programme (UNDP)

UNDP Caribbean operates from Barbados (OECS sub-regional office), Jamaica (office covering 5 SIDS, amongst which Jamaica and the Bahamas), Cuba, Guyana and Haiti. The latter three offices are country-based offices. All these offices include "energy and environment" and "disaster risk reduction and disaster management" as focal themes in their respective cooperation strategies.

In relation to "energy and environment", most UNDP's initiatives and programmes are part of the GEF portfolio, including the Small Grants Programme, whereby UNDP acts in its capacity of GEF agency. (see annex 6.4 for further details)

Also in the area of disaster risk reduction and disaster management, many different initiatives are under implementation, most of them in the frame of coordinated multi-donor funded programmes. Worth mentioning here is the "Caribbean Risk Management Initiative (CRMI)" launched by the UNDP's Bureau of Crisis Prevention and Recovery (BCPR) and the Regional Bureau for Latin America and the Caribbean (RBLAC) in 2004 as an umbrella programme designed to build capacity across the Caribbean region for the management of climate-related risk. The CRMI is led by the Cuba and Barbados/OECS UNDP Country Offices, in close collaboration with partners and other UNDP country offices in the region.

The United Nations Environment Programme (UNEP)

UNEP is one of the main GEF agencies in the region and has as such an important stake in the formulation and management of the above-mentioned GEF-funded projects. The Regional Office for Latin America and the Caribbean (ROLAC) (based in Panama) mainly focuses its efforts on development and implementation of environmental law (including MEA) and policy; on environmental information, assessment and early warning; and on the understanding and knowledge of environmental issues related to industrial and urban development and to the use of natural resources and of chemicals.

Specifically for the region, UNEP administers the Caribbean Environment Programme (CEP). UNEP's Caribbean Regional Coordinating Unit (CAR/RCU) is located in Kingston, Jamaica and serves as the Secretariat to the CEP. The programme aims at promoting regional cooperation for the protection and development of the marine environment of the Wider Caribbean Region. The CEP is managed by and for the countries of the Wider Caribbean Region through the Caribbean Action Plan (1981) outlining regional environmental challenges. The Action Plan led to the 1983 adoption of the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention), which provides the legal framework. The Convention has been supplemented by 3 Protocols addressing specific environmental issues, namely oil spills, specially protected areas and wildlife and land-based sources and activities of marine pollution. The CEP provides the programmatic framework for the Cartagena Convention. CEP has 3 main sub-programmes:

- Assessment and Management of Environment Pollution (AMEP)
- Specially Protected Areas and Wildlife (SPA)
- Communication, Education, Training and Awareness (CETA)

Other relevant current and future activities are:

- Update of the Regional Environmental Outlook for the Caribbean
- Caribbean Biological Corridor in Haiti, Dominican Republic and Cuba (with EC funding)
- The Caribbean element of the 9th EDF Intra ACP Capacity Building Programme for the Multilateral Environmental Agreements.

United Nations Food and Agriculture Organisation (FAO)

Relevant FAO core activities/departments include: FAO and Emergencies, Global Information and Early Warning System, Fisheries & Aquaculture, Forestry, and Natural Resource Management & Environment. Apart from activities directly framing in and contributing to FAO's global programmes such as the Global Forest Resources Assessment, the National Forest Programme Facility, the Land-Water linkages in Rural Watersheds, Code of Conduct for Responsible Fisheries, Organisation of Regional Fisheries, the State of World Fisheries, etc... the region also benefits from specific cooperation projects implemented through the Technical Cooperation Department (TCD):

- FAO currently implements emergency response operations in Cuba, the Dominican Republic and Haiti;
- Emergency and post-crisis management projects are ongoing in most of the countries in the region;
- Haiti is receiving support for a NRM-related project; and
- Belize, together with some other Central American countries, is beneficiary of a regional fishery project.

World Wide Fund for Nature (WWF)

WWF's largest programme in the Region is situated in Suriname and Guyana and managed from the WWF Guianas Regional Office (Paramaribo, Suriname). Relevant projects are listed in annex 6.4. The WWF Central American Programme (office in San José, Costa Rica) develops some activities in Belize in the frame of the regional project: "*Conservation of the Mesoamerican Reef (MAR)*". This project aims at improving the management of protected areas and at influencing regional development in support of the conservation of the MAR.

