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Annex 1: Glossary of Abbreviations

BCLME BDP	Benguela Current Large Marine Ecosystem (GEF project) (UNDP) Bureau for Development Policy
CATHALAC CIESIN/SEDAC	Water Centre for Humid Tropics of Latin America and the Caribbean Center for International Earth Science Information Network/Socioeconomic Data and Applications Center
COP CRC	Community of Practice Community Resource Center
DEWA DL DLIST DNIPRO	(UNEP) Division of Early Warning Assessment Distance Learning Distance Learning Information Sharing Tool (IW:LEARN pilot project) Dnipro River Project (GEF project)
EA ESDG ETNET FSP	(GEF) Executing Agency (UNDP) Environmentally Sustainable Development Group European Thematic Network of Education & Training, Environment-Water Full-Sized Project
GEDS GEF GEFSEC GEMS GIS GIWA GPA	Global Environment and Development Studies Distance MSc Programme Global Environment Facility Global Environment Facility Secretariat Global Environmental Monitoring System Geographic Information Systems Global International Waters Assessment (GEF project) Global Plan of Action (GPA) for the Protection of Marine Environment from Land-based Pollution Sources
GWI GWP	Global Water Initiative Global Water Partnership
HTC/Malaysia	Regional Humid Tropics Hydrology and Water Resources Centre For Southeast Asia and The Pacific
IA IBRD ICM ICRI ICT IETC IHP IMF IMO INBO IOI ISARM/ITARM IUCN	(GEF) Implementing Agency World Bank Integrated Coastal Management International Coral Reef Initiative Information and Communication Technology International Environmental Technology Centre International Hydrological Programme International Monetary Fund International Maritime Organization International Network for Basin Organizations International Ocean Institute International Shared Aquifer Resources Management/International Transboundary Aquifer Resources Management The World Conservation Union

IW	International Waters (GEF focal area)
IWC	(GEF) International Waters Conference
IW:LEARN	International Waters Learning Exchange and Resource Network
IWPS	(GEF) <i>International Waters Program Study</i>
IWRC	International Waters Resource Centre
IWRM	Integrated Water Resource Management
IWRN	Inter-American Water Resources Network
LAC	Latin America Caribbean
Logframe	Logical Framework
LTBP	Lake Tanganyika Biodiversity Project (GEF project)
M&E	Monitoring and Evaluation
MBRs	Mesoamerican Barrier Reef System (GEF project)
MEWIN	Middle East Water Information Network
MISO	Management and Information Systems Officer
MSP	Medium-Sized Project
NBI	Nile Basin Initiative (GEF project)
NGO	Non-Governmental Organization
OAS	Organization of American States
OP	Operational Program
OP10	Operational Program 10 (Contaminant Based Operational Program)
PDF-B	Project Preparation and Development Facility Block B Grant
PEMSEA	Partnership for Environmental Management of the Seas of East Asia (GEF project)
PERSGA	Regional Organisation for the Conservation of the Environment of the Red Sea and Gulf of Aden (GEF project)
PIO	Public Information Officer
POPs	Persistent Organic Pollutants
PRC	Portable Resource Center
PTS	Persistent Toxic Substances
Project WET	Water Education for Teachers
RBI	River Basin Initiative
REC	Regional Environmental Centre (for Central and Eastern Europe)
RHUL	Royal Holloway University of London
SAP	Strategic Action Programme
SAWINET	Southern African Water Information Network
SC	(IW:LEARN) Steering Committee
SCS	South China Sea (GEF project)
SF	Support Facility
SIDS	Small Island Developing States
SIOCAM	Strategic Initiative for Ocean and Coastal Management
SPREP	South Pacific Regional Environment Programme (GEF project)
STAP	Scientific and Technical Advisory Panel
TDA	Transboundary Diagnostic Analysis

TOR	Terms of Reference
TRIB	Transboundary River Basin Initiative, a UNDP Trust Fund
TWI	Transboundary Waters Initiative
TWM	Transboundary Water Management
UCC-Water	UNEP Collaborating Centre on Water and Environment
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNOPS	United Nations Office for Project Services
UNU	United Nations University
UNU-INWEH	United Nations University Institute for Water Education
WBI	World Bank Institute
WET	Water Education and Training

Annex 2: IW:LEARN's Demand-Driven Approach

The IW:LEARN Pilot Phase developed and validated the following system for determining and responding to the GEF IW Community's knowledge needs (A and B, below) as well as addressing individual GEF IW projects' needs (C, below) through specific programmatic and technical services (D, below):

A. *How IW:LEARN Determines Community Demand*

1. At biennial GEF International Waters Conferences (IWCs):
 - a. Actively survey new areas of need, interest, or concern (according to taxonomies developed by GWP, GIWA, et al.).
 - b. Listen for needs/resources expressed in sessions and discussions
 - c. Target people specifically knowledgeable of IW projects' needs for follow-up informational interviews
2. In e-conferences:
 - a. Survey priority needs for subsequent on-line or off-line structured learning
3. Replicate items 1 and 2 regionally and thematically.
4. Transfer needs and resources across geographic areas and scales (global, regional, transboundary, national, local)
5. Follow paths of visitors through IWRC and related site(s), to infer aggregate needs of visitors
6. Obtain/synthesize inputs from GEF and IAs' M&E processes
7. Solicit technical requests from projects and their partners through a virtual help desk
8. Use semi-annual Steering Committee meeting with GEFSEC and representatives from three IA to target program-wide needs

B. *How IW:LEARN Responds to Community Demand*

IW:LEARN responds to needs through research and synthesis, match-making, and collaborative innovation:

1. Identify if information is available:
 - a. Develop a globally accessible metadata database of information resources (organizations, people, documents, products, course, events, software etc.) organized by needs, issues, etc.
 - b. Identify and link existing resources: Poll projects, partners and service providers for existing approaches & resources which address priority needs

2. IF AVAILABLE: Facilitate access to information on transboundary water resources among projects and partners via Internet tools
3. IF NOT AVAILABLE:
 - a. Synthesize learning materials from information and expertise from within the IW community
 - b. Validate and refine materials' utility w/representatives of target community
4. Disseminate instructional guides (modules)
5. Deliver structured learning programs based on the above information and through partner service providers wherever possible.

C. *How IW:LEARN Addresses Individual Projects' Needs*

IW:LEARN addresses each GEF IW project's specific knowledge needs by –

1. Approaching each project with an outreach packet explaining its services
2. One-on-one discussions to characterize project needs and appropriate project liaison(s)
3. Consultation with project liaison to refine needs in concrete terms (technology, information costs, timeline, parties involved) and identify potential solution sets and/or link project with appropriate knowledge resources in the community
4. A brief “customer service” evaluation after each intervention to determine whether more in-depth assistance is required

If further IW:LEARN involvement is requested or required, an agreement (MOU) is drafted to specify IW:LEARN's in depth facilitation role vis the requesting project, along with expected roles and responsibilities. The MOU documents and reinforces that the requesting project drives the process, not IW:LEARN. Once all deliverables under the MOU have been completed, IW:LEARN –

5. Solicits more detailed evaluation and testimonial from the leader of the requesting project
6. Reports regularly on the effectiveness of its interventions to the IW:LEARN Steering Committee and notifies the GEF IW Community of successful outcomes in various communication media.

D. *Services Offered by IW:LEARN to Address Individual Projects' Needs*

Examples of programmatic and technical services provided by IW:LEARN in response to a specific project's needs:

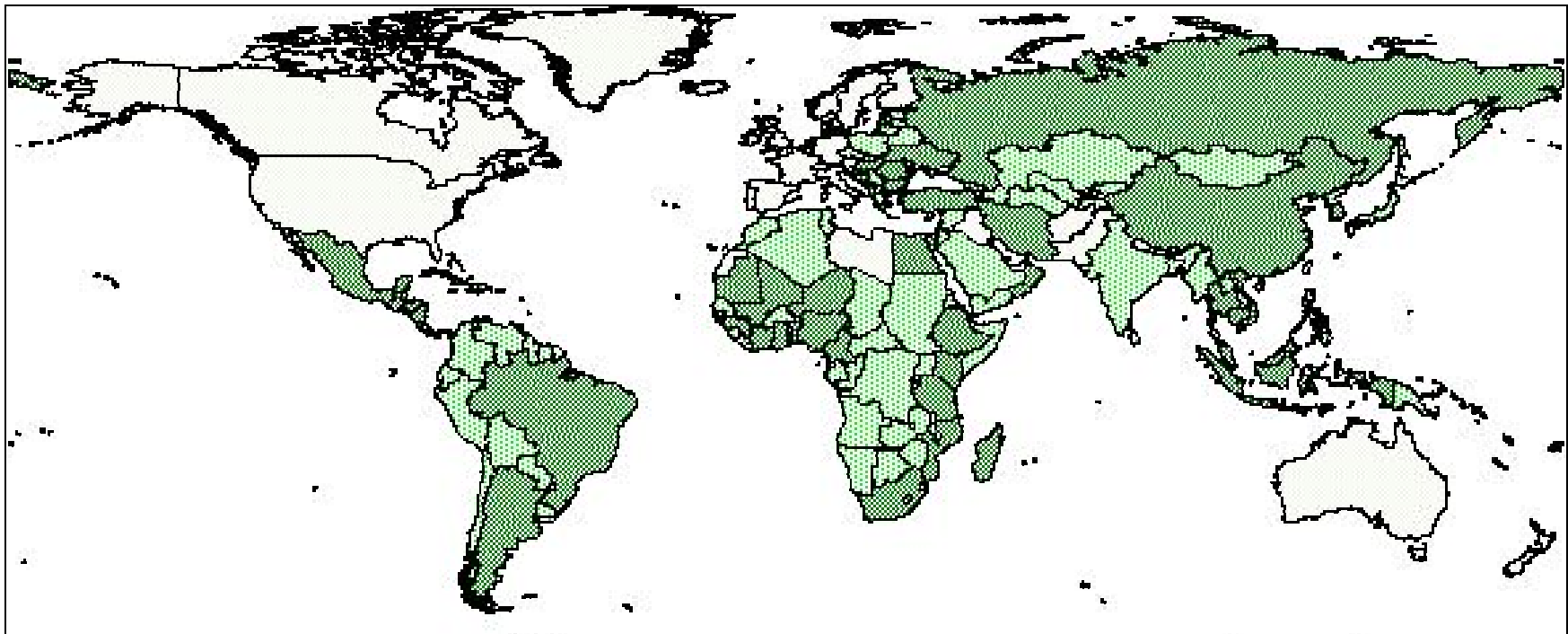
- IW:LEARN Programmatic Services:
 1. Distance Learning course development and hosting
 2. Brokering lateral knowledge transfer between projects
 3. Fostering knowledge mentorships between mature and upcoming GEF projects
 4. Services to projects:
 - a. Brokering technological consultancy services to projects
 - b. Serving on technical advisory committees
 - c. Supporting development of GEF project-related documents (proposals, workplans, TORs, consultancy, TDA/SAP, and M&E)
 - d. Advising on technology integration for the TDA/SAP processes
 - e. Promoting synergies between various GEF IW capacity-building services
 - f. Promoting synergies between various GEF IW capacity building services

- IW:LEARN Technical Services:
 1. Web site hosting and development
 2. Web site mirroring
 3. Database design, development and hosting
 4. Email hosting (regular POP3 mail accounts and webmail)
 5. Web-based discussion forums
 6. Electronic mailing lists
 7. RSS News Syndication Service
 8. Server/Application installation manuals
 9. FTP site hosting
 10. Services to projects:
 - a. Monthly virus updates
 - b. HTML/JavaScript/PHP/SQL programming
 - c. Hardware and software trouble-shooting

Given the dynamic nature of projects' knowledge demands, this list is by no means comprehensive.

Annex 3: IW:LEARN Importance, Coverage and Linkage to Global Priorities

3.1. Map of GEF International Waters Projects



Nations participating directly in 4 or more GEF International Waters projects (darkly textured), 1-3 GEF IW projects (lightly textured) or no such projects (off-white). Map includes both active and completed projects. Note: Japan became a partner in the PEMSEA project in July 2002, but is not a recipient of GEF aid for its participation.

