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Online Access to Research in the Environment (OARE): UNEP/Yale University New Strategic and Capacity Building Tool To Enhance the Role of Libraries in Partnership for Development

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Abstract

In today's Information Society Age, we cannot talk about sustainable development without addressing the issue of information and communication technologies. As demonstrated by the conclusion of the World Summit on Information Society (WSIS), the issue of development is clearly linked with access to information and by exploring new ways of partnerships. A very promising attempt to contribute to sustainable development challenges facing developing countries in terms of accessing scientific information, information for decision making needed by researchers, students and policy makers from the South could be the Online Access to Research in the Environment (OARE). OARE is a new initiative led by the United Nations Environment Programme (UNEP) and Yale University with key partners such as the World Health Organization (WHO), the Word Food and Agriculture Organization (FAO), Cornell University, the International Association of Scientific, Technical and Medical Publishers (STM) and leading publishers (Springer, Blackwell, Elsevier, Taylor& Francis, etc.) which have made available resources evaluated to cost more than one million dollars.

OARE's main objective is to improve access to information on published environmental research in approximately 120 developing countries including countries with economies in transition, thereby contributing to the reduction of the north-south scientific gap and digital divide. OARE gives an important opportunity to use proven information and communication technologies to bridge the North-South knowledge divide in the environmental sciences on an unprecedented scale and with unparalleled efficiency. Seven months after its launch, on October 2006 at New York, through the number of enrolled institutions, OARE has proven to be a

response to information needs from the South. Indeed, without launching any major promotional campaigns, more than 300 institutions were already enrolled by April 2007, 60% from Africa, 19% for Asia and 13% for South America. Most of them were universities and research institutes (65%), followed by NGOs (17%) when libraries are unfortunately lagging behind with only 6%. This is a clear indication about the pressing need to make available new online resources aiming to facilitate access to scientific and accurate information for institutions located in developing countries. This also clearly indicates that the future of libraries depends on their capacity to bring changes on the ground, by empowering others and by becoming effective tools of education, capacity building and development and most importantly by building partnership for development as recommended by the United Nations Millennium Development Goals.

1. Introduction

One of the world's biggest challenges is the reduction of knowledge and scientific gap as well as the digital divide in developing countries. To better illustrate this North-South gap, for instance, the number of researchers located in Africa are 71,038 which is less than what Canada has 80,000 when the USA alone is totaling 962,700 (Source UNESCO). These data are confirmed by the total absence of developing countries in terms of producing "intellectual property". According to the World Organization of Intellectual Property (WIPO), developing countries all together produced only 14% of patents when developed countries possess 86%. These discrepancies are clearly link to the lack of access to scientific source of online information. To redress this problem, the United Nations Environment Programme (UNEP) and Yale University, with the technical support of the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations (FAO), Cornell University and more than 120 scientific publishers launched OARE in October 2006, which is a private partnership project to address this challenge.

OARE aims to contribute to the development of expert professional and academic communities, encourage scientific creativity and productivity, and facilitate the development of progressive science-based national policies. It will help eligible countries to build their own higher education programs in the environmental sciences, educate their own leaders, conduct their own research, publish their own scientific findings, and disseminate information to policy makers and the public.

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Previously, attempts have been made to provide current scientific information to developing countries but still there are a lot of gaps left. This brings us to the question “how is OARE making a difference?” In today’s electronic information age, OARE is bringing the librarians on the front line to the provision of current and updated information through the use of online databases such as OARE, HINARI and AGORA.

2. Background

The scientific and research community in both the developed and developing world has a vital role to play in ensuring that sound science is made available and accessible for environmental decision-making and to advance the sustainable development agenda. Increasing the availability and accessibility of sound scientific information is dependent on having practical mechanisms in situ that use innovative information and communication technologies in combination with institutional and technical networks to deliver information from reliable sources to the user community.

