

**UNITED  
NATIONS**

**EP**

**UNEP**/GPA/IGR.3/INF/10

---



**United Nations  
Environment  
Programme**

Distr.: General  
5 December 2011

Original: English



---

**Intergovernmental Review Meeting on the  
Implementation of the Global Programme of Action  
for the Protection of the Marine Environment  
from Land-based Activities  
Third session  
Manila, 25-27 January 2012**

**UNEP support to the implementation of the Mauritius Strategy for the  
Further Implementation of the Barbados Programme of Action for the  
Sustainable Development of Small Island Developing States**

**Note by the Secretariat**

The document has been presented as received and has not been formally edited.

## **UNEP support to the implementation of the Mauritius Strategy for the Further Implementation of the Barbados Programme of Action for the Sustainable Development of Small Island Developing States**

### **I. Introduction**

1. The role of UNEP, as the United Nations body responsible for the environment, is described in the Barbados Programme of Action for the Sustainable Development of Small Island Developing States (BPoA) as follows: “UNEP, taking into account development perspectives, should continue to provide policy guidance and coordination in the field of environment, including in the implementation of the BPoA”. In the Chapter on Coastal and Marine Resources the UNEP Regional Seas Programme and the scheme that later became the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), are called to assist small island developing States (SIDS) with the development and implementation of integrated coastal zone management plans, to improve international coordination in that field and to develop strategies to prevent further marine and coastal degradation.
2. The Mauritius Strategy calls the programmes and organizations of the United Nations system to continue to have an important role within their respective areas of expertise and mandate in the implementation of the strategy. UNEP supports the implementation of the Mauritius Strategy by providing leadership through the six cross-cutting thematic priorities of its Medium-term Strategy - 2010-2013-, which was endorsed by the UNEP Governing Council/Global Ministerial Environment Forum (GC/GMEF). The six thematic priorities are climate change, disasters and conflicts, ecosystem management, environmental governance, harmful substances and hazardous waste, and resource efficiency –sustainable consumption and production.
3. The UNEP GC/GMEF, emphasizing that SIDS are particularly vulnerable to the effects of environmental degradation and that international cooperation towards strengthening their adaptive resilience to address such vulnerability is urgently needed, has explicitly:
  - Resolved that the UNEP should continue to give special attention to the least developed countries as well as to landlocked developing countries and SIDS in its programme activities, with a focus on the effective implementation of the Brussels Programme of Action within the mandate of UNEP (decision 22/12 of 2003);
  - Decided to strengthen the institutional capacity of SIDS to effectively achieve the sustainable development goals outlined in the Programme of Action through the provision of dedicated technical and financial support (decision 22/13 of 2003);
  - Requested the Executive Director to continue strengthening activities by UNEP related to SIDS on a tailored and regional basis and further to rationalize delivery by UNEP in the Pacific, the Atlantic, the Indian Ocean, the South China Seas and the Caribbean region, using the network of UNEP regional offices, regional seas programmes, conventions and action plans and partners to the greatest extent possible (decision 23/5 of 2005).
  - Requested the Executive Director to ensure that the activities which UNEP undertakes in relation to SIDS contribute to the implementation of the Mauritius Strategy (decision 23/5 of 2005);
  - Requested the Executive Director to further enhance UNEP activities on SIDS with a view to identifying further efforts, including any institutional arrangements, taking fully into account operative paragraph 8 of United Nations General Assembly resolution 61/196, to mainstream the Mauritius Strategy into the work of UNEP (decision 24/6 of 2007);

- Requested the Executive Director to enhance UNEP's efforts to address the issue of adaptation to the impacts of climate change in SIDS and low lying coastal States and to strengthen the UNEP's links with the United Nations Framework Convention on Climate Change and other relevant bodies (decision 24/6 of 2007);
  - Urged Governments to achieve the long-term conservation, management and sustainable use of marine resources and coastal habitats through the appropriate application of the precautionary and ecosystem approaches, and to implement long-term strategies in meeting internationally agreed sustainable development goals, including those contained in the United Nations Millennium Declaration and those in the Mauritius Strategy that are related to the marine environment, and in so doing strengthen global partnerships for development (decision SS.XI/7 of 2010).
4. The present document is based on the report submitted to UNDESA as UNEP's contribution to the Report of the Secretary General to the High level 5- year Review of Progress made in Addressing Vulnerabilities of SIDS through Implementation of the Mauritius Strategy for Further Implementation of the Barbados Programme of Action, which took place within the 65<sup>th</sup> session of the UN General Assembly in September 2010 (Mauritius + 5). It refers to the activities undertaken by UNEP to comply with its mandate as provided by the United Nations General Assembly and relevant intergovernmental decisions on sustainable development, as well as the mandate derived from the UNEP GC/GMEF decisions on SIDS.
  5. UNEP developed in 2009 a policy paper on Thematic Priority Areas for UNEP's support to the Sustainable Development of SIDS, which responds to the priority actions identified in the Mauritius Strategy, and which is in alignment with UNEP Medium-term Strategy and Bali Strategic Plan for Technology Support and Capacity-building. Taking into consideration its comparative advantage in the areas of freshwater, climate change, disasters and conflicts, biodiversity and harmful substances and hazardous waste, the policy paper suggests that the organization should focus on this subset of the 19 priority areas outlined in the Mauritius Strategy to mainstream it into its programme of work.
  6. The issues in this paper, through the component on vulnerable people and vulnerable places -including SIDS- of the UNEP Marine and Coastal Strategy, constitute an institution-wide planned, strategic approach to the work of UNEP on SIDS. Curiously enough, the outcome document –the Political Declaration- adopted by the SIDS at the High-level Mauritius + 5 Review Meeting highlights most of the thematic priorities identified by UNEP in its policy paper, as the SIDS priority environmental concerns.
  7. UNEP's policy paper emphasizes the fact that economic and social development in SIDS is intrinsically related to poverty eradication and the sustainable management and conservation of the environment and the natural resource base. A whole of country approach to resource and environmental management is critical to reach the internationally agreed goals in SIDS.
  8. Through its Regional Office in Latin America and the Caribbean (ROLAC), Asia and the Pacific (ROAP), and Africa (ROA), and the UNEP-administered Regional Seas Conventions and Action Plans (i.e., Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, the Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, and the Abidjan Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region), as well as in collaboration with partners, including those of the UNEP Regional Seas Programme (i.e., the Secretariat of the Pacific Regional Environment Programme (SPREP), the Indian Ocean Commission, etc.), UNEP works with governments, local authorities, the academia, the private sector and other stakeholders to develop and implement cleaner and safer policies and strategies that encourage efficient use of natural resources and reduce risks for humans and the environment. Specific areas of work include:
    - i. Inter-agency cooperation, programme synergy and joint activity;

- ii. Provision of international platforms to facilitate policy debate, negotiations and decision-making;
- iii. Integration of global, regional and national environmental concerns;
- iv. New and innovative approaches to environmental policy making and law;
- v. Support to inter-governmental processes and on multilateral environmental agreements;
- vi. Early warning on impending environmental catastrophes, assessments and rapid responses;
- vii. Public awareness and public participation;
- viii. Strategic planning for environmental management, natural resource conservation and sustainable use;
- ix. Promotion of South-South cooperation, replication of best practices, etc.

## **II. UNEP support to SIDS in the implementation of the Mauritius Strategy according to the thematic areas therein outlined**

9. The present section provides information on UNEP activities, projects and programmes grouped in accordance with the thematic areas outlined in the Mauritius Strategy. In pursuit of the UNEP Bali Strategic Plan on Capacity-building and Technology Support, and the relevant UNEP Governing Council decisions on South-South cooperation, information on South-South cooperation has been added at the end of the section.

### **A. Climate change and sea-level rise**

(a) Implementation is under way of the global GEF-funded project on coastal resilience to climate change: developing a generalizable method for assessing vulnerability and adaptation of mangroves and associated ecosystems, which includes Fiji. The purpose of the project is to develop a generalizable method and process to develop an effective adaptation strategy that could be adapted to various sites within common ecosystems. The generalizable methodology to be produced will be the first of its kind for mangrove ecosystems. Discussions progress with partners in terms of testing this approach and sharing lessons learned at other sites, i.e., Belize, Madagascar, etc.

(b) In Latin America and the Caribbean (LAC), GEO is supporting governments and institutions to produce data and information on the state of the environment that can be incorporated into local, national, regional and global assessments. GEO assessment methodology has been applied at several levels: regional (GEO-LAC), sub-regional, local, thematic (GEO-Youth, GEO-Health, GEO Climate Change in the Caribbean) and at the ecosystem level (GEO-Amazonia, GEO-Titicaca, and GEO-Brazil Forests). The GEO process has also contributed to the creation and strengthening of a regional network of scientific centres and experts. In many cases, GEO represents the first time scientific and policy experts have come together to draw conclusions on the state of the environment. This has triggered interdisciplinary dialogue – vital in any effort to mainstream environmental issues – and provides the basis for informed decision making.

“Climate Change in the Caribbean and the Challenge of Adaptation” was produced jointly with the Caribbean Community and Common Market (CARICOM) in 2009. It has contributed to the dialogue between policy-makers and the scientific community, in order to prepare a more vigorous climate change programme, maximize opportunities and confront the threats and risks posed by possible climatic changes. The study also highlights climate change trends, in particular their impact on SIDS.

(c) Capacity building is also being provided, in collaboration with the Secretariat of the Regional Environment Programme (SPREP), in Integrated Environmental Assessment (IEA) for the South Pacific to produce a South Pacific Environment Outlook (South Pacific GEO). This assessment focuses on climate change impacts and adaptation, and aims to support national and regional actions set out in the Action Plan for the Implementation of the Pacific Islands Framework for Action on Climate Change 2006-2015. This was complemented by a training activity to build capacities among governmental and scientific institutions in mapping vulnerability to climate change and ecosystem change, and risk reduction at national and

regional levels, as a basis for adaptation planning, financing and cost effective preventive actions. In the Asia-Pacific region, GEO activities also include an assessment of freshwater vulnerability to climate change for selected countries of the Pacific, conducted jointly with SOPAC; and the Environment and Climate Change Outlook report for Papua New Guinea.

(d) Support for the development of regional strategies on chlorofluorocarbons (CFCs) has been provided with the primary aim of phasing out CFCs as required under the obligations of the Montreal Protocol on Substances that Deplete the Ozone Layer. Beneficiary SIDS include in the Pacific: Cook Is, Niue, Nauru, Marshall Is, Palau, Solomon Is, Kiribati, Tonga, Vanuatu; in the Caribbean: Antigua and Barbuda, Barbados, Belize, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, Bahamas; in the Atlantic and Indian Oceans: Cape Verde, Comoros, Madagascar, Mauritius, Sao Tomé and Príncipe, Seychelles.