3.2. Global Importance for International Waters Capacity-Building

Human health, regional security and prosperity (poverty alleviation) lead a host of benefits nations derive from their water resources (UNDP 2002, IBRD 2002). Water does not recognize political boundaries, however. Essentially all coastal and marine systems are transboundary. Forty percent of the world's population also lives in 261 river basins shared by two or more countries (Shumway 1999, Glieck 2000). Thus, ensuring sustained benefits from water resources requires international cooperation and coordination. Meanwhile, global population growth and development imply that threats encountered in one transboundary water system may eventually emerge in other international waters regions as well.

Countries sharing water resources face complex water-related environmental problems. Given the limited financial and institutional resources of many developing countries and countries with economies in transition, the challenge of sustaining or enhancing the common benefits of transboundary water systems is daunting. These countries have immediate and long-term needs, beyond donors' financial support, to apply all pertinent knowledge and to foster indigenous expertise in transboundary water management. They also must acquire and adapt the technical tools within their means to collaborate across countries and build shared water resource management regimes.

3.3. IW:LEARN Linkage to GEF and Global IW Priorities

The GEF Operational Strategy for International Waters identifies the following issues as priority areas of action for the GEF. Each issue is the subject of a global convention or treaty, or an intergovernmental process to develop such a consensus:

- I. Freshwater Basin and Ecosystem Conflicts ([UN Convention on the Law of Non-navigational Uses of International Watercourses](#) (CIW))
- II. Freshwater Basin and Coastal Pollution and Sedimentation (CIW)
- III. Degradation of Transboundary Groundwater Systems ([Bellagio Draft of Transboundary Groundwater Treaty](#))
- IV. Degradation of [transboundary] Wetland Ecosystems (Ramsar Convention, Convention on Biodiversity)
- V. Coastal/Marine Overnourishment (Global Plan of Action (GPA) for the Protection of Marine Environment from Land-based Pollution Sources)
- VI. Persistent Toxic Substances (POPs Convention)
- VII. Coastal and Marine Fisheries (Law of the Sea)
- VIII. Ship-related Contaminants (MARPOL)

As an OP10 technical support activity of the GEF, IW:LEARN assists the partnerships of countries participating in scores of current and future GEF projects to address these priority global issues. In accordance with the *GEF Instrument*, IW:LEARN also facilitates realization of IAs' commitment to integrate into the GEF portfolio their services of comparative advantage from their core programs. Through IW:LEARN brokerage, projects can discover and access

UNDP capacity-building resources, UNEP scientific and technical guidance, and World Bank multi-sectoral investment expertise, for example.

IW:LEARN specifically addresses priority technical assistance needs of GEF IW projects, as surveyed at major gatherings¹, and demonstrated numerous projects' benefits² derived from IW:LEARN products and services during its Pilot Phase. IW:LEARN's capacity-building activities also link to nations' shared global and regional commitments to the following:

- 1971 [Ramsar] [Convention on Wetlands](#)
- 1972 [London] [Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter](#)
- 1982 [World Charter for Nature](#) (Part III: Implementation)
- 1982 [UN Convention on the Law of the Sea](#) (esp. Parts XII-XIV)
- 1984 [Abidjan] [Convention for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the West and Central African Region](#)
- 1985 [Nairobi] [Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region](#)
- 1986 [Lima] [Convention for the Protection of the Marine Environment and Coastal Area of the South-East Pacific](#) (esp. Articles 9-10)
- 1992 [Agenda 21 – Chapter 17](#) (Protection of the Oceans, All Kinds of Seas, Including Enclosed and Semi-Enclosed Seas, and Coastal Areas and the Protection, Rational Use and Development of their Living Resources)
- 1992 [Convention on Biological Diversity](#) (esp. Articles 12-13, as related to transboundary aquatic ecosystems)
- 1992 [Bucharest] [Convention on the Protection of the Black Sea Against Pollution](#) (esp. Articles XV and XVIII.6)
- 1992 [Helsinki] [Convention on the Protection and Use of Transboundary Watercourses and International Lakes](#)
- 1992 [Rio] [Declaration on Environment and Development](#), Principle 9 (“States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge...”)
- 1997 [UN Convention on the Law of Non-navigational Uses of International Watercourses](#) (esp. Articles 9 and 30; UN General Assembly in resolution 51/229 of 21 May 1997, ratification pending)
- 2002 [Johannesburg Declaration on Sustainable Development](#) (esp. paragraphs 13, 18, 25 and 26)
- 2002 [World Summit on Sustainable Development](#) (commitments to restore marine fisheries, establish networks for marine protected areas, increase global access to safe water, and reduce biodiversity loss) and the [WSSD Plan of Implementation](#) (esp. paragraphs 23-34 regarding waters-related capacity building, paragr. 52 (Small Island

¹ See Annex 7 as well as summary reports from GEF IWC 2000 and 2002.

² See updated benefits summary at <http://www.iwlearn.org/benefit.php>.

Developing States' fisheries), 56, 67, 81 (the GEF's role), 100-106, 118-119, 112 and 143) DEVELOP THIS SECTION INTO A TABLE IN THE PROJECT BRIEF.

as well as various other bilateral and multilateral declarations, agreements, treaties, and conventions between countries eligible for technical assistance from the Global Environment Facility and UNDP (CIESIN/SEDAC [on-line](#); International Law Commission [on-line](#); International Water Law Project [on-line](#); Kimball 2001; Wolf 2001 and on-line). The project furthermore advances the will of environment and development Ministers from over 40 countries that participated in the Global Conference on Oceans and Coasts (Paris, 2001) and in the 2001 International Freshwater Conference. In Bonn, they together committed to "support capacity building programmes and information exchange to ensure effective use of human, financial and technical resources for water management."

Annex 4. Global and Regional Contexts for IW:LEARN

General consensus exists regarding the need to increase integrated water resource management (IWRM) and integrated coastal management (ICM) capacity in developing countries and countries with economies in transition. As a result, general Web “portals” which document resources across a variety of themes – both environmental (UNEP.Net) and development-related (World Bank-affiliated Global Development Gateway) – include areas on water resources.

Various capacity-building networks specifically address either IWRM or ICM issues. The Global Water Partnership (GWP) addresses freshwater management needs at the global-to-national level, while UNDP’s Cap-Net project has just begun to support local-level capacity-building networks for IWRM. UNESCO’s World Water Portal, Institute for Water Education and UNU Virtual Water Learning Centre all aim to increase access to IWRM knowledge. Specific global networks support communities of practices for particular freshwater systems, such as rivers (INBO, River Basin Initiative), lakes (LakeNet) or aquifers (ISARM/ITARM). The multi-institutional partnership, Water Education and Training (WET) develops learning at primary, vocational and professional education and training in IWRM. Water Education for Teachers (Project WET), meanwhile, trains pedagogues to increase their students’ freshwater management efforts. Other knowledge sharing institutions focus on oceans (UNESCO Intergovernmental Oceanographic Commission), ICM (CoastNet), small islands (SIDSnet) or coral reefs (ICRIForum). There also exist several learning networks for marine ecosystems (TRAIN-SEA-COAST and its GEF-supported Course Development Units (CDUs), International Ocean Institute’s Virtual University and its GEF-catalyzed operational centres in developing countries).

Many of these initiatives specialize in either freshwater systems or marine systems, without targeting issues that span the freshwater-marine continuum (e.g., invasion by aquatic microbes). Efforts are predominantly aimed at a subset of either information portals *or* peer-to-peer structured sharing, rarely integrating both into a unified capacity-building approach. Furthermore, apart from IW:LEARN, few recognize transboundary waters issues as a critical component of their agenda, nor aim to directly address the operational needs of the GEF International Waters community.

With the GEF’s incremental support, the IW:LEARN Pilot Phase promoted integration among initiatives to benefit transboundary water management across the freshwater-marine continuum. The IW:LEARN pilot formed a global learning and resource network specifically tailored to the needs of GEF IW projects and their partners. Outputs of the Pilot Phase’s unified approach to include—

- A global International Waters Resource Centre providing access to GEF IW project-related documents and information, organized to address projects’ needs (on-line and off-line)
- A self-populating on-line library of case studies of practical experiences for effective transboundary water management
- Information products synthesized from multi-project IW forums and working groups coordinated by IW:LEARN

- A distance Master of Science degree program in environment and development with a concentration in International Waters (University of London)
- An Internet-based system for sharing local-level transboundary coastal management experience via distance education (www.dlist.org)
- A suite of demand-driven software solutions to assist IW projects in: co-financing and distance learning opportunities; TDA/SAP development; stakeholder tracking and involvement; as well as cost-effective communications and coordination between projects and their partners
- ICT training workshops with follow-up peer-to-peer technical assistance communities of practice within and among projects implementing Web-based clearinghouses, email-based electronic forums, real-time Internet-based communications and other ICT tools
- A cooperating set of support facilities to assist GEF projects in IW and ICT capacity building.

Through cooperation with the GEF Secretariat and Implementing Agencies, the IW:LEARN Pilot Phase project designed its products to integrate with GEF information management efforts, as well as those of the World Bank's Global Development Gateway, UNEP.Net, the Environment-Directory, and other global and regional information-sharing systems. This network of integrated metadata information systems will serve as a collective resource by uniting expertise from the GEF IW community with existing knowledge sharing networks and distance learning initiatives.

The Pilot Project furthermore provided extensive support to the development, coordination and follow-up to GEF's first International Waters Conferences, including coordinating ICT showcases; working group planning and coordination; capturing, presenting and responding to pervasive needs expressed by participants; preparing, publishing and disseminating conference proceedings and summary reports in electronic format; and facilitation of inter-project electronic forums in the interval between IWCs.

Based on these experiences, the Pilot Phase of IW:LEARN evolved and tested an iterative system for ensuring its activities respond directly to the technical needs and learning priorities of GEF IW projects, as outlined in Annex 2.

Latin America and the Caribbean

The OAS-affiliated Inter-American Water Resources Network (IWRN) is a regional coordinating body for water-related capacity-building activities in the Americas. IWRN organizes large regional events (e.g., the biennial Inter-American Dialogue on Water), annual Water Information Summits, a series of Web-cast roundtables and numerous activities across the Latin America and Caribbean (LAC) region. OAS also provides scholarships for advanced study by LAC nationals in other OAS nations.

IWRN and IW:LEARN worked together to replicate IW:LEARN's global services at the LAC regional scale. Joint IW-related activities focussed on needs expressed among over 40 GEF IW project managers participating in forums coordinated by IW:LEARN and co-sponsored by GEF,

OAS, UNEP and other GEF partners.³ In response to these needs, a series of ICT workshops for water projects has been offered through a partnership of IW:LEARN, IWRN and the Water Centre for Humid Tropics of Latin America and the Caribbean (CATHALAC). These workshops concurrently address several priority capacity-building needs expressed by GEF IW projects and participating countries at the GEF's most recent International Waters Conference in Dalian, China (Annex 7). A GEF Climate Change EA, CATHALAC is also establishing a regional IW:LEARN support facility in Panama to directly address the technical needs of GEF IW projects in LAC with resources from their own region.

IW:LEARN has been collaborating with IWRN, the WaterWeb Consortium, and UNESCO/IHP to develop a Water Portal for the Americas. This portal will provide GEF IW projects multi-lingual access to pertinent information developed in and for the LAC region. UNESCO requested that IW:LEARN help the IHP convert postgraduate groundwater training curricula into electronic format for dissemination in LAC. UNEP-IW:LEARN's Library of Practical Experience has been beta-tested with case studies from LAC projects, UNEP/Regional Seas Secretariat(s) and the GEF/IA project portfolio. IW:LEARN is also technically assisting LAC GEF projects (e.g., Rio San Juan, Mesoamerican Barrier Reef System) to develop ICT tools for data management, stakeholder coordination and other project management needs.

Crosscutting partnerships provide a foundation for regionalizing IW:LEARN's holistic information sharing and structured learning approach across the multi-lingual LAC community during the Operational Phase of the project.

Sub-Saharan Africa

A number of regional and sub-regional initiatives address water-related issues in the sub-Saharan Africa region (e.g., WaterNet, Southern African Water Information Network (SAWINET), the Africa Water Page). Many of these networks are built around document repositories or a portal of links to other Web sites. Of these, only the Africa Water Page is known to provide guidance in the discovery of waters-related learning opportunities. IW:LEARN is in ongoing communication with the Water Page producer to implement mutually-identified opportunities for synergy.