The 2005 UN Summit Outcome document in para 60 entitled Science and technology for development recognized that *science and technology, including information and communication technology, are vital for the achievement of the development goals and that international support can help developing countries to benefit from technological advancements and enhance their productive capacity.* Governments committed themselves, inter alia, to *strengthening and enhancing existing mechanisms and supporting initiatives for research and development, including through voluntary partnerships between the public and private sectors, to address the special needs of developing countries in the areas of health, agriculture, conservation, sustainable use of natural resources and environmental management, energy, forestry and the impact of climate change.*

The recently endorsed Bali Strategic Plan for Technology Support and Capacity-building provides UNEP with an important mandate to *strengthen national capacities for data collection, research, analysis, monitoring and integrated environmental assessment; developing institutional capacities, staff training and support for appropriate and adaptable technologies and methodologies; support for assessments of environmental issues of regional and sub-regional importance and for the assessment and early warning of emerging environmental issues; support for scientific exchanges and for the establishment of environmental and inter-disciplinary information networks; and promotion of coherent partnership approaches*- This is consistent with UNEP’s original mandate (UNGA resolution 2997) which called on UNEP to promote the contribution of the relevant international scientific and other professional communities to the acquisition, assessment and exchange of environmental knowledge and information and decided that UNEP’s Environment Fund should be used for financing such programmes of general interest such as, inter alia, environmental research, information exchange and dissemination.

Access to the global scholarly environmental records, is limited in a majority of developing countries. Without rights to the scholarly record, developing countries

face tremendous development challenges, both in absolute terms and relative to their peers. Unable to access, synthesize and interpret global stores of knowledge — a process of critical importance to human development worldwide — public, private and non-governmental managers and decision makers are without the intellectual support afforded their peers in the developed world, and institutions of higher education have difficulty guiding national policies, mobilizing public support, and producing critical research.

To redress these challenges, a partnership of international publishers, universities, and multilateral institutions have come together to consider the development of **(OARE),** a digital internet library that would provide more than 120 least-developed nations free or very low cost access to leading international scientific literature in sustainable development, environmental economics, environmental policy, environmental law, environmental chemistry, ecology, conservation biology, zoology, botany, and other environmental subject areas. In addition to obtaining direct access to vast quantities of scientific findings heretofore unavailable, developing countries would be provided access to the world's most powerful scientific search engines, critical intellectual tools through which one can identify information buried in tens of thousands of articles across thousands of publications from all over the world.

3. Why Invest in OARE?

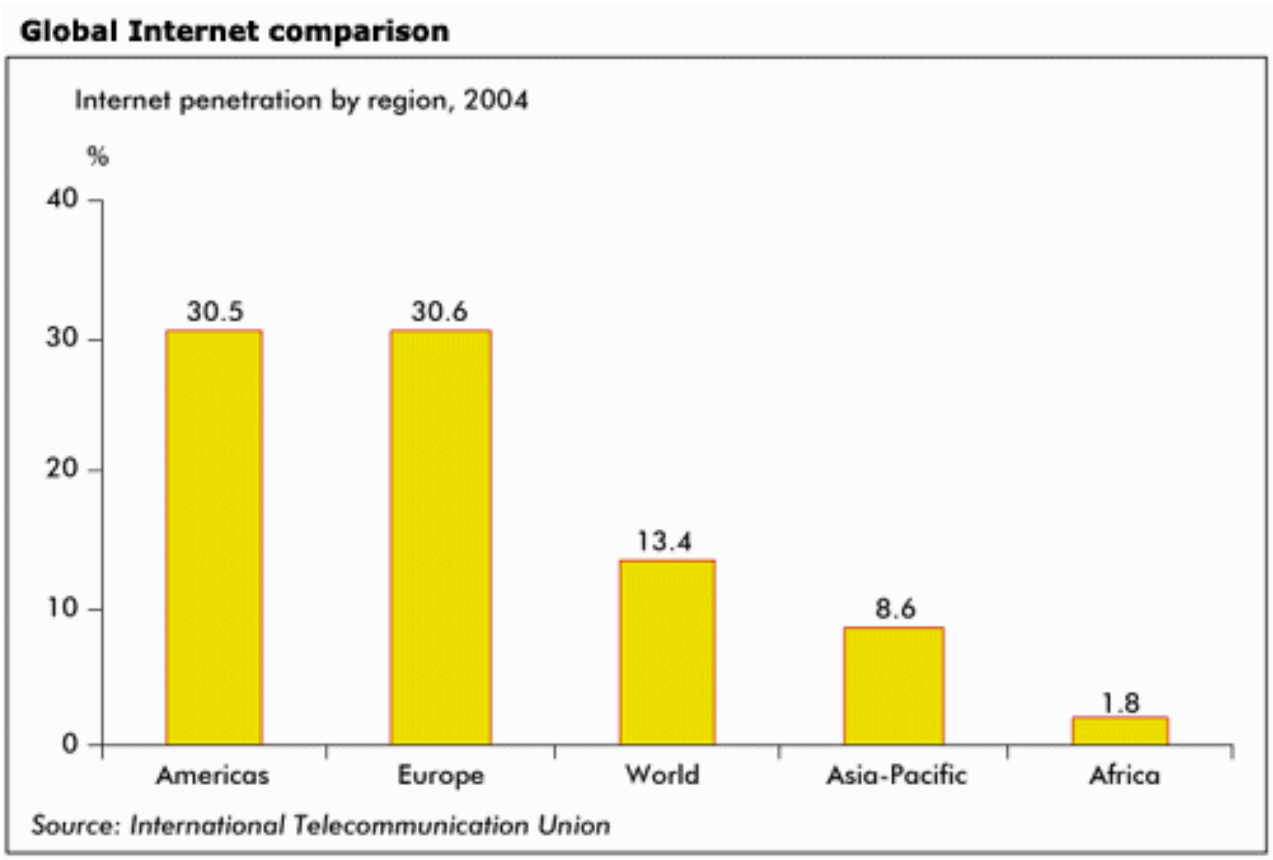
As mentioned earlier, developing countries need information for decision-making through new information tools such as OARE to address vigorously the lack of access to environmental information. Environment today is one of the most critical issues affecting the world at large with issues such as climate change being at the top of the world agenda and also becoming an issue of international security. This was already confirmed in 2004, when the Nobel Peace Committee awarded for the first time the prestigious award to Professor Wangari Maathai a renowned environmentalist from Kenya, recognizing de facto the link between environment and security and also the link between peace and exploitation of natural resources.