(e) Under the project “Climate Change Adaptation and Mitigation in the Tourism Sector: Frameworks, practices and tools for coastal destinations and SIDS”, UNEP has also strengthened the capacity of SIDS by improving the climate change awareness of governmental officials responsible for tourism development in SIDS, and the adaptation planning for SIDS since tourism is the main driver of economic development in most of these islands. A first global capacity building seminar for governmental officials from tourism and environment ministries was held in 2008 in Oxford and regional seminars took place in 2009, aiming to build the capacity of the tourism sector, particularly in SIDS, to address the threats, challenges and opportunities of climate change and implement the Davos Declaration and recommendations on Tourism and Climate Change.

(f) Considering essential that developing country Parties should play an active role and have their national and regional positions clearly articulated, defined and defended throughout UNFCCC discussions as regards the negotiations under the Bali Roadmap (process, guidance and direction for a negotiation track to address climate change issues after the first commitment period of the Kyoto Protocol expires in 2012) and that they need to be properly prepared to participate in the relevant discussions, UNEP and the UNFCCC Secretariat organised a series of regional preparatory workshops throughout 2008 and 2009 for negotiators from Least Developed Countries, Asia, the Alliance of Small Island States, Africa and Latin America. The goal was to assist the Parties in articulating and/or refining national and, wherever possible, regional policy positions with regard to specific building blocks of the Bali Roadmap and other items on the climate change agenda. The workshops were attended by participants from 120 countries. Within this framework a Pacific regional climate change consultation and negotiations training for UNFCCC COP15 was held by UNEP in May 2009 in Samoa with the objective to provide an introduction to negotiations training skills for the participants so that they could actively engage in future climate change negotiations. Participating Pacific SIDS were Cook Islands, Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

(g) UNFCCC Parties have recognised the importance of promoting adaptive action. The Subsidiary Body for Scientific and Technological Advice recognised that regional centres and networks undertaking work relevant to climate change play an important role in enhancing adaptation and agreed to promote existing networks for impacts, vulnerability and adaptation and encouraged the establishment of new networks. To this end, UNEP, in partnership with key UN and other international organisations proposed a Global Climate Change Adaptation Network. To initiate the process, UNEP convened an International Consultation Meeting in October 2008, hosted by the Government of the Republic of Korea. Participants, including government representatives, experts from Africa, Asia, Latin America and Small Island Developing States, and UN and other partner organisations endorsed the need for the global adaptation network and agreed on its main functions and associated structure.

The Network aims at helping developing countries enhance their key adaptive capacity through supporting governments, communities and other users with knowledge, technology, and capacity building for adaptation policy setting, planning and practices. The three components of the Network are: ground facilities, regional centres and an international support group of technical institutions, supported and complemented by a knowledge management system and regional policy forums. The Network will build on existing networks, institutions, centres and ground facilities. UNEP is facilitating the next steps in

establishing the Network by building regional and global consensus and pilot testing the initiative in Africa and the Asia-Pacific region.

(h) The “Many Strong Voices Programme”, managed by UNEP-GRID/Arendal, brings together local, national and regional stakeholders in the Arctic and Small Island Developing States to support and build capacity among vulnerable regions and peoples. It helps to collaboratively devise strategic solutions to the challenges of climate change, and to highlight the perspectives of peoples in the two regions.

(i) UNEP Freshwater and Marine Ecosystems Branch in the Division of Environmental Policy Implementation, in cooperation with the Indian Ocean Commission implementing a project with the objective of raising awareness of the fisheries and farming community, agricultural technicians and decision makers in the IOC member states on the impact of climate change on marine and coastal ecosystems, agricultural food production and human health. The main activity consisted of a regional workshop, which took place in early 2010, to raise awareness on the impacts of climate change and the adoption of recommendations for a regional strategy /action plan to enhance food production and measures to address the impacts of climate change.

(j) Through its initial country programme activities in Africa, Asia and Latin America, the UN-REDD Programme (Reducing Emissions from Deforestation and Forest Degradation in Developing Countries -a joint effort by the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP), to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development) supports the capacity of national governments to prepare and implement national REDD strategies with the active involvement of all stakeholders, including indigenous peoples and other forest-dependent communities. Fourteen countries are currently receiving support to National Programme activities, among them Papua New Guinea and the Solomon Islands.

(k) UNEP’s climate change-related outreach activities, which cover SIDS, include:

- running a climate change website with associated web based resources (new media and viral communications) that showcases all of UNEP’s climate change activities, as well as UNEP’s climate change campaigns, outreach materials and special events;
- developing climate change outreach materials including publications (electronic and hard copy) and audio-visual products, that raise awareness about climate change issues, focusing on issues that highlight UNEP’s substantive climate work (e.g. ecosystem-based adaptation, REDD, clean energy, SIDS, etc.), as well as developing specific materials promoting UNEP’s climate change work and achievements;
- conducting specific climate change awareness-raising and outreach campaigns and special events like the Billion Tree Campaign, UNite to Combat Climate Change, Seal the Deal! and World Environment Day, as well as campaigns focusing on UNEP’s climate change work (along the lines of the UN Works Campaign);
- organising awards programmes (e.g. Champions of the Earth, Sasakawa and others) with specific categories dedicated to climate change (e.g. Climate Change Champions of the Earth);
- organising press and outreach events (including press releases, media briefings, audiovisual aids, etc.) to launch and promote UNEP publications and events related to climate change;
- promoting carbon neutrality and greening of sports and cultural events (e.g., Olympic Games, FIFA World Cup other sports events, music festivals, world exposition and others) through environmental audits, reviews, advisory services to sport organizations and setting up of an international working group on climate neutral events, particularly sport events;
- developing and implementing educational programmes, including educational assessment reports, research grants and fellowships to fund innovative research on climate change, supporting of student campaigns on climate change, facilitating innovative research on climate change through access to the Online Access to Research in the Environment (OARE), etc.

## **B. Natural and environmental disasters**

UNEP has undertaken a number of activities related to natural and environmental disasters, including:

(a) The development of economic incentives for the rural sector to undertake disaster preparedness activities in the Caribbean, jointly with partners such as the Caribbean Disaster Emergency Response Agency (CEDERA), the UN Food and Agriculture Organisation and the Partnership on Sustainable Land Management (PISLM);

(b) Technical assistance to Jamaica to facilitate coastal rehabilitation, development of Palisades Peninsula post Hurricane Ivan, and disaster preparedness. Feasibility Studies have been completed and coastal rehabilitation work was undertaken.

(c) Capacity-building for marine pollution prevention and oil spill response. Five pollution prevention seminars on the ratification and implementation of annex V to the International Convention for the Prevention of Pollution from Ships and a workshop on the development of a regional cooperation mechanism for response to oil spills were conducted in Saint Lucia, Barbados, Dominica, Saint Kitts and Nevis and Antigua and Barbuda. Partners were the International Maritime Organization (IMO) and the Regional Marine Pollution Emergency Information and the Training Centre for the Wider Caribbean. As main impacts of this activity it is worth mentioning facilitated discussions between various groups on current pollution challenges in the region and the threat of emerging issues such as the impact of invasive species to the Wider Caribbean Region; information disseminated to countries of the Wider Caribbean Region to enable them to take action to bring the MARPOL Annex V “Special Area” designation into force; and increased awareness amongst public on the importance of marine environmental protection and the Protocol concerning pollution from land-based sources and activities (LBSA) to the Cartagena Convention.

(d) The development of the “Handbook on Disaster Risk Management for Coastal Tourism Destinations - Responding to Climate Change - A Practical Guide for Decision Makers”, which aims at supporting coastal tourism destinations to prepare and respond to climate change related natural disasters. The handbook has been developed in partnership with the Caribbean Alliance for Sustainable Tourism (CAST) and is already proving useful to improve the capacity of coastal tourism destinations in SIDS to deal with disaster risk management.

(e) The implementation of the Haiti Restoration Initiative, a 20 year programme that is being catalysed by UNEP but implemented by Haitians, assisted by a coalition of UN agencies and international partners. The project is designed to be catalytic in nature, with UNEP and other international partners, influencing the national government and international partners to a) integrate ecosystem management and restoration programmes into national legislation, policies and investment programmes and b) develop and implement a range of practical action restoration programmes. The UNEP role is a carefully balanced combination of activities; covering awareness raising, capacity building, technical assistance, coordination and demonstration project implementation.

## **C. Management of waste**

UNEP has undertaken the following activities on the management of waste and chemicals:

(a) As regards wastewater, UNEP and its partners developed and implemented a global training programme to improve wastewater management in coastal cities, with a focus on SIDS. It was a UN inter-agency partnership, implemented jointly with the UNESCO-IHE Institute for Water Education and accredited by UN/DOALOS as a TRAIN-SEA-COAST course. The experts trained, among others came from the following SIDS: Anguilla, Antigua and Barbuda, Bahamas, Barbados, Comoros, Cook Islands, Dominica, Federated States of Micronesia, Fiji, Grenada, Guam, Kiribati, Maldives, Marshall Islands, Mauritius, Palau, Samoa, Saint Kitts and Nevis, Saint Lucia, Seychelles, Solomon Islands, Tonga, Trinidad and Tobago, and Tuvalu. The programme started in 2003, but the first delivery in a SIDS was in 2005 (Fiji). 385 experts from SIDS have been trained in 18 courses, i.e., 9 courses in the Caribbean, 6 in the Pacific and 3 in East Africa. The course participants were mid-career municipal wastewater managers and decision-makers, who have some responsibilities in the design of new projects to collect and treat wastewater. A few

representatives from stakeholder groups such as fisheries, tourism, public health, communities or environmental NGOs contributed to the learning experience. The training provided participants with analytical tools, substantive information and skills on how to select, plan and finance appropriate and environmentally sound municipal wastewater management systems.

(b) Sewage Treatment in Jamaica. The pilot project in Jamaica on the assessment of over 170 Sewage Treatment Plants (STPs) island wide is ongoing. All plants have been mapped for the project's GIS database and a GIS platform has been developed to store and present this database in a geospatial context.

(c) Development of national implementation plans for the management of persistent organic pollutants (POPs), designed to strengthen national capacity to manage such pollutants and assist countries to meet their obligations under the Stockholm Convention on POPs, and to produce guidelines for the development of National Implementation Plans (NIPs) and adoption of POPs management options, which will be developed based on the experience gained and lessons learned. NIPs were completed for Cape Verde, Micronesia and Papua New Guinea. These include action plans that country teams, built during the project, can implement as resources become available. The project generated NIP guidance, adopted at COP1, of universal application to national planning for POPs. Guidance on socio-economic assessment of POPs plans was developed in 2006. Supplementary guidance on action planning was developed in 2007. Lessons learned and good practices in national POPs planning were identified through regional workshops in 2005 and disseminated following a launch event at Stockholm Convention COP2

(d) Development of enabling activities for the Stockholm Convention and national implementation plans (NIPs), which aims at the development of sustainable capacity to fulfil national obligations under the Stockholm Convention, preparation of NIPs, support for the implementation of the Convention and to strengthen national capacity to manage POPs and chemicals. Beneficiary countries included Haiti, Bahamas, Cuba, Kiribati, Tonga, Palau, Vanuatu, Nauru and Tuvalu.

