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INTERGOVERNMENTAL REVIEW MEETING ON THE
IMPLEMENTATION OF THE GLOBAL PROGRAMME OF ACTION
FOR THE PROTECTION OF THE MARINE ENVIRONMENT
FROM LAND-BASED ACTIVITIES

First meeting

Montreal, Canada 26-30 November 2001

THE CLEARING-HOUSE MECHANISM OF THE GLOBAL PROGRAMME OF ACTION FOR THE
PROTECTION OF THE MARINE ENVIRONMENT FROM LAND-BASED ACTIVITIES:
A PROGRESS REPORT AND POSSIBLE WAY FORWARD

I. Introduction

1. International cooperation through the development of a clearing-house mechanism (CHM) is a critical pillar of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA).
2. The GPA defines the CHM as a referral system through which decision-makers at the national and regional level are provided with access to current sources of information, practical experience, and scientific and technical expertise relevant to developing and implementing strategies to deal with the impacts of land-based activities. The aim of the CHM is to enable decision-makers to establish rapid and direct contact with the organizations, institutions, firms and/or individuals most able to provide relevant advice and assistance. The GPA, therefore, foresees the CHM as a mechanism for responding to requests from governments on a timely basis. The form and content of the GPA clearing-house mechanism are fully documented in Paragraphs 42 – 49 of the GPA (UNEP/GPA-CH.2/INF.1), attached as Annex I.
3. The purpose of this document is to provide an overview of the activities undertaken by the UNEP GPA Coordination Office pertaining to the development of the CHM. It describes the progress made in the establishment of the CHM, and elaborates briefly on possible steps and actions to further consolidate and develop the CHM.

II. Background

4. The UN General Assembly, in resolution 51/189, 1996, designated UN agencies to take a leading role in the development of data directories for the pollutant source categories identified in the GPA. The following table summarizes the allocation of UN agencies to the pollutant source categories:

Pollutant Source Category	Designated UN Lead Agency
Sewage	World Health Organization (WHO)
Persistent Organic Pollutants	United Nations Environment Programme (UNEP)
Radioactive Substances	International Atomic Energy Agency (IAEA)
Heavy Metals	United Nations Environment Programme (UNEP)
Oils (Hydrocarbons)	International Maritime Organization (IMO)
Nutrients	Food and Agricultural Organization (FAO)
Sediment Mobilization	Food and Agricultural Organization (FAO)
Litter	International Maritime Organization (IMO)
Physical Alterations and Destruction of Habitats	United Nations Environment Programme (UNEP)

5. Since the Washington Declaration in 1995 and prior to the establishment of the GPA Coordination Office, a few meetings were held and a number of reports and documents were prepared concerning the establishment of the clearing-house mechanism. These included:

- Technical Meeting on the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities Clearing-house, 26 October 1996, Geneva (Report of the Meeting)
- Report on Options for the GPA Clearinghouse Implementation, September 1998 (S.G. Blake, Environment Australia)
- Development of a Sewage Information Clearing House, October 1998 (M. Kutlar, World Health Organization)

6. Commensurate with the establishment and full staffing of the GPA Coordination Office in 1999, development of the CHM began in greater earnest. One of the first activities was to initiate and coordinate a Technical Meeting of Clearing-House Decision Makers, 10 – 12 May 1999, hosted by the GPA Coordination Office in The Hague. The meeting provided a constructive review of the status of clearing-house activities and possible implementation options. However, the meeting did not establish a detailed work plan for the way forward, nor was there sufficient discussion on the means to effectively engage the UN agencies to meet their clearing-house pollutant source category obligations.

7. There was also general consensus that there were insufficient resources available to develop an effective clearing-house mechanism. Based on the experience of the experts who have designed and implemented similar national and international clearing-houses, it was estimated that the GPA clearing-house mechanism could cost a minimum of one million US Dollars to design and implement over two years. This estimate assumed that each of the UN agency source category nodes could require up to \$150,000 US each and that the GPA Coordination Office could need an additional \$200,000 US to implement the central node. Those estimates included in-kind services by lead UN agencies, but did not include internal personnel costs. The costs of maintaining the clearing-house over time would be substantially lower than the initial costs of developing and implementing the service.