Finally, Cuba has been receiving support from WWF-Canada for over two decades. WWF's involvement in Cuba has evolved from pilot projects to full-scale, national initiatives that are greening Cuban tourism, promoting sustainable fishing practices, and building a network of marine protected areas. With financial support from CIDA (400000 US\$) WWF-Canada currently implements a project for the conservation of the Hawksbill turtle. Thanks to the joint efforts of the Cuban Ministry of Fisheries and WWF/CIDA, Cuba decided to phase out the marine turtle fishery in its territory.

World Conservation Organisation (IUCN)

So far, IUCN's involvement in the region has not been very intensive. Until recently, IUCN's most relevant programme for the Caribbean was the Global Marine Programme (actively involved in the International Coral Reef Initiative and its operational framework the "Global Coral Reef Monitoring Network"). However, in September 2008, IUCN launched a new and important regional programme: the *Initiative for the Caribbean Region*. This programme includes a range of interventions aimed at improving the management of the region's major ecosystems by increasing knowledge, improving governance and empowering stakeholders at all levels (government, civil society and community) to be more effective in their natural resource management roles and responsibilities. The main components are: the preparation for a Caribbean Red List of Threatened Species; a programme on renewable energy; work in integrated planning, ecosystem management and sustainable livelihoods; and climate change adaptation.

Nature Conservancy (NC)

The Nature Conservancy (NC) is a North-American leading conservation organization working around the world to protect ecologically important lands and waters for nature and people. In the Caribbean region, the NC is active in the Bahamas, Grenada, St. Vincent and the Grenadines, Jamaica, Belize, and the Dominican Republic. Their activities include a bi-national fishery programme for artisanal fisherman in Belize and Jamaica and lots of conservation work in national parks and protected areas, e.g. Parque Nacional del Este in the DR. In Grenada and St. Vincent & the Grenadines – an area new to NC – they are working with a local partner to survey the area, to identify threats and conservation strategies, and map priority sites in need of protection.

Major support is however going to the programme: *The Caribbean Challenge*:

NC has pledged US\$20 million to support The Caribbean Challenge, a programme based on the

unprecedented commitment by the Caribbean governments to support and manage new and existing national parks and protected areas throughout the region. The Bahamas, the Dominican Republic, Jamaica and St. Vincent & the Grenadines are already fully involved in the project; Antigua & Barbuda, St. Lucia, St. Kitts and Nevis and Dominica are considering the initiative and are reported as likely to sign on. The overall goal is the protection of at least 20 percent of the Caribbean marine and coastal habitats by 2020. The Conservancy's participation in the challenge differs from its conservation efforts in the Caribbean in the past, which have primarily focused on protecting individual sites.

In view of creating a long term financial sustainability for conservation in the region, the NC is also pledging US\$8.6 million to seed national-level protected area public-trust funds in countries that are part of the challenge. More than US\$40 million will be endowed in these trust funds (e.g. also KfW is contributing to these trust funds).

- Donor Coordination

The previous chapters 4.1 and 4.2 and annex 6.4 clearly demonstrate the presence of a vast range of donor agencies in the region as well as the multitude of environment-related initiatives they (have) support(ed). Unfortunately, proper coordination among donors and hence optimisation of the efficiency of all these donor investments and contributions in addressing environmental issues, remains to be a difficult point. The practical outcomes of the support initiatives are still limited due to concentration on policy development and capacity building, and few support for field implementation. The fact, that donors' regional offices are in different countries in the region and that the CARICOM HQ is not in the easiest of countries to access, does not help. Donor coordination has improved over the past years but there is still room for further improvement and steps need to be taken to avoid overlapping funding.

Hence, a good number of donor and/or thematic coordination groups exist but for various reasons they do not seem to achieve significant improvements. Some of the main reasons include:

- many cooperation groups only operate at a national - sometimes sub-regional (OECS) - level but there are very few coordination mechanisms established at the Caribbean level;
- few cooperation groups have a long life: creation and dissolution rates are too high;
- many groups are not "complete" in the sense that important stakeholders are not participating;
- the cooperation does not operate beyond the political level; participants meet and draw up minutes and other documents but when it comes to the establishment of genuine cooperation, parties stick too much to their own agenda;
- regional institutions such as for instance CDERA and CCCCC, who have a clear regional coordination mandate, lack the institutional capacity to perform well in this capacity;
- though in the end aiming at an increased efficiency of donor assistance, the operational cost of a well-functioning Caribbean coordination group is quite high.