(e) Project on supporting the POPs global monitoring plan, enabled SIDS in the Pacific and East Africa to contribute national POPs analyses for reporting under the Global Monitoring Plan. Beneficiary SIDS were Fiji, Kiribati, Niue, Palau, Samoa, Solomon Islands, Mauritius.

(f) Regional programme of action and demonstration of sustainable alternatives to DDT for malaria vector control in Mexico and Central America (including Belize), designed to prevent the reintroduction of DDT for vector control by promoting new integrated control techniques and implementing a coordinated regional programme to improve national capacities using demonstration projects on vector control without DDT or other persistent pesticides that are replicable, cost-effective, environmentally sound, and sustainable. The project have significantly contributed to strengthening capacities for the NIPs implementation and partnering in the demonstration of Feasible, Innovative Technologies and best practices for POPs reduction through the demonstration of feasible alternatives to DDT, and to partnering in investments for NIP implementation through the destruction of POPs wastes.

(g) Promotion of integrated management of solid and hazardous wastes and an integrated life-cycle approach to the management of chemicals in the wider Caribbean region, with a view to supporting continued cooperation between the secretariats of the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal in the areas of used oil and used lead acid batteries in the Wider Caribbean Region through the Basel Convention Regional Centres and with the LBSA Regional Activity Centre.

(h) Projects related to ozone layer protection, which also have training components on best practices in recovery and recycling of ozone-depleting substances have been implemented in all regions in cooperation with other agencies for the Montreal Protocol. The activities address the required action set out in the Mauritius Strategy of promoting reduction, reuse and recycling of waste and waste management initiatives:

- The Montreal Protocol Compliance Assistance Programme provides assistance to compliance management, developing and implementation of policies and legislation, refrigerant and methyl bromide management, public awareness and education etc. (Belize, Suriname, Guyana, St. Vincent and



the Grenadines., Grenada, Barbados, St. Lucia, Antigua/Barbuda, Dominica, Dominica Republic, Haiti, St. Kitts Nevis, Barbados, Cuba).

- The Montreal Protocol Institutional Strengthening (ISP) supports national capacity building and through National Ozone Units for the compliance and management of the Montreal Protocol (Belize, Suriname, Guyana, St. Vincent and the Grenadines., Grenada, Barbados, St. Lucia, Antigua/Barbuda, Dominica, Dominica Republic, Haiti, St. Kitts Nevis, Barbados).
- The Montreal Protocol Terminal Phase out Management Plan for CFC provides capacity-building, institutional support, investment, in both the public and the private sectors and appropriate technology transfer are used as the tools towards sustainable compliance and transition to alternative ozone friendly technologies (Belize, Suriname, Guyana, St. Vincent and the Grenadines., Grenada, Barbados, Dominica, Dominica Republic, Haiti, St. Kitts Nevis, Barbados).
- The Montreal Protocol National Country Programmes for Hydrochlorofluorocarbons (HCFC) phase out management supports Country programmes for the management of phase out of HCFC and in keeping with the decisions of the parties to the Montreal Protocol that the alternative technologies are also climate friendly and energy efficient (Belize, Suriname, Guyana, St. Vincent and the Grenadines., Grenada, Barbados, St. Lucia, Antigua/Barbuda, Dominica., St. Kitts Nevis, Barbados).
- The Montreal Protocol Regional Workshops and networking are Network meetings for the Caribbean SIDS. National Ozone Offices and other key national, regional and international stakeholders are invited. They develop and implement strategies to address emerging issues such as ozone friendly technologies, new skill requirements, illegal trade in Ozone depleting substances (ODS) alternative technologies to methyl bromide use and trade in used technologies that are ODS dependent thereby contributing to dependence on ODSs (Belize, Suriname, Guyana, St. Vincent and the Grenadines., Grenada, Barbados, St. Lucia, Antigua/Barbuda, Dominica, Dominica Republic, Haiti, St. Kitts Nevis, Barbados, Cuba). These workshops have promoted the use of the e-forum to provide updates on the developments of the Montreal Protocol and other communications from the Ozone Action Clearing house, intelligence information on potential illegal trade of ODS.
- The Montreal Protocol, Compliance Enforcement for the Prevention and Control in the illegal trade on Ozone depleting substances is intended for regional cooperation to control the transboundary movement of ODS, the efficient enforcement of import and export controls, the enhanced compliance with Montreal Protocol phase-out requirements, and the support to the change to better practices in the servicing sector by preventing illegal supply of CFCs.
- The Ozone-related South - South cooperation programme has as its objective to support and encourage the use of available human resources within the Caribbean SIDS. Under this programme Cuba assisted Haiti in the reorganization of the national ozone office, training of new ozone officer and other key national stakeholders, assistance in the collection and preparation of ODS data reporting and guide of the establishment of a licensing system.
- The training programmes to manage ODS provides capacity-building to implement best practices in recovery and recycling of ozone-depleting substances. Beneficiary countries are Cook Islands, Niue, Nauru, Marshall Is, Palau, Solomon Is, Kiribati, Tonga and Vanuatu, Barbados, Belize, Haiti, Suriname, Antigua and Barbuda, Dominica, Dominican Republic, Grenada, Guyana, Jamaica, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines and Bahamas.
- The project on halon management addressed a range of issues surrounding the use and management of halon substances, such as technical assistance, awareness-raising and demonstration activities, and the establishment of an internet-based Caribbean regional halon clearing house at the regional level.
- The project on methyl bromide phase-out, implemented in Saint Kitts and Nevis aimed at providing technical assistance and capacity building to phase-out the remaining methyl bromide non-quarantine and pre-shipment uses, including a training programme in methyl bromide alternatives and the purchase of the necessary machinery for the implementation of the new technology.
- The project on strengthening cooperation with the refrigerant sector and customs officials for managing ozone-depleting substances in Africa aimed at ensuring that the regulations are enforced; phase-out activities are implemented; public awareness is raised; and follow-up is given to the review of ozone depleting substances legislation; and data reporting. It was implemented in Cape Verde, Comoros, Seychelles, Madagascar, and Sao Tome and Principe.

(i) The Multi-country project “Solid waste management in the Pacific” has been developed to improve waste management in the Pacific islands with the objective of supporting the application of what is known as the “3R” principle: reduce, reuse and recycle- concepts that call for very high efficiency in resource flows as a way of sustaining improvement in quality of life within natural and economic constraints, aiming at maximising resource efficiency as well as to minimise waste discharge and environmental pollution, including that affecting the coastal and marine environment. The focus of the project is on market-driven mechanisms and the involvement of the private sector. Beneficiary countries are Fiji, Vanuatu, Solomon Islands, Papua New Guinea, Samoa, Tonga, Tuvalu, Kiribati, Federated States of Micronesia, Marshall Islands, Palau and Cook Islands.

(j) Under the e-waste initiative UNEP has assessed a programme for the environmentally sound management of electrical and electronic waste in the Pacific islands (Samoa, Kiribati, Cook Islands, Papua New Guinea and Solomon Islands ) focused on minimizing waste generation. Specific objectives of the project are: a) To ensure that e-waste generation in the region is minimized and what is generated is managed in an environmentally sound manner consistent with the Basel and Waigani Conventions, with consequent benefits both to the environment and economies of participating countries; b) To conduct feasibility studies and training courses at regional level; c) To implement the Initiative for Solid Waste Management in the Pacific Region (2005 – 2012).

(k) The project for legislative development through regulations for Used Oils, Water and Air Pollution in Grenada was completed creating new legislation to address key issues in place and building capacities for the drafting of environmental law.

(l) A Quick Start Programme trust fund established to support activities to enable initial capacity-building and implementation of the Strategic Approach to International Chemicals Management continues to give priority to the urgent needs of least developed countries and SIDS.

(m) The project “Supporting the POPs Global Monitoring Plan and building capacity at POPs laboratories at national level” aims to build national capacity to contribute with national POPs analyses for providing own results to the Global Monitoring Plan of POPs for reporting under the effectiveness evaluation for the Stockholm Convention on POPs. The project has been implemented in various regions, i.e., Pacific: Fiji, Kiribati, Niue, Palau, Samoa, Solomon Islands, Tuvalu; Caribbean: Antigua and Barbuda, Jamaica, Barbados, Bahamas, Haiti, Cuba; Indian Ocean: Mauritius. Concrete actions taken include assessment of existing capacities; identification of needs for training (human resources) and small materials (spares, consumables, standards); development of standard operational procedures/protocols for sampling and analysis, on-site training at developing country laboratories, inter-comparison study of laboratories at the global level.

#### **D. Coastal and marine resources**

The Global Programme of Action for the Protection of the Marine Environment from land-based Activities (GPA) continues to provide technical and financial assistance to small island developing States in response to the specific call made in the Mauritius Strategy, which also requests that relevant initiatives address the vulnerability of SIDS. Continuing projects and activities include:

(a) Technical and financial support to countries of the Western Indian Oceans for addressing priority problems through pilot/demonstration projects under the framework of the GEF funded Project “Addressing land-based Activities in the Western Indian Ocean (WIO-LaB)”:

- Mauritius: « Solid Waste Management in Port Louis Harbour ». The project aimed at demonstrating an integrated approach to the management of solid waste in the Port Louis Harbour.
- Mauritius: “Determining the potential use of native species to control soil erosion within the Black River Gorges National Park”. The project aimed at reducing the land based pollution in the form of terrigenous sediments that enter Morne lagoon through the Black River (Rivière Noire).

- Seychelles: "Small-scale Decentralized Wastewater Treatment and Disposal through a horizontal Subsurface Flow Constructed Wetland". This project aimed to demonstrate cost effective solutions to address treatment of wastewater outside the sewerage areas of the country.
- Comoros: "Development, protection and integrated management of the coastal zone at Itsamia, Mohéli". The project aimed to abate the negative impacts brought about by human pressures and certain natural phenomena (rise in sea level, erosion etc) on the coastal zone of Itsamia.

(b) Addressing mainstreaming coastal and marine issues in national development planning and budgetary processes, four regional workshops (Chennai, India in November 2007; Port Louis, Mauritius, May 2008; Kingston, Jamaica in July 2008; and Guayaquil, Ecuador, in July 2009) with participation of the SIDS countries in the relevant regions to support their efforts in mainstreaming coastal and marine issues in the national development planning and budgetary processes; sharing of national level experiences in integrating coastal and marine environmental issues into national development plans and budgets; new understanding of the mainstreaming approach and created new incentive to expedite the mainstreaming process.

