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INTER-AMERICAN COUNCIL FOR INTEGRAL DEVELOPMENT (CIDI)

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FINAL REPORT

FIRST HEMISPHERIC CONFERENCE ON ENVIRONMENTAL PORT PROTECTION

April 10 - 13, 2007
Panama City, Panama

INTER-AMERICAN COMMITTEE ON PORTS (CIP)

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I. BACKGROUND

The Inter-American Commitee on Ports (CIP) is a Committee of the Inter-American Council for Integral Development (CIDI) established in compliance with AG/RES. 1573 (XXVIII-0/98) of the General Assembly of the Organization of American State (OAS), pursuant to Articles 77 and 93 of the Charter of the Organization of American States, and Articles 5 and 15 of the CIDI Statutes.

The purpose of the CIP is to serve as a permanent inter-American forum for the member countries of the OAS to strengthen cooperation in the area of developing the port sector, with the participation and active collaboration of the private sector. The Organization also includes permanent observer countries interested in cooperating for the attainment of CIP's central objectives.

In response to the kind offer by the Maritime Authority of Panama (AMP), at its IV Meeting in Maracaibo in 2005, the CIP adopted Resolution CIDI/CIP/RES. 69 (IV-05) to hold the First Hemispheric Conference on Environmental Port Protection in Panama City, Panama. The Executive Board of the CIP (Houston 2005) later adopted Resolution CECIP/RES.22 (VII-05) which set the dates for the Conference at April 10 - 13, 2007; this was then ratified at the two subsequent meetings of the Executive Board (Guayaquil, 2006 and Puerto la Cruz, 2006), through the respective resolutions: CECIP/RES. 13 (VIII-06) and CECIP/RES. 15 (I-E/06).

Consequently, coordination was established between the Secretariat of the CIP and the AMP, which yielded the launching and official announcement of the Conference to the port community and the public on January 18, 2007 in Panama City. The specific objectives of the Conference were established as follows:

- To promote an exchange of information on issues related to environmental port protection in the American hemisphere;
- To raise consciousness in the port sector regarding the importance of environmental protection as an added value to its activity;
- To strengthen the sustainable development of the port sector
- To encourage environmental port management as a tool for promoting the sector;
- To present experiences and activities carried out by different players in the hemispheric port sector related to environmental stewardship;
- To facilitate cooperation among countries, businesses, and institutions so as to strengthen environmental port protection;
- To minimize use of the environmental variable as a means of unfair trade by publicizing universally accepted environmental management systems;
- To promote the training of human resources in the port sector on issues related to environmental stewardship; and
- To raise awareness for the integration of the environmental variable into port development plans.

II. VENUE AND DATE

The Conference was held at the Hotel Continental Riande, Panama City, Panama from April 10 to 13, 2007.

III. AGENDA

The agenda approved was as follows (document COPAP/doc. 3/07):

1. Approval of agenda adopted in the preliminary session of the heads of delegation.

2. The state of environmental port protection in OAS member States: A brief overview of environmental policy. Short term institutional development and perspectives:
   - (i) Experiences from countries of Central America and the Caribbean.
   - (ii) Experiences from countries of North and South America.

3. International norms and standards on environmental protection impacting the port industry: the IMO MARPOL Convention, European environmental code of conduct and other international conventions.

4. The port industry and its environmental impact:
   - (i) The impact of the port sector on the environment and its effect on coastal zones.
   - (ii) Air contamination in the port environment.
   - (iii) Visual and audio contamination in port zones.
   - (iv) Accidental and operational contamination in ports by hydrocarbon and dangerous materials: contingency plans.

5. Policies and management on the impact of the port environment:
   - (i) Environmental port policies and strategies.
   - (ii) Port administration and the integral operation of coastal zones.
   - (iii) Management systems and the quality certification of ports.
   - (iv) Port installations for the reception of waste and ballast water.
   - (v) Environmental considerations for the development of port infrastructure.
   - (vi) Regional code projects for environmental port conduct.
   - (vii) Training, technical cooperation, and the financing of environmental port projects.

6. Considerations for the draft Declaration of Panama on Environmental Port Protection.

IV. OFFICERS OF THE CONFERENCE

Chair:	Rubén Arosemena (Panama)
First Vice Chair:	Francisco Pastrana (Mexico)
Second Vice Chair:	Carlos Borja (El Salvador)
Coordinator:	Zoila Yanisselli (Panama)
Secretary:	Carlos M. Gallegos (OAS)

V. PARTICIPANTS

Delegations from the following member countries of the OAS participated in the conference: Argentina, Belize, Bolivia, Brazil, Canada, Chile, Costa Rica, Ecuador, El Salvador, United States, Guatemala, Mexico, Nicaragua, Panama, Peru, Suriname, Trinidad and Tobago, Uruguay, and the Bolivarian Republic of Venezuela. Delegations from Spain and France also attended as Permanent Observer Countries to the OAS. And representatives of the following international organizations attended: International Association of Ports and Harbors (IAPH), Inter-American Transportation Chamber (CIT), Central American Commission of Maritime Transport (COCATRAM), Ibero-American Foundation for Sustainable Transport (FITS), Ibero-American Institute of Maritime Law (IIDM), International Maritime Organization (IMO); and special guests. The list of participants is included in Annex A of this report (document COPAP/doc.2/07).

VI. DOCUMENTS

The list of conference documents is included in Annex B of this report (COPAP/doc. 1/07).

VII. CONFERENCE SESSIONS

During the course of the Conference a preliminary session of heads of delegation, an inaugural session, six plenary sessions, and a closing session were held.

Preliminary Session of Heads of Delegation

This session was held at 6:30 p.m. on Tuesday, April 10, 2007 and chaired by Ángel González Rul, Chairman of the CIP Executive Board and delegate of Mexico. The purpose of this meeting was to coordinate various operational aspects of the Conference. First, the officers of the meeting were elected, as listed in Section IV above.