Some examples of existing donor cooperation initiatives and mechanisms:

- The donor community in the Eastern Caribbean has coordination groups under the umbrella of UNDP. The group on disaster management, climate change and environmental management is led by CIDA.
- Initiatives aimed at developing closer cooperation are being promoted through the setting up of CARIFORUM/DOM/OCT/EU Task Forces, amongst others in the area of Disaster Management.
- In the DR, EU MS conduct annual coordination meetings. The Secretariat of Environment and Natural Resources presides an Interinstitutional Technical Group for Environment where all important stakeholders – at national level – are represented. This coordination mechanism was established under a GTZ-financed project and hence continues operating under the concerned Ministry.
- In Haiti, there is a close coordination among the different UN Agencies present in the country. Amongst other things, they developed the "UN Master Plan for Development Aid" in Haiti. A coordination platform also exists for the thematic area of "Watershed Management". Finally, USAID organizes monthly stakeholder/donor meetings for issues related to land use planning and natural resource management. Apart from USAID, the participants include IDB, EU, UNDP, WB, CIDA, French Cooperation and the Spanish cooperation.

5 Conclusions and Recommendations

5.1 Conclusions

The main conclusions of the precedent analyses can be summarised as follow:

Conclusion 1:

Environmental degradation and the unsustainable use of natural resources have continued in the Caribbean SIDS and LLCS, with negative consequences for social and economic development. The key economic sectors such as tourism, agriculture, fisheries and forestry depend heavily on more and more stressed natural resources. The ability of the Caribbean to reverse the trends of increasing environmental vulnerability and degradation is one of the key factors that determine whether or not development in these countries will be sustainable

Conclusion 2:

The key environment concern of all countries in the region is adaptation and preparation for climate change and natural disasters. Although the contribution of the Caribbean countries to this global phenomenon is very low, the potential impact is enormous. Other high ranked concerns, which originate from the countries own activities and policies are: land use management in a holistic way (water, forest etc), especially for coastal areas and watersheds; marine environment (important economic role of tourism, important fragile ecosystems), renewable energy/ energy effectiveness (to reduce deforestation/climate change and to reduce high expenses for energy) and waste/waste water management. Depending on the sub-regional specific situations (population density, economic activities, and development level of the countries) the ranking of environment problems after climate change and disasters varies as follows:

- Guyanas' sub - region: marine flooding, water drainage, avoid deforestation/protect standing forests, establishment of protected areas
- OECS region: waste from cruise ships (marine pollution), waste and waste water management, renewable energies
- Greater Antilles: water/watershed management, deforestation (energy supply), soil management/ erosion, renewable energies to reduce deforestation

Conclusion 3:

The Caribbean SIDS and LLCS have begun to take action towards achieving sustainable development at national and regional level and the countries have made significant progress in establishing comprehensive policy, institutional and legal frameworks for environmental management. But limited capacities and coordination difficulties – at national and regional level - are still major challenges in implementation/enforcement of existing policies/regulations and effective sustainable environmental management.

Conclusion 4:

Integration of environmental concerns into the main economic sectors is very varies between the countries and the sectors. Significant efforts have been made the last years in most sectors and countries, but up to now sea level rise and prevention of natural disasters are very rarely taken into account in urban development, infrastructure/transport and physical planning. The use of strategic instruments, like Strategic Environmental Assessments (SEA), environment/economic growth modelling and mainstreaming of climate change in national development agenda remain poor due to low priority of environment issues in decision making on national development planning.

Conclusion 5:

The importance given to the environment in the EU-CARIFORUM policy statements is not reflected in the current Regional Indicative Programme. Indeed, initially planned environment and disaster management components were left out of the 10th EDF RIP, since numerous complementary programmes in favour of the environment and climate change are currently on-going or in the pipeline, including the Global Climate Change Alliance (under which the region stands to benefit from €8 million), intra-ACP programme on

Disaster Risk Reduction for a total amount of €180 million, and the intra-ACP programme on renewable energies (under which the region stands to benefit from €1,5 million).. The same – though to a lesser extent – goes for the respective National Indicative Programmes (2008-2013). Only in a few cases is environment addressed as a focal sector and environmental mainstreaming in the selected focal areas is generally reported to be deficient. Further, the environmental initiatives (CARIFORUM Regional Task Force, GCCA, intra ACP-EU Natural Disaster Facility) referred to in the EU-CARIFORUM Troika Summit Agreement are not yet known by most of the EC Delegations and Ministries of Environment. Most are not put in place yet. The upcoming mid-term review is a key occasion to assess the validity of the RSP/NIP and the complementary environmental programmes ongoing and planned taking a holistic view of overall EU development assistance at regional level.