Across Africa the INBO-affiliated African Association of River Networks (AARN) is an INBO affiliate which could be a valuable partner for IW:LEARN Operational Phase activities. In the East African Great Lakes area, IW:LEARN provides Web hosting and ICT support services to the GEF's LTBP project. IW:LEARN has also been investigating establishment of a regional support facility for lake management, possibly in partnership with the GEF's LakeNet Medium-Sized Project. The recent establishment of an Africa Water Facility may provide further channels for freshwater capacity building in the region in the near future.

Other African capacity-building efforts have focused on coastal or marine issues: For example, strongly country-driven ICM initiatives in Eastern and Southern Africa led to the development of [SEACAM](#). Meanwhile, regional seas conventions (Section 6) have contributed to the UNEP-GEF Regional Seas and UNDP-GEF Large Marine Ecosystem (LME) programs in the region.

³P. Suarez and D. Sklarew, eds. 2002. *Transboundary Waters Management: Perspectives from Latin American and Caribbean Managers*. IW:LEARN: Arlington, On-line at <http://www.iwlearn.org/ftp/GEF-IW-LAC-2001-EN.pdf>

Both have expressed interest in developing IW:LEARN-like information sharing networks and structured learning at the sub-regional or transboundary waters project scales.

In a pilot activity to address such issues, IW:LEARN partnered with the World Bank and Eco-Africa Associates to establish a coastal management network within the GEF's Benguela Current Large Marine Ecosystem (BCLME) project area. A Distance Learning Information Sharing Tool (DLIST) now brings together local government planners across national boundaries to develop and learn from indigenously generated coastal management curricula. Participants contribute to and access a shared library of pertinent documents, use on-line discussion forums and, subsequent to training, maintain long-distance interactions via both Internet and telephone. A *de facto* regional IW:LEARN support facility for DLIST has been established in partnership with Eco-Africa Associates.

Given the initial success of the DLIST pilot programme, BCLME is establishing a close rapport with Eco-Africa Associates while counterparts from other African LMEs (e.g., Guinea Current, Agulhas Current) have expressed interest in replicating DLIST within their project areas. A GEF-sponsored and IW:LEARN-coordinated pavilion and side event on LME management at the WSSD WaterDome presented opportunities for replication elsewhere.

Middle East and North Africa

The GEF project for the Red Sea and Gulf of Aden (PERSGA) plays a pivotal role in capacity building in the Middle East region. As part of the GEF's TRAIN-SEA-COAST project, PERSGA recently validated a regionally developed course on Marine Protected Areas. An affiliated IW:LEARN-sponsored electronic forum continues to support peer-to-peer knowledge sharing among Marine Protected Area managers in 8 countries. IW:LEARN is also working with PERSGA to support IW TWM through regional participation in the successor to IW:LEARN's successful pilot distance MSc programme with University of London.

IW:LEARN and the World Bank are partnering to develop a CD-ROM course on Integrated Coastal Management for PERSGA partners and stakeholders. This distance learning tool will be distributed through PERSGA and to area universities, which have expressed interest in customizing the course for their own academic programmes. IW:LEARN also approached the Middle East Water Information Network (MEWIN) about transferring or replicating its poorly maintained Web archives of hundreds of useful resources to a dedicated host located within the PERSGA project area.

The Aravas Institute approached IW:LEARN to co-sponsor an accredited distance learning course on IWRM in the Middle East. In addition, personnel from the GEF-sponsored Nile Basin Initiative and IW:LEARN are jointly exploring support to the Applied Training Project, to strengthen IWRM capacity in the Nile Basin region.

Eastern and Central Europe

GEF projects in Eastern and Central Europe fall broadly within the scope of the Helsinki Convention; several GEF IW projects participated in the Convention's 2002 International Conference on Sustainable Management of Transboundary Waters in Europe. During an IW:LEARN-sponsored side event at this conference, participants expressed interest in

establishing an ongoing forum to continue their dialog. IW:LEARN is currently in the process of recruiting partners and participants for such a forum. Participants will likely determine shared capacity-building priorities, then identify or solicit opportunities to obtain such capacity from one another, through partners in their area or via the European Community. A former GEF IW EA, REC may also soon serve as a regional partner for IW:LEARN activities.

A network to share environmental curricula across Black Sea schools resulted from one Romanian educator's participation in an IW:LEARN workshop. Sun Microsystems recognized the associated "Black Sea IW:LEARN" Web site among the top 100 educational sites on the Internet. Under its partnership with UNESCO, and as follow-up to IW:LEARN's participation in the 'Power of Networking for Water' International Symposium hosted by ETNET (European Thematic Network of Education & Training, Environment-Water) in Budapest, IW:LEARN is working to promote IW distance learning opportunities in conjunction with the Eastern European Water Education Network and the Regional Environmental Centre (REC) for Eastern and Central Europe.

IW:LEARN has provided a solicited proposal for the World Bank to develop a distance learning pilot project for decision-makers affiliated with the GEF's Danube/Black Sea Basin Strategic Partnership. The GEF's Dnipro River project requested and received technical support from IW:LEARN.

East Asia

In East Asia, the GEF-sponsored Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) project consulted with IW:LEARN to replicate IW:LEARN's global knowledge sharing activities at a regional scale. PEMSEA and IW:LEARN jointly participated in planning and coordinating the capacity-building agenda for the GEF's Second International Waters Conference in Dalian, China (September 2002). In addition, IW:LEARN has worked with others to incorporate GEF projects' experiences into the programme of the Third World Water Summit in Kyoto, Japan (March 2003).

The GEF Tumen River project also participated directly in IW:LEARN ICT training activities during the IW:LEARN Pilot Phase. Furthermore, given extensive capacity across distinct communities in Southeast Asia, the GEF South China Sea (SCS) project is currently exploring ways for IW:LEARN to assist in structured learning and information transfer initiatives in this area. Plans to establish an IW:LEARN support facility for GIS in partnership with SCS and local institutions are also underway.

Annex 5: Outputs and Lessons From Pilot Phase of IW:LEARN

5.1 Outputs from IW:LEARN Pilot Phase

During its 2000-2003 Pilot Phase, IW:LEARN pursued, tested and, in some cases helped replicate a variety of activities to promote stakeholder inclusion, effective IW project management, ongoing needs-based learning and horizontal transfer of knowledge across the GEF IW community. Outputs indicative of progress towards IW:LEARN's development objective and immediate objectives as of June 30, 2002 are provided below.

5.1.1 Pilot Phase Outputs Towards Development Objective

IW:LEARN's Pilot Phase development objective was to "expand knowledge sharing among International Waters project and partners." Outputs and progress as of May 12, 2003:

Indicators	Actual Level Achieved
1. Documented IW project/management benefits resulting from participation in IW:LEARN's training and distance education programs –10 benefits by 6/2001, <u>25 by 6/2002</u> , 50 by 6/2003 (cumulative).	<ul style="list-style-type: none">• IW managers in the LAC region identified a shared need for GIS training, soon be addressed through a new Spanish-language workshop IW:LEARN will co-sponsor with partners in the region.• Provided technical assistance to International Waters projects: developing effective Web sites (San Juan River) and Internet infrastructure (Lake Tanganyika); assessing and defining technologies for regional environmental databases (Dnieper River) and communications strategies (South Pacific SIDS)• Provided SPREP National Coordinator with computer application training materials, allowing convention members to use common tools• Southern African and Namibian provincial governments established a distance learning certificate program in coastal management [http://www.dlist.org], soon to be accredited as part of the Environmental Engineering programme of the Institute Peninsula Technikon.• Provided technical assistance to International Waters projects to establish global ballast water electronic forum (GLOBALLAST); develop effective Web sites (MBRS, Rio San Juan, PEMSEA) and Internet infrastructure (LTBP); assess and define technologies for regional environmental database (DNIPRO) and communications strategy (SPREP).• Participants of the 2001 and 2002 Workshops at the 4th and 5th Water information Summits developed and enhanced web-based information products and portals pertaining to water resources

Indicators	Actual Level Achieved
<p>2. Broad and active participation in IW forums developed or supported (established, moderated or technically assisted) by IW:LEARN, including all active projects, at least 200 people and over 1000 messages (cumulative) by 12/2002</p>	<ul style="list-style-type: none"> Facilitated session on financing partnerships and coordinated ICT showcase at 2nd Annual GEF International Waters Conference. Over 680 participants across IW:LEARN-created electronic forums: “iw-forum” (IW public and stakeholders), “gef-iw-mgrs” (GEF IW managers and IA representatives, and IW:LEARN-supported, “gef-iw-lac” (for LAC region projects), “IW-EastAsia” (PEMSEA-area IW projects), “mpa” (PERSGA Marine Protected Areas team), “tdasap” (developing training in creation of GEF-mandated TDA and SAP methodologies), and others. More than 1000 messages across these electronic lists. “gef-iw-mgrs” acted as key forum for ongoing substantive project-to-project interactions, including 12-week review and exploration of key issues raised by GEF’s <i>International Waters Programme Study</i>; etc. Implemented 2.5 day face-to-face training workshop for 17 IW portal developers from Latin America and Africa/Indian Subcontinent. Initiated dialog among 5 projects at UNECE Transboundary Waters Conference in Poland. Provided technical support and substantive insights to UNDP-GEF in the development of a highly interactive agenda among IW participants for upcoming GEF IW Conference.
<p>3. IW projects accessing priority knowledge products and information resources identified, developed or documented by IW projects and their partners (through IW:LEARN-developed or supported (on-line) Community Resource Centers (CRCs) and (standalone) Portable Resource Centers (PRCs)), within 1 year of electronic publication</p>	<ul style="list-style-type: none"> Drafting of several knowledge products derived from above forums underway to convey and address IW project needs (e.g., re: institutional sustainability, public participation in project development, etc.) Continued development of GEF’s International Waters Resource Centre (IWRC) web site, now with over 1600 IW-related resources. It contains GEF-project specific documents and IW-pertinent information, including project profiles, project-related documents, IWRM workshops and courses, forums and events. IWRC Web site alone was accessed an average of 25 times daily during first quarter 2003. Additional IW knowledge resources being continually added to dynamic database for access via the IWRC, selected according to priority needs expressed by GEF IW projects as well as through review of key resources provided by IW (and aquatic biodiversity) projects (e.g., tools to help identify IW problems and their underlying causes) or developed in partnership with IW:LEARN (e.g. educational financial aid and sustainable financing). IW:LEARN has developed new “iToolkit” and “iServer” PRC products (in English and Spanish) and obtained related CD-ROM-based instructional tools (PRCs) from several GEF projects for dissemination by IW:LEARN and emulation across projects. Also developed PRC versions of the IWRC (circulated over 150 copies to national coordinators and project managers at Dalian), and DLIST. A PRC for a Red Sea ICM course is under development.

Indicators	Actual Level Achieved
<p>4. An increasing number of IW projects and partners express interest and actively participate in IW:LEARN distance learning, knowledge sharing and capacity-building activities, as well as in helping to articulate and plan for the intensification of IW:LEARN during its Phase II (2003-2007)</p>	<ul style="list-style-type: none"> • IW:LEARN's (after hours) "live" trans-Atlantic ICT demonstration attended by standing room only of ~25 IW Conference attendees • Black Sea, South Pacific Islands (SPREP), NBI, Danube, MBRS, PEMSEA, Rio San Juan, Guarani, Dnipro, LTBP, and RBI have all solicited further IW:LEARN technical assistance in development of their projects • IW:LEARN has signed agreements for joint IW distance learning, knowledge sharing and capacity building activities with the following organizations: UNESCO, PERSGA, CATHALAC, Cap-Net, UNEP, World Bank, Royal Holloway-University London, EcoAfrica, and OAS. • UN/DESA (SIDSnet; Virtual Water Learning Center), REC, IWRN (Water Information Summit 4; UNEP-GEF Best Practices MSP proposal), IRC, and IOI (Marine Science Distance Master's Program plans) have all made specific efforts to pursue future partnerships with IW:LEARN • Prospects for agreements with other partners in-region being pursued, high probability of consummation during this Phase of IW:LEARN. • Broadcast a draft IW:LEARN Operational Phase summary and survey to all GEF IW Projects for comment. Inputs conveyed by South China Sea, PEMSEA, Rio San Juan, IW representatives from GEFSEC, all 3 Implementing Agencies, various Executing Agencies (e.g., OAS, UNOPS) and IW knowledge providing institutions (e.g., EcoAfrica, UNESCO, IUCN, ICRI, IOI, HTC/Malaysia, CATHALAC, IWRN, <i>et al.</i>) at local, regional and global scales. • Provide strategic guidance to the GEF World Lakes project. • IW:LEARN staff and representatives conducted side events or presented at 6 international conferences attended by GEF projects and the IW community at large (UNECE, IPA (Canada), WSSD, PCCP, Dalian, and WWF, WIS3,4&5. Public Participation and Governance on Intl. Watershed Mgmt., UVA).