Next, the following points were considered:

Final Conference Agenda: The draft agenda for the conference presented in document COPAP/doc. 3/07 was adopted, as included in Section III above.

Conference Schedule: The draft schedule of the conference, as presented in document COPAP/doc. 4/07, was approved.

Documents: It was agreed that all participants would be given a CD at the end of the conference including all of the documents, and that hard copies of the documents would not be distributed.

Inaugural Session

This session was held at 7:30 p.m. on Tuesday, April 10, 2007. In attendance were Rubén Arosemena, First Vice President of the Republic of Panama and Chairman of the Conference, Francisco Pastrana, Chairman of the Executive Board of CIP and principal

delegate of Mexico, Carlos M. Gallegos, Secretary of the Inter-American Committee on Ports, and Zoila Yaniselli, national coordinator of the Conference.

First Plenary Session

The session was held at 9:00 a.m. on Wednesday, April 11, 2007. It was chaired by Mr. Rubén Arosemena, Administrator of the Maritime Authority of Panama and chairman of the Conference. The following agenda items were covered.

Approval of agenda adopted in the preliminary session of the heads of delegation (agenda item 1). It was approved.

International norms and standards on environmental protection impacting the port industry: the IMO MARPOL Convention, European environmental code of conduct and other international conventions (agenda item 3)

There was a speakers' panel moderated by Mr. Francisco Pastrana, Secretary of Transportation of Mexico.

Klaus Essig of the National Aquatic and Island Space Institute (INEA), Venezuela, spoke about the international conventions within the International Maritime Organization (IMO) as the national, regional, and international frame of reference for environmental port protection. He noted that between 1974 and 2003 worldwide statistics show that 54% of hydrocarbon spills occurred in port areas and in volumes less than 7 tons. Thus the importance of the International Convention for the Prevention of Pollution from Ships (1973) and its 1978 Protocol (MARPOL 73/78), the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC 1990), and the International Convention for the Control and Management of Ships' Ballast Waters and Sediments (BWM 2004). He pointed out the need to adopt national strategies based on the training of personnel, legal provisions, and institutional strengthening under the leadership of the maritime and port authority to comply with MARPOL 73/78 which is already in force. He recalled the lack of sufficient facilities to receive ships' waste (for example, for the treatment of oily water and wastewater and solid wastes from both the operation of the ship and its cargo), and the need to provide these services without causing undue delay in the operation of the ships. He then explained the legal framework for the protection of the marine environment in the Wider Caribbean stemming from both the pioneering Cartagena Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region and OPRC 1990, which have led to the drafting of regional contingency plans to respond to accidental oil spills. He offered some specifics regarding the measures contemplated by BWM 2004, such as rules for the emptying of ballast water and the ban on doing so in protected areas. This will likely enter into force in 2009 once 30 countries representing 35% of the world's tonnage accede to it. Finally, he recommended that more countries participate in the Technical Advisory Group on Environmental Port Protection of the CIP/OAS which is drafting regional plans for the protection of the marine environment based on national experiences. See document COPAP/doc. 17/07.

Leandro García from the Port Authority of Valencia, Spain, explained the ECOPORT model. He indicated that environmental management systems (EMS) are

unavoidable in today's companies, and they are on par with other more traditional ones in terms of production, quality, logistics, human resources, etc. He defined them as a style of management that allows companies to establish their objectives, goals, commitments and responsibilities to society and the environment, such that they can carry out their activities without harming the environment. He also added that these systems can be regulated through ISO Standard 14001. In Spain they fall under Regulation 761/01 which establishes a management system and environmental audits for companies in the European Community. He explained that the ECOPORT model stems from a project by that name carried out some years ago by the European Community to determine a methodology applicable to the port industry. The EMS applies to companies that carry out their activities in the port area (seven companies at the Port of Valencia initially participated in the model). They follow the five-point ECOPORT methodology: setting an environmental policy; initial environmental analysis; design and implementation of the system; internal audit; and review of the system. At point one the top leadership of the company expresses its commitment to the environment and lays out a framework for specific actions. During the initial analysis the company determines the global impact of port activity (processes, products, and services) on the environment, as well as the environment's starting point (pristine, slightly polluted, highly deteriorated), all duly quantified as much as possible. The methodology for conducting this analysis entails gathering information according to standard patterns, reviewing legislation in force, etc. The design and implementation phase includes the drafting of handbooks for management and procedures (there are 19 of them), and a repertoire of technical instructions as well as the compilation of documentary evidence which allows for ongoing assessments of the measures applied. The internal audit stage will vary according to whether one applies the ISO standard or the more complete European standard. Review of the system is done in order to make detailed adjustments, as may be required both because of inaccuracies in the established processes and because of significant variations in the surroundings, the processes, and the environment. Regarding follow-up and monitoring of the EMS, he explained that the emergency control center should be permanently connected to all the relevant organizations and supported by a computer system tapped into sensors placed at strategic points in the port area, continuously monitoring air and water quality, and managing residuals from treatment plants for the products listed in Annexes I and V of MARPOL 73/78. He concluded by calling upon the attendees to seriously consider the possibility of adopting an EMS in their port areas, and to this end offered to share the experience the port of Valencia has had in this regard. See document COPAP/doc. 18/07.

The port industry and its environmental impact (agenda item 4)

The impact of the port sector on the environment and its effect on coastal zones (agenda item 4(i))

There was a speakers' panel moderated by Ms. María Isabel Fernández of the National Port Authority of Guatemala.