8. The GPA Coordination Office recognised that it was essential to make some substantive progress, as quickly as possible, with the development of the CHM. Despite having only minimal funds available, a

goal was established to fast-track the development of the central site of the CHM and to launch it at the UN General Assembly Special Session on Small Island Developing States (SIDS) in September 1999. The central site was developed in less than 3 months in partnership with the USGS EROS Data Center and UNEP GRID Sioux Falls (USA), and successfully launched at SIDS by the UNEP Executive Director.

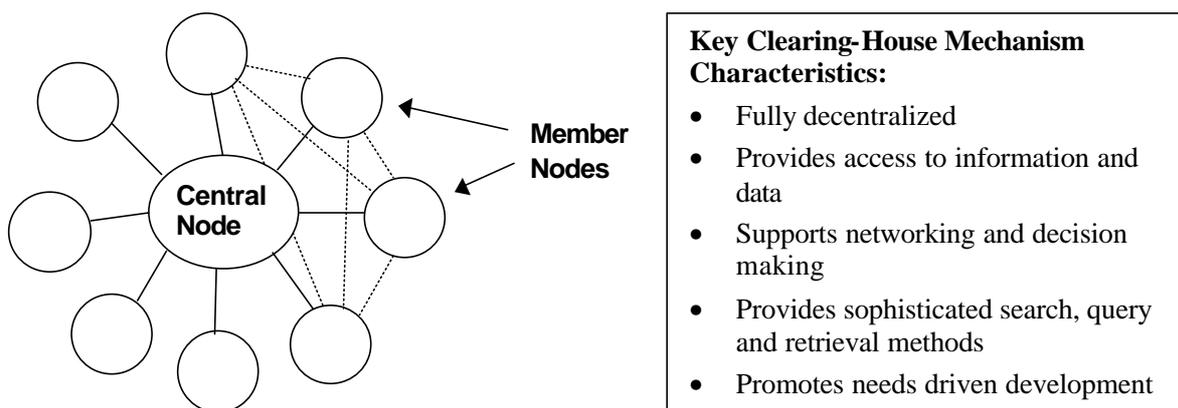
9. In parallel with development of the central site, the GPA Coordination Office also began to work with the designated UN lead agencies to facilitate the development of their pollutant source category sites. A number of the UN agencies were provided some seed funding by the GPA in order to initiate CHM activities. Section IV outlines the current state of development for the pollutant source category sites.

10. At a regional level, the regional seas programmes provide an institutional framework for implementing GPA clearing-house activities. The GPA Coordination Office has initiated two pilot projects in collaboration with the South Pacific Regional Environment Programme (SPREP) and the Caribbean Environment Programme (CAR/RCU). The aim of these pilot projects is to conduct a needs evaluation, prepare a strategic workplan, and develop prototypes of the regional sites. The status of these developments is outlined in Section IV.

III. Structure and Characteristics of the CHM

11. The GPA Coordination Office and development partners established general guidelines for the adoption of internationally recognised standards, common tools and other elements necessary to establish the structure and technology that underpins the clearing-house mechanism. The structure is based on the premise that the Internet and the World Wide Web (WWW) provide the necessary capability and capacity to link the disparate sites that comprise the CHM, and that accessibility to the Internet can be enjoyed by GPA CHM users throughout the world. This assumes, of course, that all potential users would have access to the Internet, which is certainly not the case.

12. The GPA clearing-house mechanism promotes the advertising, discovery, access, dissemination and use of information and data held by numerous organizations using the decentralized capabilities of the Internet. In its simplest definition, the clearing-house can be viewed as a 'network of networks'. The diagram below helps to illustrate the concept and main characteristics of the CHM.



13. The CHM provides structured queries and searches to member sites, while a typical Website will search the whole of the World Wide Web (WWW), which often results in considerable work by the user to

filter and find the information that is required. The clearing-house also brings relevant information sources together in an organized and consistent manner through the use of standards, guidelines and a common suite of tools and functions.

14. For this reason, the UNEP GPA Coordination Office utilized the concept of a "node" to define each member site participating in the network. These nodes are coordinated through a central node, or central site, which provides a suite of common elements that are shared by all sites. The role of the central node is not to control, but rather to facilitate and coordinate the information delivery mechanism. In effect, the CHM is 'owned' by the participants. The result of this process is to place the responsibility for quality, timeliness, maintenance, access and related issues on the initial producer or provider of information. This is an important and sometimes sensitive issue for most governments and international organizations, as they often want to retain full responsibility and control over their own Internet sites and the maintenance of the content.