(c) Technical support to SIDS to develop their national programmes of action to tackle land-based sources of marine pollution as case studies for the Pacific region and the Caribbean. In the Pacific Tonga, Kiribati and Vanuatu were supported. In partnership with SPREP, coordination of a regional project to facilitate operation of the Council of Regional Organizations in the Pacific working groups associated with GPA-related initiatives was carried out, as well as support provided to national Governments to develop national plans of action and align them with national sustainable development strategies. In the Caribbean UNEP/DEPI and NOAA have undertaken joint activities with regards to the development of National Programmes of Action (NPAs); implementation of small-scale pilot interventions, including project development assistance in priority areas such as wastewater management, nutrients and marine litter; work with nations in the Wider Caribbean to link crosscutting environmental policies with efforts to mainstream initiatives developed in the NPA process into national planning and budgetary processes; and integrate climate change vulnerability mitigation into the NPA process and use NPAs as an adaptation tool to address future and projected climate change impacts.

(d) The project "Integrated management of watersheds and coastal areas in small island States in the Caribbean" has strengthened the commitment and capacity of participating countries to implement an integrated approach to the management of watersheds and coastal areas. Nine Demonstration Projects have been implemented, focusing on thematic issues related to Water Resources Conservation and Management; Wastewater Treatment and Management; Land-Use Planning, Zoning and Alternative Practices; and Targeted Model IWCAM. Other activities being implemented include: Development of IWCAM Indicators template; A Legislative, Policy and Institutional Inventory with Toolkit for Harmonizing Laws and Institutions prepared; Support for regional IWRM activities and for the preparation of Integrated Water Resources Management Plans in participating countries; A Capacity Assessment of Geographic Information Systems (GIS) Capabilities and preparation of Roadmap for Effective Mainstreaming of GIS for Watershed Management in the Caribbean; Laboratory capacity assessments for laboratories in five participating countries; Training in Environmental Indicators, Communications, and Community-based Resource Assessment; Communications, outreach and production and dissemination of Public Awareness materials. Beneficiary countries are Barbados, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines and Trinidad and Tobago.

(e) The project on demonstrations of innovative approaches to the rehabilitation of heavily contaminated bays in the wider Caribbean has implemented a pilot project for the construction of a sewage treatment plant in the Luyano River area, identified as the main source of pollution to Havana Bay, in Cuba, to remove nitrogen and phosphorus; address the problem of eutrophication resulting from excess inputs of nutrients to the coastal zone and adjacent international waters.

(f) The second regional overview of land-based sources and activities in the wider Caribbean region provides updated information on all point and non-point source discharges into, or impacting, the area of the Cartagena Convention; establishes a new baseline from which to measure progress under the Protocol Concerning Pollution from Land-based Sources and Activities (LBSA) to that Convention; and confirms or reconfirms priority sources and pollutants in the Wider Caribbean, including heavily contaminated bays.

(g) The project on implementation of the regional action plan for the sustainable management of marine litter has supported further environmental protection and sustainable development of the Wider Caribbean region through the continuing implementation of the plan. Under the project compilations and dissemination of lessons learned took place and it is expected that this will allow the development of strengthened related legislation and policy requirements, monitoring and economic assessment mechanisms and improved education through awareness programmes to reduce marine litter nationally with regional impacts. Three pilot countries were selected for pilot implementation, i.e., Barbados, St. Lucia and Guyana.

(h) The International Year of the Reef 2008 was implemented in the Caribbean through the regional Coral Reef Consultation for the Wider Caribbean, which ascertained the types of new science that are needed to improve coral reef management regionally and how existing science can best be applied to help regional managers. Support was also given to the conservation and sustainable use of coastal and marine ecosystems, including International Coral Reef Initiative activities.

(i) The Regional training-of-trainers course in marine protected area management have dealt with all aspects of management of such areas in the Caribbean. The 6<sup>th</sup> course in 2008 focused on Cuba and the Dominican Republic.

(j) The Wider Caribbean region, through the development of a Caribbean Regional Fund for Wastewater Management (CReW), is helping mobilize greater investments in wastewater management, including treatment facilities. In the context of the protocol concerning pollution from land-based sources and activities to the Cartagena Convention, the project will provide sustainable financing for the implementation of environmentally acceptable, sustainable and cost-effective wastewater management measures.

(k) Implementation of the project on reduction of environmental impacts from tropical shrimp trawling, through introduction of by-catch technologies and change of management, aims to reduce discard and by-catch and to train and provide relevant capacity building. Also legal frameworks and mechanisms to monitor, control and enforce new regulations have been developed.

(l) The GEF funded project on combating living resource depletion and coastal area degradation in the Guinea Current large marine ecosystem through ecosystem-based regional actions is focused on developing solutions to the priority problems and issues identified by the 16 countries within the Guinea Current area – among which Guinea-Bissau and Sao Tome and Principe- that have led to unsustainable fishing and use of other marine resources, together with the degradation of marine and coastal ecosystems by human activities. The project focuses on nine demonstration projects, designed to be replicable and to demonstrate how specific actions can lead to dramatic improvements.

(m) UNEP is the implementing agency for the GEF funded project to implement sustainable integrated water resource and wastewater management in Pacific island countries to strengthen the enabling environment for the implementation of the Strategic Action Programme for International Waters of the Pacific Islands Region to promote sustainable development. Beneficiary SIDS are Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Niue, Samoa, Solomon Islands, Palau, Papua New Guinea, Tonga, Tuvalu and Vanuatu.

(n) The UNEP Shelf Programme, managed by UNEP/GRID-Arendal, has provided data and training to experts from developing countries, including SIDS, on the delineation of the outer limits of the continental shelf. The process of the delineation of the outer limits of the continental shelf is driven by the 1982 UN Convention on the Law of the Sea (UNCLOS). The seabed and the subsoil of the continental shelf constitute the outermost maritime zone over which coastal states have jurisdiction. Coastal states that were to ratify UNCLOS were due to submit information on the outer limits of the continental shelf by May 2009. Some developing states experienced difficulties in finishing the technical work involved in the delineation. The support given by the UNEP Shelf Programme has been instrumental in the advancement of this technical work. Data were provided to 15 countries, training was given to experts from 26 countries and technical advice was provided to an additional five countries.

(o) Coral-reef related activities in SIDS have been undertaken by the UNEP Regional Seas programmes and through the International Coral Reef Action Network. The following activities have been implemented, among others:

- Coral reef initiative for the South Pacific (CRISP) has undertaken activities which address: enhance integrated governance for effective management of island (coastal) resources at all levels; engendering public support for sustainable coastal and marine resource management at all levels; and building capacity and access to appropriate methodologies and technologies.
- South Asia marine conservation and protected areas project (MCPA) addresses the improved management and operation of MCPAs; works alongside coastal communities to enhance their livelihoods and develop and assist them to take up more sustainable livelihood activities, moving away from reef degradation; and establish a task force to promote a regional response to environmental challenges, to improve regional cooperation and coordination of management and conservation efforts, and to assist participating countries to learn from each other's experiences.
- Coastal and marine management and education in the South-Eastern Caribbean. To strengthen coral reef management, monitoring, outreach and education programmes in the region, engage stakeholders and encourage support for the creation of new marine protected areas and long-term management needs.

(p) The GEF funded project on implementing integrated water resource and wastewater management in Atlantic and Indian Ocean small island developing States is addressing water and marine-related constraints and barriers through the development of integrated water resource management mechanisms and water use efficiency strategies. The overall objective of the project is to accelerate progress, towards World Summit on Sustainable Development (WSSD) targets on Integrated Water Resources Management (IWRM)/Water Use Efficiency (WUE) national plans and; water supply and sanitation Millennium Development Goals (MDGs). Activities being implemented include the preparation of State of the coast reports of Comoros, Seychelles and Mauritius; Pollution status reports (also for Comoros, Seychelles and Mauritius); report on the review of the environment management plan for Seychelles (EMPS) 2000-2010. National Diagnostic and Hotspots analysis for Comoros, Seychelles, Mauritius have been conducted. The reports have analyzed the current status, priority issues (hotspots), threats, causes and barriers related to IWRM/WUE, marine litter, and wastewater management in WIO SIDS. Other expected outputs include: (i) National Diagnostic and Hotspots analysis reports for Maldives, Sao Tome and Principe and Cape Verde; and (ii) National Assessment reports on policy, legal, institutional and capacity gaps regarding IWRM/WUE and wastewater management.

(q) The demonstration Project on Marine and Coastal Ecosystem-based Management in Kimbe Bay, Papua New Guinea (PNG) aims at supporting integrated policy and management development through national consultations, assessment of key ecosystem drivers, development of cross-sectoral policy and management responses, introducing and tailor-making key concepts of integrated environmental assessment and management.

(r) A National workshop on Integrated Environmental Assessment and Ecosystem-Based Management (EBA) was organized in August 2009 by the PNG Department of Environment and Conservation (DEC) through close collaboration and financial support from UNEP to: (a) Identify environmental issues and cross-sectoral policy and management responses; (b) organise and initiate a national Integrated Environmental Assessment and Climate Change Outlook, including training in IEA methodologies; and (c) introduce key principles and operational approaches on marine and coastal ecosystem-based management (EBM) and plan a 6-month marine & coastal EBM demonstration project in the Kimbe Bay region.

(s) Through the provision of regional support to the Caribbean Challenge it is expected that Enhanced coherence and financial sustainability of a large-scale transboundary (national and ecoregional) Caribbean MPA Network consistent with the Global Islands Partnership (GLISPA) commitments will be attained. Expected outputs are: (a) National MPA Project Coordinators participating in Annual Caribbean Challenge Regional Coordination Meeting; (b) Established regular regional communications system; (c) An agreed valuation on regional prioritization of MPA site selection for the Caribbean Challenge; (d) Agreed regional Caribbean Challenge MPA monitoring and evaluation framework based on appropriate indicators, among others.

**E. Freshwater resources**

(a) Rainwater harvesting is currently being promoted by UNEP to increase the availability of freshwater resources in the Caribbean SIDS –it has also been done in the Pacific, and to develop regional rainwater harvesting strategies and awareness-raising, GIS maps for planning and field demonstration projects.

(b) The 2007–2008 project to evaluate needs assessment guidance to develop national plans for domestic wastewater pollution reduction through implementation of sewerage needs assessment pilot projects in the wider Caribbean is a follow-up to the sewage collection and treatment project, which was designed to assist Contracting Parties to the Cartagena Convention and other Caribbean environment programme member States in meeting sewage-specific obligations contained in the relevant protocol to that Convention. Specific objectives were: a) To assist in the development of national plans for two selected pilot countries to comply with the requirements of the LBSA Protocol with regard to domestic wastewater; b) The testing of the national sewage treatment needs-assessment guidance developed as an output of the earlier project and also the proposed classification scheme for receiving waters under the LBSA protocol.