Macario Fernández, from the Port Authority of La Coruña, Spain, presented a project being implemented for the movement of this port to another location. He described it as an $800 million investment in the environment, of which $520 would be for construction of the port itself, and $280 million would be for the transfer of operations and access. It is a polyvalent port, profitable with annual revenue of some $34 million, moving some 14 tons of cargo annually and located in an urban

area. The annual traffic includes bulk liquids (8.2 million tons), dirty dry bulk (4 million tons), general cargo (1 million tons), in addition to heavy traffic in fishing boats, cruise ships, and sporting vessels. The current activities have several harmful impacts such as air pollution from carbon dust, noise pollution day and night, traffic congestion, as well as significant risks associated with the numerous fuel pipelines that cross the city. Furthermore, its proximity to the city limits the potential for developing the port. The new location offers many advantages, such as the availability of land, the lack of residential areas, the modest environmental impact, extensive possibilities for expansion, and proximity to refineries, other production centers, and transportation networks. The new location will require significant construction, including around 4 km. of breakwaters to protect waters with depths of more than 20 meters, almost 1 km. of dock, and 143 hectares of storage area. See document COPAP/doc. 19/07.

Hernán Pardo from INCOSTAS Engineering Consultants in Venezuela presented his company's commitment to the sustainable development of the port industry, as seen in three recent environmental impact studies: general cargo traffic in the Puerto Bolívar Port Complex, the Araya Deep Water Port, and the Deep Water Port of the Orinoco Delta. He indicated that some relevant environmental issues are fragile marine, coastal, and estuary habitats; the establishment of buffer zones; and the increasing regulation and modification of the community/environment setting. He explained that the impacts occur in three distinct phases: design and location; construction; and operation. In the first phase, projects that occupy coastal areas mean a net loss of habitat, modifications to vital flows, threats to and disappearance of species because of changes to their breeding, growth, and reproduction patterns; visual alteration of landscapes; changes to shore and coastline geomorphology; as well as changes to social, cultural, and economic patterns of the local populations (i.e., the disappearance of small-scale fishing). During the construction phase lasting and traumatic changes occur both in the marine beds (i.e. dredging) and in the plant layers of extensive land areas. There are also substantive changes to the patterns of life and work of the population due to noise, dust, traffic, influx of outsiders, increases to the cost of living, etc. Finally, during the operations phase there are invasions of foreign species as the result of emptying ballast waters and the accumulation of ship waste, often of unknown substances. There are continuous alterations in water, air, and soil quality levels, and real estate development is accelerated. Thus sustainable port development is perceived as a buffer between the pressures of trade and transportation on port development, and the need to preserve and manage habitats and encourage land-use development in a way that respects the environment. See document COPAP/doc. 20/07.

Air contamination in the port environment (agenda item 4(ii))
Visual and audio contamination in port zones (agenda item 4(iii))

This was a panel of three speakers, again moderated by Ms. María Isabel Fernández from the National Port Authority of Guatemala.

Joel Méndez from the Lázaro Cárdenas Port of Mexico presented his country's legal framework in terms of air and noise pollution. He indicated that the laws and regulations on navigation and ports serve as a departure point for enforcement of several rules regarding noise and air quality, which in turn often stem from occupational health rules. Thus, the following are relevant: federal labor laws; the federal regulation on workplace safety, health, and the environment; regulations to protect the environment from noise pollution; regulations to prevent and control air

pollution; and several specific rules (i.e. those regarding concentrations of carbon monoxide and the concentration of particles suspended in ambient air); and regulations on the operation of ports. He explained that air pollution occurs during the loading and unloading of ships, and during transport and storage (particularly of dusty materials). To counteract this, sprinkling facilities or hermetically sealed industrial vessels are used. For other merchandise it is important to use smoke regulators on the cargo movement equipment. Noise abatement is conducted by having sound absorption materials placed on cranes, freight lifts, and tractors, while acoustical screens are installed around the periphery of the port and the periphery of the industries located in the ports. Visual contamination is caused both by excessive use of billboards and by new construction and other distortions of the natural landscape, which causes stress, accidents, and damages to ecosystems. He then explained that the port operators must obtain environmental licenses before start of operations, and they must renew their operators' licenses annually while the port authority conducts periodic monitoring of the surrounding air quality and noise levels. He concluded the presentation by mentioning the commitment Mexico has made under the Montreal Protocol to help protect the ozone layer, and the urgent need to use substances in construction projects and in port services that have a low environmental impact. See document COPAP/doc. 21/07.

Janiece Gilbreath from the United States Environmental Protection Agency (EPA) explained that one of the greatest challenges of port activity and sustainable transport is to reduce air pollution to acceptable levels, without slowing down economic and trade growth. For this reason, it is imperative to have the cooperation of several economic and social players. She pointed out that the use of ultra-low sulfur fuels (less than 15 parts per million) has a direct impact on improving air quality and thus the health of the population, and that some estimates of highway land transport indicate that the benefits outweigh the costs 16-fold, even yielding a reduction of 8,300 premature deaths annually. She explained that the exponential growth of international trade and transport over the past 50 years has contributed to a deterioration of air quality, but that several corrective measures had been put into place. The first is application of Annex VI of MARPOL 73/78, which has been in force since May of 2005. Negotiations are underway at the IMO to establish more stringent standards to curb nitrogen dioxide and suspended sulfur particles, which would oblige parties to use cleaner fuels for maritime transport. Under this Convention, the EPA is conducting an analysis of air quality and fuels in order to establish areas for limited emissions of sulfur oxides by ships. The second corrective measure is the "Clean Ports" plan, led by the ports of Los Angeles and Long Beach. It entails the use of catalysts in diesel machinery, the use of cleaner fuels, the replacement of trucks, and supplying energy to ships by cold-ironing. It is hoped that this will yield a 50% reduction in suspended particles, and a 12,000 ton reduction of annual emissions of nitrogen oxides, as well as enhancing the useful life of machines and the health of the population. The multimodal component of this second corrective measure entails improvements to highway transport by using wider tires with aluminum rims, aerodynamic profiles, etc. The third type of corrective measure contemplates the development of strategic partnerships between ports and transport companies for the overall improvement of air quality in various parts of the world. To this end, campaigns have been launched to measure air quality such as the one with the Panama Canal Authority. See document COPAP/doc. 22/07.

