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NEWSLETTER

– Save Water, Save Lakes –

International Lake Environment Committee Foundation

This newsletter is also available in Japanese.

The 20th World Lake Conference

Lakes as Sentinels for Integrated River Basin Management

Brisbane – the river city whose water security depends on its water supply reservoirs.

The 20th World Lake Conference (WLC20) is being held from 21st to 25th July, 2025, in Brisbane, Australia. The theme of the conference is Lakes as Sentinels for Integrated River Basin Management. This theme reflects how lakes are indicators of the health of their river basins and the urgent need for integrated management strategies to increase the resilience of river basins. The 2022 United Nations resolution on sustainable lake management provides high-level objectives to protect, conserve, restore, and ensure the sustainable use of lakes. We now require the agenda and timelines on which we can meet these objectives. WLC20 will provide a forum where policymakers, scientists, engineers, citizens and managers can put in place the milestones and planning needed to achieve sustainable lake management.

The 2032 Olympic and Paralympic Games will be held in Brisbane in 2032. The Games will be used as an opportunity for Queensland and Australia to demonstrate its circular economy, unique ecosystems, and practices for environmental resilience. The field visits in WLC20 will be used to showcase some of the work that is underway for the 2032 Games. While Brisbane is known as a 'river city', its water supply is critically dependent on the quantity and quality of water in its reservoirs. Field site visits will explore the integrated river and reservoir basins used for Brisbane's water supply and the actions that are underway to address water security under the challenges of rapidly growing population and changing climate. Additional choices of field site visits will include (1) Minjerribah/ Stradbroke Island with coastal walks and inland

lakes, (2) the Gold Coast and whale-watching, and (3) Brisbane River and the city. Additional planning for WLC is well underway and 21 different theme sessions have so far been identified

Australia's vast area means there are many climatic zones, including the wet and dry tropics, arid interior, subtropics, temperate, alpine and maritime. The aridification of Australia has led to the most lakes being saline, especially those in the interior. For example, Lake Eyre, in the central interior, has an endorheic basin of 1.3 million square kilometres but is dry for much of the time. The base of the lake is 15 meters below sea level and the lake area can expand to about 10,000 square kilometres following periods of high rainfall in its catchment.

Australia's population is highly concentrated around the coastline compared with the interior. This creates challenges for water supplies, including provision of clean freshwater for small remote communities in the interior and getting enough water for large state capital cities like Sydney, Brisbane, Melbourne and Perth during periods of drought. Each of these cities has capacity to augment its surface and groundwater supplies with desalinated water from the ocean, even though most major rivers near the state capital cities have one or more dams or weirs. In Australia, pioneering work has been conducted on establishing guidelines and policies for environmental flow releases to the river system below dams, to ensure representation of the natural geomorphology and fauna and flora associated with the pre-dam state of the river.

Of Australia's river basins, the Murray-Darling, is the best known, covering an area of about 1 million square kilometres and flowing through the states of Queensland, New South Wales, Victoria and South Australia, and the Australian Capital Territory. The basin faces major water challenges with water allocated for agriculture, potable use, the environment, and cultural flows for First Peoples, at a time when climate change is intensifying, and water yields are diminishing throughout the basin. Increasing sectoral demand for water will be discussed at WLC20, and the lakes, reservoirs, streams, rivers and wetlands of the Murray-Darling Basin will provide an exemplar for how globally we deal with allocations that satisfy increasing sectoral demands for water.

WLC20 will have internationally renowned plenary speakers. They include Professor Susie Wood (Lincoln University, New Zealand) and Professor Zhengwen Liu (Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences). Professor Wood leads a major research program, which has gained global notoriety, for characterising lake health, assessing the vulnerability of lakes to degradation and climate change, and enhancing lake restoration. Professor Liu has been using shallow lakes as experimental systems to show how they can be restored from a degraded, de-vegetated state into a diverse, clear-water state. Plenaries will be complemented by ordinary and special sessions, workshops and other forums to communicate about lake environments.