15. For users with poor or no Internet access, it is planned to make critical components of the CHM available on CD-ROM for distribution, especially to users in developing countries. The CD-ROM created for the Global Marine Litter Information Gateway, to be introduced at a side event coordinated by the Swedish EPA at this Intergovernmental Review Meeting of the GPA, provides an excellent example of such a product. Additionally, e-mail and list servers are increasingly being used to reach out to large numbers of users, while wherever possible, the production and distribution of hardcopy material will be produced and widely disseminated.

IV. Status of the CHM

16. The status of development, Web site address, lead agency, and the actual implementing agencies and major partners that are responsible for each clearing-house node is summarized in the following table. A more detailed description and status on the development of the individual pollutant source category and the regional nodes can be found in Annex II.

Pollutant Source Category / Regional Sea	Assigned Lead Agency	Actual Implementing Agency(ies) / Partners	Status of Development
Central Node www.gpa.unep.org	UNEP GPA	UNEP GPA / EROS, GRID, Netherlands	Launched
Sewage www.sanicon.net/gpa and www.sanicon.net	WHO	SANICON / WHO, UNEP GPA, World Bank WSP, IWA, WSSCC	Launched
Persistent Organic Pollutants pops.gpa.unep.org	UNEP	UNEP Chemicals / Nordic Council of Ministers	Prototype
Radioactive Substances	IAEA	IAEA	Internal Prototype
Heavy Metals heavy-metals.gpa.unep.org	UNEP	UNEP Chemicals	Prototype
Oils (Hydrocarbons) www1.imo.org/oilweb	IMO	IMO / Environment Canada	Prototype
Nutrients www.fao.org/gpa/nutrients/nutintro.htm	FAO	FAO / UNEP GPA	Prototype

Pollutant Source Category / Regional Sea	Assigned Lead Agency	Actual Implementing Agency(ies) / Partners	Status of Development
Sediment Mobilization www.fao.org/gpa/sediments/sedintro.htm	FAO	FAO / UNEP GPA	Prototype
Litter marine-litter.gpa.unep.org	IMO	Swedish EPA / UNEP GPA, OSPAR, IMO, Environment Canada	Launched
Physical Alterations and Destruction of Habitats www.unep.org/unep/gpa/padh/	UNEP	UNEP DEWA / UNEP GPA	Prototype
Wider Caribbean www.cep.unep.org/gpa/index.htm	UNEP CAR/RCU	UNEP CAR/RCU / UNEP GPA	Prototype
South Pacific	SPREP	SPREP / UNEP GPA	Under Development

17. Since its launch, the central node, which also serves as the Web site of the GPA Coordination Office, has been regularly updated with current information and enhanced with new features to increase functionality and ease-of-use. A visitor to the central node is able to:

- Search, discover and access information and data about the GPA and the implementation of GPA programmes and activities;
- Obtain background information on the pollutant source categories, and directly link to the UN agencies and the pollutant source category nodes;
- View on-line or download, in Word or PDF format, GPA documents, reports, meeting information, and other publications;
- Obtain current information about meetings and other activities of the GPA Coordination Office, as well as relevant contact information and staff;
- Obtain further information about the GPA Clearing-House Mechanism and link directly to other CHM nodes;
- View background information, contact information, maps, and links to the Regional Seas programmes;
- Link to other GPA partner and stakeholder sites;
- Search a user updateable Web links database;
- Provide comments and feedback; and,
- Perform basic and advanced text searches, as well as metadata searches for spatial information.

18. Key GPA partners, such as the Secretariat of the Convention on Biological Diversity (CBD) and the Integrated Coastal Management (ICM) Global Web Service, have been closely working with the GPA Coordination Office to implement integrated and cross-linked CHM components. The CBD sites are located at www.gpa.unep.org/partners/gpa-cbd/ and www.biodiv.org/chm/gpa-chm.asp, while the ICM site is located at icm.noaa.gov/gpa/index.html.