Jorge Jiménez from the Port Authority of Guayaquil, Ecuador presented measures to monitor air quality and noise levels in the vicinity of the port. He indicated that in

2006 the port moved 6.5 million tons of cargo from 1,423 ships. He said that periodic checks are done of air quality in specific spots in the port to determine levels of nitrogen and sulfur oxides and carbon monoxide. They also monitor for suspended particles, particularly in areas in which grains are moved. To monitor noise levels, noise maps are established around the port and in specific areas (close to the generators for refrigerated containers in which the noise can reach 95 decibels at a distance of 5 meters) where the highest readings are found. This information is assessed to comply with labor code provisions regarding workplace health & safety. See document COPAP/doc. 40/07.

Accidental and operational contamination in ports by hydrocarbons and dangerous materials: contingency plans (agenda item 4(iv))

There were three speakers and the panel was moderated by Mr. Manuel Gómez from the State Port Authority of Spain.

Carlos Sagrera from Ocean Pollution Control in Panama gave a detailed description of the process that is unleashed when there is an accidental oil spill. His example was the spill that occurred in February of this year at the Chiriquí Lagoon during the unloading of a tanker. He explained that an emergency telephone line is available day and night every day of the year. According to the type of spill and its proximity to the base of operations, it is possible to conduct scaled responses, from small spills that use local resources to large spills that require national and international resources. He added that there are no perfect strategies and that generally, each response is a combination of the following five components: follow-up and evaluation; dispersion; containment and recovery; treatment of the coasts; and on-site burning of the spilled substance. Each response follows the sequence of alarm, notification, assessment, mobilization, operation, and demobilization. Notification is done to outside authorities, the businesses involved and key players, and the emergency team through a unified command. The command is in charge of assessing the spill according to a net environmental benefit analysis, which includes follow-up on its development (for example, the appearance and quantification of the spill, the nature and direction of clean-up), as well as coordinating surveillance of the coast and obtaining continuous information over time. The stages of mobilization, operation, and demobilization yield the direct elimination of the spill and entail the work of specialized personnel and materials during brief, urgent periods. Temporary staff and others who must be trained on-site are involved in the work, and proper information must be given to the authorities and the public regarding the operations and progress in eliminating the spilled substance. See document COPAP/doc. 23/07.

Jorge Rebelo from the Ministry of Health and Agriculture of Costa Rica talked about the effects of a fire that occurred in December of 2006 at a chemical depot adjacent to the port in the urban area of Moín. The plant, which sits in a 15,000 square meter area, had 22 tanks of various sizes in which, at the time of the fire, 1,000 tons of caustic soda, 420 tons of toluene, 340 tons of styrene monomer, and 800 tons of ten other chemicals were stored. The combustion began when a maintenance company was soldering a tank truck in the cargo area. It took ten hours to control the fire, involving 15 organizations, and forced the evacuation of port personnel, nearby businesses, and the population of two nearby neighborhoods. The docked ships had to be put into the bay, water had to be supplied from a stream and later a dirt containment dyke was needed to prevent the runoff of the used water. Finally, the drinking water supply to 20,000 people had to be cut off for a month. There were two fatalities and a large number of people were left with respiratory problems for

several weeks. Losses were estimated at $1 million. This fire shows the importance of updates and holding periodic drills with the emergency personnel of the port and other companies, and has led Congress to reconsider ratifying the MARPOL 73/78 and SOLAS Conventions. See document COPAP/doc. 24/07.

Luis Vila, and independent consultant in Buenos Aires, Argentina, talked about the accidental and operational causes of oil spills and spills of other hazardous materials in ports, including illicit acts. He explained the use of barriers, skimmers, and absorbents to fight hydrocarbon spills and the different degrees of danger associated with hazardous materials that are flammable, toxic, reactive, and radioactive. He stressed the lasting effects of certain hazardous materials on ecosystems and human beings, and concluded by summarizing the resources needed for contingency plans to counteract these incidents. See document COPAP/doc.25/07.

Second Plenary Session

The session started at 4:00 p.m. on Wednesday, April 11, 2007. It was chaired by the Vice-Chairman of the Conference, Mr. Francisco Pastrana, and covered the following agenda items.

The state of environmental port protection in OAS member States: A brief overview of environmental policy. Short term institutional development and perspectives (agenda item 2)

This topic was covered by a panel of five speakers, moderated by Mr. Andrés Rengifo from the Public Port System of Chile (SEP).

Experiences from countries of Central America and the Caribbean (agenda item 2(i))

Carlos González from the Board of Port Administration and Economic Development of the Atlantic (JAPDEVA), Costa Rica, mentioned that the country's environmental policy is geared to consolidating the rational use of natural resources with a strong preference for developing protected areas and generating energy from renewable sources. He indicated that there is extensive environmental protection legislation (organic laws to protect the environment, biodiversity, waters, forests, fishing & aquaculture, and for the protection of sea turtles, etc.). However, there has been a significant delay in ratifying the MARPOL 73/78 and SOLAS Conventions. In closing he mentioned the fire that occurred in Moín, which a previous speaker had described. See document COPAP/doc. 5/07.

Eduardo Barrientos from the Maritime Port Authority of El Salvador reported that his country has ratified the International Convention on Civil Liability for Oil Pollution (CLC 1969) and OPRC 1990, having designated a group of companies and other organizations to design and implement a contingency plan. However, the MARPOL 73/78 and SOLAS conventions are still being studied for ratification. Regarding protection of coastal and marine resources, a comprehensive management policy has been drafted as indicated by Environmental Law D.L. No. 233 of 1998, complemented by the General Maritime Port Law, D.L. No. 994 of 2002, and its regulations. These include, for example, the use of naval inspectors to verify good management of the coasts, restrictions on the use of beaches, and a sanctions regime for illegal dumping, backed by the criminal code which punishes crimes related to nature and the environment. See document COPAP/doc. 6/07.