Conclusion 6:

The region accommodates an important donor community active in the environmental sector supporting a multitude of recently concluded and ongoing programmes and interventions addressing environmental issues. Priorities for donor assistance are the natural disaster-related programmes, ranging from relief and rehabilitation to management and preparedness. Adaptation to climate change – which is a very broad subject – is rapidly gaining importance. Donor coordination has improved over the last decade but still remains a difficult point. In general, the donor community displays a certain tendency towards contributing to multi-lateral and multi-donor initiatives rather than investing in smaller bilateral programmes.

Conclusion 7:

Authorities in the visited countries have a clear preference for national or sub-regional (Bi-national Haiti/DR, OECS, ...) field projects and programmes. The benefits from regional (pan-Caribbean) initiatives are perceived to be significantly less than those that are generated through national or sub-regional projects.

5.2 Recommendations

A code (1, 2 or 3) is attached to each recommendation to separate the recommendations addressed to Caribbean National Governments (1), the regional structures/institutions (2) and the donors (3). Recommendations which concern especially the EC cooperation are indicated (*) and linkages to the conclusions of the mission are shown below each recommendation. Performance indicators are proposed for thematic recommendations related to environment mainstreaming and management which involve EC and which are of relevance especially in the next RSP/CSP reviews and future planning / financing cycles of EC - Caribbean cooperation.

The most important key environmental priorities for future EC - Caribbean cooperation are high - lighted (written in bold) to facilitate future priority ranking and decision making concerning financial support of EC to environmental concerns in the Caribbean.

Preliminary remark:

Previous recommendations from UNEP Outlook 2004 and review of the Barbados Plan of Action 2005 are still considered valid. (see details in annex vol. 3 of this report, workshop report)

General and transversal recommendations

- As a regional priority EC/donor support should go to the **implementation of existing regional policies and strategies** coordinated by regional institutions, to multi-donor programmes (basket funding in a medium to long term) and to the implementation of MEA-related action plans (incl. harmonisation of these action plans at regional level). Within this priority framework for cooperation and based on the availability of significant budgets, the EC should put emphasis on the larger investment components such as infrastructure, construction, etc. Furthermore should a certain percentage of regional and national funding from EU be used for the implementation of measures proposed in chapter 4 of the CARIFORUM/EU EPA (2, 3)*
(Conclusion 2, 5)

- The close inter-linkages between environment and development have since long been recognised by the global community. In the context of the present study, this leads to the recommendation that environmental aspects should be part and parcel of all development programmes. Further, it should be taken into account that the implementation of predominantly socio-economic development programmes can be very effective in preventing further environmental degradation (e.g. programmes that focus on poverty reduction or employment creation and therefore reduce the pressure on natural resources).
(1, 2, 3)*
(Conclusion 1, 2, 5, 6)
- Environmental and natural resources are very important assets in the further development of the Caribbean region. A focus on the opportunities that are provided by these assets rather than on environmental problems could lead to a more positive attitude towards environmental management and to an increased environmental awareness both at decision-making and general public level. This positive opportunity approach should also be reflected in the regional development programmes. (1, 2, 3)*
(Conclusion 1, 4)
- Countries have to improve interdisciplinary coordination / harmonisation between technical ministries / institutions in order to increase effectiveness of the provided donor assistance. This includes simplification of the institutional framework for environmental management and clarification of the mandates. (1)
(Conclusion 3)
- The role of civil society as well as private sector in development processes should be enhanced.
(1, 2, 3)*
(Conclusion 3)

Specific recommendations per thematic areas:

NATURAL DISASTER RISK REDUCTION AND PREPAREDNESS, CLIMATE CHANGE ADAPTATION

- **Support the implementation of regional strategies to prepare and respond to CC (“Adaptation to Climate Change”, ‘Enhanced Comprehensive Disaster Management Strategy and Framework (2007-2012)’)** as a central issue for development of the region incl. especially ‘Support significant infrastructure investments in the key sectors of the countries for adaptation to the expected climate changes’ (3)*
(Conclusion 2, 3, 4, 5, 6)
Indicators:
 - Damage in % of GDP / victims as % population from natural disasters.
 - Level of risk reduction achieved
- Support countries in making use of funds available from the clean development mechanism (CDM) , Adaptation Fund (UNFCCC) and GCCA (2, 3)*
(Conclusion 2, 5, 6)
Indicators:
 - Number of initiatives and projects in the region funded by the mentioned mechanisms
- Support assessments of climate change/hurricane impact on the economies (2, 3)
(Conclusion 1, 2, 4)
- Include natural disaster/climate change risk assessment in procedures for funded projects (3)*
(Conclusion 5, 6)
Indicator:
 - % of damage in donor funded project outputs
- Support regional cooperation initiatives for preparation of human resources, update of technology and

equipment, to improve early warning systems. (2, 3)*
(Conclusion 2, 3)

