



**United Nations
Environment
Programme**



UNEP

Distr. LIMITED

UNEP (DEPI)/CAR WG.32/4
30 March , 2012
Original: ENGLISH

First Meeting of the Scientific, Technical and Advisory Committee (STAC) to the Protocol Concerning Pollution from Land-Based Sources and Activities (LBS) in the Wider Caribbean

Oranjestad, Aruba, 5 – 7 June 2012

Report of the Fifth Meeting of the Interim Scientific, Technical and Advisory Committee (ISTAC) to the Protocol Concerning Pollution from Land-based Sources and Activities, Panama City, Panama, 24-28 May, 2010

For reasons of economy and the environment, Delegates are kindly requested to bring their copies of the Working and Information documents to the Meeting, and not to request additional copies.

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ACRONYMS

AMEP.....	Assessment and Management of Environmental Pollution
CAR/RCU.....	Caribbean Regional Coordinating Unit
CATHALAC.....	Water Centre for the Humid Tropics of Latin America and the Caribbean
CEHI.....	Caribbean Environmental Health Institute
CEP.....	Caribbean Environment Programme
CIGEA.....	Environment, Management and Information Centre
Cimab.....	Centro de Ingeniería y Manejo Ambiental de Bahías y Costas
COP.....	Contracting Parties
CETA.....	Communication, Education, Training and Awareness
GEF.....	Global Environment Facility
GIS.....	Geographic information systems
GPA.....	Global Programme of Action
IGM.....	Intergovernmental Meeting
INVEMAR.....	Instituto de Investigaciones Marinas y Costeras
ISTAC.....	Interim Scientific and Technical Advisory Committee
IWCAM.....	Integrated Watershed and Coastal Area Management
LBS.....	Land-based Sources and Activities
MARPOL.....	International Convention for the Prevention of Pollution from Ships
MoU.....	Memorandum of Understanding
NGO.....	Non-Governmental Organization
NOAA.....	National Oceanic and Atmospheric Administration
NPA.....	National Programme of Action
RACs.....	Regional Activity Centres
RAN.....	Regional Activity Network
REMPEITC...	Regional Marine Pollution Emergency, Information and Training Centre
REPCar	Reducing Pesticides Run-off to the Caribbean Sea
ROLAC.....	Regional Office for Latin America and the Caribbean
SIDS.....	Small Islands Developing States
SPAW.....	Specially Protected Areas and Wildlife
UNEP.....	United Nations Environment Programme
US EPA.....	United States Environmental Protection Agency
WCR.....	Wider Caribbean Region
WW2BW.....	White Water to Blue Water

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Introduction

1. Decision No. 29 (b) of the Ninth Intergovernmental Meeting on the Action Plan for the Caribbean Environment Programme (CEP) and the Sixth Meeting of the Contracting Parties to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Kingston, Jamaica, 14-18 February 2000) agreed to bring into existence an Ad Hoc Group of Government-designated Experts to begin to function as an Interim Scientific and Technical Advisory Committee (ISTAC) on Land-based Sources and Activities (LBS) and Assessment and Management of Environmental Pollution (AMEP) activities as they relate to the LBS Protocol, until it enters into force.
2. In accordance with the Work plan and Budget for 2008-2009, endorsed by the Thirteenth Intergovernmental Meeting, the Fifth LBS ISTAC Meeting was held from 24th to 28th May, 2010 in Panama City, Panama. The proposed objectives of the Fifth ISTAC Meeting were to:
 - Evaluate the projects and activities implemented by the Secretariat and the LBS Regional Activity Centres (RACs) within the Assessment and Management of Environmental Pollution (AMEP) sub-programme during the period 2008-2009;
 - Review the progress made in the implementation of the Recommendations of the Fourth LBS ISTAC Meeting and the relevant Decisions of the Thirteenth Intergovernmental Meeting and Tenth Meeting of the Contracting Parties;
 - Review the status of ratification and/or implementation of the LBS Protocol in member countries;
 - Develop the AMEP Work plan and Budget for the 2010-2011 Biennium for subsequent submission to, and approval by, the Fourteenth Intergovernmental Meeting in 2010;
 - Identify partner agencies and related projects that will facilitate more effective implementation of the 2010-2011 Work plan; and
 - Identify new thematic areas for further project development as part of the AMEP Work plan.
3. The experts invited to the Meeting were nominated by the National Focal Points of the Caribbean Environment Programme. Additionally, representatives of international, regional, intergovernmental, and non-governmental organizations were invited to attend the Meeting as Observers.

Agenda item 1: Opening of the Meeting

4. The Meeting was opened on Monday, 24 May 2010 at 9:15 a.m. Seated at the head table for the opening of the Meeting were Mr. Nelson Andrade Colmenares, Coordinator of the CEP, Mr. Christopher Corbin, Programme Officer of the Caribbean Environment Programme (CEP) and Mr. Julio Castillo, Director of Environmental Quality of the Autoridad Nacional del Ambiente of Panama.
5. The Chairperson of the opening ceremony, Mr. Christopher Corbin, Programme Officer responsible for the Assessment and Management of Environmental Pollution (AMEP) Sub-programme, welcomed the participants to the meeting and noted that the "almost full house" of participants was very encouraging. He extended his appreciation on behalf of the Secretariat to Mr. Julio Castillo and to all the members of the Panamanian delegation for their excellent support in hosting the 5th Meeting of the Interim Scientific, Technical and Advisory Committee (ISTAC) to the Protocol Concerning Pollution from Land-Based Sources and Activities (LBS).
6. The Coordinator of the Caribbean Environment Programme, Mr. Nelson Andrade Colmenares, welcomed participants to the meeting and also noted that the attendance of delegates from 23 of the 28 member countries of the Caribbean Environment Programme was heartening in that it promised a very interactive and productive session over the period of the meeting.
7. Mr. Andrade noted further that the 5th ISTAC would be the first time ever that the Secretariat to the Cartagena Convention, in collaboration with the International Maritime Organization and the Regional Marine Pollution Emergency Information and Training Center for the Wider Caribbean (REMPEITC), would be convening workshops on the London Dumping Convention/London Protocol and the MARPOL Convention, thereby providing a compact week of activities related to marine pollution management.
8. He outlined the objectives of the ISTAC meeting which were to review the achievements of the various activities implemented by the Secretariat and the LBS Regional Activity Centres (RACs) within the Assessment and Management of Environmental Pollution (AMEP) sub-programme during the period 2008-2009; and to outline the Work plan and Budget for the 2010-2011 biennium. The valuable input received during the meeting would be summarized in the form of concrete recommendations for subsequent submission to and approval by the Fourteenth

- Intergovernmental Meeting, to be held in October this year.
9. On behalf of the secretariat he congratulated the six governments of Trinidad, Belize, St. Lucia, the United States, France and Panama, the first country to ratify the Protocol in 2003, for their commitment in ratifying the LBS Protocol. He reminded delegates that only 3 more countries were required for the LBS Protocol to enter into force. Special thanks were extended to the U.S. Government for its financial support to the meeting.
 10. He highlighted the tangible and significant outcomes in the beneficiary countries accomplished through the two primary Global Environment Facility (GEF) projects being implemented under the AMEP Sub-programme, i.e. the GEF-sponsored Integrating Watershed & Coastal Area Management (IWCAM), as well as the GEF Reducing Pesticide Run-off to the Caribbean Sea projects. He explained that as the AMEP Sub-programme moved forward into the next biennium, the focus would be to adapt a more integrated approach to meeting the obligations of the Cartagena Convention and all three Protocols, and to shift from promotion and awareness of the Protocol to practical implementation processes and activities throughout the region.
 11. Noting that the Secretariat had been seeking technical and financial support for countries which have ratified the LBS Protocol, he pointed out that there had been improved donor interest in supporting countries that had ratified the Protocol. As an example, he cited ratification of the LBS Protocol as one of the requirements currently being considered as a possible eligibility criteria for support under the recently-developed GEF/Inter-American Development Bank (IADB)-sponsored Caribbean Fund for Wastewater Management (CreW).
 12. In concluding, he re-emphasized the continued commitment of the Caribbean Regional Coordination Unit of the United Nations Environment Programme UNEP-CAR/RCU, along with the Regional Activity Centres to work with Member Governments in the implementation of, not only the LBS Protocol, but also the Oil Spills and Specially Protected Areas and Wildlife (SPA/W) Protocols, both of which contribute to the mission of the Cartagena Convention which is to achieve economic development and environmental sustainability through protection and development of the marine environment.
 13. Mr. Julio Castillo, representative of the Government of Panama, welcomed the delegates representing 23 different governments of the region and thanked ROLAC for its work in contributing to the development of Panama's sustainable development.
 14. Mr. Castillo highlighted the role of the LBS Protocol as one of the principal agreements for the protection and development of maritime resources, and its objective of establishing guidelines to reduce the impact of pollution on coastal and maritime ecosystems as well as human health. He remarked that land-based sources of pollution represented 80% of the contamination of the Caribbean Sea and congratulated the six (6) countries, including Panama, which had ratified the LBS Protocol. He added that measures should be increased to secure the commitment of the region to ratification so that the LBS Protocol could soon enter into force. He applauded UNEP's commitment to regional cooperation, as evidenced in the establishment of strategic alliances with other maritime agencies at the 5th ISTAC meeting, notably, the International Maritime Organization and the London and International Convention for the Prevention of Pollution from Ships (MARPOL) Conventions.
 15. He stressed the importance of such meetings, which provide a framework for delegates to exchange experiences through an international forum and to identify concrete and practical measures which could be adapted at the regional and national levels. He cited as an example the UNEP guidelines for studying mercury emissions, which had been presented in Mexico during the previous week's Symposium, stating that it was particularly relevant to the Panamanian context.
 16. Reiterating Panama's commitment to combating pollution, he outlined the plans for a massive wastewater treatment project designed to collect and treat, by 2013, the entire water supply system of the city of Panama, a considerable achievement considering the size of the city, with a population of 1 million and a half.
 17. In conclusion, he emphasized Panama's willingness to share its experiences in finding innovative ways to improve its maritime environment, in order to create a city, and indeed a country, free of contamination and pollution, as proud members of the Wider Caribbean Region. The Meeting was opened at 10:15 am.
- Agenda item 2: Election of Officers**
18. The Meeting elected the following Officers:
 - Chairperson..... Denisse del Valle (Panama)
 - 1st Vice Chair: Elizabeth McLanahan (U.S.A.)
 - 2nd Vice Chair: Nancy Valdez (Dom. Rep.)