5.1.2 IW:LEARN Pilot Phase Outputs Towards Immediate Objective

Outputs and progress towards IW:LEARN Pilot Phase immediate objectives (as of June 30, 2002):

#	Immediate Objective	Indicators	Actual Level Achieved
1.	Train and mobilize a Web-based Implementation Team (representing at least 20 countries) whose members will catalyze and carry out knowledge-sharing activities within and among their respective regional projects.	<ul style="list-style-type: none"> • 20-30 persons trained in IW:LEARN Workshop by June 2002 • 12-16 persons train in U-London Distance Masters program by June 2002, 18-26 by June 2003 • Large number of persons trained in other distance programs by June 2003 <p>By June 2002:</p> <ul style="list-style-type: none"> • Additional workshops • Local spin-offs • 5-6 persons trained in other advanced distance training program 	<ul style="list-style-type: none"> • Over 50 IW personnel and partners have been trained across 5 multi-week (hybrid face-to-face/on-line) IW:LEARN and IW:LEARN-DLIST workshops. • The Implementation Team (“I-team”) electronic forum has been activated across GEF IW regions, with ongoing discourse among over 25 members, including self-selected training graduates and IW:LEARN-selected “International Waters Fellows.” • 6 persons trained 1st cohort of successful pilot for U. London Distance Masters Program • IW:LEARN outreach resulted in 20 additional qualified applicants towards a 2001 cohort, but funding was insufficient to launch full program. • IW:LEARN sustainable financing pilot with PERSGA has already assured funding for a cohort of 10 new Distance Masters students from the PERSGA region alone in 2003. • IW:LEARN providing on-going outreach to recruit IW project personnel and partners to attend other IW training programmes. • Contributed to formulation of methodology for Black Sea/Danube Regional Distance Learning Pilot • Conducted workshop for water portal developers in conjunction with Water Information Summit (WIS) 5 (Fall 2002). To date, 3 web sites/water portals have been developed as a result of the training. • Planning underway for knowledge management workshop to be held in conjunction with WIS6 (Fall 2003). • IW:LEARN presented at a regional workshop organized by Dnipro River project on website data standards, electronic working groups, and security • “Shared Black Sea (distance learning) curriculum” launched (and independently funded) as an award-winning Romanian “Black Sea • IW:LEARN” Web site by I-team member, as direct result of his IW:LEARN workshop training. • Plan underway to deliver a Spanish-language knowledge sharing IW workshop • w/CATHALAC, addressing common concerns expressed by IW:LEARN’s IW forums in LAC. <p>5 trainees graduated the DLIST-Benguela transboundary coast management distance training certificate program in 2002.</p>

#	Immediate Objective	Indicators	Actual Level Achieved
2.	Develop waters-related knowledge products (e.g., courses, seminars, Web sites) to be shared and tested by the IW:LEARN Implementation Team, making use of new communications technologies and drawing upon intellectual resources of the participating projects, UNDP, World Bank, UNEP, and other partners;	By June 2002: <ul style="list-style-type: none"> • NetCourses, training modules, advanced training curriculum • Results and best practices seminar • Shared curriculum modules for secondary schools by June 2001 	<ul style="list-style-type: none"> • Among IWRC NetCourse offerings: 11 distance degree programs, 8 short-courses or certificate programs, 9 course modules and 1 on-line lecture series and 7 distance learning institutions. • Free access to over 400 ICT tutorials (in partnership with freeskills.com). In response to strong demand for MSOffice training among its national coordinators, GEF SPREP EA downloaded and disseminated associate tutorials via iwlearn.org • DLIST currently has 6 students enrolled in the Pentech web-based course and 31 in web-assisted mode. • All IW:LEARN curricular materials are provided in “open content” format on its Web site. • IW:LEARN has characterized over 1,600 knowledge resources (courses, documents, contacts) for access via the IWRC • IW:LEARN published collaborative knowledge products, based on IW:LEARN-organized inter-project meetings and workgroups which address results and best practices. • International Waters graduate course delivered through RHUL Distance MSc program. • “Shared Black Sea (distance learning) curriculum” launched (and independently funded) as an award-winning Romanian “Black Sea IW:LEARN” Web site by I-team member, as direct result of his IW:LEARN workshop training.

#	Immediate Objective	Indicators	Actual Level Achieved
3.	Create a model for a scalable globally accessible "Web space" (i.e., an extranet) dedicated to learning and knowledge sharing about International Waters, integrating no fewer than 6 support sites, 20 learning hubs, 50 "portable classrooms", and dial-up connections from anywhere on the Internet	<ul style="list-style-type: none"> • Inter-project meetings and workgroups by June 2001 • Dedicated hook-ups to scientific meetings by June 2002 <ul style="list-style-type: none"> • International Waters Best Practices database created (UNEP) by June 2001 • UNEP Best Practices database opened with incentive scheme by June 2002 • UNEP presentation of first International Waters Best Practice Award by June 2003 	<ul style="list-style-type: none"> • Facilitated 5 email forum sessions (~3 weeks ea.) among over 50 GEF IW managers to characterize priority issues among them and jointly address 4 aspects of GEF's <i>International Waters Programme Study</i> (TDA/SAP process; demonstrations and their replication; institutional sustainability; and M&E/disseminating lessons learned) • Managed 12-week electronic session and 2 day face-to-face forum of GEF IW managers and their IW peers throughout the LAC region (multi-lingual), exploring common challenges and valuable practices to address them. • Convened dialogue among 5 GEF IW projects at UNECE "transboundary waters meeting," laying groundwork for "eEurasia" IW e-Forum this fall. • Determined insufficient benefit vs. cost for fully dedicated real-time hookups at scientific meetings; providing on-line access to papers, presentations, and participants' contact information via IWRC. • Prototype of the UNEP "lessons learned" database presented at IWC2002, WIS5, International Transboundary Water conference in Mexico and the 3rd World Water Forum in Japan. • Participated in Water and Information Day at WWF. • Convened session on LME management at WSSD. • Organized Dalian showcase of project ICT tools • Convened session "'Knowledge Sharing and Learning Exchanges among IW Projects" with panel of GEF IW Project personnel at WWF3 • Mock-up presented to IW:LEARN Steering committee and to UNEP focus group thereafter. • Prototype is on line and was presented at IWC2002, WIS5, International Transboundary Water conference in Mexico and the 3rd World Water Forum in Japan. • BP award plan has been modified; first award not yet presented.

#	Immediate Objective	Indicators	Actual Level Achieved
		<ul style="list-style-type: none"> • 5 “Support Facilities” by December 2002 • 8-12 on-line “Community Resource Centers” installed by December 2002 	<ul style="list-style-type: none"> • Washington Support Facility fully operational • London Support facility operational until sudden death of key personnel; data retrieved, location closed. • Panama City Support Facility had agreement, personnel, all hardware, and most of software set-up as of June 2002; subsequent personnel changes at CATHALAC have delayed completion. • Southern Africa technical support facility operational, implementing DLIST-Benguela • Potential partners identified for Eastern European and Southeast Asian support facilities Mock-up presented to IW:LEARN Steering committee and to UNEP focus group thereafter. • International Waters Resource Centre on-line and dynamic (www.iwlearn.net) • DLIST learning centre on-line (www.dlist.org) • Black Sea shared curriculum Web site http://edu.eforie.ro/carmensylva/iwlearn/online • “Water Portal for the Americas”/LAC Community Resource Centre planned w/UNESCO, WaterWeb Consortium • To date, 3 additional CRCs developed through IW:LEARN’s Fall 2002 CRC Developer’s Workshop, with 5 – 10 more in progress.
4.	Articulate future methodologies for building sustainable Web based knowledge communities in developing countries, demonstrating results and work in progress at the GEF International Waters strategic planning and assessment meetings held in 2000 and 2002.	<ul style="list-style-type: none"> • 12-24 standalone “Portable Resource Centers” installed by December 2002 • One technical support site installed by June 2002 	<ul style="list-style-type: none"> • 26 I-Toolkit Portable Resource Centres circulated to IW partners • Red Sea ICM Portable Resource Centre under development • Future Portable Resource Centre content obtained from Caspian, Black Sea, Guinea Current and Lake Tanganyika. • 300 PRCs w/IWRC content co-produced with GETF for GEF International Waters Conference participants, over 200 distributed at Dalina and workshops • Technical support site operational at EcoAfrica, in Southern Africa, working to replicate DLIST-Benguela along Mozambique Channel.

#	Immediate Objective	Indicators	Actual Level Achieved
		<ul style="list-style-type: none"> • Presentation of IW:LEARN progress at GEF International Waters Conference in Europe. • Presentation of IW:LEARN progress at GEF International Waters Conference in Asia (September 2002) and other IW-related conferences • Continued testing of future-oriented methodologies for distance knowledge sharing • Phase II Project Concept Paper submitted to UNDP-GEF by September 2002 (submission delayed per request of Steering Committee). One technical support site installed (East Africa) by June 2002 	<ul style="list-style-type: none"> • Results and works in progress demonstrated at well attended and successful demos at GEF IW Conference in Budapest (2000) and Dalian (2002) , WSSD (2002), WWF3 WWF3(2003) and regional meetings: Water Information Summit III 3 , IV4 and V5, UNECE Transboundary Waters Conference, Inter-American Dialog IV, IV PCCP conference (Delft), Public Participation (UVA) • Presentations to UNDP, UNEP, IBRD, INBO, and IWRN (2002). Presentation to USAID scheduled (May, 2003). • Currently developing 2nd draft of Operational Phase concept paper, incorporating 2002 TPR insights • One hour interactive demonstration on IW:LEARN held at 2002 IW Conference in Dalian • Inputs from Dalian conference incorporated into IW:LEARN Phase II project brief.

5.2 Lessons from IW:LEARN Pilot Phase

1. IW:LEARN is a global conduit for lateral transfer of experiences.

In the framework of GEF, IW:LEARN facilitates direct horizontal or lateral transfer of experiences between managers in the field. IW:LEARN established the GEF International Waters Managers' electronic forum itself as one instance of this effort. IW:LEARN is also working with the GEF and its partners to ensure that experiences in the field are communicated "cyclically" from experienced projects to "pipeline" and new projects. This transfer is achieved through synthesis of needs-based information products from inter-project working groups and problem-solving teams, as well as by helping the GEF to "complete the loop" from monitoring and evaluation (M&E) to inform new projects. For examples, see the IW:LEARN-hosted "GEF International Waters Resource Centre" (IWRC) web site (<http://www.iwlearn.net>).

The IWRC includes (for full-text search and discovery) projects' news bulletins, project-related documents and potentially any other materials which one or more projects deem useful to share with the larger GEF IW-community. For example, the project has included presentations received from the 2000 and 2002 International Waters Conference, as well as outputs from GEF-sponsored side events at other meetings (e.g., Montreal, Bonn and Foz do Iguaçu in 2001). Further, we're working with the GEF and IAs to ensure that managers' collective face-to-face time in Dalian maximizes opportunity for direct horizontal transfer and, where appropriate, documentation thereof. IW:LEARN is also working with UNEP to develop a Library of Best Practices on-line database.

2. IW:LEARN assists regional demonstration and replication of lateral transfer activities.

In addition to our global efforts, IW:LEARN is also working with regional organizations to demonstrate, evaluate, and replicate lateral transfer at the regional scale. The first such initiative, begun in summer 2001, involved IW projects in the Latin America and Caribbean (LAC) region. The effort was launched in partnership with the GEF, UNEP-ROLAC and the Organization for American States (OAS), with later cooperation with the Inter-American Water Resources Network (IWRN) and the WaterWeb consortium. Through a season-long electronic forum, climaxing with a 2-day face-to-face meeting in Foz do Iguaçu, IW project managers presented their projects to one another, identified shared concerns, and initiated a process of team problem-solving to address common challenges.

