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USAGE ANALYSIS OF THE CONVENTION ON BIOLOGICAL DIVERSITY WEBSITE

Note prepared by the Executive Secretary

I. INTRODUCTION

1. The website of the Convention on Biological Diversity is the Secretariat's primary information dissemination and communication mechanism, archive of documents, portal to other information resources and websites, and knowledge warehouse. Equally importantly, the Convention's website is also the principal entry point to the Convention used by most Parties and other stakeholders.

2. This document was prepared by the Executive Secretary to bring to the attention of the Parties an updated picture of the usage of this critical instrument of information gathering and sharing, as well as of scientific and technical cooperation. The analysis contained herein is intended to assist Parties when considering further guidance for the clearing-house mechanism. Section II provides a brief overview of the current status of dissemination of information technologies in the various regions, and asserts the need to carefully balance information-related activities between sophisticated, state of the art technologies and more traditional approaches. Section III describes the challenges and opportunities encountered when a statistical exercise such as this one is undertaken. It also reflects on the amount and usefulness of the information that may be obtained through the compilation of web statistics. Section IV contains general statistics on the use of electronic means of communication by the Parties, with particular attention to the imbalance in use by different regions. Section V concludes this document

II. BACKGROUND

3. Ensuring equitable access by regions to the Convention's Web-based communication tools and resources is an issue of special concern to the Secretariat, particularly since difficulties related to access faced by Parties may impact on national and/or regional efforts to fulfill obligations under the Convention. Inequitable access to new information technologies also impacts on the ability of Parties to participate effectively in Secretariat-related activities in support of the Convention's programme areas and cross-

* UNEP/CBD/COP/7/1 and Corr.1.

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cutting issues. This issue becomes pressing given the exponential growth in the use of the Internet, especially Web-based technologies, by United Nations organizations and secretariats. 1/

4. In an effort to mitigate the impact of poor access to new information technologies by many regions, the clearing-house mechanism developed a parallel information dissemination and communication system based on more traditional technologies requiring less technical overhead, such as fax and text-based electronic mail. With the installation of a fax server, for instance, the Secretariat is able to transmit multiple faxes through its work-stations, and so ensure timely receipt of information by Parties and stakeholders.

5. It is difficult, however, to have a fully accurate, up-to-date picture of difficulties faced by developing regions in accessing and using new information technologies. First, the heterogeneity in levels of development by Parties results in different levels of usage and access to expertise and resources. Second, access to new information technologies is not a static situation, and is dependent on a number of different factors. Third, Internet usage in developing countries has not been well researched, making it difficult to ascertain specific needs and usage trends. 2/ H owever, Internet usage continues to grow rapidly, and access in developing countries shows steady improvements.

III. INFORMATION GAINED FROM WEB STATISTICS

6. One of the tools assisting the clearing-house mechanism to respond to this evolving, dynamic environment include the compilation of statistics related to the development and establishment of clearing-house mechanism national focal points. These statistics are buttressed by other statistics on access and use of the Convention's website. These data give insight on who is (and is not) accessing what, when, where and how. They also offer some indication of the types of technologies used, and some of the problems encountered.

7. It is difficult, however, to determine with a high degree of accuracy exactly who is accessing the website. The problem in ascertaining the origin of Web requests is due to the way information is routed through the Internet when using Web protocols. A simple example of this difficulty is the case of an Internet user in Africa who has an America OnLine (AOL) account. In this case, it is likely that the system will consider a requested from such user as originating in the United States because of AOL's Internet domain name aol.com.

8. Another problem is linked to the automated systems developed to search the World Wide Web (WWW). These automated systems include the most popular search engines (Yahoo, Google, etc), and other systems from many organizations developed to compile Web-based information. Running on an automated, periodic and regular basis, they may skew Web access statistics, causing them to appear as the top users of the website.

9. It is important, therefore, to always keep these caveats in mind, and accept that statistics give at best an approximate overview of the usage and popularity of a website.