- 3rd Vice Chair: Idekich García Cerda (Cuba)
- Rapporteur: Paulette Kolbusch (Jamaica)

Agenda item 3: Organization of the Meeting

19. The Chairperson outlined the procedures for the conduct of the meeting.

(a) Rules of procedure

20. The rules of procedure of the Governing Council for UNEP (UNEP/GC/3/Rev.3) were applied *mutatis mutandis*.

(b) Organization of the work

21. English, French and Spanish were the working languages of the Meeting. Simultaneous interpretation in these languages was provided for the Meeting. The working documents of the Meeting were available in all the working languages.
22. The Secretariat convened the Meeting in plenary sessions, with the assistance of working groups.

Agenda item 4: Adoption of the Agenda

23. The Agenda of the Meeting was adopted as proposed by the Secretariat in document UNEP (DEPI)/CAR WG.32/1. This presentation immediately preceded the presentation by the Secretariat on the Status Report for 2008/2009.

Agenda item 5: Review of project activities for the 2008/2009 Biennium including those of the LBS Regional Activity Centres (RACs)

(a) Review of Status of Ratification and Accession to the Cartagena Convention and LBS Protocol

24. The delegation of Colombia provided an update on the status of ratification of the Cartagena Convention and the LBS Protocol respectively, in its capacity as Repository of the Cartagena Convention. The delegation reported that to date, twenty-three (23) countries have ratified the Convention, while six countries have signed and six countries have ratified the LBS Protocol. The other countries participating in the meeting reported on the status of ratification by their respective governments.
25. The delegation of the Dominican Republic reported that on February 11, 2010, the Minister of the Environment had requested that the Minister of Foreign Affairs make a request to the country's legislative body for ratification of the LBS Protocol. An additional follow-up should be done

in early June and it is expected that ratification will follow shortly thereafter.

26. The delegation of Suriname reported that its government had agreed to ratify the Convention and that endorsement had already been received from the Minister of the Environment.
27. The delegation of Haiti expressed its appreciation to the Government of Panama for hosting the meeting and to all participating countries for their assistance in his country's rebuilding process, following the January 12 earthquake. With respect to ratification of the LBS Protocol, the delegate reported that this process had been launched before the earthquake and should become a priority.
28. The delegation of Costa Rica reported that three major efforts had been made by that country towards ratification of the LBS Protocol. It was noted however, that with the recent change in government, the importance of ratification was being underscored, and that the Ministry of Foreign Affairs was being lobbied.
29. The delegation of Cuba reported that it had no problem with LBS ratification from a technical point of view, as expressed in a technical report submitted through a consultative process. Limitations currently lie with the financial implications that would accompany the protocol with respect to investments that would be necessary in order to comply with its limits on effluent discharge.
30. The delegation of Jamaica indicated that that country was in the process of finalizing the last piece of legislation in order to ratify the LBS Protocol.
31. The Netherland Antilles reported that the significant political changes that were currently underway in that territory would have major implications for the ratification of the LBS Protocol. With the Netherland Antilles expected to be divided into three political entities in October 2010, focus had been diverted from the draft legislation of the Protocol. The new political divisions would be as follows: independent Curacao, independent St. Martin, and the BES islands (Bonaire, St. Eustatius, Saba), directly under the Netherlands.
32. The delegation of the British Virgin Islands indicated that it and other British overseas territories, such as Bermuda and the Cayman Islands, required clearance from the United Kingdom in order to arrive at a consensus. While indicating that the protocol was important for these overseas territories, it urged the Secretariat to use its best efforts to assist in the process of ratification of the LBS protocol.

33. The delegate of Nicaragua provided an update on the ratification progress of that country. He reported that submissions had been made to the National Assembly for consideration by both the North and South Autonomous regions. He was optimistic that significant progress towards ratification would be achieved within the year.
34. The delegate of Antigua & Barbuda also presented an update on the progress of ratification in Antigua & Barbuda. He indicated that he had received confirmation that the cabinet submission in support of the LBS Protocol had been tabled for presentation before Parliament on Thursday, May 27, 2010. It was anticipated that a positive outcome would ensue.
35. The delegate of Colombia indicated that there had been significant progress towards the ratification of the LBS Protocol and added that a favorable response was anticipated within the near future.
36. The delegate of Grenada highlighted some of the country's efforts towards LBS ratification, including its participation in the development of a Draft IWRM Road Map, its hosting of a national LBS awareness workshop in April 2009, and its recent ratification of policy pertaining to natural resources.

(b) Review of Activities

37. The AMEP Programme Officer presented the major achievements of the AMEP Sub-programme during the 2008-2009 biennium, as contained in document UNEP(DEPI)/CAR WG.32/3.
38. Mr. Corbin began his overview by outlining the objectives and targets of the AMEP sub-programme, recalling the 4th LBS ISTAC recommendations and 13th IGM decisions, and the actions taken in response to these during the biennium. Specific mention was made of fund raising efforts as well as a summary of overall expenditures.
39. He briefly presented the activities conducted under the various GEF projects and LBS Regional Activity Centres as well as overall programme coordination. Other projects and activities were presented under the specific thematic areas of monitoring and assessment, wastewater management, watershed management, solid waste management, national programmes of action, climate change and oil spills planning.
40. After mentioning some of the challenges and lessons learnt during the biennium, he suggested some potential next steps for the 5th LBS ISTAC, including endorsing the Cartagena Convention/LBS Protocol Reporting Template, recommending mechanisms to complete work on TR33 for the 14th IGM, and recommending actions to promote further country ratification of the LBS Protocol so that it could enter into force as soon as possible.
41. The two LBS Regional Activity Centres were invited to present their activities in support of the LBS Protocol during the 2008-2009 biennium.
42. Mrs. Marlén Pérez Hernandez, representing the Director of RAC-Cimab, outlined the activities completed in support of the AMEP Sub-Programme. She highlighted the production and printing of the 2007-2009 AMEP Atlas of activities, training and capacity-building in Geographic Information System (GIS). She further commented on other activities completed including a final workshop for the Global Environment Facility (GEF) Contaminated Bays Project to review and exchange lessons learnt on the integrated management of waste.
43. She noted that a GEF Caribbean Regional Fund for Wastewater Management (CRew) Baseline study on Domestic Wastewater was conducted between September and December 2009, the English and Spanish versions of which are available for circulation among the countries for review.
44. RAC-Cimab also reported on the completion of the Know-Why Network Project, in particular the Coastal Monitoring sub-component that involved water quality assessment of selected regional "Hot Spots". A final workshop to present results was held in March 2009 and a final draft report completed in English and Spanish.
45. RAC Cimab gave an account of activities completed in support of the Update to CEP Technical Report No. 33. Ms. Perez indicated that the latest draft of the report was prepared in December 2009 in English and Spanish and was available for review by the Member Countries during the proceedings of the 5th LBS ISTAC Meeting
46. Commodore Anthony Franklin, Director of RAC-IMA outlined the activities of the Regional Activity Centre during the 2008-2009 biennium. He indicated that most of the activities in support of the AMEP Programme were based on a decision of the 4th LBS/ISTAC Meeting with regard to improving public awareness. As a result, IMA had focused on the publication of several communication products, including promotional DVDs in English, Spanish and French as well as public service announcements, brochures and posters. This information was shared among all the RACs and CEP staff during the

Communications workshop hosted by the IMA in February 2009.

47. IMA was selected as the lead implementation agency for the National Programme of Action (NPA) pilot project Ecosystem Management for Integrated Land and Seascape of Northern Trinidad (Caura/Tacarigua Watershed) that commenced in late 2009 and will end in December 2010. This project aims to develop strategic and feasible responses to address pressures caused by land-based activities that impact the coastal and marine environment and undermine the functioning of the ecosystem. It also aims to strengthen the existing cross-sectoral coalition of related agencies and ministries to define specific national development goals and targets in the functioning of the ecosystem. This pilot is a Model Project for replication in other areas of Trinidad and Tobago.
48. The project managers of the GEF REPCar and IWCAM projects were invited to present their activities in support of the LBS Protocol during the 2008-2009 biennium.
49. Dr. Alexandre Cooman, Regional Project Manager for the GEF Reducing Pesticide Run-Off to the Caribbean Sea (GEF-REPCar) Project, was invited to make a presentation on the progress of this project. He summarized the background to the project and outlined the coordination structure which involved the participation of UNEP-CAR/RCU and the Ministries of the Environment of Colombia, Costa Rica and Nicaragua. The budget of the project, which included a total GEF contribution of USD 4.295 million, as well as significant support from the private sector, was presented. Mr Cooman stated that the project had been granted an extension until the end of June 2011.
50. In providing further details of the status and achievements of the components of the project, Mr Cooman pointed out that during the 2008-2009 biennium, a series of demonstration projects had been designed and initiated to validate various Good Agricultural Practices for some of the main agricultural crops of the Mesoamerican region. He emphasized the main achievements of this component, namely the significant reduction in pesticide use observed in the demonstration projects and the training of farmers and technicians. He indicated changes to farm infrastructure and management, and the training materials developed to date. In Colombia, the demo projects related to banana and plantain, while In Costa Rica, the focus was on pineapple and banana, precisely targeting reduction in the use of herbicides. He illustrated the work done to monitor pesticide run-off in the demo plots which, in Nicaragua, were planted with oil palm and beans in the South and North Atlantic Autonomous Regions. He indicated that demo projects were ongoing and were expected to be finalized by the end of February 2011.
51. Dr. Cooman then introduced the Coastal Monitoring component in which the presence of pesticide residue is monitored in selected watersheds along the coasts of the project countries. He summarized the achievements with respect to strengthening the capacities of three environmental laboratories since quality management was an important aspect of the process, with several measures having been put in place to ensure compliance with international standards. He then illustrated the status of the monitoring activities, the results obtained and the tools that were developed to support information management. He highlighted the fact that although many pesticides had been detected, the levels were generally low, with only a limited number of pesticides causing concern.
52. Dr. Cooman mentioned that the activities entitled "Revision of legal frameworks" and "Crop certification in GAP," had not started in the previous biennium but that they were being developed with the input of the National Coordinating Committees of the projects. He provided details on the farmers' training programme supported by funds from CropLife LA and noted the outreach efforts of the projects including publications and participation in various meetings throughout the region. Dr. Cooman concluded his presentation by indicating that REPCar was embarking on the development of a complementary project with a wider scope which would involve more countries of the Continental Caribbean.
53. The GEF-IWCAM Regional Project Coordinator, Vincent Sweeney, made a presentation on the work conducted by the project during the biennium within the context of the LBS Protocol and the work of AMEP. The presentation provided a background to the project, which has been in existence for five years and is expected to be completed by mid-2011. The presentation outlined the arrangements for administration and execution, with UNEP CAR/RCU being one of three Executing Agencies, and as UNEP Headquarters being one of two Implementing Agencies. The various components, which focus on demonstration activities, indicators, capacity-building, support for policy and legislative reform as well as project coordination, were briefly described. The presentation further outlined the on-the-ground impacts which had been made in participating countries during the biennium. The meeting was informed