IW:LEARN then used the experiences from this LAC lateral transfer demonstration to inform a similar initiative now underway in East Asia, replicated under the direction of PEMSEA. IW:LEARN aims to identify and work with partners in other GEF regions (Africa, Middle East, Eastern Europe and Central Asia, island states, etc.) to continue to replicate, adapt and refine this regional structured learning to meet the regional needs and interests of members of this community.

3. IW:LEARN workshops and "I-team" promote lateral transfer at the operational staff level.

IW:LEARN's lateral knowledge sharing demonstrations have also extended beyond project managers to include Public Information Officers (PIOs) and Management and Information Systems Officers (MISOs). Through a series of annual information and communications technology (ICT) workshops, we have trained a cadre of PIOs and MISOs to effectively use computers and the Internet to better communicate and coordinate IW activities across participating countries. Graduates of these workshops are invited to join IW:LEARN's Implementation Team ("the I-team"), which provides ongoing peer-to-peer support and knowledge sharing between projects at the PIO/MISO level.

In 2001, for instance, we learned that involving stakeholders was among LAC managers' key issues. So

IW:LEARN invited GEF IW projects' PIOs and MISOs to participate in our "International Waters Web Developers' Workshop" on-line and in Panama City in October. The workshop aimed to help projects use the Internet as a conduit for information dissemination as well as public outreach and participation. (Note: IW:LEARN recognizes the Internet as a tool for information transfer and experience sharing, best used in concert with traditional communications media and mechanisms to bridge "the last kilometer" beyond those with computer and Internet-access.) Back in their home office, participants communicated with IW:LEARN and each other over a 12-week period for mutual support in implementing post-training products for their projects. Upon completion of this period, graduates were welcomed into the now 40+ member I-team.

4. IW:LEARN demonstrates transboundary lateral transfer at the local scale.

As one final example of IW:LEARN's lateral transfer demonstrations, IW:LEARN has collaborated with the World Bank and EcoAfrica Associates to promote local-level learning exchange across widely-dispersed communities in the Benguela Current LME project region. Content generated through a series of local community workshops in Namibia and South Africa's Western Cape has been prepared for access and discussion via a "Distance Learning and Information Sharing Tool" (DLIST). For more information, please see <http://www.dlist.org>.

Annex 6. Independent Evaluation of Pilot Phase of IW:LEARN and International Waters Conferences

6.1. Summary of Findings of Independent Evaluation of IW:LEARN Pilot Phase

The main conclusions of the Pilot Phase independent evaluation are as follows:

- “IW:LEARN has achieved recognition among most GEF IW Projects as a valuable mechanism for transferring *information* between projects regarding project content, output and practices.
- “As a *knowledge* transfer mechanism, IW:LEARN has achieved enthusiastic recognition from those projects that have directly benefited from training or other means of support.
- “The geographical spread of projects benefiting from ‘knowledge transfer’ remains limited – there is a clear need for growth in this area and a more proactive approach towards individual projects – one size does not fit all.”

Rated as “highly successful” activities were:

- “DLIST-Benguela” (<http://www.dlist.org>): a community-based distance learning demonstration project to build transboundary coastal management capacity
- “The International Waters Resource Centre (IWRC)” (<http://www.iwlearn.net>): a portfolio-wide electronic community resource centre providing one-stop access to GEF IW projects’ information and resources
- 2 International Waters Conferences (IWCs) (see Annex 10.2, below)

The evaluator noted DLIST-Benguela activity as “an excellent example of good practice.” The GEF IWRC as “bold and pragmatic,” moving in a direction which “should now be exploited further, increasing its outreach and connectivity.”

Also successful were:

- an annual series of multi-week ICT workshops reaching over 60 participants from dozens of agencies and NGOs participating in transboundary waters activities across GEF project regions.

“Partially successful” activities included:

- A financing pilot for distance education (<http://www.iwlearn.net/course/aide.php>),
- An IW Library of Practical Experiences (<http://www.eco-insight.org>),
- Assistance to expand GEF IW projects’ Web presence, matching projects’ needs and resources, and
- Developing regional technical support facilities for IW projects.

IW:LEARN’s electronic forums have helped close the circuit between GEF M&E results and projects implementation and feedback, but not yet succeeded in building a global community of projects engaged in a continuous dialogue. Further progress, often with some modification, is required to ensure full success of these activities in the future. Electronic forum sessions, for

instance, need to be focussed, finite and linked to face-to-face dialogs, such as the biennial GEF International Waters Conferences (IWCs).

Two unsuccessful demonstrations were drastically modified (single provider Distance Masters program and laptop-based portable classrooms) as a result of ongoing review of emerging realities on the ground.

6.2. Summary of Findings from International Waters Conference

According to surveyed responses from 77 of the 186 participants, the most recent International Waters Conference in Dalian was very effective and quite well received. Over 75% rated their level of satisfaction as “very good” or “excellent.” Two-thirds agreed that it was a very good or excellent opportunity to network and exchange ideas about program implementation, as well as to meet and form alliances with other IW projects. More than half also conveyed the conference as being a very good or excellent opportunity to (a) identify collaborative opportunities and resources available for their projects; (b) to learn about practical experiences to adapt to their projects and (c) to provide feedback to GEF IAs and EAs. Over 70% further agreed that the Dalian IWC provided good to excellent help for their understanding GEF M&E processes. Their written comments emphasize the event as “tremendously valuable,” “of great help” and “extremely useful – an indispensable tool [which] most definitely needs to be continued.”

The conference was cited as very useful for:

- Better understanding GEF context, objectives and methodology;
- Determining where individual GEF projects stand in the regional and programmatic context of the GEF;
- Networking with other GEF projects;
- Exchanging experiences with other GEF projects;
- Obtaining information about various GEF projects and activities;
- Communicating directly with GEFSEC and Implementing Agencies;
- Understanding GEF expectations;
- Obtaining feedback and guidance on the way individual projects are being conducted;
- Developing partnerships;
- Introducing and increasing awareness and understanding of individual project goals/objectives/services/activities;
- Meeting and solidifying areas of cooperation with other projects; and,
- Expanding the views of institutions and promoting partnerships

Specific outcomes from the conferences are available via <http://www.iwlearn.net/event/presentations>.

Representative suggestions for the subsequent IWCs include:

- Focus on processes, methodologies;
- Round table format;
- More two-way communication regarding monitoring and evaluation;
- Outline of operational management procedures;
- Opportunity to provide briefs on the projects IAs are handling;

- Lessons, concrete weaknesses learned and shared;
- M&E indicators;
- Fund raising mechanisms for non-GEF funded components;
- Intergovernmental coordination and cooperation;
- Best practices to assist project implementation; e.g. developing; communication strategy and specific communication; and assuring sustainability of project results;
- Role and opportunities of involving the business sector;
- Tracks by region;
- Tracks by ecosystem;
- Thematic discussions, e.g. define some themes related to water management such as implementation of monitoring systems; water allocation systems between and within countries; examples of pollution policies; features of transboundary legal and institutional frameworks; characteristics of negotiation processes in project preparation and implementation; groundwater;
- Data exchange and networking between projects;
- Hold conference annually;
- Conference in Africa;

Participants also advised that the IWC experience could be enhanced by:

- Complimenting conference with bi-lateral cooperation, exchange visits, study tours
- Sister project system
- Addressing overlap between regional programmes covering same countries (e.g. South China Sea and RAMSAR)
- Presenting IWC results in venues such as RAMSAR conference, WWF III, etc.

These are precisely the sorts of ongoing structured learning activities which would operate regularly through the coming phase of IW:LEARN.

While initially programmatically distinct, the IWCs have become largely integrated into IW:LEARN's overall knowledge sharing activities during the Pilot Phase. For the most recent IWC, IW:LEARN facilitated projects' inputs regarding the agenda, coordinated conference planners' interface with GEFSEC and IAs, conducted a showcase of GEF IW projects' ICT solutions (attended by over 60 participants), assessed projects needs (Annex 7) and published a conference report and electronic proceedings within one month of the closing session. The independent evaluation of the IW:LEARN Pilot Phase also noted that well-attended ICT workshop organized by IW:LEARN to open the Dalian conference "provided well structured feedback which is of immense value in projecting IW:LEARN's role in the future." IWC activities during the IW:LEARN Operational Phase will build upon these accomplishments.

Annex 7: Priority Needs Expressed by GEF IW Projects and Participating Countries at 2002 GEF IW Conference

Nearly all countries that receive development assistance from the United Nations or the World Bank have also participated in GEF IW projects. The Second GEF International Waters Conferences in Dalian provided an ideal opportunity to survey the capacity building needs of representatives from those projects and participating countries. The GEF IW:LEARN project conducted a written survey to prioritize projects' needs for various management tools and knowledge about specific IW-related environmental concerns.

Sixty management tools were derived from the Global Water Partnership [Toolbox taxonomy](#) and GEF-specific project management components. Over twenty issues were adapted from the GEF-supported Global International Waters Assessment's [key issues](#).

Among fifty respondents, an overwhelming majority viewed tools for **Public Participation** as their top capacity-building need. Nearly two-thirds identified Public Participation as a high priority, while 90% rated it as either a medium or high priority. Participants also expressed a strong need for tools related to: **Knowledge Management** and **Knowledge Sharing**, **Monitoring and Evaluation**, **Water Management Indicators** and **Databases**. The table below ranks tools rated highly needed by over 50% of respondents and medium or highly rated by over 80% of respondents.

Ran k	Tools in High Demand	Tools in Medium or High Demand
1	Public Participation	Public Participation Monitoring and Evaluation
2	Knowledge Management	
3	Knowledge Sharing Water Management Indicators	Databases
4	Data Analysis Raising awareness Increasing participation Professionals Training	Knowledge sharing Strategic Action Program Monitoring Risk assessment and mgmt Improved efficiency of use
5	Strategic Action Program	Data Analysis Raising awareness Increasing participation Project Financing Development of Investment Packages Cost recovery and charging policies Build Partnerships

Rank	Tools in High Demand	Tools in Medium or High Demand
		Stakeholder Communication Water Resource Economics
6	Databases	N/A

Loss of Ecosystems and Ecotones was the IW issue of greatest importance to respondents. **Overexploitation, Biodiversity Impacts** and **Habitat Destruction** were also among issues for which projects most commonly require more knowledge and information. The table below ranks issues rated highly needed by over one third of respondents and medium or highly rated by at least 60% of respondents.

Rank	High Information Need	Medium or High Information Need
1	Loss of Ecosystems/Ecotones	Loss of Ecosystems/Ecotones Biodiversity Impacts
2	Overexploitation	Habitat Destruction
3	Habitat Destruction Inappropriate Harvesting	Inappropriate Harvesting Resource Habitat changes Man-induced changes in the physical environment
4	Man-induced changes in the physical environment	Modification of ecosystems or ecotones Overexploitation Changes in the hydrological cycles
5	Changes in the hydrological cycles	Fisheries Biomass
6	Biodiversity impacts Drought	N/A
7	Modification of ecosystems or ecotones Pollution of existing water supplies	N/A

The results from this survey largely reaffirm the outcomes from a similar assessment conducted at the first International Waters Conference. These findings will be used to guide future knowledge sharing activities across the GEF IW portfolio, with support and facilitation of the GEF's IW:LEARN project.