María Isabel Fernández, from the National Port Authority of Guatemala (CPN), explained that there is a complete jurisdictional gamut for the protection of the environment. It starts with the Constitutional Court, includes the Criminal Courts and the Sentencing Courts for crimes against the environment, and concludes in the Trial Courts. Additionally, in 2002 the Ministry of the Environment and Resources was created to draft and implement policies and strategies to protect and have rational use of environmental resources. It acts in consonance with the Guatemalan Fund for the Environment, non-governmental organizations, and the comprehensive security offices at the ports. The CPN, in turn, follows up on the national contingency plan to control oil spills, including periodic drills and the updating and implementation of hazardous materials regulations. It also participates in the port environmental committees, forums to raise awareness in the industry (to share responsibility for the environment in port areas), in port communities (to overcome the low intensity of the city-port ratio), and international scale projects, such as that in the Gulf of Honduras. See document COPAP/doc. 7/07.

María del Carmen Rubio, from the Maritime Authority of Panama (AMP), explained that the perception of the importance of the environment is so significant in her country that it is recognized in the 1972 Constitution. This perception has grown over the years, as indicated by the passage of General Law on the Environment No. 41 of 1998, and the 2005 addition a new section to the Criminal Code: Crimes against the Environment. This makes it possible to investigate and punish crimes against wildlife and natural resources, and to process, approve, and follow-through on documents as well as limit urban planning rules. In the maritime and port field there is a parallel concern with the environment. Law No. 21 of 1980 on the contamination of the sea and navigable waters, for example, prohibits the discharge of polluting materials. D.L. No. 7 of 1998, creating the AMP, empowers it to manage, conserve, recover and exploit marine and coastal resources, and Law No. 6 of 2007 covers the management of oily residues from hydrocarbons or synthetics in the national territory. There is also a variety of rules and regulations that cover the specifics of maritime and port activities, including a regime of sanctions for violators. See document COPAP/doc. 8/07.

Guno Castelen from the Port Management Company of Suriname, Suriname, mentioned that there is rather old legislation on the protection of the environment (1911 Criminal Code, 1915 Police Law, 1930 Damages Law, and their 1944 and 1972 modifications, and the 1954 Law for the Protection of Nature). These efforts are now being complemented by his company's institutional counterpart, the National Council of the Environment, the National Institute of the Environment and Development, and the Ministry of Labor, Technological Development, and the Environment. Regarding marine and port environments, he confirmed that several Conventions have been ratified by Suriname, including the SOLAS, MARPOL 73/78, the 1972 London convention, etc., however, these are not enforced as strictly as they should be. There are no facilities to receive ships' waste, only solid waste, and the treatment of this afterward leaves much to be desired. He suggested a regional approach to provide these facilities, and also develop contingency plans to combat accidental oil spills. See document COPAP/doc. 9/07.

Third Plenary Session

The session was held at 9:00 a.m. on Thursday, April 12, 2007. **It was chaired by Mr. Francisco Pastrana, Vice-Chairman of the Conference. The following agenda items were covered:**

Policies and management on the impact of the port environment (agenda item 5)

Environmental port policies and strategies (agenda item 5(i))

The session included two speakers and was moderated by Mr. Alfonso Castillero from the Maritime Authority of Panama.

Thomas Kornegay from the Port Authority of Houston, United States, and representative of the IAPH to the Conference, explained that successful port management should be geared to simultaneously meet economic, social, and environmental objectives. He offered the examples of two recently concluded projects. In the first, the canal for entry to the port was widened (from 400 to 530 feet) and deepened (from 40 to 45 feet), which entailed an investment of $700 million. The dredged material was used to create 3,400 acres of swamps, islands, and submarine berms to serve as the habitat for wild species, birds, and oyster reefs. The second project was the first phase of a terminal for Bayport containers which concluded in February of 2007. In this, a three-mile-long and 20-foot high noise protection berm was used, which also limits the impact of light pollution in neighboring residential areas from night work at the port. Simultaneously, 200 acres of swamps, water retention lagoons, and 500 acres of coastal plains were used. These projects, in which the port authority contributed around one third of the total investment, make the Port of Houston the only one with an EPA performance ranking. He noted that in both projects the consultation with citizens' and other environmental protection groups was most beneficial for the planning and execution of the projects. See document COPAP/doc. 26/07.

Andrés Guerra from the Port Authority of La Coruña, Spain, gave a presentation on the Environmental Code of Practice of the European Sea Ports Organization (ESPO). He explained that ESPO was founded in 1993 and currently brings together some 800 port organizations in order to influence European entities on behalf of port activity and maintain common rules of the game for all. Among the most noteworthy activities has been that of maintaining a proactive stance regarding environmental responsibility in the ports. From the outset, it has conducted surveys to determine the most significant concerns in the ports (dredging, water quality, etc), and it recommended environmental self-regulation through the ESPO Environmental Code of Practice, which currently consists of three parts. The first is the Code itself and its "ten commandments;" the second provides background on how environmental management has evolved in European ports; and the third is a manual of environmental best practices. The first and best-known part orders the ports to: 1) contribute to the development of sustainable logistics chains, considering that the ports are fundamental components of the European transport network; 2) encourage consultation, dialogue, and cooperation among port administrations and relevant stakeholders at the local level; 3) generate new knowledge and technology and develop sustainable techniques which combine environmental effectiveness and cost efficiency; 4) facilitate the exchange of experiences and implementation of best

practices; 5) prepare a publicly available environmental policy; 6) assess the environmental impact of port plans and projects; 7) use environmental management information system tools; 8) promote monitoring of vectors based on environmental indicators; 9) conduct environmental reporting as a means of communicating environmentally good behavior; and 10) intensify communication about environmental improvements achieved by ports and their contribution to sustainable development. See document COPAP/doc. 27/07.

Port administration and the integral operation of coastal zones (agenda item 5(ii))

This was a panel of three speakers, also moderated by Mr. Alfonso Castillero from the Maritime Authority of Panama.