(c) In 2008 a regional workshop on environmentally sound water and wastewater services at the community level in the Caribbean provided for the sharing of innovative environmentally sustainable methods of water provision and wastewater treatment primarily at the community level. Environmentally Sound Technologies (EST) in the provision of sanitation and water at the community level were reviewed and regional opportunities for funding for further action discussed. One of the proposed initiatives highlighted at the workshop is the establishment of a Caribbean Revolving Fund for Regional Wastewater Investment and Management (CReW).

(d) An Inter-Regional Workshop on the Development of Guidelines for Implementing Integrated Water Resources Management (IWRM) in SIDS was organized by UNEP in Rodney Bay, St. Lucia, on August 24 – 26, 2010. Participants from the three SIDS regions analyzed the draft Manual on IWRM for SIDS and provided input on lessons learnt and success stories that are being incorporated in the final version.

**G. Land resources**

(a) The Partnership Initiative on Land Degradation and Sustainable Land Management (PISLM) has been initiated to assist Caribbean SIDS in addressing the issues of sustainable land management, rural development and alternative livelihood development through the elaboration of integrated sub-regional Action Plans (SRAP), the development of tools and methodologies for monitoring land degradation, South-South cooperation in particular among Caribbean SIDS themselves, and Caribbean SIDS and Latin American countries, as well as targeted GEF interventions. Important outputs so far achieved are: Technical Assistance for the preparation of National Action Plans/UN Convention to Combat Desertification (UNCCD); establishment of Sub-Regional Action Plan for addressing land management in Caribbean SIDS; implementation of Community based land management projects in Caribbean SIDS; the establishment of modalities for South-South Cooperation.

(b) The Talamanca-Caribbean Biological Corridor, located between Cuba, the Dominican Republic and Haiti, will provide the framework for the rehabilitation of degraded land and ecosystems in Haiti, among others. Outputs so far attained include: The establishment of a framework for the protection of biodiversity through environmental rehabilitation, particularly in Haiti and the alleviation of poverty as a means of reducing the pressure on biological resources; Demarcation of the Caribbean Biological Corridor; Strengthening the Network of Protected Areas for the Island of Hispaniola; Rehabilitation of degraded Area and the Identification and Implementation of Livelihood Alternatives for Communities; Human Resources Development.

(c) The 10-year integrated management programme on transforming Dominica into an environmentally sound organic island will use the country's natural resources – water, forest, biodiversity and productive agriculture – as the basis for the country's transformation. It is expected that the main impact of this project will be the establishment of Dominica as an environmentally sound organic island. The project has great potential to have transformational impacts, if the necessary resources are invested to facilitate the necessary changes.

**F. Energy resources**

(a) A project on the generation and delivery of renewable energy-based modern energy services will establish commercial business models for renewable technologies providing modern energy services on Isla de la Juventud, Cuba, for replication in other small islands both in the Caribbean and elsewhere.

(b) Technical assistance to facilitate renewable energy initiatives in the Caribbean SIDS in the area of bio-fuels aims to focus particular attention on biomass derived from the sugar industry but not excluding other types of biomass.

(c) A GEF funded project on solar and wind energy resource assessment aims at facilitating investment in large-scale use of solar and wind energy technologies in Cuba with tools for analysis and use of resource information, regional/national solar and wind resource maps, and national assessment demonstrations.

(d) The Caribbean Hotel Energy Action Programme (CHENACT) has as its objective to develop the Caribbean Hotel Energy Efficiency Action Programme, explore the possibilities of obtaining carbon credits through the Clean Development Mechanism (CDM), promote the compliance with the Montreal Protocol (phasing out of ozone depleting substances) and achieve eligibility for the Climate Investment Fund (CIF) funding. The Programme contributes to the efficient use of energy resources in the tourism industry across the Caribbean. Ultimately, it will translate in positive environmental impacts from the reduction of greenhouse gas emissions and phasing out of ODS. It will also have positive economic impacts such as the decline of the tourism industry energy bill and additional revenue streams from carbon finance transactions under the new PCDM. The adoption of standardized EE practices will make the tourism industry more competitive through lower charges in the energy bill, which as stated before is a significant portion of hotels' operational costs, and a positive environmental footprint that can be marketed to reach environmentally aware customers. MG will lift some of the pressure on energy generation by introducing the use of RE and diversifying the energy matrix from the side of an important power consumer. The net impact of these measures on the economy will be reflected on the regional energy bill that is highly correlated with oil and gas international prices and fluctuating supply. Current beneficiary SIDS are Barbados, Jamaica, Bahamas, Suriname, Trinidad and Tobago, Belize, Haiti, Dominican Republic and Guyana.

(e) Energy is one of the key issues for SIDS – for the most they face the problem with ensuring supply, and particularly renewable energy sources may offer a chance to overcome this. Power from waste could represent an alternative and this would help solve another of the classical SIDS problems –waste handling. Under UNEP's Sustainable Energy Advisory Facility, the project "Development of a Biodiesel Development Strategy for Jamaica" is under development. Jamaica's energy mix remains dependent on the use of imported petroleum based fuel with approximately 94.4 % of imports and 5.6% from indigenous sources. Jamaica's overall fuel imports have been growing at an average annual growth rate of 3% per annum over the past twenty eight years, while the transport sector has experienced an average annual growth rate of 4% per annum. This indicates that transport activity is one of the demand drivers, thereby contributing to the nation's "addiction to oil". The trend in automotive diesel consumption for transport indicates steady growth in diesel demand, of about 7% over the past decade. This growth may be attributed to the 1995 Motor Vehicle Import Policy which revised, expanded and liberalized the importation of motor vehicles; and expansion in the public bus transportation fleet. The objective of the project is to increase the utilization of locally produced biodiesel as a road transport fuel in Jamaica. The expected outputs resulting from the project are: (a) Final drafts of financial incentives and policies for increased biodiesel utilization and production with locally grown feedstock are prepared; (b) User-friendly guide for cultivation of jathropa and/or other energy crops (as feedstock for biodiesel production) under Jamaican conditions is prepared; (c) Funding (public, private or public/private) is released for implementation of a small-scale pilot biodiesel plant capable of producing 250,000 litres per year; and (d) Biodiesel value-chain development strategy is developed through a participatory process, documented in a final report.

**H. Tourism resources**

(a) A project on mainstreaming biodiversity conservation into tourism through the development and dissemination of best practices will mainstream biodiversity conservation into the tourism industry and

secure local, national and global environmental benefits in two among the world's most biodiverse countries, namely, Belize and Ecuador. A methodology guide for tourism management plans has been completed and criteria for sustainable tourism (based on UNEP/CBD guidelines) developed. These tools provide a sound basis for incorporating biodiversity into tourism management plans and to meet target of third party certification. Governments and institution in all three participating Biosphere Reserves adopted tourism management plans. Training materials have been developed for the purpose of training tourism operations personnel to incorporate biodiversity best practices in sustainable tourism at demonstration sites. Private sector involvement contributed to the establishment of communication strategies for each project area. First incentive measures (e.g. contests, tourism fairs and exhibitions) have created an enhanced environment for sustainable business engagement. All activities are aimed at improving conservation and sustainable use of the biodiversity of the participating Biosphere Reserves.

(b) A GEF funded project on demonstrating and capturing best practices and technologies for the reduction of land-sourced impacts resulting from coastal tourism aims to demonstrate best practice strategies for sustainable tourism to reduce the degradation of marine and coastal environments of transboundary significance and to address the negative impacts of tourism on the coastal and marine environment of sub-Saharan Africa, including the Seychelles; to promote the development of sustainable tourism policies and strategies; to implement demonstration projects in a number of countries that participated in the African Process; to engage the private sector and enhance public-private partnerships to enable formulation and implementation of appropriate national and regional policies and strategies for sustainable tourism development, including a policy and strategy framework to guide and promote ecotourism development.

(c) From 2006 to 2008, UNEP worked with a number of partners to help build capacity for disaster risk reduction in three tsunami-hit tourist destinations. The project entitled "Disaster Reduction through Awareness, Preparedness and Prevention Mechanisms in Coastal Settlements in Asia: Demonstration in Tourism Destinations" aimed at increasing the disaster management operational capacity of the main disaster and tourism stakeholders in these tsunami-affected tourism destinations. The intervention actions in the demonstration destinations addressed various priorities identified by the Barbados Programme of Action and have the potential for replication across the region and in other SIDS regions. The demonstration project used UNEP's Awareness and Preparedness for Emergencies at the Local Level (APELL) process.

The main project results included the increased disaster management operational capacity of local partners and beneficiaries, amongst other, due to more than 150 local people trained with case studies on key elements for disaster prevention, and more than 180 local people educated on the APELL. Cooperation and coordination between the local authorities and the tourism sector, and between local and national authorities was enhanced through activities such as setting-up coordination groups involving all stakeholders and support of national institutions allowing long-term sustainability of project results and continuity at the local level. A toolkit available at UNEP's website was produced to allow replication of this successful project in other destinations. The project was funded by the European Union through the EU-Asia Pro Eco II B Post-Tsunami Programme.

## **I. Biodiversity resources**

(a) Jointly with the Secretariat of the Convention on Biological Diversity and the Secretariat of the Pacific Regional Environment Programme, work has been carried out to promote what is known as the "Island Biodiversity Programme of Work". Examples include the campaign to celebrate Pacific island biodiversity and the production of media reports on island biodiversity to undertake a comprehensive assessment of the current status, issues and trends of biodiversity in the Pacific region.

(b) A project on strengthening protected areas in the Wider Caribbean region aims at strengthening the Caribbean Marine Protected Areas (MPA) Managers Network and Forum through the implementation of a five year Strategic Plan and improving the management of MPAs in the region through Regional Training of Trainers courses for MPA managers, and better practices through assistance from the CaMPAM (Wider Caribbean Marine Protected Area Managers) Small Grants Fund and complementary grants on sustainable fisheries and alternative livelihoods, and tourism practices in Cuba, Jamaica, Dominican Republic, and Barbados; and the finalization of an updated web-based database of the MPAs in the Wider Caribbean.



Local training activities took place in the Bahamas, Cuba, Dominican Republic, Grenada, Guadeloupe, and Jamaica, Dominican Republic, Cuba, Panama, Colombia and Haiti.

(c) A project on guidelines for protected areas and species management will produce guidelines and criteria for the listing of protected areas under the Protocol to the Cartagena Convention for the Wider Caribbean-Concerning Specially Protected Areas and Wildlife (SPAW) and the compilation of a preliminary list of protected areas under that Protocol to initiate a regional network and cooperation between the areas. A project on the conservation of threatened and endangered species implements the priority actions of the regional action plan for marine mammals for the Wider Caribbean region; updates the regional manatee management plan for the region; supports the development of sea turtle conservation and recovery priority actions; builds capacity for the management of the conch and lobster fisheries.