10. Even with these limitations, an analysis of the usage and traffic of the website may offer guideposts in the design of new information dissemination and communication mechanisms. They also guide the clearing-house mechanism in its choice of electronic tools that may require less technical

1/ "The creation of an electronic United Nations is essential for the realization of better communications externally, with Member States, non-governmental organizations (NGOs), and the public-at-large, as well as internally, both within the Secretariat and with the funds and programmes of the United Nations system." Information technology in the Secretariat: a plan of action, report of the Secretary-General (A/55/780), p.3

2/ See: International Telecommunication Union: ITU Internet Country Case Studies (http://www.itu.int/ITU-D/ict/cs/)

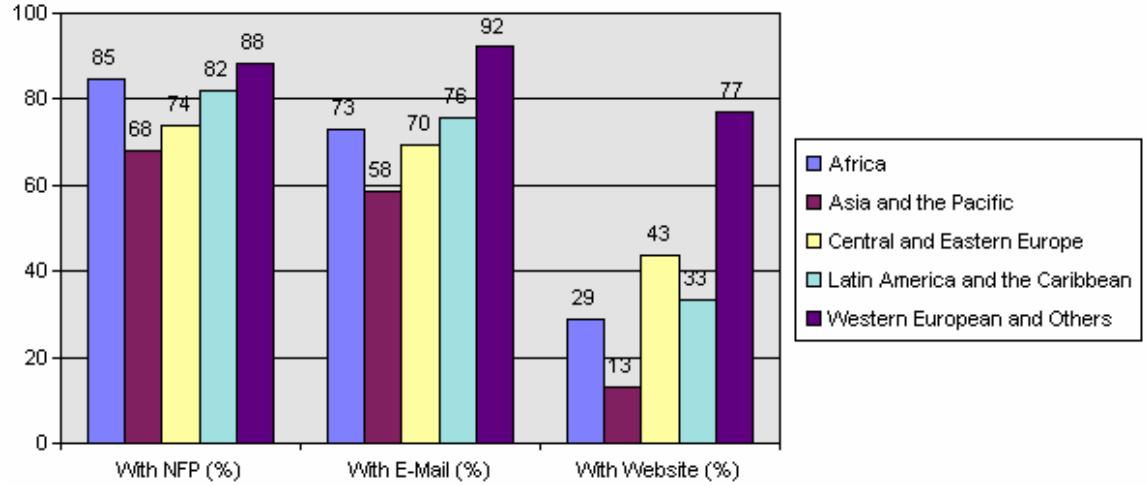
overhead and support. And they may assist in synergizing cooperative projects to assist Parties in building national capacities, including capacities related to the use of new information technologies.

IV. ACCESS TO NEW INFORMATION TECHNOLOGIES BY CLEARING-HOUSE MECHANISM NATIONAL FOCAL POINTS

11. A review of statistics on clearing-house mechanism national focal points 3/ shows that, as of writing, only 68% of them are communicating with the Secretariat via e-mail. In addition, only 32% have established websites. However, there is great variance among regions. In developed regions, for example, 92% of clearing-house mechanisms communicate with the Secretariat via e-mail and 77% have established websites.

12. In contrast, only 59% of clearing-house mechanism national focal points in Asia and the Pacific communicate with the Secretariat via email. And perhaps indicative of the problems faced by this region in using and accessing new information technologies is the fact that only 13% have established clearing-house mechanism national focal point websites. The situation improves slightly for Africa (73% with email, 29% with websites), Latin America and the Caribbean (76% with e-mail, 33% with websites) and Central and Eastern Europe (70% with email, 43% with websites) (see Table I).

Table I: Clearing-house mechanism national focal points with email and websites



13. Arguably, these numbers point to the need for more focused capacity building efforts, particularly with regard to use of and access to new and more appropriate information technologies in support of Convention-related programme areas and cross-cutting issues.

14. The review that follows below on web usage and access from different regions reinforces data suggesting that new efforts are required to assist Parties to build capacity in efforts to facilitate use of new information technologies, especially web-based technologies.

Number of hits, requests, and users to the Convention on Biological Diversity's website 2002 and January to September 2003

15. Statistics on the number of hits, requests, and users of the Convention's website reflect the importance of establishing an effective electronic information and communication system. Indeed, data on access to the Convention's website impact on decisions concerning investment in new information and communications tools. In addition, choosing the most effective electronic tools can assist the Secretariat in meeting many of its management objectives, particularly those related to communications and cost

3/ See: Status of CHM National Focal Points (http://www.biodiv.org/chm/stats.asp)

reduction. This perspective reflects the finding of the Joint Inspection Unit of the United Nations in its report "Managing information in the United Nations System organizations: management information systems." 4/

16. The Convention's website can be considered the primary communication and information-dissemination tool available to the Secretariat. Its popularity is reflected in total hits, requests and users. In 2002, for instance, the website responded to almost 21 million hits and 1 million requests from almost 240,000 unique users (excluding Secretariat staff). 5/ From January to September 2003, there were 31,340,264 hits and 856,738 requests from 171,139 unique users.

17. This general trend towards an ever larger number of users of web-based resources is further exemplified by the number of visits to the United Nations website, which in 2001, was accessed over 1.1 billion times by people in more than 156 countries. 6/

18. Given such numbers, it can be stated with assurance that no other information- dissemination mechanism can reach so many people in so many places at so low a cost so quickly. However, the numbers below reflecting the inequitable situation faced by many Parties, stakeholders and regions greatly temper optimism for web-based technologies.