Annex 8. Global IW Threats and Causes, Baseline and Alternative Scenarios

8.1 Global Threats

Global threats to transboundary waters include:

- Nutrient enrichment,
- Fisheries depletion,
- Habitat degradation,
- Persistent toxic substances (PTS), including persistent organic pollutants (POPs),
- Harmful microbes and invasive species,

as well as indirect threats from climate change (e.g., natural disasters due to hydrological cycle changes), land degradation (e.g., sedimentation and flow modification) and biodiversity decline (e.g., extinction of endemic keystone species).⁴

8.2 Underlying Causes

Underlying these threats is a lack of capacity to –

- Control land-based sources of surface and ground water pollution that degrade the quality of international waters;
- Prevent and control land degradation where transboundary environmental concerns result from desertification or deforestation;
- Prevent physical or ecological degradation, and hydrologic modification, of critical habitats (such as wetlands, shallow waters, and reefs);
- Control unsustainable use of marine living resources as well as nonliving resources resulting from inadequate management measures such as over-fishing, destructive fishing, excessive withdrawal of freshwater, and resource extraction;
- Control ship-based sources of chemical washings and non-indigenous species that can disrupt ecosystems or cause toxic and human health effects (pollutants, invasive species)⁵

Such deficiency is manifest in –

- Inadequate understanding of the transboundary water system being managed,
- National plans which do not fully address underlying causes of transboundary degradation,
- Lack of knowledge regarding options for or experience in implementing effective solutions to degradation,

⁴ University of Plymouth's *Introduction to the GIWA Methodology* (21 April 2001 [Draft]) provides a more systematic review of the global threats to transboundary waters. This taxonomy is incorporated into IW:LEARN's classification of over 1000 resources according to these threats.

⁵ GEF, 1996.

- Lack of joint vision, participation and coordination between partners at local, national and transboundary scales as well as across sectors of stakeholders,
- Limited awareness of or access to requisite management tools or institutional, financial or human resources.

In aggregation, there exists insufficient capacity among nations to efficiently develop and implement management regimes that address the imminent threats to and the related international obligations for protection of international waters.

Annex 9: Operational Phase Concept for the UNEP-IW:LEARN Library of Practical Experience (“Eco-Insight”)

The IW:LEARN Library of Practical Experience is the first initiative by the GEF to document experience from task managers, project managers, coordinators, and project evaluators involved with GEF projects in the international waters portfolio. The approach taken in documenting IW experience is to:

1. Recognize that each GEF project intervention aims to address a number of issues within the focal area
2. Identify each high level issue/solution that is documented through the project cycle e.g. TDA/SAP
3. Recognize that each high level TDA/SAP can result in a number of lower level problems and solutions that need to be addressed in the project implementation
4. Document these lower level problems and solutions and link them to the high level issues identified as part of the projects’ methodology providing a holistic overview of the experience that can be shared at various levels of interest.
5. Capture practical experiences during implementation through interviews with the practitioners involved in the project and opinions from the wider community familiar with IW issues

An online database (linked with a GEF IW project inventory detailing project outputs, technical experts, etc) has been developed in Pilot Phase of the UNEP/IW:LEARN component, and is accessible at: <http://www.eco-insight.org/>. An award system designed to encourage the sharing and exchange of practical experiences has been proposed but has not yet been implemented. Analysis of eight projects (geographically balanced) produced at least thirty-five “experiences” for the Pilot Phase system, served to test the usability of the system and prove the concept. In general, Best Practice Database pilot served to define in practical terms, a system and methodology that can serve the needs of the GEF IW community, be used strategically by corporate GEF and partners.

9.1 Vision

Eco-Insight will create a framework for cooperation and coordination amongst the various existing international waters initiatives aimed at sharing past experience amongst relevant stakeholders in order to influence future interventions in the GEF IW portfolio, and other relevant programmes and projects.

Elements of the Eco-Insight framework are:

- Eco-Insight portal presenting case studies documenting practical experiences
- Off-line products to disseminate information and experience to a wider audience and by presenting it in a variety of user-friendly formats and media.

- Network of experts with proven experience in recognising and documenting relevant case studies from major IW initiatives worldwide.
- Stakeholder roundtables to provide strategic advice on matters related to the Eco-Insight framework.
- Award system to recognise valuable contributions to the Eco-Insight framework.

9.2 Scope of Operational Phase of IW:LEARN Library of Practical Experience

1. The IW project portfolio will continue to be the central focus of the IW:LEARN Library of Practical Experiences and in Operational Phase efforts will be concentrated on identifying suitable case studies from IW projects that are either closed or on-going. The ideal situation would be to have the identification of experiences extracted from each IW project by the project evaluators. This task should therefore be included in the terms of reference for the evaluators. Up to now, the task has been dependent on the use of consultants familiar with the respective IW projects.
2. It is also important to recognize that beyond the GEF IW project portfolio, there are a significant number of major international programmes and projects in the marine and freshwater areas. The diagram outlines a strategy to include these international waters initiatives.
3. Each of these initiatives are generating examples of practical experiences that are not being captured in a systematic way for the purpose of exchanging this valuable experience among relevant stakeholders, including the GEF. These stakeholders can apply this experience in future project design, development and implementation and avoid repeating the mistakes made in other (non-GEF and GEF) projects.
4. There is enormous scope for extending the IW:LEARN best practice initiative into these important international waters programmes and projects but a decision has to be made by the IW:LEARN Steering Committee as to which of these non-GEF international waters initiatives should be included in the Operational Phase of the IW Library of Practical Experiences. Annex 9.4 provides a non-exhaustive list of these international waters initiatives under three headings: marine, freshwater and integrated (both coastal and marine).
5. A consultative process would have to be established with the agencies responsible for these international initiatives to determine the modalities of their cooperation with the IW:LEARN

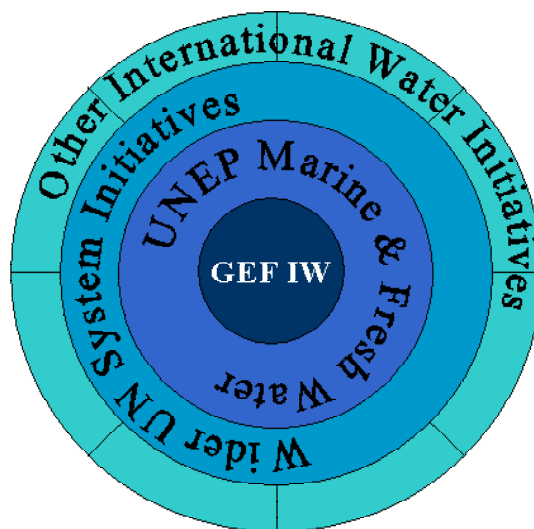


Figure 1 Wider Body of IW Knowledge

best practice initiative. However, it is anticipated that synergies with other IW project activities of the GEF could be a useful spin-off from their engagement with the Library of Practical Experiences.

9.3 Environmental Experience (EE) Portal

Funding sustainability and promotion strategy

1. Funding and promotion of the EE portal are inter-linked issues. In order to raise the visibility of the EE portal, it is proposed to solicit the support of the Environmental Systems Research Institute (ESRI) in Redlands, California to finance a limited number of annual awards for the most valuable experiences and commitments to sharing within the GEF focal areas. The President of ESRI, Mr. Jack Dangermond has expressed interest in supporting such an award. A gold medal accompanied by a monetary gift might constitute an award in a particular focal area. UNEP would also promote the ‘Dangermond Medal’ as part of its communications and public information campaign. The secretariats for CBD, UNFCCC, CCD and other appropriate agencies such as UNEP Regional Seas Offices and the GEF NGO network will assist with promoting the EE portal and associated awards among their respective constituents.
2. At the policy level, integration with the GEF project cycle is an essential component both for sustainability, promotion and long-term benefit. As such, a fixed or percent based dollar value of each approved project should contribute to the portal’s award/promotion fund to serve as an incentive for the wider body of practitioners to contribute.

Data collection strategy

1. Having an award system in place may not be sufficient motivation for the population of the portal with good examples of environmental experience. The GEF implementing agencies and related convention secretariats that are responsible for managing projects in GEF-relevant focal areas need to ensure that project managers and project evaluators contribute experiences to the portal. This requirement should be formally written into the terms of reference of all project/task managers, evaluators and project proposal requirements. Since each experience recorded is linked to a project, integration with the project reporting cycle is also important for a structured process for documenting all project related entities (personnel, outputs, evaluations, etc) as well as sighting references to the experiences captured by the system at the project concept/formulation level. The current approach taken is to link the GEF Implementation Agency project task managers to every project assigned to an IA. The task managers being responsible for updating and registering project related information. The tool being used for this inventory is the GEF funded Environment Directory information management system.

Peer review and award mechanism

1. Simply stated, the award system is based on applying criteria to rank “commitment to sharing”, based on the collective number of contributions, the use of indicators to weigh the content of the contribution(s), and feedback from the community interacting with the database system.

2. The peer review may be carried out by the members of the Scientific and Technical Advisory Panel (STAP) roster depending on their respective area of expertise with assistance from the various steering committees (IW:LEARN for international waters related experiences). A small stipend will be provided to roster members for their services. The selection of award recipients will be done by the STAP itself based on short list recommendations from the STAP roster evaluators in each of the focal areas.

9.4 Potential contributors to IW:LEARN Library of Practical Experiences

Beyond GEF IAs, potential contributors include:

Marine

UNESCO Intergovernmental Ocean Commission (IOC; <http://www.ioc.unesco.org>)

International Oceans Institute (IOI)

Freshwater

UN Secretariat (<http://www.un.org/esa/sustdev/water.htm>)

Freshwater issues in UN are the responsibility of the Commission for Sustainable Development, CSD, within the framework of the follow-up of the UNCED Agenda 21. The UN Department for Social and Economic Affairs, DESA, acts as secretariat for the **CSD**, and it is within the **UN/DESA** that the main freshwater expertise is to be found within the UN secretariat. A fairly large programme of technical cooperation in integrated water resources development and groundwater development is among the functions of the UN/DESA

UNICEF (<http://www.unicef.org>)

The UNICEF main water programme, ***Water, Environment and Sanitation, WES*** is guided by principles of child rights, a world fit for children, mainstreaming of gender, WES for the urban poor and sanitation, hygiene and water. UNICEF has entered into formal partnership with several other UN organisations, acknowledging the fact of the complementarity of UN agencies and the need for better co-ordination.

UNHSP (Habitat) (<http://www.un-urbanwater.net/>)

The programme, ***Managing Water for African Cities*** (<http://www.un-urbanwater.net/>), where different aspects on water for Africa's largest cities is dealt with, is a programme where Habitat works in collaboration with UNEP. The largest cities on the African continent are participating in that programme. The programme is directed towards promoting a demand-side perspective of water management and water pollution control methods, gender mainstreaming and improvement, and water access for urban poor and peri-urban areas.

UNESCO (<http://www.unesco.org/water/ihp.html>)

UNESCO's freshwater component is managed by the ***International Hydrological Programme, IHP*** (<http://www.unesco.org/water/ihp.html>) within the Division of Water Sciences of the Natural Science programmes. The aim of IHP is to improve the scientific and technological basis for the development of methods for the rational management of water resources including the protection of the environment

The *International Groundwater Resources Assessment Centre* operates under the auspices of UNESCO jointly with WMO.

The ***World Water Assessment Programme*** (<http://www.unesco.org/water/wwap>), a collective UN system-wide continuing assessment process based on the needs voiced as a result of the 2nd World Water Forum, The Hague, March, 2000. Within the WWAP a World Water Development Report is to be produced.

FAO

The three basic concerns shaping the water programme of FAO's ***Water Resources Development and Management Service***, (<http://www.fao.org/ag/agl/aglw.htm>), within FAO are to:

- Produce more with less water;
- Protect water quality and the environment, including human health;
- Close the food consumption and production gap, particularly in the African countries.

WHO

The WHO is mandated to maintain health as a central focus of water and sanitation development, which is reflected in its water programme (<http://www.who.int/peh>). The objectives for WHO are to

- ◆ Emphasize the provision of health-related guidance in support of sustainable development in member states;
- ◆ Target its water and sanitation activities on specific health objectives;
- ◆ Be a stronger advocate of health objectives in water supply and sanitation development; and
- ◆ Become the health partner of other major water and sanitation organisations.

The WHO has worked jointly with UN organisations such as UNDP, UNICEF, the World Bank and UNEP.

- ◆ The ***Joint Water Supply and Sanitation Monitoring Programme***, a programme to support individual countries in strengthening their water supply and sanitation monitoring capability, is an important example of a joint WHO/UNICEF programme.
- ◆ A collaborator in this is the ***Water Supply and Sanitation Collaborative Council, WSSCC*** (<http://www.wsscc.org>).
- ◆ The ***Global Environmental Monitoring System, Freshwater quality programme, GEMS/WATER*** (<http://www.cciw.ca/gems>)

Integrated (marine & freshwater)

WMO

Among the WMO programmes there is a ***Hydrology and Water Resources Programme, HWRP*** (<http://www.wmo.ch/web/homs/hwr-home.html>). This programme concentrates on promoting evaluation of water resources world-wide and the development of hydrological networks and services, including data collection and processing, hydrological forecasting and warnings and the supply of data.