(d) The project “Conservation of Threatened and Endangered Species” includes the implementation of priority actions of the Regional Action Plan for Marine Mammals (MMAP) for the Wider Caribbean Region; supports the updating of the Regional Manatee Management Plan for the region; provides support to the development of sea turtle conservation and recovery priority actions in e.g. Barbados; and various capacity-building activities. So far under the project MMAP and Manatee plans have been endorsed, priority actions as per MMAP Sea Turtle Recovery Plans have been finalized, and Management plans for Conch have been developed.

(e) The project on conservation and sustainable use of coastal and marine ecosystems, including International Coral Reef Initiative activities, builds on the experiences in Mesoamerica from the International Coral Reef Action Network Mesoamerican Reef Alliance Project and will further strengthen capacity in sustainable marine recreation practices and environmental performance assessments, while forming alliances with local businesses, marine protected area managers and local communities. This will include small grants and training workshops in collaboration with CORAL in the Dominican Republic, to further advance implementation of locally developed marine recreation standards, and promote stakeholder dialogue for improved coastal and marine tourism practices. As part of this project best practices have been developed and disseminated in the Wider Caribbean Region, there is an increased collaboration between actors, strengthened capacity for the sustainable use of marine resources.

(f) The GEF funded project being implemented in the Dominican Republic and Jamaica, on sustainable conservation of globally important Caribbean bird habitats with a view to strengthening a regional network for a shared resource, aims to enhance the conservation status of globally important sites for biodiversity in the Caribbean. This is being done by strengthening local and national partnerships and increasing awareness of Caribbean biodiversity and the issues affecting it among public and private sector local, national and international stakeholders and decision-makers. In so doing, the project documents globally important biodiversity sites and establishes a framework within which information gaps are evaluated and conservation requirements are assessed, advocated and acted upon for the highest priorities. The project has achieved significant results and impact, with some excellent and important products, and in some areas has leveraged actions that went beyond the scope of the project. Overall, the Immediate Objectives have been largely achieved and publications are being released.

(g) A GEF funded project to support the assessment of capacity-building needs and country-specific priorities in the conservation of biodiversity and participation in the national clearing-house mechanism is assisting in identifying the capacity-building needs and country-specific priorities in the conservation of biodiversity and establish a national workable clearing-house mechanism. The project is initially under implementation in Barbados.

(h) The GEF funded project on support to the implementation of national biosafety frameworks, according to the Cartagena Protocol on Biosafety, is assisting Mauritius, Madagascar and Seychelles, ensuring an adequate level of protection in the safe transfer, handling and use of living modified organisms resulting from modern biotechnology. The Project in Mauritius has made considerable progress in terms of achieving the first immediate objective of developing a fully responsive and functional regulatory regime as a key ingredient for the implementation of the other targeted activities

(i) A project on mitigating the threats of invasive alien species in the insular Caribbean aims at the mitigation of the threats to biodiversity and the local economy of invasive alien species in the insular

Caribbean. Beneficiary countries are the Dominican Republic, Jamaica, Saint Lucia, Trinidad and Tobago, and the Bahamas.

(j) The GEF and the Pacific Alliance for Sustainability, in conjunction with the Secretariat of the Pacific Regional Environment Programme, are working on the joint development of an initiative on the management of invasive species, which aims at reducing the environmental and economic impacts of invasive alien species in both terrestrial and marine habitats in the Pacific.

(k) UNEP participates in the Global Island Partnership (GLISPA), which assists islands in tackling one of the world's greatest challenges: (a) To conserve and use sustainably the invaluable island natural resources that support people, cultures, and livelihoods in their island homes around the world; (b) To mobilize leadership, increase resources and share skills, knowledge, technologies and innovations in a cost-effective and sustainable way that will catalyze action for conservation and sustainable livelihoods; (c) To engage agencies and organizations worldwide in high-level commitments and on-the-ground action for island conservation and sustainable use, improved exchange of information and collaboration between islands, and between islands and other international entities in support of the MSI.

## **J. Transportation and Communication**

(a) In this field UNEP supported Madagascar and Mauritius to participate at the Southern Africa subregional workshop on Better Air Quality in Cities held in March 2008; and Cape Verde to attend the West and Central Africa subregional Workshop on Better Air Quality in Cities held in July 2009.

## **K. Science and technology**

(a) One way UNEP is working towards sustainable urban environments and water use is through promoting Environmentally Sound Technologies (ESTs). UNEP's International Environmental Technology Centre (IETC), in partnership with the UNEP Caribbean Regional Co-ordinating Unit, continued the implementation of a project to address the need for improving access to water and wastewater provision in rural communities in environmentally vulnerable areas in Jamaica. The project seeks to analyze local conditions of water and wastewater provision in a number of ecologically sensitive rural areas in Jamaica, and to identify potential provision options that are environmentally sound and manageable by communities. The project is being implemented in partnership with Rural Water Supply of Jamaica. Several interventions for environmentally sound water provision, including improvements in rainwater harvesting and disinfection, have been identified. Pilot-scale implementation of selected ESTs is ongoing at a rural community called Breadnut Walk. Results from pilot implementation are expected to generate data required for larger-scale interventions in Jamaica, as well as other Small Island Developing States.

(b) Regional Network in Marine Science and Technology for the Caribbean: the Know-why Network project seeks to implement the protocol concerning pollution from land-based sources and activities to the Cartagena Convention, in particular, the obligations on monitoring and assessment and development of information systems and reporting. The specific objectives are to update existing information of all point and non-point sources of pollution into the Cartagena Convention area through additional scientific analysis; to enhance the capacity of the communication, education, training and awareness sub-programme of the Caribbean Environment Programme by developing the pollution information module; and to enhance countries capacity for using other technologies, such as remote sensing and mapping of pollution data and information. Marine water quality indicators have been approved, a Regional Activity Network (RAN) and laboratories have been strengthened, and marine and coastal water quality monitoring of selected hotspots has taken place.

## **L. Trade**

(a) The project on integrated assessment of trade-related policies and biodiversity in the agricultural sector is supporting, both financially and technically, beneficiary countries to assess the economic, social and

environmental impacts of trade-related policies in the agricultural sector, with particular focus on biodiversity impacts. This initiative aims to enhance capacity in selected African, Caribbean and Pacific SIDS to develop policy recommendations that safeguard biological diversity while maximizing sustainable development gains from trade liberalization in the agriculture sector. The project in Jamaica focuses on the impacts of reforms of the EU-ACP Sugar Protocol as part of the EU-ACP Economic Partnership Agreement negotiations (loss of trade preferences). The project in Papua New Guinea focuses on the impacts of trade liberalisation measures (particularly tariff reduction) affecting major export crops (e.g. coffee and oil palm) on two major staple food crops (taro and sweet potato). In Mauritius the project focuses on the impacts of reforms of the EU-ACP Sugar Protocol as part of the EU-ACP Economic Partnership Agreement negotiations (loss of trade preferences). As impacts of this projects it is to be mentioned: a) Capacities built in national research institutes and government ministries in integrated and biodiversity assessment and identifying economic, social, environmental and biodiversity impacts of trade policies; b) Initiation of process to incorporate biodiversity impacts into formulation and implementation of trade policies.

(b) Support to bio-trade in the Dominican Republic is provided to promote sustainable bio-trade practices in selected rural communities living on the Dominican Republic–Haiti border, contributing to the improvement of their life quality and poverty alleviation through sustainable entrepreneurial activities.

(c) UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development: More than 150 participants from 27 SIDS benefited from the activities of the UNEP-UNCTAD Capacity Building Task Force on Trade, Environment and Development (CBTF) between 2005 and 2009. Most of them participated in regional capacity building activities, mainly focused on broad range of Trade and Environment issues including EGS negotiations at the WTO and MEA-WTO relationship.

(d) Trade policy assessments and biodiversity in Mauritius: Between 2007 and 2009, with support from UNEP's Trade and Biodiversity Initiative, the Ministry of Agro-Industry, Food Production and Security in Mauritius in collaboration with the Agricultural Research and Extension Unit (AREU) undertook an Integrated Assessment of the economic, social and environmental impacts of the dismantling of the EU-ACP Sugar Protocol, focusing specifically on the Multi-Annual Adaptation Strategy (MAAS Action Plan 2006-2015). The project was successful in creating a better understanding of the impacts of national and international trade policies on the local biodiversity and natural resources. Through the project, the country had the opportunity to gain experience in undertaking an integrated assessment, identifying biodiversity challenges and opportunities and adjusting tools and techniques to country specific context, as well as to establish a process for stakeholder consultation and relevant institutional partnerships in the area of trade, agriculture and biodiversity for the future.

Based on the recommendations of the study, the Ministry of Agro-Industry, Food Production and Security increased its efforts to hold high-level consultation on the regrouping of farmers, develop land-use plans for difficult areas likely to be abandoned, train framers on good management practises, as well as to increase capacity on valuation of biodiversity. Further training programmes have been initiated at national level with the aim to disseminate the integrated assessment and planning approach to other sectors and policy processes.

## **M. Sustainable capacity development and education for sustainable development**

(a) Environmental education and awareness activities include:

- Curricula review at the secondary level with the objective of recommending additional modules and resources, in particular on curriculum enhancement at the secondary level, in support of the UN Decade of Education for Sustainable Development, 2005-14. This exercise is being conducted in five Pacific island countries, namely, Fiji, Kiribati, Samoa, Tonga and Vanuatu.

- In cooperation with the University of the South Pacific and the Pacific Youth Environment Network, UNEP organized a future leaders forum in April 2007, which was intended to empower young leaders with information and knowledge;<sup>1</sup>
- In cooperation with the Pacific Youth Environment Network, UNEP is preparing a youth and sustainability toolkit, which is a training toolkit for the future leaders forum to be used for training and capacity-building purposes within the Pacific SIDS. It is expected to be widely distributed by SPREP.

(b) Human resources development initiatives intended to strengthen human resources in the Pacific region on conservation issues include:

- Co-funding of scholarships for the second phase of the Pacific islands community conservation course with University of the South Pacific;
- Applied research and attachment programmes;
- Development of a conservation project management toolkit;
- UNEP/Tongji Leadership Programme on Environment for Sustainable Development;
- Masters scholarship at the Asian Institute of Technology.

(c) A pilot project is under way for the development of integrated legislation with a view to the incorporation into domestic law in countries of the Pacific of the chemicals conventions, namely, the Stockholm Convention on Persistent Organic Pollutants, the Basel Conventions on the Transboundary Movement of Hazardous Wastes, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Waigani Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region. Beneficiary SIDS include Fiji, Vanuatu, Solomon Islands, Papua New Guinea, Samoa, Tonga, Tuvalu, Kiribati, Federated States of Micronesia, Marshall Islands, Palau, Cook Islands.