of support provided for improved access to water supplies, improved treatment of wastewater on-site, watershed and coastal protection and pollution control through reforestation, community outreach, environmental monitoring and improved livelihoods.

54. In direct support of LBS Protocol ratification, the GEF-IWCAM project has also partnered to support LBS Awareness workshops and programmed resources to address watersheds at risk, based on national-level consultations in participating countries. Training in related areas such as sewage treatment, laboratory analyses, integrated water resources management, and hydrometry had also been conducted, in order to build the capacity of countries as they seek to address the obligations of the LBS Protocol. Laboratory strengthening and technical cooperation among countries had also been supported. The meeting finally heard of future plans to continue support for LBS ratification during the final year of the project, including the on-going work mentioned previously, as well as support for legislative drafting and adoption of environmental indicators.
55. Mr. Corbin further clarified the status of the AMEP Sub-Programme with a report on the challenges encountered during the biennium. He indicated that changes in the administrative system at UNEP Headquarters had impacted the coordination aspects of the Sub-Programme, including the staff recruitment process. He reported that there had been a lapse of six (6) to eight (8) months before the Communication, Education, Training and Awareness (CETA) Programme Officer was replaced and that, during this time, AMEP had managed this aspect of the CEP. He then introduced Mrs Tess Cieux, the new CETA Programme Officer.
56. Mr. Corbin indicated that significant efforts had been made to engage the LBS Focal Points through the GEF projects and other national pilot activities. He further encouraged Focal Points to become more active and to improve their participation in the Programme.
57. He recognized and thanked the governments which continued to contribute to the Caribbean Trust Fund (CTF), despite the recession, acknowledging that this was a testament to the significance of the AMEP Programme. He expressed pleasure in the response to the ratification progress presented by the countries and reiterated the continued commitment of the CEP to work with participating Member States.
58. Mr. Corbin informed the countries that signing the LBS Protocol was considered by the donor community as a strong indication of the region's political commitment to address land-based sources of marine pollution, given that there was no current regional legislation that addressed this problem.
59. He requested that governments propose ways in which the secretariat could effectively convert the various project outputs into concrete outcomes and reiterated the commitment of the Programme to assist in advancing the ratification process in the respective member countries.
60. The meeting was reminded of the importance of reporting on activities being carried out in support of the LBS Protocol e.g. through the use of the proposed Reporting Template for the Cartagena Convention and its Protocols. He also informed the meeting that there was increased awareness, both regionally and internationally, of the work of the CEP.
61. He added that positive strides had been made to synergize the work plans of UNEP with the work Programme of AMEP in order to mobilize additional funds while fulfilling their mandate.
62. Mr. Corbin mentioned that the Rules of Procedure were expected to be adopted during the 14th Intergovernmental Meeting (IGM) and priority support would be given to those who have demonstrated political commitment through ratification of the LBS Protocol. He proposed the establishment of a technical working group to review the latest version of CEP TR No. 33.
63. The Government of France extended appreciation to Panama as host of the meeting and congratulated the secretariat on the work completed. The delegate urged participating governments to ratify the LBS Protocol and offered to share with the Secretariat and other countries experiences and measures used to meet the obligations of the LBS Protocol. He further recommended that the Secretariat collaborate with the Carib-WHYCOS Project implemented by the International Meteorological Services on activities pertaining to LBS implementation.
64. Mr Corbin, on behalf of the secretariat, accepted the offer made by the Government of France, adding that collaboration with Martinique and Guadeloupe would be of particular interest and benefit to other Small Island Developing States (SIDS) through technical/personnel exchanges and information sharing.
65. In response to a query from Antigua with respect to the work of AMEP in the management of marine litter, Mr. Corbin replied that the primary activities for the region were initiated by UNEP Regional Seas and involved the creation of a Regional Action Plan for Marine Litter

Management that had resulted in a recommendation from countries that marine litter should be approached as an integrated solid waste management issue.

66. The government of Suriname request information on ways in which the Secretariat could assist countries which have not yet ratified the LBS Protocol to do so. Mr Corbin replied that support could be accessed through opportunities including the GEF CreW project
67. The delegate of Barbados requested information on the current capacities of the regional laboratories and recommended that a comprehensive list be provided to Parties indicating the status of the regional laboratories for pollutant compound analysis. Mr. Alex Cooman, in response to a query from Barbados, indicating the Secretariat's willingness to provide information on the participating laboratories of the GEF REPCar Project.
68. The delegate of Mexico enquired about the possibility of establishing a regional mechanism for the certification of laboratories within the region. The Chairperson from Panama endorsed the suggestion from Mexico, stating that this would ensure that all the required limits for the different compounds were included in this mechanism. Mr Corbin replied that the Regional Activity Network (RAN) was a regional network with regional centres of excellence such as the Caribbean Environmental Health Institute (CEHI), GEF-REPCar and that a network of laboratories existed within this network.
69. In response to queries regarding the continuation of the GEF IWCAM and REPCar Projects. Mr. Corbin indicated that the follow-up projects were being designed and that there was an opportunity for countries to submit possible activities for inclusion in these new projects.
70. An expert panel on coastal monitoring was then introduced. Panel experts included Dr. Christopher Cox of CEHI, Dr. Alex Cooman of the GEF REPCar Project and Mrs. Marlén Pérez Hernandez of RAC Cimab. The experts were invited to present some of their recent activities concerning coastal monitoring in support of the LBS Protocol during the 2008-2009 biennium.
71. Dr Christopher Cox Programme Director of the Caribbean Environmental Health Institute(CEHI) was invited to make a brief presentation on the Pilot Initiative for the joint development of a Programme of Action for the Minimization of Land-based Sources of Pollution and a Water Safety Plan for the City of Linden, Guyana.
72. He commenced his presentation with an introduction of the Caribbean Environmental Health Institute, including a summary of the mission, mandate and programmes. He indicated that CEHI had been established by CARICOM in 1989 in response to the Environmental Health and Management concerns of its sixteen(16) Caribbean Member States. In fulfilment of this mandate CEHI's projects responded to Environmental Health and Management issues, in particular Water and Waste Management and Workers' Health.
73. Dr. Cox then highlighted the objectives and achievements of the pilot initiative in Linden Guyana, the primary objective of which was to demonstrate methods for improving water quality through action in the water treatment processes and water supply source areas in the community. Several useful aspects of the project were shared, including the application of water quality assessment and pollution profiling, hotspot hazard mapping, the determination of standards and an action plan.
74. He noted that the successes of the project were largely due to the extensive background surveys and data collection conducted to identify challenges to the demonstration project area, the strong participatory and community involvement approach used as well as the integration of management responses within the project design. He added that the hotspot hazard maps also facilitated the calculation of the risk to human and ecosystem health.
75. All of the information collected from the analytical and assessment components of the project was used to develop an action plan. He added that there were plans to replicate this approach in other Small Island Developing States.
76. Dr. Alexandre Cooman, Project Coordinator of the GEF Project "Reducing Pesticide Run-Off to the Caribbean Sea" (GEF-REPCar), was invited to make a presentation on the Coastal Monitoring Programme through which pesticide residues are monitored in the coastal and marine areas of Colombia, Costa Rica and Nicaragua. He introduced the programme by indicating the role it played in the REPCar project and how it interacted with the other project components. Mr. Cooman indicated that, in essence, the programme was establishing a sound baseline and providing feedback to the agricultural and environmental sectors.
77. He further explained that the National Committees of the Project had recommended the following participating research institutes: the Marine and Coastal Research Institute - INVEMAR (Colombia), the Center for Research on Environmental Pollution and the Centre for Marine

Research of the University of Costa Rica – CICA-CIMAR (Costa Rica) as well as the Centre for Research on Aquatic Resources of the National Autonomous University of Managua – CIRA (Nicaragua). He briefly presented the different institutes in terms of their organization and the research carried out in relation to environmental pollution and pesticides. He noted that the region possessed adequate laboratories and good research capabilities in the area of pesticides in the environment, but that updating of equipment and training was of regular concern, a challenge common to all research organizations.