Annex 10: Comparative Advantages and Specific Linkages IAs Bring to IW:LEARN

According to the GEF Instrument⁶ and associated documents, areas of comparative advantage for each of the Implementing Agencies are as follows:

(a) UNDP:

- Development and management of IW capacity building programs and technical assistance projects.
- Human resources development, IW institutional strengthening, and non-governmental and community participation
- Assisting countries in promoting, designing and implementing activities consistent with the purpose of the GEF IW focal area and national sustainable development strategies.

(b) UNEP:

- Catalyzing the development of scientific and technical analysis (e.g., in TDA) and advancing environmental management (e.g., in SAP process) in GEF-financed IW activities.
- Relating the GEF-financed activities to global, regional and national IW environmental assessments, policy frameworks and plans, and to international environmental agreements.
- Supporting the IW Scientific and Technical Advisory Panel (STAP) as an advisory body to IW:LEARN.

(c) The World Bank:

- Development and management of IW investment projects.
- Promoting IW investment opportunities and mobilizing private sector resources that are consistent with GEF IW objectives and national sustainable development strategies.
- Multi-sector and donor coordination for IW project co-financing and sustainability.

In addition, IW leads from each of the IAs' GEF offices have provided the additional information below regarding comparative advantages and linkages to contribute to IW:LEARN Operational Phase project objectives.

UNDP

UNDP has an important role in global advocacy and dissemination of country and community experiences in effective and equitable governance of water resources and service delivery. Transboundary waters are among the priority areas identified for inclusion in UNDP's Global Cooperation Framework that guides development policy and advocacy activities in the 2001-

⁶ Annex D, paragr. 11 at <http://www.gefweb.org/public/instrume/instrum8.htm>

2003 period. The UNDP Water Governance Strategy, presently under development, addresses major transboundary waters challenges through an overall concept of improved water governance. According to the draft Strategy, UNDP's major areas of intervention include:

- Providing advice and technical support to countries on policy and institutional options and instruments for integrated management of shared water resources.
- Supporting country participation in regional and sub-regional policy dialogue aimed at managing shared water resources cooperatively and for mutual benefit, including: assessment of key issues, constraints and common priorities.
- Information exchange and sharing of experiences, coordination and harmonisation of national policies.
- Strengthening country capacity to participate in the formulation and implementation of regional and sub-regional strategic initiatives for managing shared water resources and to address related problems such as the regional impacts of land degradation.
- Increased advocacy of pro-poor water governance approaches and global dissemination of water governance experience including participation in international events such as WSSD, World Water Forums, the World Water Development Report (UNDP contribution focused on water governance)

UNDP's work on transboundary waters aims to overcome a variety of boundaries complicating the management of water. The concept entails not only working across political boundaries, but also equally important working across physical boundaries (e.g., aquatic-marine, surface-ground water, urban-rural), social boundaries (e.g., gender, poverty) and sector boundaries (e.g., water for people, for food, for nature). The IW:LEARN project advances over 30 national and regional priorities identified as part of the UNDP's Environmental Goal (G3) as well as specific sub-goals of its Governance (G1) and Poverty Alleviation (G2) goals.

Within UNDP, aquatic environment issues are supported by the Environmentally Sustainable Development Group, (ESDG) at the Bureau for Development Policies (BDP).⁷ ESDG plays an important role in policy development and dissemination and leads UNDP's GEF implementation.. During the Pilot Phase, IW:LEARN worked with ESDG to develop a needs and resources metadata database and distance learning services for IW projects, as well as to provide material inputs into the UNDP-implemented GEF International Waters Conference in Dalian. IW:LEARN also has specific linkages to a number of important UNDP fostered global networks and support programmes for the water sector, such as:

- [UNDP GEF IW Projects](#)
- [Cap-Net](#)
- Development of Tools for Mainstreaming Gender in Water Resources Management
- Global Water Partnership co-sponsor
- International Program for Technology and Research in Irrigation and Drainage (IPTRID)
- Strategic Initiative for Ocean and Coastal Management (SIOCAM)
- Thematic Trust Funds for [Environment](#) and for [ICT for Development](#)⁸

⁷ <http://www.undp.org/water>.

⁸ IW:LEARN has three proposals submitted under Tranche 1 of the ICTD TFF, now rolled over and pending review for Tranche 2 or 3.

- Transboundary River Basin Initiative (TRIB), a UNDP Trust Fund
- UNDP-World Bank International Waters Partnership
- Water and Sanitation Program (WSP)
- Water Supply and Sanitation Collaborative Council (WSSCC)

In addition, UNDP and the World Bank Institute (WBI) work together with UNESCO's International Hydrologic Programme (IHP), Institute for Water Education at the United Nations University (UNU-INWEH) in developing the Water-Education and Training ([WET](#)) strategy on human capacity building for integrated water resources management. IW:LEARN could bring to this partnership an incremental component to support *distance* learning applications about *transboundary* waters, in particular, where GEF projects have significant expertise to convey to the emerging international waters managers and stakeholders.

UNEP

The global environment is central to UNEP's core mandate and regular programme and it's sub programme, Environmental Assessment and Early Warning, includes periodic integrated global assessments, such as the Global Environmental Outlook, as well as a series of sectoral/issue-oriented and sub/regional assessments (e.g. marine and fresh water, land, etc). UNEP's regular programme maintains a leading role in environmental data systems, trend analysis, analysis and networking. Particular emphasis is given to global environmental observing systems and early warning information infrastructure to identify emerging issues, potential threats, hot spots and emergency situations. UNEP is also focusing increasingly on improving public access to environment information and strengthening public participation in environment decision making. Other sub programmes that can support the objectives of IW:LEARN include Regional Cooperation and Representation, and, Communications and Public Affairs sub-programmes which provide channels for awareness-raising among Governments, civil society, the media, interested groups and communities, and resource mobilisation.

In relation to transboundary waters, UNEP areas of concentration include: environmental monitoring, assessment, information and research including early warning; enhanced coordination of environmental conventions and development of environmental policy instruments; freshwater; technology transfer and industry; and support to Africa. IW:LEARN's linkage with UNEP's activities span all of these areas of concentration.

An important element of UNEP's Water Policy and Strategy is the promotion of Integrated Water Resource Management including the groundwater resources and the coastal areas. Activities are focussing on exchange of information on best practices and on capacity building and education. Experience gained in the field is translated into guidelines and recommendations that may be valuable to projects across the GEF IW portfolio.

In the context of IW:LEARN and GEF objectives, it is important to note the following characteristic features of the UNEP regular programme:

- UNEP's emphasis is on establishing environmental priorities and plans, scientific monitoring, building networks, analysing data and information to identify trends and

facilitate global consensus, developing legal frameworks at the global, regional and national levels, disseminating policy and technical information.

- UNEP's regular programme has a modest budget for activities designed to catalyse actions. Its primary resource is its convening authority and its partnerships and networks.

Therefore, UNEP's regular programme activities could be scaled up to serve GEF needs by applying existing tools and methodologies as services targeted towards GEF priority areas and objectives. Further, project related activities (including UNEP/GEF) can be directly linked to the useful successes and potential activities of the IW:LEARN Pilot Phase. For instance, the IW:LEARN Operational Phase would be furthered through IWRM and the scaling up of the environment-directory (a UNEP/GEF strategic partnership output) to coordinate and capture project reporting and data (GIS, reports, etc) that are components of ongoing and past project activities.

The IW:LEARN Pilot Phase worked with UNEP-DEWA to develop an on-line Library of Practical Experiences (see Annex 9) pertinent to effective transboundary water management. IW:LEARN also participated in capacity-building efforts involving UNEP's Global Programme of Action (GPA) for the Protection of the Marine Environment from Land-based Activities, its best practices MSP with IWRN, and the freshwater component of its Global Environmental Monitoring System (GEMS). IW:LEARN links to UNEP programmes and activities include:

- [UNEP GEF IW Projects](#)
- UNEP Collaborating Centre on Water and Environment (UCC-Water)
- Global Environment and Development Studies (GEDS) Distance MSc Programme (UNEP-Arundal/UNU)
- Global Environmental Monitoring System – Freshwater programme (GEMS/Water)
- Global International Waters Assessment (GIWA)
- Global Plan of Action (GPA) for the Protection of Marine Environment from Land-based Pollution Sources
- International Environmental Technology Centre (IETC)
- Regional Seas Programme and regional secretariats
- UNEP.Net/water and its environmental directory partnerships
- River Basin Information System (RBIS)
- Dams and Development Project
- Surficial Aquifers and Urban Pollution in Africa

World Bank

As a major component of its corporate strategy, the World Bank is committed to the management of information, and sharing of knowledge and learning. Nowhere is this more pertinent than with the environment, natural resources and International Waters, given that these factors form the foundation of economies.

The Bank has committed to assisting governments in developing strategies and cost-effective mechanisms for the ecologically sustainable management, protection, and restoration of recharge areas and water-dependent ecosystems, such as wetlands, riverine floodplain areas, estuaries, and coastal zones.⁹ Through technical, financial, and legal assistance, the Bank helps governments establish or strengthen institutions, such as river basin organizations, to address transboundary water management activities. The Bank supports studies, consultations and training to help countries deal with a variety of water resource management issues.¹⁰ As a result, the Bank pursues a range of activities, including the preparation of guidelines and best-practices papers, staff and country training programs, capacity building, and the development of coordination mechanisms to improve the management of water resources.

Across 21 developing and transitional countries, the World Bank has discovered that water ranks second, just after income, among the priorities of poor people (Bucknall and others 2001).¹¹ The IW:LEARN project helps such countries to improve their management of shared water resources, thereby increasing the income, health and nutrition of their poor people. Thus, the project directly addresses the World Bank's Millennium Development Goal (#7) to Ensure Environmental Sustainability. By building the capacity of transboundary waters institutions, IW:LEARN also helps the Bank's efforts to transition from local to regional and international water management, where water acts as a major catalyst for cooperation at all levels, thereby increasing security both within and across participating nations (IBRD 2002 [draft]). Through synthesis of specific knowledge products from the GEF IW community inputs, IW:LEARN could help the Bank to communicate how GEF IW projects address the land-freshwater-marine continuum and contribute to poverty alleviation (e.g., Bermejo topsoil preservation, Meso-American Barrier Reef ecotourism, etc.) and regional security among participating countries (e.g., cooperation in Nile River and Senegal River basins).

The IW:LEARN project links directly with several themes of the World Bank's Water Resources Management Group ("the Blue Team"), including Water and Environment (aquatic biodiversity, invasive species and wetlands), Coastal and Marine Management, Groundwater, River Basin and Watershed Management, as all relate to the theme of Transboundary Water Management. IW:LEARN's partnership with the Blue Team is producing a series of distance learning products related to management of coasts and marine protected areas. Efforts are also underway to dovetail IW-related databases maintained by the Blue Team and by IW:LEARN.

Potential IW:LEARN cross-linkages with the WBI are noteworthy: WBI's [Water Policy Capacity Building Program](#) aims to help countries prepare and implement water policies with early and lasting effects. WBI is working with the Blue Team to develop a series of training modules related to the above themes. IW:LEARN could disseminate and help locally adapt these

⁹ International Bank for Reconstruction and Development [IBRD]. 1993. Water resources management, A World Bank policy paper. [http://lnweb18.worldbank.org/essd/essd.nsf/422f682c452954d385256a4f007aaced/9a2ddc75c6d6253185256a07005dcb3f/\\$FILE/Wrmpp.doc](http://lnweb18.worldbank.org/essd/essd.nsf/422f682c452954d385256a4f007aaced/9a2ddc75c6d6253185256a07005dcb3f/$FILE/Wrmpp.doc)

¹⁰ E.g., cross-sectoral analysis; legal, regulatory, and privatization issues; shared aquifer and groundwater management; river basin management, flood and drought planning, environmental protection, project formulation and evaluation, demand forecasting, and participatory management.