19. A number of countries have also developed national level clearing-houses on the GPA. The CHM provides an ideal platform and dissemination vehicle for National Programmes of Action. These national sites have tended to evolve quite independently of the GPA CHM, and therefore do not necessarily conform to the standards or use a compatible architecture. Governments may wish to address this issue,

along with other questions concerning the development of national-level GPA clearing-houses, including funding issues, at future discussions on the CHM.

20. The GPA Coordination Office is working closely with the UNEP Division of Early Warning and Assessment (DEWA) in cooperative UNEP.Net developments. The UNEP.Net initiative is a clearing-house type portal to search and discover information and data spread throughout numerous sites maintained by UNEP divisions and offices around the globe. In essence, it is the central node of a 'super' UNEP-wide corporate clearing-house mechanism. The UNEP.Net initiative and the GPA CHM will be fully cross-compatible using the same underlying standards for metadata, indexing, searching and other critical elements. It is planned to develop a GPA/Regional Seas application to demonstrate how UNEP.Net can be used to effectively manage GPA relevant information and data, especially spatial information.

21. UNEP Governing Council decision 21/10, 2001, encourages UNEP to further develop, through the Global Resources Information Database (GRID), cooperative programmes to share environmental data through a Web-based geographic information system. The GPA Coordination Office plans to develop this capability as a component of the UNEP.Net initiative, above, in close consultation with the GRID offices that are also actively engaged in the development of UNEP.Net.

22. An indicative measurement of relative number of CHM users can be garnered from Web statistics generated for the central node. In general, page requests have been increasing since launch of the site in September 1999. Current usage is now averaging over 330,000 requests per quarter. The table in Annex III provides an overview of the usage statistics for the central node of the CHM, listed by quarter since year 2000. Additional, more detailed and current statistics can be obtained at www.gpa.unep.org/stats.

V. Possible Way Forward for the CHM

23. The basic structure and considerable content of the GPA clearing-house mechanism has been established. However, it is clear that much remains to be done to make the CHM not only a special platform of international cooperation, but also a tool for capacity building to address the needs of countries in need of assistance.

24. Although many Governments and other stakeholders have expressed satisfaction with the GPA CHM, the overall pace of development and status of many clearing-house activities has been slower than desired. Chronic under-funding and insufficient human resources, especially technical resources, have severely hampered progress. Nonetheless, the infrastructure is mostly in place and the mechanism is in a state that can easily be populated with appropriate content as it becomes available.

25. The Global Programme of Action sees the CHM as a major tool for mobilizing experience and expertise by facilitating effective scientific, technical and financial cooperation and capacity building. As such, the CHM underpins almost all activities in the implementation of the GPA. A proposed future direction for the CHM would have the following focus:

- (a) A demand-driven approach;
- (b) The full involvement of users;
- (c) The development of regional and national nodes;

- (d) The further development of source category nodes by lead partner organizations of the United Nations;
- (e) Making connections with other clearing-houses and similar initiatives.

26. In addition, it is proposed that the Clearing-House Mechanism will be used to track and mobilize financial resources and to increase the transparency of investments relating to the implementation of the Global Programme of Action.

27. The table in Annex IV presents the details of the UNEP proposal for the next phase of the GPA CHM, with indicative costs for the Coordinating Office. The CHM work programme has been developed for three different levels of funding and activities are detailed at minimum, intermediate and appropriate funding levels, on an annual basis. Further detail and a guide to the full GPA work programme can be found in UNEP/GPA/IGR.1/6 Annex I.

Annex I

Form and Content of the Clearing-House Mechanism

Paragraphs 42 - 49; Report Of The Intergovernmental Conference To Adopt A Global Programme Of Action For The Protection Of The Marine Environment From Land-Based Activities

Washington D.C., 23 October - 3 November 1995

UNEP(OCA)/LBA/IG.2/7

42. As a means of mobilizing experience and expertise, including facilitation of effective scientific, technical and financial cooperation, as well as capacity building, States should cooperate in the development of a clearing house-mechanism, i.e., a referral system through which decision makers at the national and regional level are provided with access to current sources of information, practical experience and scientific and technical expertise relevant to developing and implementing strategies to deal with the impacts of land-based activities. The referral system would be designed to allow decision makers to establish rapid and direct contact with organizations, institutions, firms and/or individuals most able to provide relevant advice and assistance. It would therefore be a mechanism for responding to requests from national Governments on a timely basis. The clearing-house would consist of three basic elements:

- (a) A data directory, with components organized by source-category, cross-referenced to economic sectors, containing information on current sources of information, practical experience and technical expertise;
- (b) Information-delivery mechanisms to allow decision makers to have ready access to the data directory and obtain direct contact with the sources of information, practical experience and technical expertise identified therein (including the organizations, institutions, firms and/or individuals most able to provide relevant advice and assistance);
- (c) Infrastructure - the institutional process for developing, organizing and maintaining the directory and delivery mechanisms.

