

How will the assessment results be disseminated?

The data and indicators generated through this transboundary assessment are organized and presented in a common data portal linking the five individual water system databases that contain more detailed data and information. The data portal is part of the TWAP website www.geftwap.org. Policy-makers and other users may view, explore and download data, reports and other products for such purposes as setting funding priorities, as in the case of the GEF and international donors; or for exploring the status of, and monitoring the trends in transboundary water systems, in response to national, regional and international management efforts.

TWAP Indicator-Based Assessment Data Processing & Product Delivery System

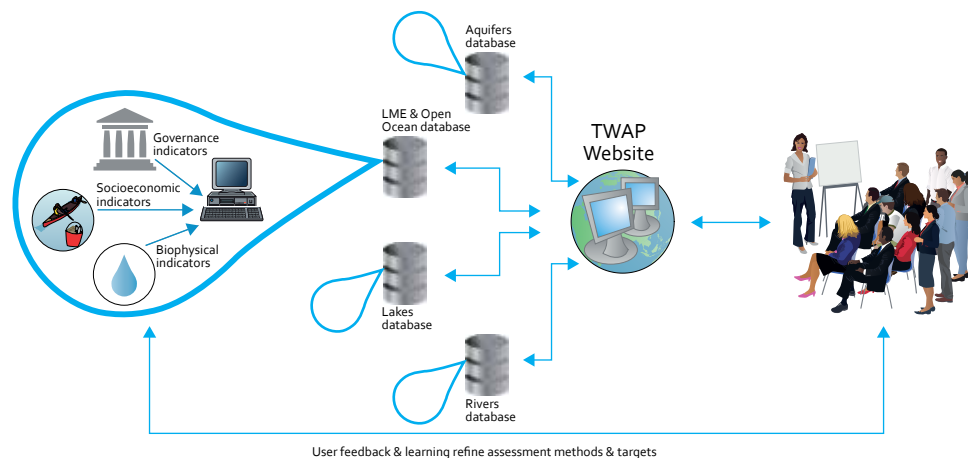


Figure 3. Web-based access of data and indicators used and analyzed by the GEF Transboundary Waters Assessment Program
 Conceptual diagram by L. McManus with images by Jason C. Fisher, Tracey Saxby, and Jane Thomas, Integration and Application Network, University of Maryland Center for Environmental Science (ian.umces.edu/imagelibrary/) and Database Clip Art from VECTOR.ME

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GEF TRANSBOUNDARY WATERS ASSESSMENT PROGRAMME (TWAP)



Why must we assess transboundary water system?

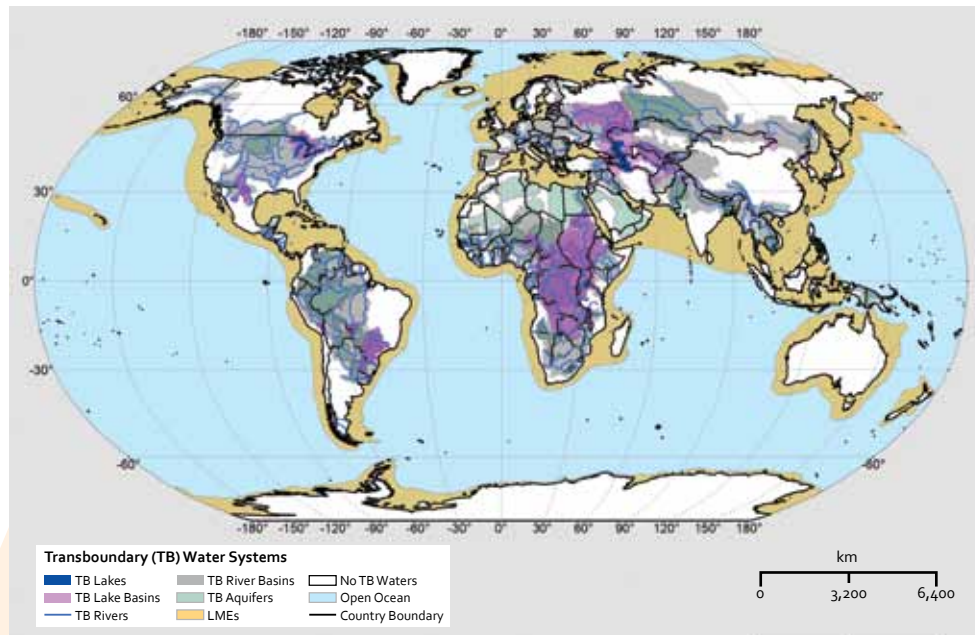


Figure 1: Transboundary Water Systems of the World.
Data sources: IGRAC 2012 for aquifers, Transboundary Waters Assessment Program Lakes Working Group, Natureearthdata for rivers, NOAA 2007 for large marine ecosystems.