Parties and regions accessing the Convention's website

19. In 2002, of the highest 37 countries accessing the Convention's website, only one is an African country—Nigeria placed thirtieth (see annex I). Even more worrisome is the total absence of developing countries from Asia and the Pacific region.

20. Statistics for 2002 also show great variance in access among regions. For example, among developed countries, more requests came from the United States than from all other developed countries combined (see annex I). Although this may also reflect the structure of the Internet and not be an absolute indication of usage by region or country, it does offer a rough indication of access to and use of web-based technologies. Finally, in 2002, only countries from developed regions reached the top ten accessing the Convention's website (see Table II).

Table II: Top 10 Countries Accessing The Convention On Biological Diversity Website 2002

	Country	**Number of requests**	**% of requests**
1.	United States	822,888	71.49%
2.	France	91,587	7.96%
3.	Japan	49,401	4.29%
4.	Italy	41,123	3.57%

4/ "With the increased competition for financial resources in the United Nations system, executive management of its organizations is looking towards ICT tools and solutions for contributing to achieve management objectives, such as increased efficiency, cost reduction, and strengthened communication with Member States." Managing information in the United Nations system organizations: management information systems. (A/58/82), p. 10.

5/ A hit refers to any connection to the web site, including images. A request refers to a web page, which can contain graphics, text, etc., which are counted as unique hits. A user refers to a unique individual accessing the web site.

6/ Questions relating to information: report of the Secretary-General (A/57/157), p. 3.

5.	Germany	40,759	3.54%
6.	Australia	24,093	2.09%
7.	United Kingdom	21,867	1.90%
8.	Austria	12,509	1.09%
9.	Finland	6,795	0.59%
10.	Belgium	5,771	0.50%

21. Statistics compiled from 1 January 2003 to 30 September 2003 suggest results somewhat similar to those for the year of 2002. For example, the United Republic of Tanzania and Nigeria are the only two African countries in the list of the highest 40 countries accessing the website. The United States remains the highest user, with more web requests than all other countries combined. However, in 2003, Mexico and the Ukraine were among the 10 countries accessing the website the most (see annex II and table III).

Table III: Countries accessing the Convention on Biological Diversity website the most between January and September 2003

	Country	**Number of requests**	**% of requests**
1.	United States	599,430	69.97%
2.	France	106,473	12.43%
3.	Japan	30,264	3.53%
4.	Germany	27,524	3.21%
5.	Italy	23,997	2.85%
6.	United Kingdom	10,645	1.24%
7.	Australia	9,992	1.17%
8.	Ukraine	7,008	0.82%
9.	Mexico	6,785	0.79%
10.	Israel	6,096	0.71%

Most popular web pages and resources

22. Data on website usage also offers insight on the most popular or used sections and/or resources of the website. Web pages exclusively devoted to the clearing-house mechanism, for instance, remain consistently one of the most popular sections of the site, beating perennial favourites such as vacancy announcements and Conference of the Parties decisions in 2002 and in January to September 2003 (see annexes III and IV).

23. Statistics related to retrieval of and access to web-based information may suggest several issues. First, the popularity of a page or item may point to the public's perception of that page or to the item's relative importance to other pages or items (or, by extension, to other themes, programme areas or cross-cutting issues). It should not be surprising, for instance, that in 2003, the Convention text and the Cartagena Protocol on Biosafety were some of the most popular items sought on the website. The popularity of information on biosafety may also be reflective of the public interest in living modified organisms (LMOs), an environmental topic often in the news.

24. Lack of access to and retrieval of information related to specific themes or programme areas may also be suggestive of several issues. The lower number of hits on certain pages may point to the need to make information about their resources more widely known. Alternatively, lack of access may point to technical difficulties in downloading reports and other documentation.

Who is accessing the Convention's website

25. Ascertaining who is and who is not accessing the Secretariat's website also offers the clearing-house mechanism a wealth of information to assist in making information retrieval more equitable. Again, it is difficult to determine with a high degree of accuracy the true origin of someone accessing the website. Nevertheless, when used with caution, these statistics can be somewhat helpful in ascertaining which regions and organizations may need more targeted attention or efforts at communication.

26. In spite of these inaccuracies, the Secretariat is able to determine that a high number of visits are from government institutions, and to identify among them the individual government agencies that sought the services of the website. These data can be correlated with other data, such as meetings or the availability of a new report, and may offer insight to the success of the communication strategy used in announcing the meeting or report.