The yellow-brown waters of Brown Lake (Bummel) on Stradbroke Island/Minjerribah, a culturally significant lake and one of the field trip destinations.
https://www.quora.com/Are-there-any-salt-lakes-in-Australia

Contributed by Prof. David Hamilton, Griffith University, Australia

Report from Former JICA Training Participants

Odalys Jacobo
Cuba
Hydraulic Research Center

Diana Mendoza
Nicaragua
National Water Authority (ANA)

Ranjan Ashish Kumar
India
Central Water Commission (CWC)

Sanjida Islam Archi
Bangladesh
Bangladesh Water Development Board

Diagnosis, instrumentation, monitoring and management of Cuban earth dams

Cuba is at a critical juncture in managing its dams, with the potential for catastrophic consequences in the event of failure. The country operates 238 dams constructed from local materials, but over the years, more than 50 failures have been documented. The recurring failures and ongoing deterioration of the dams have raised concerns about the safety of the population. These issues not only pose serious risks to public safety but also contribute to significant socio-economic challenges. The need for comprehensive and sustainable management of these dams is critical to safeguard the well-being of the population and stabilize the country's economy.

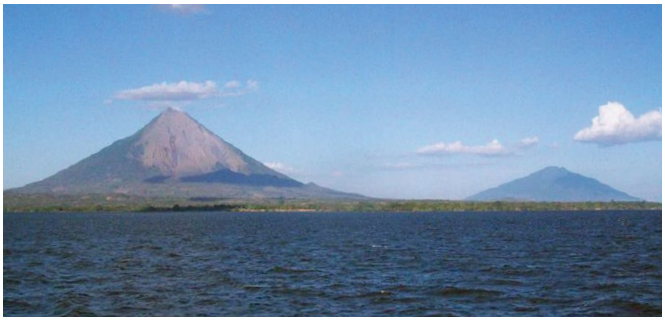
To achieve comprehensive management of dams in Cuba, a diagnosis, instrumentation, monitoring, and effective management of these hydraulic structures will be implemented. It will begin with a dam close to the university; the proposed dam to be taken is the El Doctor dam, selected because it has experienced previous failures. First, an exhaustive diagnosis will be carried out, using technical evaluation and risk analysis tools to identify its weak points and intervention needs. After this, it will be replicated at the national level, and we will establish strategic alliances.

The course on Integrated Lake Basin Management (ILBM) has been instrumental in helping me identify the key issues surrounding the management of dams and applying their principles. I now have a structured approach to address the various aspects of dam management, enabling more effective and sustainable solutions that could greatly improve the resilience and functionality of Cuba's dams.

The Doctor dam, Havana, Cuba.

Japan was fundamental to my decision-making. By integrating the principles and practices observed, as well as lessons from previous work, this plan seeks to address emerging challenges in dam management in Cuba in a comprehensive and sustainable manner. The aim is to guarantee water security and the well-being of the population.

Implementing the ILBM Strategy for the Restoration of Lake Xolotlán in Nicaragua



Lake Xolotlán, Managua, Nicaragua.

Lake Xolotlán, also known as Lake Managua, is the second-largest lake in Central America and holds significant economic and cultural value for Nicaragua. It is a vital resource for a large portion of the population and forms national identity. Unfortunately, the lake has endured decades of pollution, untreated wastewater discharges, poor waste management practices, and unrestricted agrochemical use along its shores. The absence of effective water management and governance strategies has led to the lake's degradation. This alarming situation has drawn the attention of policymakers, government officials, and various organizations who are committed to taking action. However, it is evident that a comprehensive approach, such as the ILBM (Integrated Lake Basin Management) strategy, is essential for the lake's restoration.

The ILBM strategy offers an approach, emphasizing six key pillars: involvement of public institutions, development of policies that regulate water use and its environmental impacts, active participation of local communities and stakeholders, advancements in technology as well as its limitations, access to information and financial resources.
I developed an action plan focused on the ecological restoration and management of Lake Xolotlán. This plan is inspired by the successful experience of Lake Biwa in Shiga Prefecture, Japan, adapting the ILBM framework to the context of Lake Xolotlán. The action plan addresses the needs of each pillar. For example, it includes fostering environmental awareness among the population, monitoring wastewater discharges in the lake basin, and creating a basin committee to ensure the lake's preservation and support decision-making processes.

Today, my plan is part of a larger collaborative effort involving Nicaraguan public institutions responsible for water governance and international cooperation from Japan. Together, we are committed to preserving and restoring Lake Xolotlán for future generations.