(d) The project on enhancing synergetic implementation of biodiversity-related multilateral environmental agreements (MEAs) through the development of national multilateral environmental agreement implementation plans by selected countries in Latin America and the Caribbean aims at enhancing the national strategies and national action plans for the implementation of biodiversity-related multilateral environmental agreements by providing assistance through the development of national implementation plans for the effective implementation of a cluster of key biodiversity related MEAs.

(e) Phase II of the UNEP Organization of Eastern Caribbean States model harmonized biodiversity legislation project aims at building on the work of phase I, which included the drafting of model harmonized biodiversity legislation for the nine countries of the Organization. Phase II is aimed at developing model biodiversity legislation in three selected Organization countries.

(f) The European Community programme on capacity-building related to MEAs in African, Caribbean and Pacific countries is a capacity-building project supported by UNEP to build the capacity of African, Caribbean and Pacific SIDS to implement their respective obligations under MEAs and honour related commitments, thereby resulting in sound management of the environment and natural resources. It is expected that this will lead towards poverty alleviation and sustainable development with a focus on, among others, mitigating the adverse effects of climate change, loss of biodiversity, drought, land degradation, chemicals, hazardous wastes and other threats to the environment. Activities generally focus on strengthening and enhancing the capacities of national governments and stakeholders, and include negotiation and lobbying skills training; project design and management training; harmonizing and streamlining of national reporting to MEA; and improved information management and utilization.

(g) A Quick Start Programme trust fund established to support activities to enable initial capacity-building and implementation of the Strategic Approach to International Chemicals Management continues to give

---

<sup>1</sup> In the preamble to the Mauritius Strategy, small island developing States recognize the integral role of youth in sustainable development and the need to ensure their participation in programmes and activities related to the sustainable development of small island developing States.

priority to the urgent needs of least developed countries and SIDS. Since the Fund became operational in late 2006, the inter-agency trust fund implementation committee has, as of September 2009, approved projects for 15 small island developing State. The projects address the three Programme strategic priorities: developing or updating of national chemicals profiles; building on the work of chemicals-related international agreements and initiatives; and mainstreaming chemicals management in national development planning. The majority of projects are still under implementation, with exception of the Sao Tome & Principe, Haiti and Comoros, where the activities have been completed.

(h) The project on capacity development in geographic information systems for the land-based sources regional activity centre at the Centre for Engineering and Environmental Management of Bays and Coasts (*Centro de Ingeniería y Manejo Ambiental de Bahías y Costas – CIMAB*) in Cuba aimed to: (a) develop the institutional capabilities of the centre in the use of geographic information systems; including a well established GIS computing environment; (b) train a base of technicians and professionals in the development of GIS database and GIS use of information; (c) make GIS products available for dissemination and demonstration; (d) produce metadata catalogue of archived and new data and information, and; (e) increase the number and variety of services offered by LBS/RAC-CIMAB to CEP and member countries.

(i) Training courses on the drafting of model environmental legislation for the Caribbean SIDS and implementation of environmental treaties, finalised in 2008, were intended to support legislative drafting on environmental issues. The courses were implemented in partnership with the Faculty of Law of the University of the West Indies.

(j) A project on expedited financing for interim capacity-building measures in priority areas has been implemented in Comoros as an interim capacity-building activity for the period between the initial and the second national communications to the Framework Convention on Climate Change. It complements the activities of the phase 1 project, related to the initial communication, while forming the basis for initiation of the second national communication.

(k) A project on national capacity self-assessment for global environmental management aimed to identify country-level priorities and needs for capacity-building to address global environmental issues, in particular biological diversity, climate change, and land degradation, and the synergies between them, with the objective to catalyse domestic or externally assisted action to meet those needs in a coordinated and planned manner, had as beneficiary SIDS Saint Lucia, Cuba, Haiti, Vanuatu and Trinidad and Tobago.

(l) The project “National Capacity Self-Assessment (NCSA) for Global Environmental Management for Barbados” conducted an assessment of the national capacity to assist in protecting the global environment by effectively implementing the Rio Conventions, specifically the Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (UNCBD) and the Convention to Combat Drought and Desertification (UNCCD). It also contributed to the implementation of the broader National Sustainable Development Policy.

(m) Four academics from island developing countries, i.e., Mauritius and Seychelles, underwent training in two international training programmes on mainstreaming environment and sustainability in African university partnerships. The main objective of the training course was to provide an opportunity to exchange knowledge and experiences in environment and sustainable development in the higher education sector and deepen understanding of the environmental, socio-cultural and economic dynamics of sustainable development. Two training programmes were conducted, i.e., a three week exchange programme in Sweden and a two week workshop in Rhodes University, South Africa.

(n) University professors from Madagascar and Seychelles participated in the First Mainstreaming Environment and Sustainability in African Universities (MESA) International Conference with the theme Environment, Development and Climate Change in Africa: Universities Responding?, organised by UNEP and held in Nairobi in November 2008.

(o) Other environmental education and training activities in small island developing States include:

- Supporting the Faculty of Engineering at the University of Mauritius in researching sustainable technologies for composting paper waste and for providing more sustainable energy resources for Mauritius. This is part of a broader eco-campus initiative that involves the development of a general

environmental management module for all students, an environmental awareness campaign for students and staff and a community engagement component;

- Supporting the establishment in the University of Seychelles of a core module on the sustainable development of SIDS, which includes issues such as climate change, management of ecosystem services, sustainable fisheries management and biodiversity and tourism.
- Capacity Building for Judges in Biodiversity related issues, jointly implemented with ELI (Environmental Law Institute) in Jamaica and the Dominican Republic. Relevant training materials were being developed.
- In partnership with the University of West Indies a project for the improvement of Access to Environmental Justice in the Caribbean was implemented. Under the project the establishment and consolidation of an Expert Group on Access to Environmental Justice, including Judges, Prosecutors, General attorneys, legal officers and legal NGOs, took place. Experiences and lessons learnt were exchanged and common challenges towards improvement of access to environmental justice identified.

#### **N. Sustainable production and consumption**

(a) Mauritius was selected by UNEP as one of the pilot countries for the development of a national programme and action plan on sustainable consumption and production. A memorandum of understanding was signed between UNEP and the Ministry of Environment in May 2007 for the elaboration of the programme by July 2008. The national programme on sustainable consumption and production for Mauritius has been finalized and the implementation phase started.

(b) Establishment of a regional information Centre on Cleaner Production and Sustainable Consumption for the Caribbean, to support better access and availability of information on sustainable consumption and production.

(c) Support to the organization of regional meetings on sustainable consumption and production (SCP):

- First SCP Meeting for Caribbean Countries, as part of the sub-regional activities done in LAC in the framework of the Regional Council of Government Experts on SCP and the LAC Forum of Ministers of Environment. This included country members of the Caribbean Community (CARICOM). The sub-regional SCP action plan was revised and Recommendations were made to the Ministers to enhance the activities on SCP in the sub-region.
- First Training workshop on sustainable public procurement for Central America, including Cuba, Dominican Republic and Belize. An important outcome is that procurement officers and SCP focal points got better information and resources to promote the issue at national level.

#### **O. National and regional enabling environments<sup>2</sup>**

(a) The Third Conference of the Pacific Youth and Environment Network took place in early 2009 at the University of the South Pacific in Suva. It is the annual network meeting of the Pacific Youth under the UNEP Global Tunza Strategy. The Conference was organized by the UNEP Regional Office for Asia and the Pacific, in partnership with the University of the South Pacific.

(b) The Asia-Pacific civil society meeting on international environmental governance included an Asia-Pacific civil society statement for inputs to the Global Civil Society Forum. It was held in parallel with the twenty-fifth session of the UNEP Governing Council/Global Ministerial Environment Forum in Nairobi in February 2009, and organised by the UNEP Regional Office for Asia and the Pacific with support from the European Union.

(c) UNEP, through its Regional Office for Latin America and the Caribbean, provided advisory services and co-organised the CARICOM's Council for Trade and Economic Development (COTED)

---

<sup>2</sup> This thematic area of the Mauritius Strategy refers also to governance and in this sense it is linked to the UNEP medium-term strategy 2010–2013 relevant subprogramme.

[Environment] to support follow up to the COTED meeting held in April 2008 and to contribute to environmental policy formulation in the Caribbean Community.

(d) Support was provided to the Government of Suriname in the preparation of proposals for cooperation to assist the Government in formulating an environmental action plan for the country.

(e) Under the aegis of the Forum of Ministers of Environment of Latin America and the Caribbean, to which UNEP LAC Regional Office is the Secretariat, an Expert Group on Environmental Indicators for SIDS has been established. The activity is an expansion of the Indicators Project to selected Caribbean SIDS on the Latin American and Caribbean Initiative for Sustainable Development (ILAC), adopted by the Forum of Ministers and endorsed by the Johannesburg Plan of Implementation. The main objective of the group will be to monitor the implementation of ILAC.

(f) The implementation of the “Micronesia challenge” project, on sustainable finance systems for island protected area management, aims at the development and application of sustainable finance systems and policies that will provide sustainable long-term core resources for effective and adaptive conservation strategies across the three country proponents of the Micronesia Challenge, namely, Federated States of Micronesia, Palau and Marshall Islands.

(g) As part of the implementation of UNDP-UNEP Poverty and Environment Initiative (PEI), aimed at providing financial and technical support in order to assist countries to mainstream environmental management into poverty reduction strategies, budgeting processes and national development plans, UNEP is supporting the Dominican Republic and Haiti. The PEI impacts countries by promoting good environmental management, which results in increased well-being and livelihoods, poverty reduction, and contributes to economic growth.

#### **P. Knowledge management and information for decision-making**

(a) The “Mauritius Environment Outlook” report was produced making use of the UNEP/GEO Networks. It presents the state and trends of the environment, outlook and scenarios and policy options of the country within the framework of the implementation of the Africa Environment Information Network to build countries’ capacity to establish essential data foundation and information for decision-making.

(b) Promotion and utilization of Global Environment Outlook (UNEP/GEO) tools and processes in the Pacific through the Secretariat of the Pacific Regional Environment Programme (SPREP) participation in the “Assessment of assessments” exercise, conducted within the framework of the United Nations General Assembly (resolution A/60/30) on the regular process for global reporting and assessment of the state of the marine environment including social and economic aspects.

(c) Capacity development for integrated environmental assessment was undertaken, in partnership with SPREP and the University of the South Pacific, in Papua New Guinea and Kiribati with emphasis on the generation of meaningful information for decision-making and the maximizing of policy impacts of environmental assessment and reporting.