¹¹ J. Bucknall, C. Kraus, and P. Pillal. 2001. *Poverty and Environment*. World Bank: Washington, D.C. [http://lnweb18.worldbank.org/essd/essd.nsf/GlobalView/Poverty%20and%20Environment.pdf/\\$File/Poverty%20and%20Environment.pdf](http://lnweb18.worldbank.org/essd/essd.nsf/GlobalView/Poverty%20and%20Environment.pdf/$File/Poverty%20and%20Environment.pdf)

modules throughout the GEF IW community. Furthermore, communication of GEF IW field experience and training needs via IW:LEARN may help drive further WBI course development.

IW:LEARN links to other World Bank programmes and initiatives, including:

- [World Bank GEF IW Projects](#)
- Replication of the Distance Learning Information Sharing Tool (DLIST) for ICM (Bank partnership w/IW:LEARN and EcoAfrica)
- Global Development Gateway co-sponsor
- Global Water Initiative (GWI) partnership with IUCN
- GWP co-sponsor
- InfoDev (funding support for IW:LEARN and its partners ICT-related activities)
- UNDP-World Bank IW Partnership
- Water Sector Strategy

IW:LEARN has also designed the GEF International Waters Resource Centre to be able to share resources with the Global Development Gateway, so that the GEF community's transboundary waters knowledge can be widely disseminated, discovered and accessed across the development community.

As IW:LEARN moves into its Operational Phase, the World Bank is well positioned to contribute to IWLs efforts. The following are key service areas where the Bank can add value:

1. Extract meaningful IW practical experiences from the Bank's portfolio of projects. The World Bank has developed and is maintaining a database on relevant projects, and has begun documenting lessons learned of IW, especially related to Coastal and Marine Resources Management projects (including Integrated Coastal Management). Further development of lessons learned from this database will require an active Network of Task Team Leaders (TTLs) with technical knowledge and institutional memory who can contribute to information base and demand for IW:LEARN. Time will be needed to convene and establish this network.
2. The ICRIForum & DLIST models of electronic forums need to be replicated and scaled up so that IW stakeholders can continue to enhance collaboration. Bridging support to complete technical transfer is an
3. Make use of information/IT services through project agreements with the large pipeline of World Bank-GEF IW projects. By gathering information on prospective projects in the early stages of development, knowledge transfer can have a more significant impact.
4. Piloting of innovative IW Water Projects: Lakes Management Project, Targeted Research and Capacity Building Project for Coral Reefs, Guarani Aquifer Project, Danube/Black Sea Basin Strategic Partnership Program and other projects dealing in innovative ways with issues like invasive species (Lake Victoria and SADCC Invasive Weeds Project, Hai River Basin Integrated Water Resources Mgt Project), and Marine Electronic Highway (Straits of Malacca and Western Indian Ocean, under preparation).

5. The collation and development of detailed educational content for Distance Learning application specifically for tropical coastal and marine ecosystems.

GEF Secretariat

In addition to associations with GEF Implementing Agencies, IW:LEARN also links with specific activities of the GEF Secretariat. Specific examples:

- Information products and technical assistance to help the GEF M&E Unit to “close the circuit” between its M&E activities and M&E-derived guidance to benefit ongoing IW projects.
- A searchable public Web site (and CD-ROM) for GEF International Waters information management (e.g., projects’ profiles, Web sites, news, outputs (TDAs, SAPs) and related documents; messages between GEF Secretariat, IAs and projects, to build their capacity and share information)
- A private Internet space for active South-to-South dialog and capacity-building among GEF IW projects
- Assistance in implementing the GEF’s strategy for NGO outreach, interaction and involvement

During its Operational Phase, IW:LEARN will also establish formal linkages with the GEF and with the GEF STAP through the GEF STAP’s newly appointed IW experts.

Linkages with Executing Agencies, Related International Agencies and Organizations

IW:LEARN also has pertinent linkages to non-GEF components of GEF Executing Agencies and IW-related components of other UN agencies and partner organizations. For instance –

- Secretariats of IW-related conventions (Annex 3.3)
- Food and Agricultural Organization (FAO)
- Global Environment and Technology Foundation (GETF)
- International Maritime Organization (IMO)
- International Ocean Institute (IOI Virtual University)
- International Union for the Conservation of Nature (freshwater and marine initiatives)
- Organization of American States¹² (Inter-American Water Resource Network and Inter-American Dialogues)
- Southern African Development Community; Water Sector Coordination Unit (SADC/WSCU)
- The Tides Centre (PeaceNet and EcoNet, among the oldest NGO networks on the Internet)
- UN/DESA (SIDSnet)

¹² OAS and IW:LEARN are formalizing their ongoing collaboration by signing on MOU in December 2002.

- UN Economic Commission for Europe (UNECE) and other regional UN economic commissions
- UNESCO (International Hydrological Programme,¹³ International Oceans Commission and Water Portal)
- United Nations University's Institute for Water Environment and Health (Virtual Water Learning Centre)
- World Health Organization (WHO)
- World Conservation Union (IUCN)

¹³ UNESCO-IHP/WWAP and IW:LEARN signed an MOU for ongoing collaboration in July 2002.

Annex 11. Detail of Response to Comments from November 2002 Concept Paper Review

Pilot Phase Evaluation Report

Details on the Pilot Phase Evaluator's recommendations for The Operational Phase are presented in Annex 6. An overview of recommendations pertinent to the concept paper include:

EV1. IW:LEARN should be an inter-IA GEF IW Project that is given a clear corporate identity, fully shared between the IAs.

The concept paper now reflects ongoing inputs and feedback from all IAs, along with specific activities to support inter-agency involvement and coordination. The PDF-B will have specific components aimed at fostering ownership and complementarity across IAs.

EV2. A new three component IW:LEARN project (IW:LEARN Operational Phase) should be pursued, consisting of:

- Component 1: Knowledge transfer between projects, education of new project teams (group existing knowledge transfer tools, processes and products, as well as develop new ones);
- Component 2: Information exchange and skills acquisition (direct development of Pilot Phase);
- Component 3: IW Program outreach (foster greater outreach of the GEF IW Focal Area and its achievements).

Given Steering Committee encouragement for such a proposal, Operational Phase activities (Section 8-9) were restructured around a similar, in close consultation with SC members.

EV3. Financing for IW:LEARN project services should be mainstreamed into new GEF IW projects

These recommendations were also strongly supported by GEF Sec and IA representatives at the IW:LEARN Steering Committee meeting of November 13, hence was incorporated into Sections 14 and 16 of the Concept Paper.

GEF Secretariat

GS1. The document needs to be more brief and succinct, starting with review of Pilot Phase outcomes then moving promptly to the Operational Phase relevance and strategy.

The document was reduced, reorganized and revised to address these comments.

GS2. The activities section needs to be re-organized to reflect management structure and incorporate outcomes/activities/indicators for all components in a common format.

These items were restructured as discussed in EV2 above.

GS3. The concept should take into consideration the following:

(i) Findings of the Independent Evaluation.

The concept and Sections 7-9, in particular, have been revised to incorporate findings and recommendations from the evaluation. Specific responses to evaluation recommendations for the Operational Phase are provided under “Pilot Phase Evaluation Report” (EV1-3) at the beginning of this section.

(ii) The need to move to a more (a) operational phase, concentrating on (b) a few ICT tools and experience exchange initiatives, selected among those provided successful during the first experimental (pilot) phase. Only (c) limited experimentation of new technological advances and [new] ways to enhance exchanges and replications should be included.

(a) The distinction between Pilot and Operational phase has been clarified throughout the document.

(b) ICT tools and experience exchange initiatives identified as successful are now summarized in Annex 6, and serve as the basis for revised activities presented in Section 9.

(c) Experimentation with new technology and methods has been limited to Component 4 of Operational Phase, guided by the IW:LEARN demand-driven approach (Annex 2), in response to project needs (Annex 7) which require interventions beyond the limits of existing tools and techniques in current usage across the community.

(iii) The need to define clear and measurable outcomes and outputs.

Section 9 has been revised to reflect this need. IW:LEARN’s CTA reviewed this section with the Pilot Phase Evaluator (on November 22-23) to ensure that the outcomes and outputs were indeed “monitorable,” discussing effective performance and process [impact] indicators for each activity. These indicators will be refined during the PDF-B phase, in consultation with Monitoring and Evaluation leads at GEF and/or IAs, and presented in the Operational Phase project brief.

(iv) The need to achieve the most effective balance between ICT tools and face-to-face activities and events.

Pilot phase demonstrations, annual M&E and the independent evaluation all validated that face-to-face and ICT-mediated knowledge sharing are complementary. Appropriate amounts of face-to-face and ICT interactions will be determined on a case-by-case basis for each Operational Phase knowledge sharing activity, based on its expected outcomes and on-the-ground context. This is reflected in revisions to Sections 8-9 of this document.

(vi) The opportunity for IW:LEARN to become a vehicle for the dissemination and implementation of M&E findings and recommendations, including the implementation of project indicators.

This is now illustrated in Section 7 and integrated into the outputs in Section 9

GS4. Put together a new concept on which we all agree including [GEF] M&E [Unit] and have it ready for the next pipeline in May.

Section 9 of the document has been extensively revised with active inputs from all GEF IAs and GEF Secretariat representatives. They have also reviewed the rest of the document. The GEF M&E Unit decided to postpone its involvement until after the concept is accepted by the GEF.

UNDP

UD1. Concept should reflect recommendations from 2002 IWC.

Project needs as surveyed by IW:LEARN staff at the 2002 IWC have been included in Annex 7. Further review and incorporation of recommendations from 2002 IWC are planned as part of the Operational Phase PDF-B period (December 2002).

UD2. If IAs wish to express collective support for this as a shared project (see comment EV1), a cover letter should be drafted and signed by GEF leads at all three agencies.

All IAs representatives to the IW:LEARN Steering Committee agreed to the value of doing so. UNDP-GEF agreed to take the lead in drafting such a letter for review and circulation to other IAs.

UNEP

UE1. The concept should be succinct, precise and clear, with simple non-technical language to increase overall comprehension.

The document has been reviewed and amended for clarity and simplicity.

UE2. The main body of the concept needs to incorporate Pilot Phase indicators/planned and actual results.

Pilot Phase indicators, planned and actual results as of the most recent TPR/PIR evaluation are presented in Annex 5. Independent evaluation of the Pilot Phase also reviews results versus project document indicators. Summarized in Annex 6, the evaluation is being provided to UNEP and other SC members at the time of its submission to GEF Secretariat.

UE3. The likely outcomes section [Section 9] should emphasize two UNEP elements Eco-insight (Library of Practical Experience) and the Regional Resource Node (South China Seas Project)

Both activities are now emphasized in Section 9. The body of the document references Annex 9, which details Eco-Insight, the only annex exclusively dedicated to one

component of the Operational Phase. The project management is already scheduling to meet with the South China Sea project during the Operational Phase PDF-B period to develop comparable detail regarding its Regional Resource Node. Further documentation is pending such clarification. In the meantime, Project Management confirms the importance of both of these components to the overall plans for the Operational Phase.

UE4. Concept should present comparative advantages regarding core service areas to be provided by each IA to the GEF IW portfolio as part of its in-kind contribution to the IW:LEARN Operational Phase.

IW:LEARN has solicited and received such information from each IA. Comparative advantage information has been considered in formulating activities in Section 9 and detailed for reference in Annex 10. Service areas provisions will be further developed during the PDF-B.

World Bank

WB1. The concept should specifically clarify how the Operational Phase will operate in a needs-based/demand-driven manner.

Annex 2 now explicitly characterizes the demand-driven approach developed and tested in Pilot Phase and proposed for The Operational Phase.

WB2. Consider incorporating the World Bank's Integrated Coastal and Marine Management (ICMM) best practices initiatives into The Operational Phase activities.

This activity parallels that of the UNEP-led "Eco-Insight" database (see UE3 above). Project Management recommends that both activities be coordinated (and ideally integrated) within one component of the Operational Phase, as now reflected in Section 9. Such arrangements will be clarified during the Operational Phase PDF-B period.

WB3. The financing strategy and sustainability for the FSP should consider incorporating specific services and associated budget lines into current and future pipeline projects' project documents.

Given full consensus across IA representatives regarding this proposal, it has been incorporated into Sections 14 and 16. In addition, IW:LEARN has already been approached by 2 pipeline projects for such contribution.