78. He noted that the project had facilitated the purchase of equipment and the organization of several training courses, in collaboration with other organizations such as IAEA, Cimab and CATHALAC. This training included aspects of sampling, analytical procedures, quality management and data management. A manual with detailed protocols of the programme has been published on the REPCar website.
79. Dr. Cooman provided a synthesis of agricultural activities in the coastal regions of the project countries as well as the basis on which monitoring sites and stations were selected. He projected an aerial overview of the 49 monitoring stations and indicated that in the 2008-2009 monitoring cycle, water and sediment samples were taken during the dry and rainy seasons. Before presenting some of the results obtained, Dr. Cooman indicated that, in order to facilitate discussion among the governments, companies and institutes involved, it had been agreed that detailed information would not be made available to the public. In outlining the list of pesticides that had been detected, he indicated that in most cases, the levels found were low or were even trace levels, when compared to reference values.
80. In continuation, Dr Cooman indicated that the concentrations varied between dry and rainy seasons, but that it had not been feasible to determine trends. He mentioned the organochlorides that had been detected and noted the assumption that most of these had been not recently applied. He commented on the case of Bromacil, a herbicide commonly used for pineapple cropping, linking it to the demonstration projects where strategies had been developed to reduce the use of these herbicides. He also mentioned the case of Clorpyrifos and the difficulty in relating the residues found with specific agricultural activities. He commented that in these cases, the National Coordinating Committees had organized meetings and workshops with stakeholders from public and private entities to arrive at a concerted position.
81. Dr. Cooman ended his presentation by indicating the following ongoing activities: monitoring cycle 2009-2010, the final development of a data repository with geoviewers and meetings with stakeholders at the national level. He stated the need to develop reference values for the region for pesticides in water and sediment, the desirability of continuing the monitoring programme and to complement it with sampling of biota, as well as the use of passive samplers.
82. The expert from RAC/Cimab, Marlen Pérez representing the Director of RAC/Cimab, presented the results of the three main projects coordinated and/or executed by RAC/Cimab during the 2008-2009 biennium, notably, Updating of CEP Technical Report No. 33, Coastal Water Quality Monitoring in Hot-Spots of the WCR as part of the Know-Why Network, and a Baseline Analysis of Domestic Wastewater Management in the countries of the WCR. She outlined the objectives, the main results as well as the conclusions of each project. She also reported that the RAC/Cimab, in collaboration with CATHALAC, had coordinated and participated, in February 2008, in a Training Workshop on Modeling of non-point sources of pollution and sediment discharge using Geographical Information Systems.
83. With respect to the first result, updating of TR33, the expert emphasized that, compared to the 1994 Report, there had been an increase in the sanitary coverage which now stands at 85% of the coastal population. Additionally, pollutant loads from domestic and industrial sources in the WCR have shown a marked decrease over those reported in the 1994 TR33 (more particularly, industrial pollutants), despite an increase in the population, although more technical and financial support to the health sector is needed to ensure reduction and control. The results of the Project also show that the sediment load is the greatest input from the watersheds of the WCR and that better management practices are required to control sediment and reduce nutrients. She also underscored the importance of expanding the sanitation coverage and treatment facilities in the WCR in fulfillment of the Millennium Goals of the United Nations and in keeping with the effluent limits outlined in the LBS Protocol to the Cartagena Convention.
84. With respect to the monitoring programme, the results show once again that the pollution problems in the WCR persist as a result of components rich in organic matter and nutrients (phosphorous and nitrogen), which can

- cause eutrophication, high concentrations of organic and inorganic toxins (petroleum hydrocarbons and heavy metals), as well as high concentrations of fecal micro-organisms that exceed national and international standards which affect the recreational coastal areas and compromise their use. The causes of marine pollution are the same in most of the coastal areas of the region and are related to domestic wastewater from cities, settlements and populations in the coastal zones; the presence of floating residual solids which reach the coastal area by way of rivers, canals, and runoff; as well as solid and liquid residue produced through industrial and maritime/port activity. This project was concluded with a Terminal Workshop organized by RAC/Cimab in March 2009.
85. The Baseline study of domestic wastewater has revealed that there is a predominance of septic tanks, followed by the use of latrines and conventional sewerage systems in the ecosystems observed. Generally speaking, sanitary coverage exceeds 50% of the contributing coastal population, while effluent emanating from sewage systems with some degree of treatment is less than 50%. Moreover, an appropriate legal and institutional framework, as well as environmental education programmes, must be put in place as a critical factor for promoting sustainable development. The existing sanitary infrastructure must also be rehabilitated in the countries involved and the marine waters must be classified in keeping with Annex III of the LBS Protocol, in order to satisfy effluent limits and promote the use of low-cost treatment systems.
86. Discussion on the coastal monitoring panel was initiated by CEP Coordinator, Mr. Nelson Andrade, who requested that the GEF REPCar Project Manager elaborate on the activities of the project with respect to laboratory capacity-building. Mr. Andrade also encouraged collaboration with other projects, such as GEF IWCAM, and the LBS RACs in this regard and in the exchange of valuable technical support in general.
87. Dr. Cooman explained that while the labs working with the GEF REPCar Project had the capacity to test for pesticides, there was still a need for further strengthening. The project has provided for new equipment and training with an emphasis on sustainability. This can be ensured by various lab capacities such as the provision of services to external parties. Efforts continue to be made for the certification of laboratories and the promotion of quality assurance. Inter-institutional collaboration has also been facilitated, allowing for comparison of laboratory capabilities and the potential for compiling a regional directory of laboratory capacity.
88. The delegate of Haiti referred to the IAEA RL07/012 project on marine contamination related to sedimentation, underscoring the fact that the project has formed a network of participating laboratories, all of which had been trained by the IAEA Monaco lab in isotope analysis. He suggested that efforts should be made to build upon the success of this established network in which many labs are already involved.
89. The delegate of the USA recommended that the draft template for national reporting on the Cartagena Convention and its Protocols (UNEP (DEPI)/CAR WG.32/INF. 9) be expanded to include a section on laboratory capacities.
90. The delegation of Mexico expressed concern regarding the extent of the knowledge available on the impact of pesticide runoff on marine ecosystems and fishery resources. Mr. Cooman commented that while this concept had been a part of a UNU-INWEH project on persistent organic pollutants with which GEF-REPCar had collaborated, the use of bio-indicators had presented challenges. He agreed with Mexico's recommendation that guideline values could be established through a complementary follow-up project.
91. The delegate of the Netherlands Antilles endorsed and expanded upon Mexico's recommendation, encouraging the development of inter-programmatic synergies between experts focused on the LBS and SPAW Protocols. For example, the findings within the marine mammal action plan toxicity studies could be integrated with findings from marine pollution. Such expert networks could also review the impact of LBS pollutants on fishery resources. The Secretariat confirmed its view of the many benefits of such collaboration between the two Protocols and mentioned the use of GIS as a cross-cutting theme.
92. The delegate of Saint Lucia expressed interest in the work of the RAC Cimab and in seeking their input in Saint Lucia's Hot Spot Diagnostic Analysis. Saint Lucia also recommended that the region further pursue work on the impact of LBS pollutants on human health and the use of results in influencing policy and decision-making.
93. In response to a question from Saint Lucia regarding suggestions for economically-feasible options for wastewater treatment, the RAC Cimab commented that, while large-scale general recommendations were difficult to make, the use of sub-marine outfalls, as well as private treatment facilities have been shown to be beneficial. The

- importance of separating domestic and industrial wastewater before treatment was also stressed.
94. The delegation of the Dominican Republic enquired as to the possibility of expanding the GEF REPCar Coastal Monitoring project to other regions of the Caribbean and requested information on substitute compounds that could be used by the farming community.
95. The investigation of this notion within the scope of a follow-up project was encouraged by the Secretariat. Dr. Cooman confirmed that one of the objectives of the programme was to identify alternative compounds or methods that would include biological treatment and other non-chemical techniques. He also re-emphasized the sensitive nature of the data and its use, inviting ideas on ways to present such data (such as the online Interactive Project and Activity Map) as well as effective use of such data to sensitize decision-making with respect to marine pollution. He added that the information gathered contributed to the establishment of baselines for new projects.
96. The delegation of the USA highlighted the work carried out within a watershed conservation project in Bocas del Toro with AID/STRIDE. The project had received strong support from the community, which also assisted with fund-raising. Small-scale wastewater treatment systems were designed to be relatively maintenance free for 6-10 years for 5-10 families. Further investigation of the project was encouraged for replication throughout the region.
97. The delegation of Aruba endorsed the integration of climate change and watershed management themes and recommended that further work be done in these thematic areas.
98. The delegation of Antigua requested information on the work relating to the management of residuals and onsite wastewater disposal systems. The Secretariat pointed to training on sewage sludge done within the GEF Contaminated Bays project and on nutrient reduction done by RAC IMA. However, implementation of these management strategies continued to be a challenge within the region, especially for SIDS. The GEF CReW Project was expected to present opportunities to further efforts in dealing with sewage sludge, appropriate low-cost treatment technologies and eco-sanitation systems (such as those being constructed in Suriname).
99. The Netherlands Antilles made observations on TR33 and expressed surprise that nutrient loads found in the Orinoco River were reported as higher than those of the Mississippi River. The representative of RAC Cimab explained the methodology of data gathering for TR33 - through solicitation of reporting from the respective governments - and stated that while they too had doubts regarding the comparison, the data submitted was reliable. A possible explanation was that the difference may be accounted for by greater availability of treatment systems in the USA than in Venezuela.
100. The USA confirmed that nearly all of the country's wastewater received treatment, with the majority of nutrient exports coming from non-point agricultural sources. The delegate recommended that the report expand upon its methodologies to clarify differences in the methodologies used in obtaining the data contained in the report and the time periods during which data was collected.
101. The representative of RAC Cimab explained the need to rely on the contribution of national reporting for the data. Workshops had been held to unify methodologies. However, as some of the reports received did not include detailed methodologies, one could not be sure that they had all adhered to the methods agreed upon.
102. The delegate of the British Virgin Islands requested information on the results of the monitoring work done in Guyana by CEHI and the impact of this work on the community and on human health. Dr. Cox of CEHI responded that many cases of gastrointestinal disease had been detected, presently and historically, in the community. Though end-of-pipe testing proved to be a challenge, the presence of bacteria in the water pointed to watershed sources of contamination.
103. In the process of moving the AMEP Sub-Programme from efforts aimed at ratification towards those of implementation, the importance of involving international development banks for wastewater treatment was stressed by the BVI, based on the cost of wastewater treatment.
104. Satellite imagery confirmed that the Orinoco brings freshwater 500 miles away to the BVI and to Puerto Rico. This influx upsets the fresh and saltwater equilibrium and causes algae blooms which affect tourism. The BVI recommended that the use of remote sensing be strengthened in oceanographic studies in order to track the transboundary impacts of marine pollution.
105. The delegate of Mexico discussed the baseline study on wastewater management carried out by RAC Cimab, suggesting expansion to include aspects such as the differences in management responses to wastewater