Indicator:

- % of population evacuated in time

- Strengthen the institutional capacity of existing monitoring and observation centers for early warning of natural disasters and support regional networking among these. (2, 3)
(Conclusion 2)

FOOD, WATER AND ENERGY SECURITY

- **Support energy efficiency and alternative/renewable sources of energy such as waste-to-energy initiatives (landfills, biogas), wind, solar, geothermal, (bio)fuels making use of existing alternative energy technologies in the region. (1, 2, 3)***
(Conclusion 1, 2)

Indicator:

- % of renewable energies in the national energy balance

This should include:

- * **Contribute to the Caribbean Renewable Energy Development Programme (3)***
(Conclusion 1, 2, 4)

Indicator:

- % of renewable energies in the national energy balance

- Support employment programmes in order to reduce poverty and reduce environmental stress Incl ecotourism, fishery programmes, sugar cane energy), (1)
(Conclusion 1, 2)

- Support the implementation of regional water management strategies, as currently under development by CARICOM and the implementation of food security strategies ("Promoting CARICOM/CARIFORUM Food Security, Jagdeo Initiative, Common fisheries policy for CARICOM countries) (3)*
(Conclusion 1, 2, 5)

Indicators:

- Damage in % of GDP / victims as % population from flooding
- Level of achievement of the objectives of the strategies
- Number of specific actions supported under these strategies

- Support water use, saving, drinking water supply (loss prevention through better maintenance, in particular of main water distribution systems) (3)(* CSP, facility)
(Conclusion 1, 2, 5, 7)

Indicators:

- Effectiveness of water use (% of water loss)
- % of population connected to safe water supplies

WASTE WATER AND WASTE MANAGEMENT

- **Support significant investments in waste water treatment, sewerage systems and waste disposal/treatment (3)(*CSP, water facility)**
(Conclusion 1, 2, 5, 7)

Indicators:

- % of population connected to sewerage systems
- % of water treated
- Quality of discharged treated water
- Quality of receiving surface water

- **Support infrastructural and management support for reception and treatment of ship generated waste (1, 2, 3)***
(Conclusion 1, 2, 5)
Indicators:
 - Amount/capacities of reception facilities installed
 - % of ship generated waste received and treated on – shore
 - Water quality in the coastal waters
- Support institutional strengthening with respect to waste and waste water treatment (1, 2, 3)
(Conclusion 2, 3)

INTEGRATED ECOSYSTEM MANAGEMENT

- **Continue/increase support to sub - regional environment initiatives which address shared resources in similar eco - regions (Caribbean Biological Corridor Initiative; bi-national Haiti-Dominican Republic Programme, with focus on NRM, watershed management; transformation of Dominica into an “organic island” (regional relevance) within the Caribbean SIDS programme) (3)***
(Conclusion 2, 5, 7)
Indicators:
 - Surface of intervention areas (marine/terrestrial) taken into account in sub - regional environmental projects
 - Income generated from sustainable use of biological resources
- **Establish partnership with Caribbean Environment Programme (as part of the UNEP Sea Programme) with special focus on treatment and management of marine ecosystem via the Caribbean Sea Commission (3) (*)**
(Conclusion 5, 6)
Indicators:
 - Existence of a formal cooperation contract EC – UNEP
- Support the implementation of national Coastal Zone Management programmes (2, 3)(*CSP)
(Conclusion 1, 2, 3, 4)
Indicator:
 - Level of achievements of the national programmes’ objectives
- Design and support a regional programme on indigenous knowledge on biological resources, including protection of intellectual property rights and improvement of management, processing and commercialization of these products. (3)