Mario Cordero, from the Long Beach Board of Harbor Commissioners, United States, focused on the clean air action plan. He explained that the continuous increase in container traffic poses a significant challenge to air and water quality, the marine habitat, and the health of the population. He mentioned that the new G pier brought into service with a $600 million dollar investment should be followed by two more at a cost of around $1 billion to keep up with increases in traffic. Long Beach has declared itself a "green port," which means: it protects the community from the negative impacts of port activity; the best technology is used; the stability of the ecosystems is promoted; and the community is included in the decision-making process. To improve air quality, the port tries to reduce levels of sulfur and nitrogen oxide and suspended particles. To this end, a series of corrective measures has been designed, such as the modernization of the tractors used on the container platforms and other vehicles used in the port area. There has also been replacement of the truck fleet serving the port, and "green" operation of locomotives and ships. In addition to the progressive switch to low sulfur content fuels, he explained that some 17,000 trucks enter the port daily, most of them obsolete, such that a $2.6 million dollar fund has been established to replace them. As for the ships, it has been agreed that navigation close to the port will be at low speeds (the limitations currently apply within 20 miles and will be expanded to 40 miles starting in 2008). And, finally, the port encourages docked ships to take their energy from the port through "cold ironing," and gives incentives to terminal concessions holders for using this technology. See document COPAP/doc. 28/07.

Leandro García, from the Port of Valencia, Spain is in charge of the project to improve environmental management of ports in the Gulf of Honduras. He explained that this is a component of a more ambitious project being implemented by the Central American Commission of Maritime Transport (COCATRAM) for Environmental Protection and Control of Pollution caused by Maritime Transport in the Gulf of Honduras. The Gulf, with an area of 10,000 Km^2, borders Belize, Guatemala, and Honduras. It includes five ports which handle some 14 million tons (approximately one-fifth of Central America's total merchandise traffic, but one-fourth of its ship traffic). The Gulf is home to fragile marine ecosystems, including the world's second-largest reef, that are threatened by sea pollution and pollution coming from land in a basin that measures some 60,000 Km^2. The project includes an assessment of environmental hazards in five ports (Puerto Cortés, Santo Tomás, Puerto Barrios, Big Creek, and Belize), as well as the drafting of mitigation plans and investments in facilities and equipment. There will be procedures and consultation with users and other economic and social stakeholders in the port community. Finally, some specific measures will be adopted: improvements to maritime access to the ports, preparation of contingency plans for accidental spills, establishment of

facilities to treat ship waste, introduction of environmental management, etc. See document COPAP/doc. 29/07.

Pedro Fuentes and Noelle Saborido, from the Port Administration of Paranagua and Antonina, Paraná State, Brazil, explained the close collaboration between the port and environmental authorities to address the notorious problems of the past, including the intake and emptying of ballast water by ships. In 2003 it was found that of the 1,929 ships that visited the two ports, 250 took in water, while 1,679 emptied it, such that the emptied volume was almost double the allowed amount. Thus an environmental management department was created to plan, investigate, and monitor the interaction between the environment and port activity, and to encourage the participation of the local community in these activities. Among the activities carried out was management of ballast waters, the drafting and implementation of contingency plans for accidental oil spills, controls over maintenance dredging and the deposit of said material, management of liquid and solid waste from ships, publicizing environmental concepts in the community, and the search for clean technologies. The department has a center of excellence for environmental protection, which has specialized equipment and staff and conducts periodic emergency preparedness drills. See document COPAP/doc. 30/07.

Management systems and the quality certification of ports (agenda item 5(iii))

There was one speaker on this panel, moderated by Mr. Bruce Lambert, from the International Navigation Association (PIANC), U.S. Section.

Stanley White from the Coasts, Oceans, Ports and Rivers Institute (COPRI) of the United States, referred to the use of management systems to certify the environmental quality of ports, since these systems make it possible to coordinate facilities, laws, regulations, and environmental policies. He explained that the systems must be straightforward and user friendly, such as on Excel sheets. The facilities should be placed according to geographic positioning systems, with indications of their physical characteristics and ownership, while the legal provisions must indicate the relevant agency (Coast Guard, Fisheries, Municipality, State, Environmental Protection Agency, etc.), deadlines and sites for submission of license applications, etc. The most important of the environmental policies would be on dredging, water quality, etc. See document COPAP/doc. 31/07.

Port installations for the reception of waste and ballast water (agenda item 5(iv))

There were two speakers on this panel, which was also moderated by Bruce Lambert from the International Navigation Association (PIANC), U.S. Section.

Rodrigo Cruz from the Environment Solution Group (ENSOL), Panama, spoke about management of oily residues from ships. He explained that the fundamental difference is that the separation of water is difficult and onerous, while the extraction of oil is sometimes financially profitable since there is a secondary market. He added that if there is no final treatment of the oil with water particles poured into the environment, it causes a demand for oxygen with the resulting contamination. As for primary treatment, this can use mechanical dispersion by decantation (using gravity), centrifuge, or coalescence. But later one must use serpentine heaters to continue the separation by precipitation. The companies involved in this activity are certified by the AMP and complement the work of companies that work directly on

abating the harm caused by illegal or accidental spills. See document COPAP/doc. 32/07.

Curtis Roach from the International Maritime Organization (IMO) focused his presentation on the port reception facilities provided for in MARPOL 73/78. He explained that these reception facilities can fall within the framework of specific port facilities, such as terminals for the loading and unloading of bulk liquids, and ship repair facilities. For these, the residues from tanker cargo (Annex I – hydrocarbons) and cargo on chemical ships (Annex II – hazardous liquids) are relevant, while Annex VI (atmospheric emissions) is relevant for repair facilities. As regards ports with generic facilities, the reception facilities should include treatment of oily residues (Annex I – bilge or other water), dirty, fecal, or sewage water (Annex IV), and solid waste from the ship and cargo (Annex V). He added that the facilities to receive residues have different demands, according to whether or not they are located in special areas that may be established by each of the annexes of the Convention (i.e., the Baltic Sea is a special area for Annex VI), and that in no case should its operation cause delays to the merchant ships. He indicated that the 1999 version of the IMO Comprehensive Manual on Port Reception Facilities has a chapter on financing and cost recovery methods to be used by port organizations. Finally, he called upon ports to use IMO's Global Integrated Shipping Information System (GISIS) on-line, and to keep updated information on these reception facilities. See document COPAP/doc. 33/07.