- issues. He also added that, in some cases, the national limits were less rigid than those of the LBS protocol.
106. The delegation of Barbados emphasized the importance of establishing the epidemiological link to LBS pollutants. He stated that recognition of this link was critical to the progress of the LBS Protocol, obtaining government financial support, and the process of enacting legislation.
107. The delegate of France supported the recommendation made by Barbados, adding that the economic impact of not treating pollution may be higher than the actual cost of treatment.
108. The Secretariat pointed to various regional capacity-building efforts towards ratification and implementation of the LBS Protocol, pointing out that while there was a scope for regional action plans, guidelines and criteria, there were also local needs, as evidenced in the feedback received from countries in such forums as the ISTAC Meeting. Another important point to consider when planning, with respect to guidelines, was that the existing criteria relating to the protocol was developed in 1999, and that there would be room for modifying the protocol when it was brought into force.
- Agenda item 6: Presentation on Relevant Regional Initiatives for the AMEP Sub-programme.**
- (a) Presentation by representative of UNEP-DGEF V and implications for future funding of GEF International Waters Project**
109. The Secretariat invited Mrs. Tea García-Huidobro, Programme Officer of DGEF Coordination at the Regional Office of UNEP at ROLAC.
110. Mrs. García-Huidobro made a presentation on the GEF (Global Environmental Facility) and its articulation with UNEP in the Wider Caribbean. She noted that the GEF operated on the basis of non-refundable grant funding, on a cyclical basis, with replenishment every 4 years. The GEF was now in its fifth (Vth) cycle with replenishment of US\$4.5 billion. Organizations such as UNEP, UNDP and the Inter-American Development Bank were mandated by the GEF to assist countries in accessing these funds. She discussed the many conventions financed by GEF, highlighting those relevant to discussions at the current ISTAC Meeting, notably, the Stockholm Convention on Persistent Organic Pollutants (POPs), and the Montreal Protocol. She pointed out that a legally-binding instrument for eliminating mercury was expected to be funded by GEF in the future.
111. Given its orientation towards the environment, she highlighted one key area – chemicals – as one of the focal areas for GEF support. Others include Climate Change, Biodiversity, International Waters, Land Degradation and Sustainable Forest Management. She noted that GEF assigned staff to promote the sound management of these chemicals, with a focus on protecting human health and the environment. She noted further that much of the work being done by the countries of Latin America and the Caribbean was relevant to the chemicals area of Persistent Organic Pollutants (POPs) and Ozone Depleting Substances (ODS), and International Waters. She highlighted the fact that GEF V had been requested to support activities under the Strategic Approach to International Chemicals Management (SAICM) and that, with respect to POPs in particular, GEF had focused many of its projects on eliminating obsolete pesticides and polychlorinated-biphenyls (PCBs). Concerning international waters, GEF focus was on land-based water bodies, large marine ecosystems and their coasts (eg. The Caribbean and Mediterranean Seas), and integrated coastal management. She advised that projects aimed at addressing pollution from land-based sources be focused not only on corrective actions, but also take into account technology transfer and maintaining livelihoods.
112. She noted that at each new replenishment period, the GEF strategies may be reviewed or adjusted. In the case of International Waters, emphasis had been placed on blue forests, i.e. marine systems and fresh water systems, resilience of those ecosystems and climate change. She also mentioned the objectives of integration of environmental issues, and of countries meeting their marine targets. Regarding chemicals, she stated that the GEF faced challenges with the way the chemical agenda had been evolving, and that GEF had been urged to consider expanding its activities with respect to chemicals in order to facilitate the strategic approach. She noted that the concerns highlighted by ISTAC were issues GEF had already addressed but that there was need for more targeted research.
113. In concluding, she urged countries to work in partnership and to work across protocols, instruments and conventions. She also suggested that greater advantage be taken of the Green Economy and parallel Blue Economy Initiatives, since GEF welcomed the opportunities that these will produce.
114. In responding to questions, Mrs. Garcia reiterated that the current vision of the GEF was to place emphasis on marine and freshwater systems, noting, however, that a

single country wishing to work on marine assessments for its coastline would be advised to apply under a different focal area other than International Waters, which is for regional and not national projects. She stated that the more integrated a project, the more well-received it would be, and that countries should aim towards a multifocal approach to accessing funding. She also mentioned that the allocation of funding to specific focal areas was a highly negotiated process undertaken by the donor countries themselves.

(b) Presentation by UNEP ROLAC on Environmental Assessments

115. Dr Graciela Metternicht, Regional Coordinator of the Division of Early Warning and Assessment (DEWA), presented her the activities of her Division within UNEP's Regional Office for Latin America and the Caribbean (ROLAC). She pointed out that the primary focus of DEWA was environmental assessment, featured in their Global Environment Outlook (GEO) series, which has generated over 18 national and sub-regional GEOs during the period from 2000 to 2007. Dr Metternicht summarized the latest publication on Latin America and the Caribbean (LAC), GEO4, which covers the state and trends of the environment from 1987 to 2007. She reminded the meeting of the key environmental priorities for LAC, including uncontrolled urbanization, threats to terrestrial biodiversity and ecosystems, coastal degradation and marine pollution, as well as vulnerability to climate change.
116. She highlighted the main factors contributing to the degradation of the environment in the region, including pressures due to over-populated coastal regions (more than half of the LAC population lives within 100 km of the coast), increased use of fertilizers and pesticides during the last 30 years, and climate change. She emphasized that not only economic losses, but also loss of human life had been documented as a result of climate change in the region, citing a 2008 study documenting the loss of 22,000 lives as a result of extreme weather events in 2007, cautioning that the figure would be considerably higher when statistics from the catastrophic events of 2008 and 2009 were tabulated.
117. She presented DEWA's publications on Integrated Environmental Assessments (IEAs), which include global, regional, sub-regional and national studies, in addition to assessments focused on particular cities, such as Georgetown, Cordoba and Quito, as well as thematic studies with a focus on water, health and health methodology. In terms of upcoming publications, she cited the State of the Environment for Haiti, due to be launched on 5th June, and the State of the Environment for the Dominican Republic, to be available in mid-June. She stated that while DEWA had assisted most countries in making assessments, over time, states would develop their own environmental assessment system, as is now the case in Costa Rica, Peru and the Dominican Republic. She noted the use of GIS in work done in the Bahamas, emphasizing the fact that one of the great challenges had been the availability of baseline data, a problem encountered in many of the countries.
118. Another activity presented by Dr. Metternicht was the "LAC Initiative for Sustainable Development -- Follow up Indicators", designed to aid decision-makers in tracking progress in areas such as water resources management, biological diversity, social issues, including health, inequity and poverty, and economic issues, such as trade and sustainable production and consumption patterns.
119. Dr. Metternicht explained that along with the IEAs and other publications, DEWA had developed extensive on-line tools, including regional data portals, soon to be expanded to include a sub-set of portal global indicators. In illustrating the way in which the portal could be of interest to decision-makers, she demonstrated the portal's website, using as an example the graphic showing urban growth over time in Belize.
120. She mentioned the work of DEWA in capacity-building, noting that extensive training workshops were carried out by way of inception workshops and face-to-face training, in addition to web-based conferencing. She pointed to DEWA's focus on developing tools to enable the youth to conduct their own IEAs, through the publication of the series GEO Youth, accompanied by training manuals available in both English and Spanish.
121. In conclusion, she summarized the challenges and opportunities DEWA had encountered in its IEA work, which include the general lack of baseline data, the need to continue to build capacity in the use of environmental data and statistics for decision-making, the need to harmonize and standardize existing data sets, and more capacity building in the use of GIS and RS for data collection, processing, modelling and monitoring. She also pointed out the importance of ensuring that reports containing good scientific data on the environment lead to sound policy advice and guidance for decision makers, and suggested that reports be made more "digestible".

122. When the floor was opened for questions, the delegate of Haiti noted that the Haitian population could benefit from the GEO report, and asked if there were any plans for translating it into French. She responded that the report on the environmental assessment of Haiti would be done in French and that there were plans for English and Creole. She also pointed out that translations were done based on the availability of funding.

(c) Presentation by Centro del Agua del Trópico Húmedo para América Latina y El Caribe (CATHALAC) on Geographic Information System (GIS) Applications

123. Mr. Emil Cherrington and Mr. Eric Anderson, jointly delivered a presentation focused on the impact of climate change on surface water quantity and quality in relation to the LBS Protocol. After a brief introduction of the institution, Mr. Cherrington reviewed the work of CATHALAC in collaboration with UNEP CEP, including the GEF IWCAM Project, workshops on GIS mainstreaming and non-point source pollution modelling, as well as the development of the online Interactive Project and Activity Map (IPAM) for the AMEP Sub-Programme and GEF-REPCar Project.

124. Various GIS and remote-sensing tools used in environmental management were introduced, including an online interactive atlas for the Latin America and Caribbean region, developed in collaboration with ROLAC and a data portal known as the Regional Visualization and Monitoring System (SERVIR), developed in collaboration with the International Coral Reef Action Network (ICRAN). These tools incorporate available satellite imagery and GIS data to provide users with information concerning changes in land cover, algal blooms in marine waters, sea surface temperatures of different time periods, meteorological predictions, indices of wildfires and air quality.

125. Mr. Anderson highlighted the institute's work on climate change modelling on a regional scale, in an attempt to focus research questions on expected consequences of climate change at a more local scale than previous global initiatives. Impacts examined included those to biodiversity in Central America and expected trends of increased intensity in tropical storm activity. A case study done in one of the Panama Canal watersheds was presented as an example of the use of the Nonpoint-Source Pollution and Erosion Comparison Tool (N-SPECT) model, which can be applied in predicting changes in run-off from changes in precipitation. Many other models exist which

can also be applied in analyses such as meteorological anomalies, water availability, changes in land cover, erosion, flood potential and future scenarios for flow regimes and sedimentation patterns.