Power Sprouting from Lake

Initiatives to foster the "Power of Connecting" for Sustainable Lake Management.

SLM Week

Sep. 25-28, 2024

SLM Week began with youth from six countries engaging in discussions with ILEC Scientific Committee members on the theme of "Sustainable Lake Management." During field activities in the Lake Biwa-Yodo River Basin, participants experienced Japan's youth-led initiatives, such as invasive plant removal, ecotourism, and cleanup efforts using a waste collection app. By sharing examples from their respective countries, they deepened their understanding of how youth can contribute to lake conservation and explore concrete actions to address environmental challenges.

JICA Training Program, and Regional Understanding Program

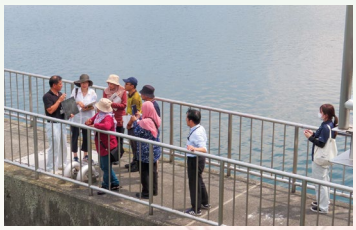
Online: Nov. 18-Dec. 10, 2024　In Japan: Jan. 14-Feb. 18, 2025　Regional Understanding: Jan. 23-24, 2025

In the "Training Program," participants learned Integrated Lake Basin Management (ILBM) framework based on historical efforts in the basin areas, including Lake Biwa, the Yodo River, and Osaka Bay. They aimed to apply these techniques in their home countries by observing Japanese technologies and case studies. Four administrative officials and researchers from El Salvador, Nicaragua, Sri Lanka, and Bangladesh participated. A two-day "Regional Understanding Program" for 10 international graduate students from the Kansai area introduced regional history, development, and case studies. In its sixth year, the program featured a lecture on the "Recognition of History and Importance of Lake Biwa Development" on the first day, followed by a visit to Aqua Biwa. On the second day, both program participants jointly visited the Lake Biwa Canal, Keage Water Treatment Plant, Keage Power Plant, and Suirokaku Aqueduct for a field trip.

PESSVA Project in a joint effort with the National Water Research Institute of Malaysia (NAHRIM)

In Japan: Aug. 4-9, 2024 In Malaysia: Feb. 18-21, 2025

In the third year of the PESSVA (Participatory Ecosystem Service Shared Value Assessment) project, we held a training program in Japan and conducted a field survey in Malaysia. For the training program in Japan, we invited government officials who play a central role in the survey, and shared cases of community participation in the Lake Biwa-Yasu River basin. For the field survey, the target area was the Putrajaya Lake and the Langat River basin in the metropolitan area, and surveys were conducted with residents and businesses in the basin. By discussing the survey results with various stakeholders, we promote motivation for lake basin management and participation of various stakeholders, including the residents of the basin.



Technical Cooperation for Improving Lake Water Quality in Indonesia

Nov. 6-15, 2024

We implemented the Ministry of the Environment's "Technical Cooperation Project for Improving the Water Quality of Indonesian Lakes" in collaboration with IDEA Consultants, Inc. This project is now in its fourth year, and this year we invited seven participants from the Indonesian Ministry of Environment and Forestry and the Central Java Province, and held a training focusing on reducing non-point source pollution and wastewater treatment, etc., at Kasumigaura in Ibaraki Prefecture and Lake Biwa in Shiga Prefecture, and discussed the development of specific measures.

5th Family Seminar in the Environmental Education Project

Oct. 27, 2024

36 parents and children participants gathered and cleaned up along the Meta River. In the seminar, ILEC offered the workshop titled "Hummingbird Challenge" and the participants exchanged their ideas to save lake environment. "Take active part in cleaning," "Reduce laundry frequency to save water," "Reduce waste by valuing things," and other comments from the children will be featured on posters and displayed at WLC20. Their parents are also excited to see their children's activities would be showcased on the big stage.

Letter from Scientific Committee (Australia)

Do our awareness, education and training efforts sustain lakes, rivers and wetlands around the world?

Colin Maxwell Finlayson
Gulbali Institute for Agriculture, Water and Environment, Charles Sturt University, Australia

In the mid-1970s, I embarked on my journey into aquatic ecology by studying the nutrient dynamics of peri-urban lakes around the city of Perth, Western Australia. This took place during a period of increasing environmental awareness, yet the city was rapidly expanding, filling wetlands and lakes for urban development. Such patterns of degradation persist globally, with similar harmful impacts on aquatic ecosystems.