43. **Data directory.** The data directory would include a component for each source-category delineated in this Programme of Action. Each such component would contain descriptions and contact information for each existing database and source of practical information and technical expertise. The descriptions and contact information would allow decision makers to determine which sources of information, experience and expertise are most relevant in a given situation and to contact these sources quickly. A key prerequisite for maintaining the directory is regular review of the description and contact information to ensure that it is up-to-date. For each source-category, the relevant databases and sources of information, experience and expertise are likely to be dispersed among a large number of institutions and repositories, including global and regional organizations and national Governments, the private sector and non-governmental organizations. These institutions and repositories should be fully involved in the development of the data directory component for that source-category. In this way, the directory and its components should be built upon, not replicate, the work of organizations such as the World Bank, the United Nations Development Programme (UNDP), UNEP, including the UNEP International Cleaner Production Information Clearing-house (UNEP/ICPCI), the International Atomic Energy Agency (IAEA), the International Maritime Organization (IMO), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Center for Human Settlements (UNCHS) (Habitat), the United Nations Industrial Development organization (UNIDO), the World Health Organization (WHO) and the Arctic Monitoring and Assessment Programme (AMAP). It should in addition make full use of the Small Island

Developing States Network (SIDS-NET). Where appropriate, it should also draw upon the work of other intergovernmental and non-governmental organizations and the private sector.

44. Each data-directory component should be organized so as to identify:

(a) Sources of current information, practical experience and technical expertise on:

- (i) The nature, pathways, fate and effects of the contaminants or other forms of degradation, including data-quality assurance techniques;
- (ii) Standards and reference methods for monitoring contamination, as well as its concentrations, or other forms of degradation, including biological effects monitoring and data-quality assurance techniques;
- (iii) Policies, measures and strategies for action, including mobilization and generation of resources, that have been successfully applied (and those that have been unsuccessful) in addressing activities generating the source-category contaminants or other forms of degradation (what works and what does not); and
- (iv) Economically rational, environmentally sound and cleaner practices, techniques and technologies to prevent, mitigate and / or control adverse impacts on the marine environment of land-based activities;

(b) Sources of relevant information:

- (i) In international and regional organizations (including non-governmental organizations) with relevant expertise and experience; and
- (ii) Concerning intergovernmental and private sources of assistance, scientific, technical and financial, including such matters as the terms and conditions for the provision of such assistance.

45. **Information-delivery mechanisms.** The clearing-house mechanism must include simple and widely available means of gaining entry to the directory and retrieving information from its components, including directing inquiries to the organizations, institutions, firms and/or individuals most able to provide relevant advice and assistance. In other words, the data directory must be easily accessible to decision makers on a real-time basis. The objective would be use-friendly access to the data directory and its components through electronic means. The World Wide Web on the Internet offers such a basic mechanism. It is recognized, however, that the Internet is not universally available. It is important, therefore, to also use and build upon existing information-delivery systems, including the UNDP network of resident representatives, INFOTERRA, and linked regional systems including the secretariats of regional seas and other regional conventions.

46. **Infrastructure.** The development, organization and maintenance of the data directory and its components and the delivery mechanisms have both specified (source-category) and general dimensions. At the general level, an inter-organizational group should be established by the relevant international organizations to coordinate the basic design and structure of the data directory as well as its linkages to information-delivery mechanisms. This group would be responsible for establishing a common format for the individual source-category components and for cross-referencing among components. It would include representatives of each lead organization responsible for coordinating development of individual data-directory components, those responsible for information delivery mechanisms, and experts on information technology and other relevant fields.