Fourth Plenary Session

The session was held at 2:30 p.m. on Thursday, April 12, 2007. It was chaired by Mr. Francisco Pastrana and covered the following agenda items:

The state of environmental port protection in OAS member States: A brief overview of environmental policy. Short term institutional development and perspectives (agenda item 2)

There was a panel of seven speakers, moderated by Mr. Ángel Ramos of the Ibero-American Institute of Maritime Law.

Experiences from countries of North and South America (agenda item 2(ii))

Norberto Venerini of the Naval Prefecture of Argentina, a security force under the Ministry of the Interior, explained that his institution is in charge of enforcing such conventions as SOLAS and MARPOL 73/78, as it is responsible for the environmental protection of national jurisdictional waters and ports. These activities are carried out through lifesaving, fire, and environmental protection stations (SIPA), which cover the maritime, river, and lake coastlines. This includes periodic monitoring of the waters, contingency plans for spills, and some research. See document COPAP/doc. 10/07.

Luiza Almeida from the Office of the Superintendent of Ports, National Aquatic Transportation Agency (ANTAQ) of Brazil, explained that the law on ports establishes that port activity is subject to the preparation of environmental studies along with studies for development and zoning, and that there is also a system of environmental licensing for this activity. She also indicated that there are some minimum requirements for workers' safety in handling hazardous materials, as well

as training programs for environmental and workers' safety. See document COPAP/doc. 11/07.

Alvaro Vicencio, from the General Directorate of Maritime Territory and Merchant Marine (DIRECTEMAR) of the Chilean Navy, explained that said agency is in charge of safeguarding the environment and natural marine resources, and regulating activities therein. He pointed to the use of environmental rules in ports, and the novel creation of a manual to quantify externalities for port projects, which is still being considered for mandatory enforcement. See document COPAP/doc. 12/07.

Ricardo Vallejo from the National Port Administration of Uruguay (ANP) explained that the focus of environmental management in the port of Montevideo is the environmental management technical unit. It conducts its activities in close coordination with the executive committee on environmental ports management, in which other entities are represented, such as the Ministry of Health and the Environment, Municipal Superintendents, the National Port Bureau, the Naval Prefecture, Fire Fighters, port operators, etc. Most of the activities of the technical unit concentrate on water quality and river contamination, after campaigns were launched to clean the submarine beds and streams that empty into the ocean, remove floating waste, and to detect the presence of some invasive species brought in by ballast water emptied in the bay. This environmental consciousness led to the recycling of paper used by the company, which yielded 5 tons of waste monthly, and which showed that it is possible to do some components of environmental management profitably. See document COPAP/doc. 15/07.

Gregory Hall of the U.S. Maritime Administration (MARAD) pointed out the close connection between environmental protection and the health of the coastal populations, and that protection of the marine and coastal environment was contingent upon sources of land and ocean contamination. He explained that the economic impact of U.S. ports was significant, as they provide almost 5 million jobs and around $44 billion dollars in personal income. Thus a network for the environmental regulation of port activities had been established on several levels: federal, state, county, and municipal. He clarified that all activities related to protection of the coasts and marine environment fall within international agreements, and are complemented by more specific federal legislation. He mentioned, for example, the 1972 London Convention and its 1996 protocol on dredging activities. He spoke about the advantages that would come from an agreement on the recycling of ships, as is currently being negotiated within the IMO, given the tonnage that will be scrapped in the coming years, and the advantages of progressively expanding the ban on harmful substances in anti-fouling paints used on ship hulls. As for marine protection of the Wider Caribbean, he stated that the 1983 Cartagena Convention was the appropriate framework, given that it not only includes marine sources of contamination, but also contamination from land-based sources, whether or not they are limited in time or space, and atmospheric pollution. He pointed out that the 1990 Specially Protected Areas and Wildlife Protocol (SPAW) was a harbinger of using the ecosystem approach to conserve the environment. However, since this protocol has not been ratified by a majority of countries, and since the 1999 Protocol on Marine Pollution from Land-Based Sources has not yet entered into force, the speaker exhorted the countries to ratify them. As regards operations, he stated that there are several standardized processes for the implementation of environmental impact studies in which the public's participation is expressly recognized. He closed by stressing that environmental protection activities

always go hand-in-hand with activities to protect human health. See document DCOPAP/doc. 13/07.

Joel Méndez from the Ministry of Communications and Transport of Mexico mentioned that the environmental impact of port activity is recognized both in the construction phase and in the operations phase, and that there is a policy to prevent and mitigate such impacts. There is a program to certify companies that comply with ISO 14000 as clean companies. There are more specific programs for the handling of hazardous residues, ballast waters, fire prevention, and contingency plans for oil spills in the ocean. See document COPAP/doc. 14/07.

Klaus Essig of INEA, Venezuela, spoke about a mandatory process that port and coastal developers and promoters must follow, whose purpose is to protect the environment. He explained that there is an information system which catalogues activities susceptible to environmental degradation, which was prepared through a comprehensive safety approach of: industrial security; workers' health and safety; and protection of the environment. See document COPAP/doc. 16/07.

Fifth Plenary Session

The session was held at 9:00 a.m. on Friday, April 13, 2007. It was chaired by the Second Vice-Chairman of the Conference, Mr. Carlos Borja from the Maritime Port Authority of El Salvador. The following agenda item was discussed:

Environmental considerations for the development of port infrastructure (agenda item 5(v))
This part was also moderated by Mr. Carlos Borja, and three speakers participated.