27. Also of interest is that the commercial and private sector appears to be the largest single user of the Convention's website (33.79%) followed by the academic (9.52%), non-profit (6.73%) and government (3.08%) (see table IV).

Table IV: Categories of users 2002

Category	**Number of requests**	**% of requests**
Commercial and private	335,399	33.79%
Internet service provider	281,687	28.38%
Unknown organization type	174,512	17.58%
Academic	94,506	9.52%
Non-profit	63,226	6.37%
Government	30,564	3.08%
Online service	9,969	1.00%
Military	2,625	0.26%
Total	**992,488**	**100.00%**

28. The same trend is reflected somewhat in the categories of users for January to September 2003 (see table V).

Table V: Categories of users January to September 2003

Category of users	**Number of requests**	**% of requests**
Internet service provider	267,627	31.24%
Commercial	253,182	29.55%
Unknown organization type	183,780	21.45%
Academic	87,986	10.27%
Non-profit	36,723	4.29%
Government	15,988	1.87%
Online service	8,823	1.03%
Military	2,611	0.30%
Unresolved IP address	18	0.00%
Total	**856,738**	**100.00%**

29. The above numbers may assist the Secretariat in determining how well it reaches its target audiences, and where it should invest communication resources to correct any perceived imbalances related to access and use of the website.

Technologies used to access the Convention's website

30. Finally, statistics indicating the computer platform and software used by the website's audience are also available for analysis. From a technical perspective, this information is invaluable in the implementation of new web-based technologies and communication tools. It gives the clearing-house mechanism the ability to choose among many different competing technologies, and implement those that are most commonly used by the greatest number of the website's users. It also offers the clearing-house mechanism a unique perspective into the development and evolution of new web-based technologies, and their possible adoption or rejection.

31. As a result of this analysis, it was discovered that over 96% of the website's audience uses 32-bit platform technology. This may indicate access to more up-to-date software and hardware, and the ability to use more sophisticated and newer web browsers. Furthermore, the data can be further refined to indicate the most common browsers used (Internet Explorer or Netscape). This information may limit the number of technical issues the clearing-house mechanism must contend with.

32. Care is taken, however, to ensure that the absence of certain types of Internet browsers and computer platforms is not a result of a web infrastructure that is too sophisticated for a significant number of users. New technologies are always chosen keeping in mind that they must serve the greatest number

of users, including those in regions with inequitable access to new information technologies. Even more, they must conform to the most common standards and computer platforms.

V. CONCLUSION

33. Statistics on users of the Convention's website give the clearing-house mechanism unique insight into the needs of its stakeholders and audience. They also offer invaluable information on who is not accessing the website, and so assist the clearing-house in better understanding capacities at the national and regional level. This in turn provides the clearing-house mechanism with the opportunity to design electronic information exchange systems and more effective capacity-building initiatives to better meet the needs of Parties and stakeholders.

34. Website statistics also give the clearing-house mechanism the means to determine the most effective computer and Internet platform on which to base its information-dissemination and exchange systems. Indeed, the clearing-house mechanism well understands the absolutely vital need to ensure equitable access to information, particularly in the context of communication and interaction with the Secretariat.

Annex I

COUNTRIES ACCESSING THE WEBSITE THE MOST IN 2002 7/

	Country	Number of requests	% of requests
1.	United States	822,888	71.49%
2.	France	91,587	7.96%
3.	Japan	49,401	4.29%
4.	Italy	41,123	3.57%
5.	Germany	40,759	3.54%
6.	Australia	24,093	2.09%
7.	United Kingdom	21,867	1.90%
8.	Austria	12,509	1.09%
9.	Finland	6,795	0.59%
10.	Belgium	5,771	0.50%
11.	Israel	4,324	0.38%
12.	Turkey	4,289	0.37%
13.	Mexico	4,092	0.36%
14.	Czech Republic	3,945	0.34%
15.	Russia	3,658	0.32%
16.	Slovak Republic	2,187	0.19%
17.	Iceland	1,993	0.17%
18.	Colombia	1,973	0.17%
19.	Greece	1,763	0.15%
20.	Ukraine	1,614	0.14%
21.	Bulgaria	1,524	0.13%
22.	Latvia	857	0.07%
23.	Lithuania	845	0.07%
24.	Ireland	489	0.04%
25.	Belarus	183	0.02%
26.	Poland	136	0.01%
27.	Ecuador	113	0.01%
28.	Estonia	87	0.01%
29.	Hungary	84	0.01%

7/ See paragraphs 7 and 8 for an explanation on caveats when interpreting annexes I and 2