47. For each source-category component of the data directory, a lead organization should be designated to convene or designate a group of experts to develop the content of specific entries for that component. Issues such as ensuring that entries meet quality and relevance criteria and keywords or search items relevant to the source-category would also be the responsibility of each group of experts. There would be provision to reconvene each such group periodically to update the source-category component, including ensuring that the sources of information, practical experience and technical expertise are relevant and do represent the best sources.

48. Recognizing that many developing States may not have the necessary capacity to benefit from the clearing-house mechanism, this process of implementation should provide for capacity-building, including technical training and infrastructure development.

49. The clearing-house mechanism should be designed to include feedback functions to provide for its refinement and evolution to meet the needs of its users. These feedback functions include:

- (a) Identification of data and information gaps and recommendations as to how to address such gaps;
- (b) Identification of training and infrastructure requirements for those using the clearing-house mechanism;
- (c) Provision for establishment of links between the clearing-house mechanism and regional agreements, institutions and centers holding information, experience and technical expertise of specific relevance to the regional concerned.

Annex II

Status of Development of the Pollutant Source Category and Regional Seas Nodes

1. **Sewage** - the World Health Organization (WHO) coordinated a consortium of collaborating centres and partner organizations to create an environmental sanitation clearing-house network called 'Sanitation Connection'. UNEP is a founding partner in this initiative and, along with WHO, developed a GPA Sanitation Connection Links node to provide GPA users with direct access to relevant sewage related information that exists in Sanitation Connection. The node was formally launched in November 2000 and has since been promoted at a number of sanitation related events throughout 2001. The development was spurred by the provision of seed funding by the GPA and the signing of a Letter of Agreement in December 1999.
2. **Nutrients and Sediment Mobilization** - the Food and Agriculture Organization of the United Nations (FAO) signed a Memorandum of Understanding with the GPA in December 1999. The GPA also provided some seed funding to develop a prototype node. In late March 2000, a FAO consultant delivered a draft proposal and work plan, along with a template for the prototype clearing-house node. Considerable effort has been underway to develop content and to develop the node structure and user interface. A preliminary prototype of both pollutant source category nodes is now available on-line.
3. **Oils (Hydrocarbons) and Litter** - the International Maritime Organization (IMO) worked closely with Environment Canada to develop a prototype node on Oils and Litter. A review meeting of the prototype node, coordinated by the GPA in November 2000, recommended the splitting of the two source categories into separate nodes and to coordinate a global-level marine Litter Web initiative that the Swedish EPA was considering to develop in cooperation with the OSPAR Secretariat. Subsequently, the Swedish EPA, OSPAR, and GPA, in close consultation with IMO and Environment Canada, participated in the development of an extensive global node on Litter, which was first available on-line in April 2001.
4. **Radioactive Substances** - the International Atomic Energy Agency (IAEA) and the GPA signed a Joint Workplan in March 2000. IAEA has contracted with consultants to develop a work plan and to initiate development of a prototype node. Work on the site has been sporadic since August 2000, although recent meetings have been held with consultants to resume work on the initiative.
5. **Persistent Organic Pollutants (POPS)** - the prototype POPs node was developed by UNEP Chemicals (Geneva), in consultation with the GPA Coordination Office. The Nordic Council of Ministers provided a grant to assist with the development of the POPs node. The prototype node was made accessible in April 2001.
6. **Physical Alterations and Destruction of Habitats (PADH)** - the UNEP Division of Early Warning and Assessment (Nairobi) coordinated the development of the prototype PADH node that was launched, along with the central node, at UNGASS SIDS in September 1999. Enhancements and further expansion of this node are being planned in conjunction with the major GPA project on PADH commencing in late-2001 through 2002.
7. **Heavy Metals** - UNEP Chemicals (Geneva) provided seed funding and in-kind resources to develop a heavy metals node comprised of existing GPA relevant information and data. A consultant developed a work plan and a prototype node that was made accessible as of April 2001.
8. **Wider Caribbean Region** – the UNEP Caribbean Environment Programme (CAR/RCU) coordinated the preparation of a needs evaluation and clearing-house work plan. This GPA funded pilot

project which was completed at the end of March 2000. Work immediately began on the development of a prototype node, based on existing content, and was made available on-line in November 2000.

Consultations with potential donors to try and obtain funding to implement activities outlined in the clearing-house work plan have been ongoing. Specific activities are being planned with CAR/RCU and the GPA Coordination Office to undertake additional clearing-house projects in 2002.