REGIONAL AND DONOR COORDINATION / PROGRAMMES

- Develop a mechanism for better exchange of information between donors and regional agencies (including civil society organisations) on current priorities, specific projects planned and under implementation, etc. (2 CARICOM)
(Conclusion 3, 6)
- Set up a Caribbean-owned fund or a facility allowing exchange of human and technical expertise among countries of the region (added value: develop South-South cooperation, strengthen regional expertise, establish a database of country thematic experts, country focal points and key institutions).(2 CARICOM, 3)*
(Conclusion 3, 4)
Indicator:
 - Number of exchange programmes realised by CARICOM

GOVERNANCE AND DECISION MAKING

- **Support the implementation and the enforcement of existing environmental regulations (1, 3)***
(Conclusion 1, 4)
Indicators:
 - Number of control entities operational
 - Number of violations recorded and sanctioned

- Encourage SEA for the strategic economic sectors and make SEA a precondition for EC sector budget support to those sector with a high potential environmental impact (1, 2, 3)*
(Conclusion 1, 4)
Indicators:
 - % of sectors subject to SEA

- Develop environmental 'core' indicators for National/Regional Development Plans (1, 2)
(Conclusion 4)

- Support countries to develop a 'green economy', to show that environmental integration is not only a supplementary expense (2 CARICOM)
(Conclusion 1, 4)

INSTITUTIONAL STRENGTHENING/CAPACITY BUILDING

- Support capacity building on Environmental mainstreaming with emphasis on SEA, indicators, EIA environment screening) (2, 3)*
(Conclusion 1, 3, 4)
Indicators:
 - Number of people trained, % of programmes adequately mainstreamed

This has to include:

 - * **Reinforce capacity within EC delegations to ensure proper environmental mainstreaming in the RIP/NIP implementation and inclusion of environmental indicators in the 'internal evaluation grid at EC delegation levels'. (*EC Delegation/Helpdesk Environment)**
(Conclusion 5)
Indicators:
 - Level of inclusion of environmental mainstreaming in the programming
 - Number of EC staff trained by Environment Helpdesk

- Strengthen technical (new technologies energy, waste, water sector) and methodological (management, approaches) capacity of existing regional, national and local organisations and institutions involved in environmental management and control varying strongly per institute and per country;(1, 2, 3)
(Conclusion 1, 4)

- Support training/capacity building of the private sector in environmental management and cleaner production, technology and promote PPP and private sector international cooperation (1, 2, 3)*
(Conclusion 1, 4)
Indicators:
 - Existence of PPP agreements
 - Environmental initiatives undertaken by the private sector
 - Amount of international PP exchange initiatives realized

- Support regional cooperation initiatives that contribute to better preparation of human resources and update of technology and equipment with the view to improve the countries' early warning systems and

made regional funding available for capacity building (2, 3)*

(Conclusion 2, 3)

Indicators:

- % of population evacuated in time
- Number of people trained in this specific area
- Number of institutions well equipped

- Facilitate exchange and cooperation between the Caribbean Sea Commission (ACS) and other regional sea commissions, especially the Baltic Sea Programme (3)*

(Conclusion 5)

Indicators:

- Number of meetings/agreement between the ACS and other regional sea commissions

- Provide equipment to government institutions for emission control, environmental inspection (3)

(Conclusion 1, 4)

INFORMATION/COMMUNICATION/SENSIBILISATION/MONITORING

- Increase public knowledge on environmental regulations (1)

(Conclusion 1, 4)

- Provide information to interested parties and facilitate their access to EU funding opportunities (*)

(Conclusion 5)

Indicators:

- Number of new proposals submitted

- Increase access to information technology and improve capacity to apply it (e.g. GIS, remote sensing, IT, videoconferencing) (1, 2, 3)

(Conclusion 1, 4)

- Support programmes for the exchange and dissemination of existing knowledge and experience between countries (2, 3)

(Conclusion 3, 4)

- Support the CNIGS in Haiti to develop regional services throughout the Caribbean in satellite data collection and interpretation. The CNIGS would as such take on the mission of an Environmental Observatory for the Caribbean (3)*

Indicators:

- Number of services provided to structures in other countries within the region

Constraints to preparing the profile

During the mission the following practical problems were experienced:

- since the amount of mission days did not allow visits to all countries, the level of information per country varied substantially;
- since for Cuba a special 'cooperation' visa was required, a serious delay occurred with respect to this field mission;
- response to the invitations sent out for the workshop was around 50% . However, it was felt by the workshop participants that for this reason the WS conclusions do not correctly reflect the vision of the

region.

- support of EC-delegations during the fact finding, Workshop organisation was sometimes poor in terms of identification of adequate contact persons, logistical support like support for money transfer for the organisation of the Workshop