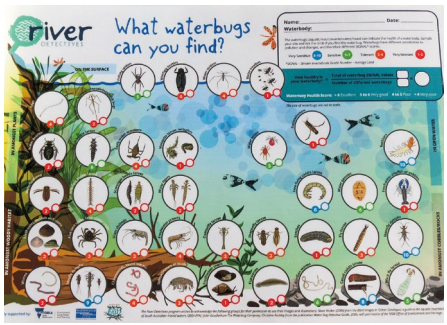
Since then, data on the ecological conditions of lakes, rivers, and wetlands have grown exponentially. Governments, scientists, and communities have contributed to this knowledge, aided by advancements in modeling and restoration. There are individual scientific investigations that are far more sophisticated and revealing than those we conducted 40-50 years ago. However, it is not all good news. There is ongoing degradation and declines in populations of many species. We see wanton destruction from well-known causes. We create new lakes along our rivers to obtain water for an expanding global population, or to supply hydro-power. Then we have initiatives like the UN Decade on Ecosystem Restoration that highlight our historical failures.

Over the years, awareness, education, and training initiatives have developed significantly, with robust networks and international cooperation promoting sustainability. We have been joined by many others, including modelers, restoration ecologists, and increasingly, by social-scientists and educators. There are many sophisticated and targeted education and training efforts associated with environmental and sustainability projects, and the establishment of environmental education centres and networks that extend across national borders and support international cooperation. Educational tools have become more sophisticated, blending creativity and expertise. However, at a wetland conference in 2024, my colleagues and I discussed a troubling trend: the closure of long-standing programs due to financial constraints and shifting priorities. These closures often lack proper evaluations of their impacts or benefits, leaving gaps in our understanding of their contributions.

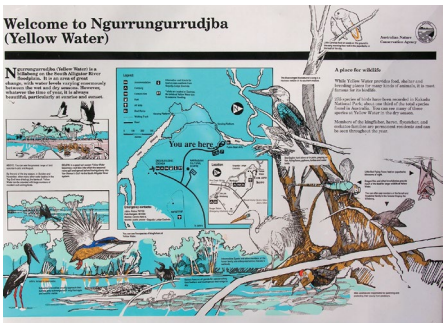
As we mark over 50 years since the Ramsar Convention on Wetlands, which aims to sustain the ecological character of these ecosystems, we face a critical question: Are our awareness, education, and training efforts truly effective? Individual initiatives often provide feedback for improvement, but this piecemeal approach is insufficient. We have seen an increase in awareness, education and training initiatives as 172 countries have accepted the Convention's obligation to make wise of these ecosystems and maintain their ecological character. These initiatives have blossomed, but do we have comprehensive assessments of their cumulative impact? This includes examining whether decision-makers—those who influence policies and actions affecting lakes, rivers, and wetlands—are being effectively reached and persuaded. While education for children, the future decision-makers, is vital, equal attention must be given to today's policymakers and stakeholders. We need to influence those who can today call a halt to the degradation, repair the damage, and restore lost ecosystems.

At the 2024 conference, we discussed targeting and assessing the effectiveness of our combined efforts. It is crucial to evaluate whether our initiatives reach the right audiences and inspire tangible, positive changes in ecosystem management. Without such evaluations, our collective impact remains uncertain.

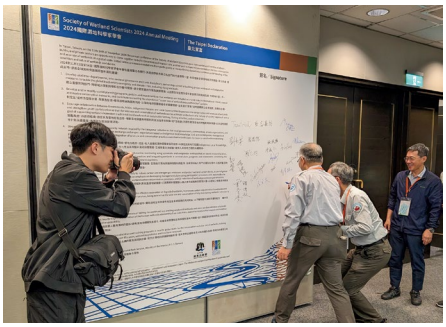
In my first Ramsar Convention conference presentation in 1990, I emphasized the importance of targeting wetland policymakers for training. Today, I reiterate that need with greater urgency. We must identify key decision-makers and determine how to influence them effectively to support sustainability. Furthermore, we need robust mechanisms to measure the success of these efforts. Achieving this will not be easy, but it is essential if we are to sustain and restore our precious aquatic ecosystems. We need to ensure that our combined efforts are not just successful in themselves—we need to ensure the combined effort is successful, and is sustained.