	Country	Number of requests	% of requests
30.	Nigeria	41	0.00%
31.	Greenland	39	0.00%
32.	Bahamas	24	0.00%
33.	Brazil	9	0.00%
34.	Monaco	5	0.00%
35.	Portugal	4	0.00%
36.	Antigua and Barbuda	3	0.00%
37.	Norway	2	0.00%
	Total	**1,151,076**	**100.00%**

Annex II

COUNTRIES ACCESSING THE WEBSITE THE MOST FROM 1 JANUARY 2003 TO 30 SEPTEMBER 2003

	Country	Number of requests	% of requests
1.	United States	599,430	69.97%
2.	France	106,473	12.43%
3.	Japan	30,264	3.53%
4.	Germany	27,524	3.21%
5.	Italy	23,997	2.80%
6.	United Kingdom	10,645	1.24%
7.	Australia	9,992	1.17%
8.	Ukraine	7,008	0.82%
9.	Mexico	6,785	0.79%
10.	Israel	6,096	0.71%
11.	Austria	5,982	0.70%
12.	Belgium	3,889	0.45%
13.	Czech Republic	3,059	0.36%
14.	Finland	3,029	0.35%
15.	Russia	2,620	0.31%
16.	Colombia	1,993	0.23%
17.	Turkey	1,440	0.17%
18.	Bulgaria	1,360	0.16%
19.	Greece	1,095	0.13%
20.	Iceland	953	0.11%
21.	Lithuania	918	0.11%
22.	Slovak Republic	839	0.10%
23.	Latvia	447	0.05%
24.	Ireland	221	0.03%
25.	Bahamas	219	0.03%
26.	Belarus	100	0.01%
27.	Ecuador	71	0.01%
28.	Poland	60	0.01%
29.	Hungary	48	0.01%
30.	Antigua and Barbuda	36	0.00%

	Country	Number of requests	% of requests
31.	Tanzania	30	0.00%
32.	Brazil	17	0.00%
33.	Portugal	14	0.00%
34.	Nigeria	13	0.00%
35.	Estonia	10	0.00%
36.	Kyrgyzstan	9	0.00%
37.	San Marino	4	0.00%
38.	Greenland	1	0.00%
39.	Monaco	1	0.00%
40.	Uruguay	1	0.00%
	Total	**856,693**	**99.99%**

Annex III

FIFTEEN MOST REQUESTED FILES IN 2002

	Title	# of requests	% of requests
1.	Convention on Biological Diversity	118,768	11.97%
2.	Convention Text	16,146	1.63%
3.	Cartagena Protocol on Biosafety	14,403	1.45%
4.	COP 6 and MOP 1	9,782	0.99%
5.	Sustaining life on earth	9,751	0.98%
6.	/chm/	9,541	0.96%
7.	Vacancy Announcements	6,526	0.66%
8.	Programmes	6,160	0.62%
9.	Parties to the CBD / Cartagena Protocol on Biosafe	6,116	0.62%
10.	Decisions from meetings of the Conference of the Parties	5,889	0.59%
11.	Meeting Documents	5,780	0.58%
12.	Secretariat of the CBD	5,033	0.51%
13.	Text of the Protocol	4,624	0.47%
14.	Convention sur la diversité biologique	4,496	0.45%
15.	COP Background and Status	3,734	0.38%

Annex IV

TWENTY MOST REQUESTED FILES FROM 1 JANUARY 2003 TO 30 SEPTEMBER 2003

	Title	# of requests	% of requests
1.	Convention on Biological Diversity	96,756	11.29%
2.	Cartagena Protocol on Biosafety	16,777	1.96%
3.	Convention Text	13,269	1.55%
4.	/chm/	7,660	0.89%
5.	Vacancy Announcements	7,569	0.88%
6.	Sustaining life on earth	7,288	0.85%
7.	Parties to the CBD / Cartagena Protocol on Biosafety	5,013	0.59%
8.	Text of the Protocol	4,642	0.54%
9.	Programmes	4,487	0.52%
10.	Meeting Documents	4,303	0.50%
11.	Decisions from meetings of the Conference of the Parties	4,084	0.48%
12.	Convenio sobre Diversidad Biológica	3,846	0.45%
13.	Secretariat of the CBD	3,734	0.44%
14.	/biosafety/ratification.asp	3,115	0.36%
15.	Convention sur la diversité biologique	3,063	0.36%
16.	COP Background and Status	2,647	0.31%
17.	About the Protocol	2,645	0.31%
18.	Signatures and Ratifications	2,626	0.31%
19.	Vacancy Announcements	2,575	0.30%
20.	SBSTTA	2,452	0.29%