126. The representative of CEHI expressed interest in continuing this work with the incorporation of such models and tools into national programmes of action and linking training activities with those of watershed management.

127. The Secretariat elaborated on the work of the IPAM by explaining that expansion of its use was planned. The initiation of a clearing house mechanism as a part of the GEF IWCAM Project will also present further opportunities for GIS database integration. The Secretariat also thanked RAC-Cimab for its recommendation to seek feedback from governments regarding their need for further GIS training and how best to make GIS data and tools available to them.

Agenda item 7: Review and Endorsement of the Draft AMEP Work plan and Budget for the Biennium 2010/2011

128. The Secretariat was invited to present the Draft AMEP Work plan and Budget for the 2010/2011 Biennium. The AMEP Programme Officer presented the projects and activities within the programme as contained in document UNEP(DEPI)/CAR WG.32/3. He stated that the work plan and budget covered activities to be developed under the Assessment and Management of Environmental Pollution (AMEP) sub-programme of CEP and the two RAC's (Centro de Ingeniería y Manejo Ambiental de Bahías y Costas-CIMAB, Cuba and Institute of Marine Affairs-IMA, Trinidad and Tobago), in support of the Protocol concerning Pollution from Land-based Sources and Activities (LBS Protocol).

129. He reminded delegates of the objectives of the AMEP sub-programme, notably to control, prevent and reduce pollution of the coastal and marine environment from land and marine-based sources and indicated that focus of these activities would be shifted from promotion of the LBS Protocol to implementation of the protocol, in response to the anticipated entry into force of the LBS Protocol within the biennium.

130. Mr. Corbin highlighted the programme priorities for the biennium including: Resource Mobilization through the Global Environment Facility Projects; Information Dissemination of Best Practices; Policy, institutional and/or regulatory reforms and mechanisms for monitoring technical support and services; Strengthened national

- capacities to implement LBS & Oil Spills Protocols; Climate Change activities and Decision-making tools including the use of Geographic Information Systems.
131. He added that the proposed activities had been organized into eight thematic areas: Programme Coordination, Global Environment Facility Projects, Monitoring & Assessment, Wastewater Management, Watershed Management, Waste Management, National Programmes of Action, Climate Change and Oil Spills Response Planning.
132. A summary of the budget presented indicated that the total proposed budget for AMEP for 2010 was USD 13,646, with an unfunded amount of USD 5,491,000, while the total budget for 2011 was USD 10,443,000, with an unfunded portion of USD 5,461,311.
133. In conclusion, Mr. Corbin urged delegates to provide advice on possible sources of funding for the unfunded projects, guidance for prioritization of the proposed projects and activities as well as identification of new strategic partnerships and opportunities.
134. The delegation of the United States of America commended the Secretariat on the efforts in the preparation of the new work plan and budget and requested an amendment to UNEP(DEPI)/WG 32.3 Table 1. The delegation reminded the Secretariat that the primary goal of the work plan was to implement activities in fulfillment of the commitments to the Cartagena Convention and its Protocols, rather than to the Programme of Work of UNEP (Nairobi). The United States, however, recognized the value of demonstrating the extent to which the Caribbean regional sea contributes to the global goals and supported the reference to this in Table 1, as long as another column was added showing which Convention/Protocol goals/articles were being met.
135. The US delegation requested an amendment to UNEP DEPI WG 32.3 to acknowledge its country's involvement in the National Programmes of Action and their implementation throughout the Wider Caribbean Region.
136. The US delegation expressed concern regarding the Caribbean Training, Research and Experimental Centre for Accidental Marine (CATREC) proposal and requested that the following information be provided in advance of the next IGM to better inform discussions : 1. Additional information clearly describing and defining the proposed work of CATREC; 2. How CATREC would link to, and not duplicate the efforts of RAC/REMPEITC; 3. Ideas on how functions of the RAC/REMPEITC might be better utilized and/or expanded,, rather than create an additional centre; and 4. If CATREC were to be created, information on its long-term financing and sustainability.
137. The US provided initial comments on the new project proposal (UNEP (DEPI)/CAR WG.32/CRP.2) prepared by CIMAB and introduced at the meeting. The US did not support the inclusion of the sub-activity related to the definition of Class I and II waters, but rather suggested that this aspect would be best handled outside of the GEF framework due to its legal implications. The delegation recommended that a correspondence group or other intergovernmental body be used for the component and requested that this aspect be removed from the current proposal to the GEF.
138. Mr. Christopher Corbin, AMEP Programme Officer, thanked the US delegation for its valuable comments and contributions to the meeting. In response to the request regarding the GEF CREW proposal, he indicated that the classification process was not a GEF-restricted process but rather, would involve the compilation of the lessons learned from other governments such as Barbados and Saint Lucia that have used different methodologies for the classification process.
139. The US delegation endorsed the AMEP work plan and budget and encouraged the Secretariat to try to schedule the meetings in advance of the biennium to ensure that the budget is approved before the work plan commences, which could assist in improving feedback from the governments.

Agenda item 8: Other Business

140. The participants of the Meeting were invited to raise other issues not covered by the preceding agenda items, but relevant to the scope of the Meeting.
141. The US representative informed delegates of the British Petroleum Deepwater Horizon oil spill that had occurred in US waters, approximately 50 miles off the coast of Louisiana. She provided information on the rapid response and clean-up efforts to date; the international commitments directly relevant to oil spill response (including the 1983 Cartagena Convention Oil Spills Protocol and the 1990 International Convention on Oil Pollution Preparedness, Response, and Cooperation); outreach efforts by United States to other governments in the Wider Caribbean Region; and the websites for additional information on the oil spill, its trajectory, and response efforts (www.deepwaterhorizonresponse.com;

www.noaa.gov; <http://www.epa.gov/bpspill> and <http://www.whitehouse.gov/deepwater-bp-oil-spill>.

142. Mexico indicated that it was currently holding meetings at the inter-sectoral level pertaining to the recent oil spill incident in the Gulf of Mexico.
143. Mr. Julio Castillo, Director of Environmental Quality from the Autoridad Nacional para el Ambiente (ANAM) presented the National Action Plan for the protection of the Marine Environment of Panama. He highlighted the primary industrial activities and potential sources of marine pollution, including agriculture (aquaculture), pesticide use, oil spills, and uncontrolled urbanization. He highlighted the mandate and major activities of the Autoridad Nacional del Ambiente (ANAM) for the improvement and harmonization of the interaction between man and the environment.
144. Mr. Castillo provided a detailed explanation of the legislative framework that assists the Panamanian Government in the management of land-based sources of pollution, as well as the components of the National Action Plan of Panama.
145. The delegate from the Dominican Republic requested information on the challenges involved in the environmental oversight of mega projects such as the expansion of the Panamá Canal. In reply, Mr. Castillo highlighted the rigorous environmental assessment and monitoring mechanism involved in the expansion of the Panama Canal and inclusion of a third lock. He mentioned the upcoming 100-yr celebration of the operation of the canal that will provide further improvement to the canal watershed.
146. The delegate of Barbados enquired about the regulation relating to wastewater reuse, specifically the extent and benefits of the re-use programme in Panama. In response, Mr. Castillo indicated that the government was not re-using water for domestic purposes, but rather for the pig farming and sugar industries.
147. The US delegation requested further information on how coordination between local government and the public sector occurred and if there were specific strategies for cooperation. Mr. Castillo admitted that ensuring cooperation posed a particular challenge, but that legal frameworks were used to facilitate this process. He added that a strong multi-sectoral participatory approach was used to ensure that all persons were involved at all levels.

Agenda item 9: Break for IMO/UNEP Regional Workshop on the London Protocol and MARPOL Convention

148. The 5th LBS/ISTAC meeting was adjourned until Friday, 28 May 2010 to facilitate the IMO and MARPOL Workshops.

Agenda item 10: Adoption of the Report of the Meeting

149. The Rapporteur of the Meeting presented the Draft Report of the Meeting. The Meeting adopted the Report, with amendments and corrections to be introduced in the draft by the Secretariat, as appropriate, and circulated to the participants by e-mail and hard copy for review. Comments were to be forwarded to the Secretariat within an additional four weeks.

Agenda item 11: Closure of the Meeting

150. The Meeting was closed on Friday, 28 May 2010 at 6:30 p.m. by the Chairperson of the Meeting and the Secretariat.

Annex I: Agenda

AGENDA

1. Opening of the Meeting
2. Election of Officers
3. Organization of the Meeting
 - a. Rules of Procedure
 - b. Organization of Work
4. Adoption of the Agenda
5. Review of Project Activities for the 2008-2009 Biennium including those of the LBS Regional Activity Centres (RACs)
6. Technical Presentations on Relevant Regional and Global Initiatives
7. Review and Endorsement of the Draft AMEP Work Plan and Budget for the 2010-2011 Biennium
8. Other Business
9. Break for IMO/UNEP Regional Workshop on the London Protocol and MARPOL Convention (Separate Agenda to be provided)
10. Adoption of the Meeting Report
11. Closure of the Meeting

Annex II: Recommendations of the Meeting

The Meeting:

Having convened the Fifth Meeting of the Interim Scientific, Technical and Advisory Committee to the Protocol Concerning Pollution from Land-based Sources and Activities (ISTAC /LBS) in the Wider Caribbean Region, Panama City, Panama, 24–28 May 2010;

Making reference to the Fourth Meeting of the ISTAC/LBS, Peten, Guatemala. 30 October – 1 November, 2007;

Recommends to the Fourteenth Intergovernmental Meeting on the Action Plan for the Caribbean Environment Programme and Eleventh Meeting of the Contracting Parties to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region the following:

RECOMMENDATION I

Taking into consideration the activities of the Sub-programme of Assessment and Management of Environmental Pollution (AMEP) for the period 2008-2009, as appears in the document UNEP(DEPI)/CAR WG.32/INF.3;

Taking note of the significant progress made by a number of other Contracting Parties to the Cartagena Convention concerning ratification and implementation of the LBS Protocol;

Welcoming the ratification of the LBS Protocol by the Governments of Belize, Saint Lucia and the United States during the last biennium;

Noting the request of the British Virgin Islands for assistance in the process of ratification of the LBS Protocol;

Noting further that LBS Protocol ratification sends a strong political message to the international donor community of the region's commitment to address land based sources of marine pollution and may be used as a criterion when selecting countries for GEF funding.