Waterbug Identification Chart



Poster showing the complexities of ecological interactions in Ngurrungurrudjba (Yellow Water)


Signing the Taipei Declaration, November 2024

Our Activities Overview (FY2024)

April 1 Adoption of the "Sustainable Lake Management (SLM) Week" project for the Japan World Exposition 1970 Commemorative Fund Grant Program in FY2024

May 20–24 Dr. Masahisa Nakamura, ILEC Vice President, presented at the 10th World Water Forum High Level Panel/Lake Session (Bali, Indonesia) 【PIC❶】

June 6 Receipt of a donation from "Kinki Rokin" (Kinki Labour Bank)

7 Receipt of a donation from Kansai Mirai Bank, Limited

28–Jul 3 Preparatory Meeting for the 20th World Lake Conference (Brisbane, Australia) 【PIC❷】

PIC ❶

July 24 W Dr. Nakamura presented at the IASC Asia Lake-Pond Series Discussion on "Experiences from ILBM" (India)

29 Visit from the Representative Director of the Japan Water Forum

August 4–9 Workshop for PESSVA (Participatory Ecosystem Services Shared Value Assessment) Introduction Project in Malaysia FY2024 (Kusatsu, etc.)


PIC ❷

September 6 Poster Exhibition and Participation in "MLGs Minna no BIWAKO Conference / COP3" (Otsu) 【PIC❸】

25–28 H The Japan World Exposition 1970 Commemorative Fund Grant Program in FY2024: Workshop "Sustainable Lake Management (SLM) Week: Empowering Global Youth" and SLM Forum "Promoting SLM: Co-Creating a Better Future" (Kusatsu, etc.)

PIC ❸

October 27 The 5th Family Seminar in the Environmental Education Project "Let's Think About Lake Biwa from Meta River!" ("Smile Plus," Kinki Rokin Social Contribution Project) in collaboration with Kinki Rokin, and the certified NPO "Biwako Houjou no Sato" with the support of Horiba Advanced Techno, Co., Ltd. (Moriyama)

November 6–15 Technical Cooperation Project for Improving the Water Quality of Indonesian Lakes (Ibaraki and Shiga)

14 W Dr. Nakamura presented at TROPLIMNO V2024 (Dumaguete, Philippines)

18–December 10 W FY2024 JICA-KCCP Training Program Stage 1 (Online)

19 W Presentation at Living Lakes Academy Webinar

December 11–12 W Participation in the 2024 Japan Fund for Global Environment Activity Sharing Meeting

2025

January 14–February 18 FY2024 JICA-KCCP Training Program Stage2 (Japan)

23–24 H JICA Regional Understanding Program (Kusatsu, Otsu and Kyoto)

February 18–21 PESSVA Introduction Project in Malaysia FY2024 (Langat river basin, Malaysia)

W Web H Hybrid (Onsite + Web)

The Future of Lakes and Wetlands: The Establishment of "World Lake Day"

At the 79th United Nations General Assembly held in New York, the UN designated August 27 as World Lake Day. This date was chosen to honor the opening day of LECS'84 (1st World Lake Conference), which took place on August 27, 1984, on the shores of Lake Biwa in Otsu City, Shiga Prefecture, Japan. The resolution, submitted jointly by 53 countries, led by Indonesia, which is home to approximately 2,000 lakes, took six years to come to fruition. The proposal was first raised at a colloquium during the 17th World Lake Conference in 2018, and since then, efforts to raise awareness have continued through various events hosted by ILEC, such as World Lake Conferences and international webinars, as well as international conferences like the UN 2023 Water Conference and the 10th World Water Forum.

To commemorate this occasion, we are hosting a hashtag campaign using #WorldLakeDay, inviting posts about lake and wetland conservation efforts and their appeal. We encourage everyone to participate and share your thoughts and actions for lakes.

"World Lake Day" is a significant occasion to raise awareness of the lakes that provide us with numerous benefits, including those who may not yet realize their importance, and to reflect on how each of us can contribute to their conservation. Let us take this opportunity to step forward together and take the first step in passing on a better environment to future generations.

⬆For more details **https://www.ilec.or.jp/en/news/16169/**

Thank You for Your Support! FY2024

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