The main motivation to invest in OARE is to build environmental content made by high quality, timely and relevant journals; to help over 1000 environmental institutions and universities in developing countries to get free access to online journals; to build institutional partnerships among environmental institutions in developed and developing countries; to reinforce publisher partnership for development; to narrow the digital divide and the scientific gap and lastly to contribute to the Millennium Development Goals.

4. Challenges to access information in the developing world: Is OARE a response?

Today, in the information age, among the main challenges affecting the sustainable development of developing countries, is the issue of ICTs which was clearly highlighted by the outcomes of the World Summit for Information Society (WSIS) in Geneva in 2003 and in Tunis in 2005.

How can developing countries benefit from high tech solutions such OARE if they do not have the basic IT infrastructure needed such as computers or the necessary bandwidth? There is no doubt that in terms of global Internet penetration comparison Africa and Asia-Pacific are lagging behind, with respectively 1.8% and 8.6%. It is also a common knowledge that the numbers of telephone lines in Manhattan are the equivalent of what the entire sub-Saharan Africa has.

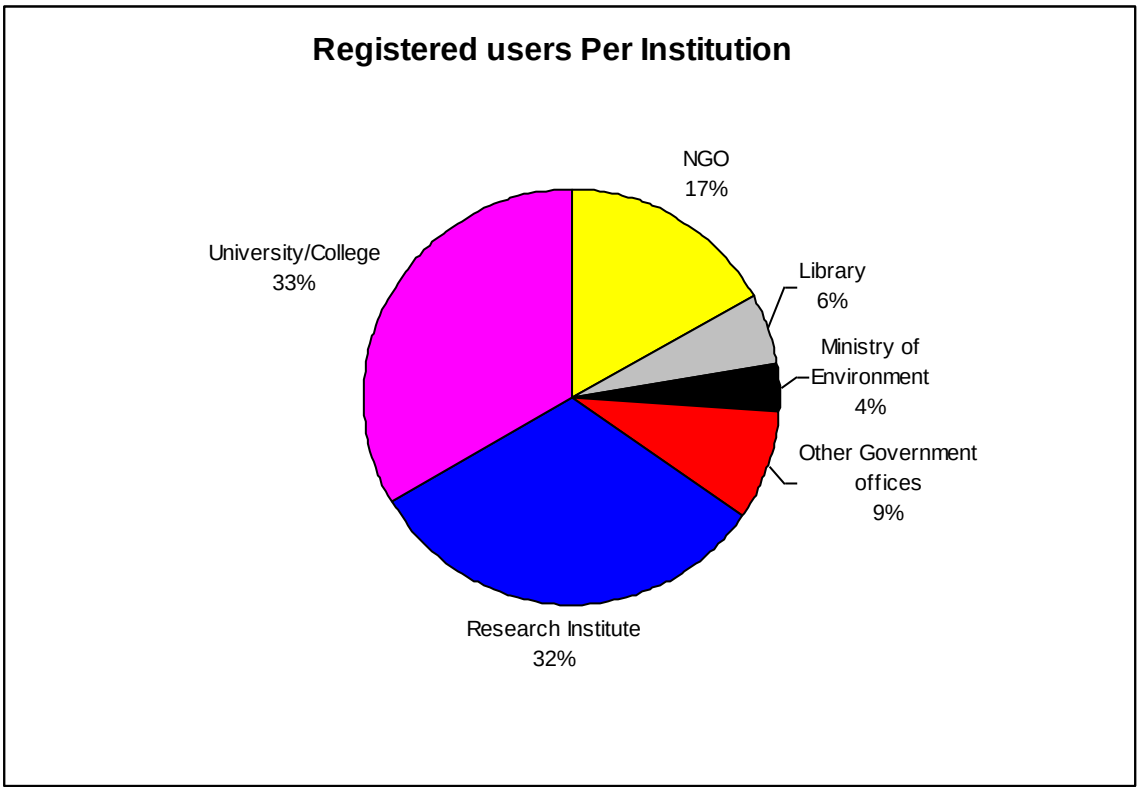


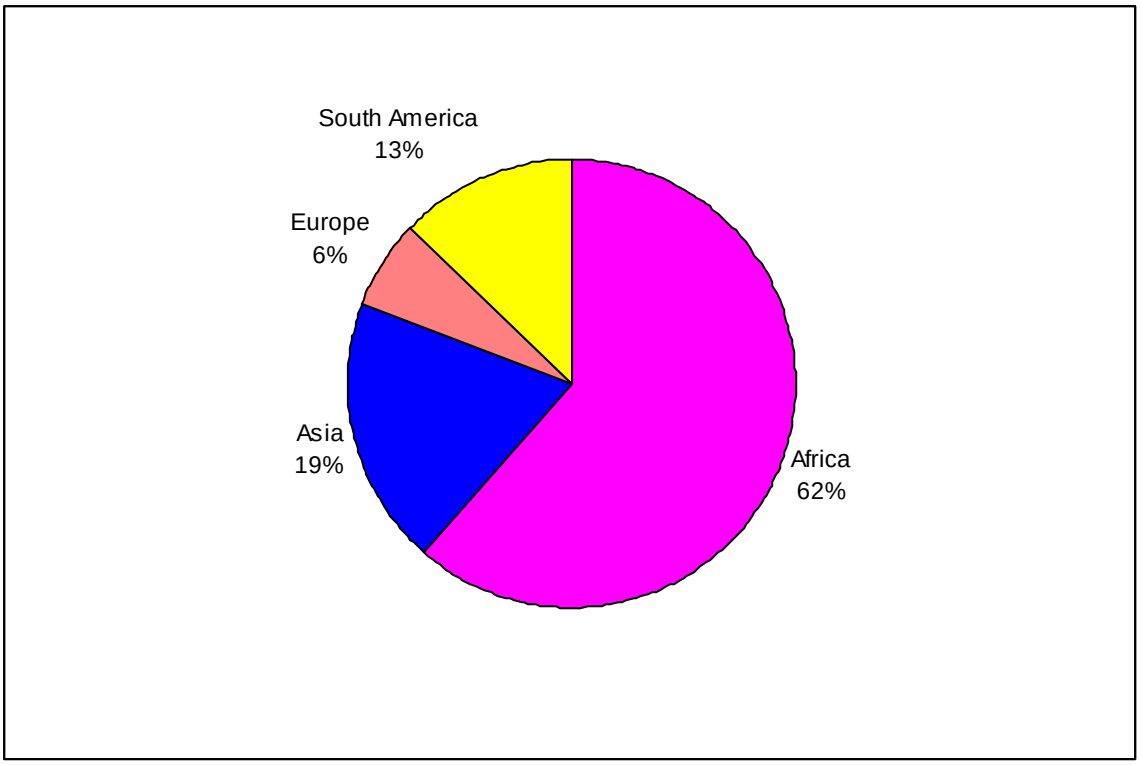
In March 2007, to assess the need of online information in the field of environment, UNEP Library did a quick survey of 11 top scientific institutions in Kenya, among them the National Environment Management Authority (NEMA), the African Academy of Sciences (AAS), and the Kenya Agricultural Research Institute (KARI). Five had already access to OARE, HINARI and AGORA, two did not have access to Internet and four did not respond. The main conclusion was that access to online information is mostly possible through free online services such as OARE. This tendency has been confirmed by a positive feedback received from participants from various environmental institutions at the first OARE training organised by UNEP in Nairobi on 5 June 2007. Most of the OARE participants are very grateful to OARE partners to have made available such tools, which give them access to more than 1000 scientific journals from reputable publishers.