(d) With the aim of furthering cooperation on capacity-building in the South Pacific subregion, and in line with the Bali Strategic Plan, UNEP and SPREP have implemented the following activities:

- Capacity-building in integrated environmental assessment for the South Pacific to produce a South Pacific Environment Outlook report. The assessment focuses on climate change impacts and adaptation and complements and aims to support national and regional actions set out in the 2009 programme of work of the SPREP, and the action plan for the implementation of the Pacific islands framework for action on climate change 2006–2015;
- Training courses to build the capacity of governmental and scientific institutions in mapping vulnerability to climate change and ecosystem change and risk reduction at the national and regional levels as a basis for adaptation planning, financing and cost-effective preventive actions. Beneficiary countries are SIDS in the South Pacific and Indian Ocean. Activity implemented together with the integrated environmental assessments capacity-building described above.

(e) Integrated Environmental Assessments (IEA) for the Caribbean:

- The “GEO Youth Caribbean”, which is the IEA of the Caribbean undertaken by Youth using the GEO for youth approach was completed in November 2008. Active participation of more than 150 young people in fourteen different Caribbean countries took place. Training of young sustainable leaders on how to elaborate IEA was carried out. There was a sub-regional launch in Grenada followed by national launches in most participative countries, which were covered by the media. The fact also promoted increased connection between Caribbean countries’ Environment Ministries and Environmental Youth Groups.
- The publication “ILAC Cuba” was being finalised as a report on the indicators of sustainable development for Cuba. This is part of the follow up to the Initiative for the Sustainable Development of Latin America and the Caribbean (ILAC) –adopted by the Forum of Ministers of Latin America and the Caribbean and endorsed in the Johannesburg Plan of Implementation.
- Integrated environmental assessments for Belize, Cuba, Haiti and the Dominican Republic using the Global Environment Outlook conceptual framework were prepared.
- Integrated environmental assessments were also completed for cities such as Georgetown and Santo Domingo, using the Global Environment Outlook for Cities approach.
- Urban environmental profiles of three cities in Cuba (Santa Clara, Holguín and Cienfuegos), using the Global Environment Outlook approach, were finalized in 2008.

(f) UNEP supported SPREP to participate in the 8<sup>th</sup> Annual Collaborative Assessment Network (CAN) meeting and National Sustainable Development Strategies (NSDS) workshop in Bangkok in late 2008 and associated follow up activities. Specific objectives were to promote networking of UNEP’s partner institutions in the Asia Pacific region, and to facilitate consolidated delivery on priority regional issues and initiatives.

(g) The international waters learning exchange and resource network “IW:LEARN” was established by UNEP to test the effectiveness of cross-focal area networking among a regional cluster of current and future GEF-funded projects in the wider Caribbean region to promote the integration of efforts, synergies, identification of gaps, conflicts and opportunities and support information resources to facilitate networking, knowledge-sharing and facilitated dialogue among the regional cluster of GEF-funded projects in the Wider Caribbean.

(h) UNEP supported the organisation of the Regional Meeting: Developing a Strategy for the Management of Data and Information for the Caribbean Regional Coordinating Unit Sub-programme on Assessment and Management of Environment Pollution (AMEP), (Havana, Cuba, 2007), where the information management Strategy for the AMEP sub-programme was drafted in consultation with the LBS Regional Activity Centres, and ongoing collaborative partners and short, medium and long term actions identified.

(i) The participation of Mauritius and Madagascar in the Southern Africa regional workshop on Better Air Quality in Cities was supported by UNEP in 2008. The main outcome of the workshop was the Lusaka Agreement (2008) - Southern African Development Community (SADC) Regional Policy Framework on Air Pollution. The framework outlines actions to be taken in key areas to reduce air pollution in the region leading to sustainable development and the avoidance of the socio-economic costs of air pollution impacts on the people and the environment. These areas cover multilateral cooperation; transport; industry; open burning; indoor air pollution; national environmental governance; public awareness; and research, development and capacity building.

(j) In cooperation with the Indian Ocean Commission, UNEP/DEPI Freshwater and Marine Branch promoted the SIDS AIMS region website in initial countries (Mauritius, Seychelles, Comoros and Madagascar) and establishing focal point collaborators, formats for standard material (project and programme development, technical specifications, country profile data), with hyperlinks to technical information, news and comment to ensure its sustainability. The project built upon the work and materials developed by the Clearinghouse Mechanism of the Nairobi Convention. One of the activities under the initiative was a regional workshop in early 2010 to launch the website and conduct training for the national focal points and the contributors.

(k) Preparation of “Water vulnerability to Environmental Change in the Pacific” report using scientifically credible information to support sound policy making on integrated water resource management at



subregional and national levels, with special attention to the needs of achieving relevant Millennium Development Goals (MDGs),

#### **Q. South-South cooperation**

(a) South-South cooperation between Caribbean SIDS and Latin American countries is being used as an instrument for sharing experiences and transferring technologies in support of the attainment of the goals outlined in the Barbados Programme of Action and the Mauritius Strategy. This modality of cooperation is currently taking place within the context of the UNEP Caribbean SIDS programme in the areas of renewable energy technologies, land degradation, water resources with special emphasis on the management of coastal aquifers, biosafety, trade and environment, climate change and disaster management. To oversee this South-South cooperation, the Forum of Ministers of Environment of Latin America and the Caribbean, for which the UNEP Regional Office for Latin America and the Caribbean (ROLAC) is the Secretariat, has established a ministerial support group chaired by the Government of Chile. ROLAC has also held a series of consultations with the Ministers of Environment of Cuba, the Dominican Republic and Haiti to explore the possibility of establishing South-South cooperation mechanisms that would support the three SIDS' capacity-building projects in common priority areas.

### **III. UNEP support to SIDS in the Mauritius + 5 process**

10. UNEP supported the preparatory processes for the High-level Meeting on the Review of the Implementation of the Mauritius Strategy (Mauritius + 5), which took place during the 65<sup>th</sup> session of the UN General Assembly in September 2010. In this framework support was provided in the preparation of national and regional assessment reports and other global documents, as well as national, regional and interregional preparatory meetings. Input was also provided to publications on "SIDS-SIDS Success Cooperation Stories".

### **IV. UNEP support to SIDS in the preparatory process for Rio + 20**

11. In collaboration with the UNDESA SIDS Unit and the Inter-Agency Consultative Group on SIDS, UNEP facilitated the organisation of three SIDS subregional preparatory meetings for Rio+20 and discussion therein of a draft –then under preparation- of a SIDS-focused Green Economy paper, as follows:

- Caribbean region: 20 June 2011, Georgetown, Guyana;
- AIMS (Atlantic, Indian Ocean, Mediterranean and South China Seas) region: 7 - 8 July 2011, Victoria, Seychelles;
- Pacific region: 21-22 July 2011, Apia, Samoa.

12. Following these meetings the New York-based SIDS delegations prepared a consolidated SIDS position text, which was reviewed and finalised at an Inter-regional Preparatory Meeting, whose organization was supported by the UNDESA SIDS Unit and UNEP. The meeting took place in New York on 1st September 2011 with the objective to provide an opportunity for member States of the AOSIS (Association of Small Island States) to coordinate positions and strategies in preparation for the global negotiation process, with a view to ensuring that the unique perspectives, priorities and concerns of SIDS are effectively highlighted and reflected throughout the Rio+20 preparatory process and in its final outcome. The meeting was also an affirmation of the outcome of the Mauritius + 5 Review held in 2010. The outcome of the meeting was a draft SIDS position text that was fine tuned and fed into the G77 and China Rio + 20 position paper, after being endorsed at the Ministerial level at the SIDS Interregional Preparatory Meeting held in New York on 24 September 2011. This initiative also aimed at supporting the review of ways to enhance the effectiveness, coherence and coordination of the UN system support for SIDS, as requested by the SIDS in the Mauritius + 5 Outcome.

13. It is to be noted that UNEP's participation in the Interagency Consultative Group on SIDS (ICG), under the lead and coordination of the UN DESA SIDS Unit, is creating higher efficiency in the implementation

of activities in support of SIDS, on the basis of coordination and the creation of synergies with other UN agencies and regional organizations existing in the SIDS regions.

## **VI. Projects being currently implemented by the Freshwater and Marine Ecosystems Branch of the Division of Environmental Policy Implementation (DEPI)**

14. Overall coordination of the delivery of UNEP's SIDS programme is provided by the Freshwater and Marine Ecosystems Branch of UNEP/DEPI. Its strategic approach builds on -and is implemented through- such existing platforms as the Regional Seas Programme, and the GPA amongst others. Many of its activities directly involve or benefit SIDS, while others form part of projects cutting across UNEP's six priority areas and geographic regions.

15. Specific projects where SIDS are the main beneficiaries have been incorporated into three UNEP Sub-Programme Framework Documents: climate change ("Ecosystem-based adaptation in vulnerable coastal cities in Pacific Small Island Developing States"); ecosystem management ("Decision-support on ecosystem-based climate change adaptation options for SIDS"); and environmental governance ("Support to the Mauritius +5 follow-up and SIDS preparatory process for RIO+20").

16. UNEP is also an implementing agency for three regional projects funded by the Global Environmental Facility on integrated water resources management (IWRM):

- "Integrating Management of Watersheds and Coastal Areas in Caribbean SIDS" (<http://iwcam.org/>), covering Barbados, Cuba, Dominica, Dominican Republic, Grenada, Haiti, Jamaica, St. Kitts and Nevis, Saint Lucia, St. Vincent and the Grenadines and Trinidad and Tobago;
- "Implementing Sustainable Integrated Water Resource and Wastewater Management in the Pacific Island Countries" (<http://www.pacific-iwrn.org/>), covering Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, Niue, Samoa, Solomon Islands, Palau, Papua New Guinea, Tonga, Tuvalu and Vanuatu; and
- "Implementing Integrated Water Resource and Wastewater Management in Atlantic and Indian Ocean SIDS" (<http://www.thegef.org/gef/node/3900>), covering Cape Verde, Comoros, Maldives, Mauritius, Sao Tome and Principe, and Seychelles.

17. The SIDS Unit and DEPI's Freshwater Unit together focus on exchanging experiences and lessons learnt across the SIDS regions. The three SIDS regions where the projects are being implemented, for example have been given the opportunity to join in developing an important tool: a Resource Book and a Manual on IWRM in SIDS.

## **V. Green Economy and SIDS**

18. The Green Economy, in the context of sustainable development and poverty eradication, is one of two major themes for Rio+20. Cognizant of the challenges faced by SIDS, UNEP and the UNDESA SIDS Unit are working together to prepare a study focusing on how the green economy could help promote sustainable development of SIDS.

19. The objective of the joint paper is to provide insights into how the green economy is set to influence sustainable development in SIDS by analyzing the challenges and opportunities of a green transition in key sectors of importance to SIDS such as small scale fisheries, tourism, water, energy and waste, amongst others, and the policy and institutional requirements to make it possible. It also includes illustrative case studies, approaches and technologies, related policies and national governance and institutional issues.