9. **South Pacific Region** - the South Pacific Regional Environment Programme (SPREP) undertook a pilot project to conduct a needs evaluation and to prepare a strategic work plan to develop a regional GPA clearing-house node. Subject to funding and resource availability, it is planned to develop a prototype node as soon as possible. The prototype node would also be used to demonstrate the functions and capability of the regional node to potential donor organizations and governments.

Annex III

Example GPA Quarterly Web Statistics

The quarterly report shows total activity for each quarter of a year for the central node of the GPA clearing-house mechanism. Each page request can result in several server requests as the images for each page are loaded. Additional Web statistics on the central node of the GPA clearing-house mechanism are available on the CHM at www.gpa.unep.org/stats.

Note: Most likely, the first and last quarters will not represent a complete quarter's worth of data, resulting in lower numbers of page requests.

Quarter		Number of page requests	Number of bytes transferred
1.	Q1 2000	81,137	Unknown
2.	Q2 2000	179,409	Unknown
3.	Q3 2000	133,004	Unknown
4.	Q4 2000	264,282	Unknown
5.	Q1 2001	330,012	Unknown
6.	Q2 2001	349,570	Unknown
7.	Q3 2001	335,300	2.983 GB
8.	Q4 2001	209,147	2.368 GB

Report time frame February 4, 2000 to November 4, 2001.

Annex IV

Clearing-House Mechanism			Cost/year
Activities	Examples of Outputs.	Partners	US\$
<p style="text-align: center;">M I N I M U M</p> <p>The GPA office will continue to build the GPA Clearing-House in cooperation with United Nations partners. All information emanating from GPA Coordination Office activities will be made available through the clearing-house. Development of the clearing-house is included in all projects and fundraising proposals.</p> <p>Specific activities include:</p> <ul style="list-style-type: none"> ➤ Central node maintenance, content creation, enhancements, additional components and improving functionality; ➤ Web-based Geographical Informative Science (GIS) applications development; ➤ Support for United Nations agency pollutant source category nodes; ➤ Development of proposals for funding; ➤ Making the connections with other relevant clearing houses; ➤ Development and maintenance of nodes in selected Regional Seas Programmes. 	<ul style="list-style-type: none"> ➤ Operational central node; ➤ Link with UNEP.Net and other relevant Websites; ➤ Templates and search tools; ➤ Source category nodes further developed by United Nations agencies; ➤ Proposals for fundraising. 	<p>UNEP/DEWA, GRID, UNEP.Net; United Nations agencies, in particular WHO, FAO, IAEA and IMO; Donor agencies; Governments, Regional Seas.</p>	30,000
<p style="text-align: center;">I N T E R M E D I A T E</p> <p>The GPA office will develop the necessary clearing-house content and networks to support the projects on the various pollutant source category projects (see activity cluster) and the activity clusters (f), (g), (h) and (i).</p>	<ul style="list-style-type: none"> ➤ Enhanced pollutant source category nodes including information on best practices and experiences in dealing with, for example, municipal wastewater; ➤ Links with relevant Websites; ➤ Directories on financing, experts, projects, technologies, capacity development and GIS capability; ➤ Inventories to track investments in the water sector. 	<p>Regional and national partners, Regional Seas, UNEP/Regional Offices, WHO, FAO, IAEA, IMO, UNEP donor agencies, the private sector, regional seas, non-governmental organizations,</p>	300,000

Clearing-House Mechanism			Cost/year
APPROPRIATE	<ul style="list-style-type: none"> ➤ The GPA office will initiate and coordinate the establishment of additional regional and/or national nodes and ensure the necessary linkages with regional and national clearing-house nodes serving other multilateral agreements; ➤ The activities described under the minimum budget level will be further developed and the functions of the clearing-house will be further enhanced. 	<ul style="list-style-type: none"> ➤ Enhanced central node and pollutant source category nodes; ➤ National and regional clearing-house nodes integrated with other relevant national or regional clearing-houses. 	<p>Governments, Regional Seas, United Nations agencies and their regional bodies, UNEP.Net and GRID, donor agencies, non-governmental organizations, and other relevant clearing-houses.</p> <p>100,000 per node/country/region</p>