Transboundary water systems extend across or beyond national boundaries. They include about 445 aquifers, more than 1600 lakes and reservoirs and 276 rivers. In addition to these freshwater systems, transboundary waters also include the open ocean and 55 large marine ecosystems (LMEs) collectively covering almost 70% of the Earth's surface.

The wellbeing and socioeconomic development of a significant part of the world's population depends on these transboundary water systems, and the essential ecosystem goods and services they provide – including freshwater for domestic, industrial and agricultural use; fisheries, tourism, transportation, waste assimilation and climate regulation. Undeniable trends, however, indicate that a growing human population and its activities as well as a changing climate are modifying them at an increasing rate.

What is the GEF TWAP?

Recognizing the value of transboundary water systems and the fact that many of them continue to be degraded and managed in fragmented ways, the Global Environment Facility Transboundary Water Assessment Programme (GEF TWAP) was developed. The Programme aims to provide a baseline assessment to identify and evaluate changes in these water systems caused by human activities and natural processes, and the consequences such have on dependant human populations.

The TWAP full-sized project is currently implementing the first truly global comparative assessment for transboundary water system categories (aquifers, lakes, rivers and large marine ecosystems); and a thematic evaluation of the open ocean, through institutional partnerships that hope to seed future global assessments as well. The project results are envisioned to assist the GEF and other international organizations in setting priorities for supporting the conservation of transboundary water systems. The methodologies for conducting the basin assessments including the identification of appropriate indicators, and the required data were developed through the TWAP medium-sized project (2009-2010).

How are the assessments conducted?

The TWAP consists of five independent indicator-based assessments and the linkages between them, including their socioeconomic and governance-related features. The United Nations Environment Programme (UNEP) is the implementing agency and the strategic partnerships formalized through the TWAP are shown below. Each partner engages a broad network of experts that evaluate transboundary water systems thematically or geographically, and comparatively, within each water system category. They employ a range of tools in such efforts, including mathematical models and geographic information systems to examine basin states.

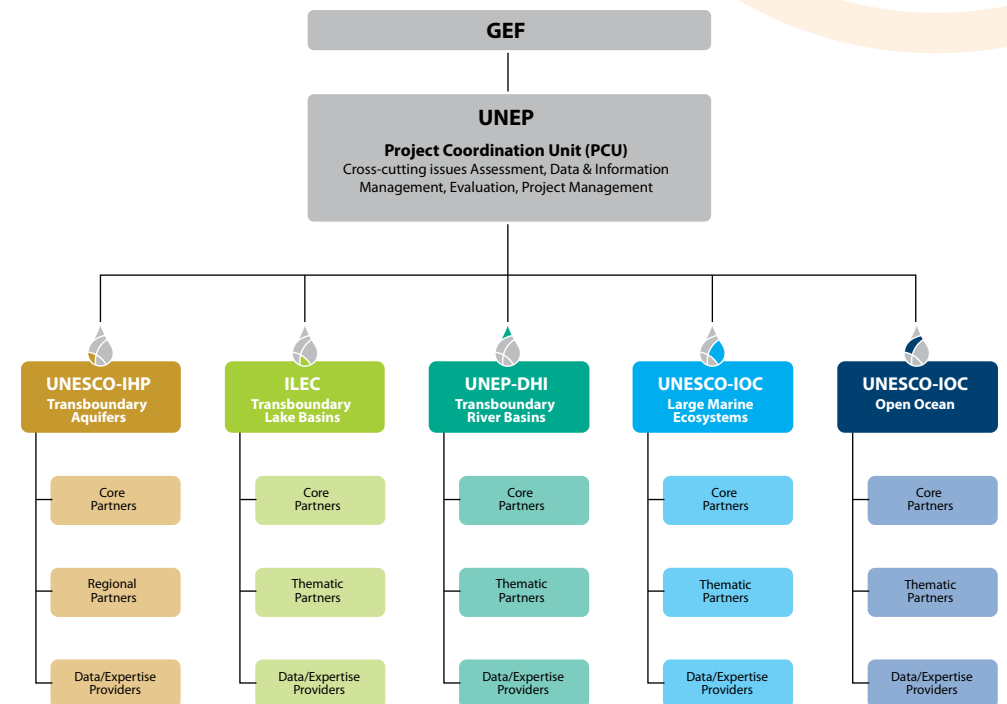


Figure 2. Institutional partnerships for implementing the Transboundary Waters Assessment Program: (UNESCO International Hydrological Programme (IHP) for transboundary aquifers; ILEC – International Lake Environment Committee Foundation for transboundary lakes; UNEP-DHI Centre for Water and Environment for transboundary rivers; UNESCO Intergovernmental Oceanographic Commission (IOC) for large marine ecosystems and open ocean