5. Impact of OARE in the developing world

Knowing that the average cost of one journal title is US$ 1000 per year, amount which only few environmental institutions can afford in developing countries just to subscribe to one title, we realized how access to information is costly to developing

countries, and in some case a luxury for developing countries. OARE offers full text journals directly from publisher's website to eligible institutions.





Currently, approximately 1000 titles from more than 200 publishers are available and new publishers are expected to join. Current issues as well as back issues of environment and related field journals are available on OARE portal.

Through OARE there is increased number of environmental journals available online to potential users in developing countries and countries with economies in transition with a facility for them to access environmental research literature. With OARE, we are anticipating an increased number of scientists as well as the number of institutions involved in environmental research in developing countries and countries with economies in transition that will contribute to the environmental research and debate through contribution to current issues such as climate change.

6. Why to strengthen the OARE partnership?

As stated in the Principles of Action of WSIS, which “recognize that building an inclusive Information Society requires new forms of solidarity, partnership and cooperation among governments and other stakeholders”, to strengthen the OARE partnership and for strategic reason, it was decided in September 2006 during a retreat with all partners in Amsterdam to link OARE and its sisters programs HINARI and AGORA to the UN Millennium Development Goals (MDGs), which is an illustration of publishers commitment to make available free of charge their journals up to 2015.

There is a need also to integrate more contents from the South by integrating local journals, including other formats of publications such as books and databases. Marketing activities will have a big impact on OARE through the provision of promotional materials such as posters, website and fliers to enable developing counties to get more information on how to enrol. Training is another important component to reach potential OARE users. Other ways is to improve on coordination with other initiatives such as HINARI and AGORA. New directions have been taken to set up more formal bodies regrouping all partners involved in OARE, HINARI and AGORA such as an Executive Board and an Advisory Board to ensure that all the three programmes are managed properly and to ensure enrolment of more and more institutions.

7. Conclusion

OARE is a partnership project reflecting the true spirit of giving, knowledge sharing and access to information in the context of the North-South solidarity. At the time when environment is becoming more and more a global concern, when issues such as climate change are at the top of the world agenda and when developing countries are involved in key environmental negotiations, OARE is the indispensable tool for decision making needed by negotiators, scientists and researchers from the developing world.

This is perfectly echoed by the statement done by Achim Steiner, United Nations Under-Secretary-General and UNEP Executive Director during the launch of OARE

in October 2006 who said that “OARE is a new and inspiring example of international cooperation that can contribute to the reduction of the North-South scientific gap and digital divide, objectives that are both at the top of the UN agenda and the UN Millennium Development Goals”.

During the same event, Mr. James Gustave Speth, Dean of Yale’s Environment School and former Administrator of the United Nations Development Programme (UNDP) said that “Thanks to advances in information and communication technologies and the great generosity of many leading scientific publishers and foundations, we have an unprecedented opportunity to provide environmental institutions in developing countries with intellectual resources we in the developed world so often take for granted”,.