Having made note of the success of the efforts by the Secretariat in promoting awareness of the Cartagena Convention and the LBS Protocol to various stakeholders of the Wider Caribbean Region, in particular, the production of products in English, Spanish and French;

Recommends that:

1. The Secretariat focus its promotional efforts on countries who request specific assistance in facilitating their ratification process and to continue to use communication tools to demonstrate the benefits of the LBS Protocol to Member Governments;
2. Contracting Parties expand their efforts to ratify the LBS Protocol with the aim of having the Protocol enter into force as soon as possible.
3. The Secretariat enter into discussions with the Government of the United Kingdom in order to assist the British Overseas Territories in the Caribbean in their intention to ratify the LBS Protocol

RECOMMENDATION II

Having taken note of the work conducted by AMEP and the financial, administrative and human resource constraints under which the AMEP programme has had to operate,

Noting also the work of the GEF Projects and LBS RACs presented by Project Managers and RAC Directors or their representatives;

Noting further the increased support by other national and regional agencies as part of the Regional Activity Network (RAN) to the work of the AMEP sub-programme,

Further noting the particular strategic priorities for GEF V when developing new projects for funding;

Recommends that:

1. Countries continue to work with the Secretariat to identify and mobilize funding for the successful implementation of the new projects and activities in support of the LBS Protocol;
2. The secretariat consider the development of multi-focal area projects for submission to GEF to maximize funding opportunities.

RECOMMENDATION III

Having reviewed the work conducted to date on the update to Technical Report #33;

Welcoming the continued contribution by countries, regional agencies and other experts to the latest draft of the report;

Further welcoming the additional inputs by the Ad-Hoc Working Group established at the 5th LBS ISTAC to review the latest draft of the TR 33 report;

Taking into account the need to complete and submit the final TR-33 report to the 14th Intergovernmental Meeting and 11th Meeting of Contracting Parties scheduled for Montego Bay, Jamaica in October 2010;

Noting the challenges involved in presenting the results of the report given the potential differences in monitoring and reporting methodologies for pollutant loads;

Recommends that:

1. Countries submit final comments on the report no later than June 30, 2010 so that a final draft can be prepared and submitted, for possible adoption, to the 14th Intergovernmental Meeting and 11th Meeting of Contracting Parties.
2. RAC Cimab finalize the report following recent recommendations of countries and the Ad-Hoc Workshop group established at the 5th LBS ISTAC, including the addition of methodological descriptions to clarify the analyses done during the study and the elaboration of conclusions in guiding decision-makers in their use of the results.

3. The Secretariat assist RAC Cimab in the finalization of the report by facilitating communication with countries, preparing information boxes for TR33 as suggested by the Ad-Hoc Working Group and elaborating on the report's conclusions.
4. the Secretariat, jointly with the countries, compile an inventory of monitoring programmes in the region; existing laboratory and human capacities; and, the identification of methodologies modelling and criteria to perform water quality monitoring, with the aim of adopting standardized methodologies for monitoring and reporting of pollutant loads in the development of future regional pollutant data bases.
5. The Secretariat explore opportunities for integrating the results of TR33 and other recently completed projects (Know-Why Network, GEF Contaminated Bays, Baseline Assessment on Wastewater Management) into the development of new initiatives focused on monitoring and assessment.

RECOMMENDATION IV

Noting the progress made in the development of a draft Reporting Template for the Cartagena Convention and its Protocols

Acknowledging the input provided by countries thus far to the finalization of this template and the additional recommendations made at the 5th LBS ISTAC;

Recommends that:

1. Countries submit additional comments on the template no later than June 30, 2010 so that a final draft can be prepared and submitted to the 14th IGM and 11th Meeting of Contracting Parties for possible adoption.

RECOMMENDATION V

Taking into consideration the importance of baseline data collection and information dissemination among the countries of the Wider Caribbean Regions;

Understanding the need for information products to assist in decision-making processes related to environmental management;

Noting the progress made by the Secretariat in the development of data and information products and the establishment of a Clearing House Mechanisms at UNEP CAR/RCU;

Further Noting the importance of having data and information inform policy and regulatory reforms at the national level;

Recommends that:

1. The Secretariat, jointly with the LBS/RACs, continue to build capacity in the use of GIS, Remote Sensing and other decision-making tools and to use these tools to bring added value to the outputs of existing environmental monitoring data being generated by AMEP Projects and activities.

2. The Secretariat incorporate oceanographic studies, where appropriate to assist in mapping the potential movement of pollution through the Wider Caribbean Region.
3. The Secretariat incorporate epidemiological studies, as appropriate, to highlight human health linkages relating to scientific data and information generated by AMEP projects and activities that could assist in mobilizing additional funding for the sub-programme.

RECOMMENDATION VI

Having taken into account the results of the work conducted by the AMEP Programme in the area of wastewater management;

Noting the impact of wastewater treatment on the community and human health;

Noting further the high costs related to wastewater treatment, especially in Small Island Developing States (SIDS);

Acknowledging the significant problems associated with the treatment of domestic sewage, industrial waste and the insufficient availability of potable water;

Recommends that:

1. The economically-feasible options for wastewater treatment in heavily urbanised areas be further explored and that information about the most appropriate technologies be disseminated to the Parties.
2. The Secretariat seek to strengthen and/or establish new partnerships with regional banking associations and international development banks to promote the need for the provision of adequate financing for wastewater treatment and to provide information on the impacts of wastewater.

RECOMMENDATION VII

Having reviewed the draft of the Work plan and the Budget for the activities of the AMEP sub-programme for the biennium 2010-2011, as shown in UNEP(DEPI)/CAR WG.32/3;

Noting the effort by the Secretariat to secure additional sources of funding for new projects (GEF);

Noting the reference to blue forests that is receiving increased attention and creating new funding opportunities;

Taking note of the activities being carried out in support of the Regional Action Plan for Marine Litter in the Wider Caribbean Region

Recognizing that solid waste is a main source of pollution of the coastal marine environment

Recommends that:

1. Based on the discussions and specific recommendations of the ISTAC on the Work Plan, and those presented in the body of this report, the Work plan and Budget combined for the biennium 2010-2011 be sent to the Fourteenth Intergovernmental

Meeting on the Action Plan for the Caribbean Environment Programme and Eleventh Meeting of the Contracting Parties to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region for approval.

2. The Secretariat deepen linkages between the work of the SPAW and AMEP sub-programmes through existing and future activities, as well as their respective RACs so that a more comprehensive picture is available on pollutant load, contaminant levels in sediments, water and selected biota and the overall impact on coastal and marine biodiversity, ecosystem services and human health.
3. Secretariat continue its efforts to organize meetings of the LBS ISTAC so that approval of the work plan and budget takes place prior to the commencement of the next biennium of work.
4. Countries assist the Secretariat in identifying potential partners and sources of funding for new and other ongoing projects.
5. Where funds are limited, countries advise the Secretariat on what projects should be considered of higher priority for further development and implementation;
6. In the development of new GEF and other projects, the Secretariat builds on the outputs of earlier projects and activities, focuses on areas or gaps that were not addressed and expands to include countries that did not benefit directly from earlier project's interventions.
7. The Secretariat continue to incorporate the issue of Climate Change as feasible in the design of new project activities and in particular with activities dealing with watershed management.
8. The Secretariat work with interested countries to identify sources of technical assistance and funding for solid waste management
9. The Secretariat, where appropriate, include capacity building for solid waste management within ongoing or new projects and activities.

RECOMMENDATION VIII

Welcoming the adoption of the Regional Guidelines for Operations of RACs and RANs at the 13th IGM (Include Reference Number);

Noting the important contribution being made by several partner agencies to the work of the Caribbean Environment Programme

Recommends that:

1. The Secretariat continue to strengthen its relationships with regional agencies in an effort to better develop RACs and RANs for the LBS Protocol.

RECOMMENDATION IX

Taking into consideration the concern expressed by countries regarding the insufficient knowledge of the impact of pesticide run-off on the ecosystem;

Noting the need to review the impact of marine pollutants on fishery resources and human health;

Recommends that:

1. Collaboration between the Protocols of the Cartagena Convention and the programmes of CEP be reinforced to facilitate synergy between the efforts undertaken by different groups of experts.
2. New projects that include assessments of environmental status, e.g. monitoring of pesticide residues, complement their activities with the evaluation of the impact on ecosystems, protected species as well as human health.

RECOMMENDATION X

Welcoming the opportunity for having the participants of the 5th LBS ISTAC attend the IMO technical Workshop on the London Dumping Convention and London Protocol as well as the Workshop on Annex V to the MARPOL Convention;

Further welcoming the opportunity to strengthen current collaboration and coordination between the London Convention and Protocol, the UNEP/GPA and Regional Seas Programme and identify potential synergies for common implementation of the three programmes;

Noting the increased cooperation with IMO, in particular, on activities relating to prevention of marine pollution in the wider Caribbean Region, in particular through the work of the RAC REMPEITC;

Recognizing the opportunity to further strengthen cooperation between the environmental and maritime sectors;

Recommends that:

1. Countries consider ratification of the London Protocol and promote joint efforts to address reduction of marine pollution from dumping of wastes at sea;
2. Countries in the WCR regularly report on dumping at sea activities conducted in accordance with the requirements set out under the London Convention and Protocol;
3. The use of the UNEP-CEP Regional Seas platform be expanded for further legal and institutional capacity-building related to the London Protocol;
4. Countries in the WCR identify and communicate to IMO, through the UNEP CEP, their administrative, institutional, legal or technical barriers to achieving full compliance with the ocean disposal agreements;
5. Implementation of the London Convention/Protocol be strengthened at the regional and national levels through the Regional Seas platform;
6. Inter-agency co-operation be increased, both nationally and internationally, to prevent and reduce marine pollution from land-based sources;
7. Application of the 'ecosystem approach' be encouraged for activities under the London Convention/Protocol, the LBS Protocol and other relevant arrangements.
8. Countries make efforts to put in place compliance measures in accordance with the MARPOL Special Area requirements as soon as possible and work with IMO and other bodies on alternative arrangements, as appropriate, for satisfying the requirements for reception facilities at ports in the region;
9. Countries enter their port reception facility information on garbage (MARPOL Annex V) into the GISIS database of the IMO;

10. Costa Rica, Grenada, and Haiti be encouraged to accede to the MARPOL Convention;
11. The CEP Secretariat continue its collaboration with the International Maritime Organization in the further development and implementation of projects and activities within the framework of the Cartagena Convention and its Protocols.