Daniel Muschett from the Panama Canal Authority, made a succinct presentation on the main features of the Canal's expansion. After reciting the basic elements of the environmental component of the project, he reported that the expansion with a third set of locks is expected to have a relatively limited impact on the environment. The reason for this is that 70% of the work will be done in areas colonized by white straw and haulm, and the rest is 500 hectares of secondary fragmented forests. A reforestation and restoration program is planned, which would include the creation of protected areas in which wildlife affected by the project would be rescued and relocated. As for air and water quality, it is expected that there will primarily be a temporary impact of suspended particles during the construction phase. They have decided to use appropriate techniques to limit the effects of noise and vibrations from the explosions. Similarly, they will use known areas for the deposit of dredged materials, making use of curtains and devices to minimize the turbidity. See document COPAP/doc. 34/07.

Andrés Guerra from the Port Authority of La Coruña, Spain, explained that the strategic environmental selection of Punta Langosteira as the site for the new port included seven alternative locations. The choice made allows for a canal which tankers of up to 310,000 deadweight tons can navigate without dredging in rock, and a radius of curvature of 2 km. which also would not affect the neighboring beaches or the Nature 2000 Network. He reported that exhaustive environmental impact studies have been done on the soil reserves and water mirror. In the planning phase they have looked at the new port uses, new access points by road and railway, and logistical and industrial uses. They have also established an environmental surveillance plan for the construction phase to detect any departures from the

expected effects. For the operations phase they are planning environmental management of activities according to ISO 14,000, as well as rational use of natural resources such as the installment of Aeolian generators, and studies to tap ocean wave energy. See document COPAP/doc. 35/07.

Bernard Link, Regional Environmental Director of the U.S. State Department in San Jose, Costa Rica, said that concerns over the environmental impact of dredging activities are covered by four laws: National Environmental Policy Act, Clean Water Act, Coastal Zone Management Act, and the Endangered Species Act. He mentioned that only 4% of dredged materials, between 3 and 12 cubic yards annually, are considered to be contaminated. Special processes and deposit sites are used for this material, and generally speaking, mitigation projects are required, such as the restoration of Batiquitos Lagoon in Los Angeles. See document COPAP/doc. 44/07.

Regional code projects for environmental port conduct (agenda item 5(vi))

There was a panel of two speakers, moderated by Prefect Norberto Venerini of the Naval Prefecture of Argentina.

Ana Brunet of the Ibero-American Institute of Maritime Law gave a presentation on the reasoning behind the idea for an environmental code of conduct for the region. She gave a history of how environmental problems have been addressed since the 1970s, and concluded that there had been a movement from direct regulation to indirect regulation based on economic instruments. However, at present the voluntary agreements for self-regulation provide the more effective means of protecting the environment. She presented an exhaustive list of the advantages, including the flexibility of the regulations and the closing of legal loopholes. She also cited some disadvantages: negotiation costs, lack of transparency, and credibility. See document COPAP/doc. 36/07.

Juan Manelia from COCATRAM presented the Environmental Code of Conduct for Port Management in Central America (COPUCA). He explained that the current version is still being discussed by the port authorities, REPICA, and the environmental authorities of Central America. The code is based on the principle of precautions and shared, but differentiated, responsibility among various players. It indicates obligations and rights, and includes a sanctions regime. See document COPAP/doc. 37/07.

Training, technical cooperation, and the financing of environmental port projects (agenda item 5(vii))

This was a panel of two speakers, and was also moderated by Prefect Norberto Venerini of the Naval Prefecture of Argentina.

Santiago Montmany from the State Port Authority of Spain, gave an exhaustive presentation on the training activities that the Spanish port system has included in its cooperation plans for Ibero-America. These include short course on specific topics, such as the planning and operation of ports, which last a few weeks. There are also Master's programs on topics such as port management and transportation; these are for longer periods of time and may lead to a degree. Additionally, there are internships and an on-line course. Financing is available for most of these training programs. In most of the courses the environmental components are included in the syllabus. He mentioned that the 18-month Master's program on the

comprehensive management of coastal zones gives the most complete coverage of environmental issues. See document COPAP/doc. 38/07.

Benjamín Couzigou from the IMO gave a detailed presentation on the status of the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, adopted in 1983, and its protocols. He explained that the Convention, which entered into force in 1986, has three protocols: the Protocol Concerning Cooperation in Combating Oil Spills in the Wider Caribbean Region, in force since 1986; the Protocol Concerning Specially Protected Areas and Wildlife in the Wider Caribbean Region (SPAW), in force since 2000; and the Protocol on Marine Pollution from Land-based Sources and Activities (LBS), which was adopted in 1999 and has not yet entered into force. He added that an intensive training and technical assistance program is currently underway, to promote enforcement of the first protocol as well as the Annexes to MARPOL 73/78. See document COPAP/doc. 39/07.

Sixth Plenary Session

The session was held at 1:00 p.m. on Friday, April 13, 2007, and was chaired by Mr. Rubén Arosemena, Chairman of the Conference. Agenda item 6 was covered: Consideration of the Conclusions and Recommendations document presented by the Maritime Authority of Panama. Ms. Zoila Yanisselli from the AMP, coordinator of the Conference and delegate of Panama, was in charge of this. She read the Conclusions and Recommendations presented by the Maritime Authority of Panama, as found in Annex C.

Closing Session

This session started at 1:30 p.m. on April 13, 2007, under the chairmanship of Mr. Rubén Arosemena, Second Vice President of the Republic of Panama. Mr. Francisco Pastrana spoke on behalf of the Executive Board of the CIP. He thanked the AMP and the government of Panama for its excellent organizing job and the success of the Conference. Next, Mr. Carlos M. Gallegos, Executive Secretary of the CIP, pointed out the scope of the conclusions and recommendations, noting the importance of bringing these to the CIP for its knowledge and approval. Finally, the Chairman of the Conference, Mr. Rubén Arosemena, thanked the participants for their work, dedication, and for the conclusions and recommendations made. He also thanked the Secretariat of the CIP for its support in bringing about the success of the Conference. He adjourned the meeting.