Annex III: List of Documents
LIST OF DOCUMENTS

Working Documents

UNEP (DEPI)/CAR WG.32/1	Provisional agenda
UNEP (DEPI)/CAR WG.32/2	Provisional annotated agenda
UNEP (DEPI)/CAR WG.32/3	Draft Work plan and Budget for Sub-Programme on the Assessment and Management of Environmental Pollution (AMEP) 2010-2011
UNEP (DEPI)/CAR WG.32/4	Report of the Fifth Meeting of the Interim Scientific, Technical and Advisory Committee (ISTAC) to the Protocol Concerning Pollution from Land-Based Sources and Activities (LBS Protocol) in the Wider Caribbean Region

Information Documents

UNEP(DEPI)/CAR WG.32/INF.1 /Rev.2	Provisional list of documents (Updated)
UNEP(DEPI)/CAR WG.32/INF.2	List of participants
UNEP(DEPI)/CAR WG.32/INF.3	Status of Activities for the Sub-Programme on the Assessment and Management of Environmental Pollution (AMEP) for 2008-2009 (Updated)
UNEP(DEPI)/CAR WG.32/INF.4	Draft of Updated CEP Technical Report No. 33. Land Based Sources and Activities in the Wider Caribbean Region. Domestic and Industrial Pollutant Loads and Watershed Inflows. (English and Spanish only)
UNEP(DEPI)/CAR WG.32/INF.5	Assessment and Management of Environmental pollution (AMEP) Atlas (English, Spanish & French combined)
UNEP(DEPI)/CAR WG.32/INF.6	AMEP Quarterlies October 2008- Dec 2009
UNEP(DEPI)/CAR WG.32/INF.7	Final Report of Terminal Lessons Workshop for the GEF Contaminated Bays Project and Regional Verification for the GEF CReW Project (English and Spanish only)
UNEP(DEPI)/CAR WG.32/INF.8	Draft "Know-Why Network" Monitoring Report: The Water Quality of Marine Ecosystems in High-Risk Areas in the Wider Caribbean Region
UNEP(DEPI)/CAR WG.32/INF.9	Draft Template for National Reporting on the Cartagena Convention and its Protocols UNEP (DEPI)/CAR WG.32/INF. 10 GEF Project Proposal for Persistent Organic Pollutants (POPs) in Caribbean Small Island Developing States (PIF)
UNEP(DEPI)/CAR WG.32/INF.13	Climate Change and Disaster Risk Reduction in Jamaica – Full Project Document UNEP (DEPI)/CAR WG.32/INF. 14 Final Report of the Risk and Vulnerability Assessment Methodology Development Project (RiVAMP). (English only)
UNEP(DEPI)/CAR WG.32/INF.15	Saint Lucia Draft Recreational Water Quality Standards
UNEP(DEPI)/CAR WG.32/INF.16	Workshop Report of GEF IW Learn Inter-Focal Regional Consultative Process with Existing and Pipeline GEF Projects in the WCR (English only)
UNEP(DEPI)/CAR WG.30/4	Report of the Fourth Meeting of the Interim Scientific, Technical and Advisory Committee (ISTAC) to the Protocol Concerning Pollution from Land-based Sources and Activities, Petén, Guatemala, 30 October – 1 November 2007
UNEP(DEPI)/CAR IG.28/3	Work plan and Budget for the Caribbean Environment Programme for the biennium 2008-2009

UNEP(DEC)/CAR IG.28/4 Report of the Thirteenth Intergovernmental Meeting on the Action Plan for the Caribbean Environment Programme and Tenth Meeting of the Contracting Parties to the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, St. John's, Antigua and Barbuda, 9-12 September 2008

Reference Documents

- UNEP(DEPI)/CAR WG.32/ REF.1 Climate Change Adaptation and Integration into Integrated Water Resource Management – CATHALAC Final Project Report. (English and Spanish only)
- UNEP(DEPI)/CAR WG.32/ REF.2 Climate Change Adaptation and Integration into Integrated Water Resource Management – CATIE Final Project Report. (Spanish only)
- UNEP(DEPI)/CAR WG.32/REF.3 Toolkit for Institutional Policy and Legislative Improvements – IWCAM Approach in Caribbean SIDS. (English only)
- UNEP(DEPI)/CAR WG.32/REF.4 Guidelines for the Collection, Preparation and Analysis of Organic Contaminants in Environmental Samples (Water, Soil/Sediments, and Biota). (English and Spanish only)
- UNEP(DEPI)/CAR WG.32/REF.5 Regional Strategy to Minimize the Transfer of /Rev.1 Harmful Aquatic Organisms and Pathogens in Ships' Ballast Water and Sediments Wider Caribbean Region. (Updated) (English and Spanish only)
- UNEP(DEPI)/CAR WG.32/ REF.6 Review of Swedish Support to the Caribbean Environment Program (2004-2008). (English only)
- UNEP(DEPI)/CAR WG.32/ REF.7 Directory of Focal Points of the Caribbean Environment Programme. CEP Information Paper, April 2010
- UNEP(DEPI)/CAR WG.32/ REF.8 Climate Change Source Book: Framework for Policies and Incentives for the Adoption of Best Agricultural Practices as Measures for Adaptation to Climate Change. (Spanish only)
- UNEP(DEPI)/CAR WG.32/ REF.9 Draft Rules of Procedure and Financial Rules for the Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention)
- UNEP(DEPI)/CAR WG.32/ REF.10 Guidelines for Establishment and Operation of Regional Activity Centres and Regional Activity Networks for the Cartagena Convention.
- UNEP(DEPI)/CAR WG.32/ REF.11 Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, Protocol Concerning Cooperation in Combating Oil Spills, Protocol Concerning Specially Protected Areas and Wildlife and the Protocol Concerning Pollution from Land-based Sources and Activities (English 2000, French 2000, Spanish 2006)
- UNEP(DEPI)/CAR WG.32/ REF.12 Final Act of the Conference of Plenipotentiaries to Adopt the Protocol Concerning Pollution from Land-based Sources and Activities in the Wider Caribbean Region (English only)
- UNEP(DEPI)/CAR WG.32/ REF.13 Final Report of Agreement between the Government of Sweden and UNEP on Support to the White Water to Blue Water Initiative (WW2BW) in the WCR. (English only)
- UNEP(DEPI)/CAR WG.32/ REF.14 CEP Technical Report No. 33 (1994). Regional Overview of Land-Based Sources of Pollution in the Wider Caribbean Region (English and Spanish only)
- UNEP(DEPI)/CAR WG.32/ REF.15 Rules of Procedure of the Governing Council of UNEP
- UNEP(DEPI)/CAR WG.32/ REF.16 UNEP Handbook on the Development and Implementation of a National programme of Action for the Protection of the Marine Environment from Land-based Activities (English and Spanish only)
- UNEP(DEPI)/CAR WG.32/ REF.17 Global Programme of Action to Protect the Marine Environment from land-based Sources and Activities, Washington, D.C., 23 October – 3 November, 1995
- UNEP(DEPI)/CAR WG.32/ REF.18 A Summary of Facts and Findings on Marine and Coastal Issues in the Wider Caribbean Region (English only)

- UNEP(DEPI)/CAR WG.32/REF.19 Tools to Help with Adoption and Implementation of the Protocol to the Cartagena Convention to Eliminate or Reduce Pollution of the Caribbean Marine Environment from Land-Based Sources and Activities (LBS Protocol). (English only)
- UNEP(DEPI)/CAR WG.32/ REF.20 Pollution: Threat to the Caribbean. AMEP Media Briefing (English only)
- UNEP(DEPI)/CAR WG.32/ REF.21 Coastal Degradation Leaves the Caribbean in Troubled Waters. UNEP Environment Alert Bulletin
- UNEP (DEPI)/CAR WG.32/ REF.22 Draft Final Meeting Report. Fifth Ordinary Meeting of the RAC/REMPEITC-Caribe Steering Committee, Curacao, 10-14 May 2010. (English only)
- UNEP(DEPI)/CAR WG.32/ REF.23 Presentation of the Background to the 2010-2011 Strategic Plan. Fifth Ordinary Meeting of the RAC/REMPEITC-Caribe Steering Committee, Curacao, 10-14 May 2010. (English only)
- UNEP(DEPI)/CAR WG.32/ REF.24 Draft Work Program and Budget 2010-2011. Fifth Ordinary Meeting of the RAC/REMPEITC-Caribe Steering Committee, Curacao, 10-14 May 2010. (English only)
- UNEP(DEPI)/CAR WG.32/ REF.25 Section 3 of the Draft 2010 – 2011 Strategic Plan: Progress Report of 2008-2009 Activities. Fifth Ordinary Meeting of the RAC/REMPEITC-Caribe Steering Committee, Curacao, 10-14 May 2010. (English only)
- UNEP(DEPI)/CAR WG.32/ REF.26 Information Activities 2008-2009. Fifth Ordinary Meeting of the RAC/REMPEITCCaribe Steering Committee, Curacao, 10-14 May 2010. (English only)

Annex IV: List of Participants

5TH LBS-ISTAC MEETING: MAY 24-25, 28

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