



# NEWSLETTER

– Save Water, Save Lakes –

International Lake Environment Committee Foundation

This newsletter is also available in Japanese.



## Towards the Post-Corona Era

# ILEC-UNEP International Webinar

ILEC held an international webinar in collaboration with the United Nation Environment Programme (UNEP) on the theme “Mainstreaming Lakes in the Global Water Agenda” on Tuesday, October 27th, 2020 (17:00-20:00 JST). The webinar started with a message of encouragement from Mr. Mikazuki, Governor of Shiga Prefecture, an opening remark from Dr. Liu, Director of the Science Division of UNEP, and a warm address from Dr. Takemoto, the president of ILEC.

The webinar had 133 viewer participants from 27 countries, including those from Europe, Africa, North, Central and South America, where it was late at night in local time. This reminded us of the high level of the global interest in the topic of mainstreaming lakes.

In the webinar, senior officials representing the lake policy departments of Japan, Indonesia, the Philippines, India, Malaysia, and Nepal presented on the unique challenges they are facing and the actual status of institutional development and efforts to solve them. In addition, Dr. Walter Rast, Chairperson of ILEC Scientific Committee, reported on global trends in lake environmental issues and ILEC Scientific Committee members from Kenya and Senegal reported the current serious situation of African lakes.

Taking Lake Biwa as a case example, Mr. Tsutsui, Director of the Water Environment Division of the Ministry of the Environment of Japan,

presented on the status of Japan’s efforts and the details of the state of the art legal and institutions systems. As the content of the presentation was holistic and concrete, touching on such subjects as the legal framework on water, the implications of environmental standards for lakes, and the respective roles of the national and prefectural governments in the planning and implementation of lake water quality protection plans, Director Liu made a special request to have the presentation materials widely shared outside of this webinar.

The webinar was intended to reaffirm the importance of ILEC’s role in leading global actions to mainstream lakes, which have been critically lacking in the international water initiatives including due referencing in the Sustainable Development Goals (SDGs) . This very successful webinar event was concluded with smiles on our faces as we all agreed on the mainstreaming of lakes in the water agenda.

For more information, please visit our webpage at <https://www.ilec.or.jp/en/news/9040/>



Governor Mikazuki

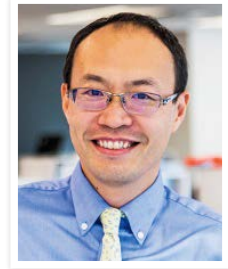


Director Liu



- ILEC-UNEP International Webinar
- Letter from Scientific Committee (Japan)
- Lake Management Strategies in the Philippines
- Establishment of Lake Network in Latin America
- Report from a Former JICA Training Participant (Ethiopia)
- Ecosystem Service Shared Value Assessment (ESSVA)
- WLC18 One Year to Go Pre-Conference Virtual Event

# “Mainstreaming Lakes in Global Water Agenda”



Masatsugu Takamatsu

In 2020, COVID-19 has caused significant damages to the global economy, many industries, and people’s lives. Even many developing countries that had made steady progress in economic growth may fall into a serious recession and the number of the poor may unfortunately significantly increase<sup>1)</sup>. The World Bank has responded quickly to support the vulnerable countries that were heavily affected by COVID-19 in various ways such as strengthening health and medical systems including emergency care, financial supports to the most affected people, and more recently with vaccines. At the same time, to prioritize urgent COVID-19 responses, there were cases where originally planned projects had been remodeled or postponed.

Likewise, lake environment conservation or management effort may be pushed back or reduced especially when a country’s economy or finance situation becomes worse. In October 2020, ILEC together with UNEP held an international webinar and government officials in charge of lake environment conservation from Asia and Africa have presented their progress and challenges. I was delighted to learn that many countries showed steady progress in improving lake environment and effective management. It was interesting to note that approaches and challenges in lake environment management are unique in each country such as in Indonesia with thousands of Islands, Nepal such a mountainous country along the Himalayas, and in Africa with many international river basins. The common issues raised were the challenges due to the lack of funding for lake environment conservation and the challenges of coordination among stakeholders in prioritizing projects or planning.

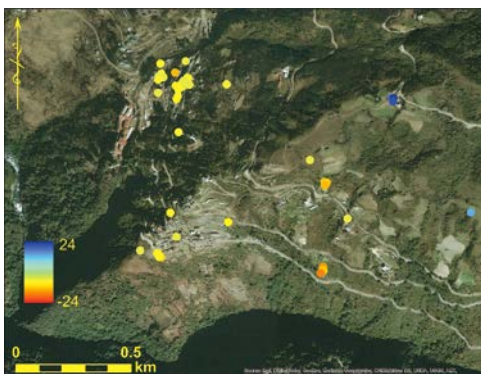
Disaster risk management has common challenges, while natural disasters are becoming more frequent and severe with Climate Change, rapid urbanization, unregulated development in hazard-prone areas, etc. Multi-hazard and Cross-sector approaches to address increasing hazard risks are gaining popularity as the financial resources are often limited and management of complicated and large-scale disasters require coordination of different sectors. We consider sharing of good practices are very

important. For example, under the World Bank GFDRR (Global Facility for Disaster Risk Reduction) program, we held three workshops over 4 years on geohazard risk management for practitioners and policy makers from the South Asian countries to share each country’s progress, challenge, and experience and arranged field trips for providing learning opportunities. The workshop concept is called South-to-South<sup>2)</sup> where countries with similar challenges or common environment learn from each other.

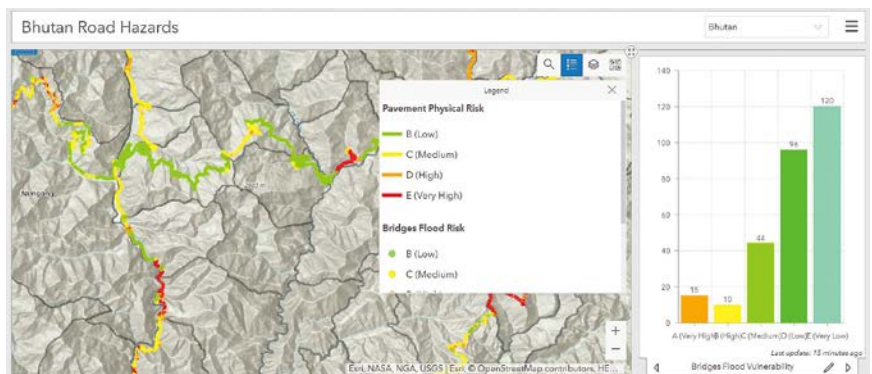
In lake environment management, there are opportunities of multi-sector coordination and collaboration for sustainable and cost-effective lake management. Even with disaster risk management as an example, when flood or drought early warning projects have opportunities of monitoring in rivers, lakes, reservoirs, or groundwater, adding water quality sensors at key stations can be a cost-effective collaboration for lake environment management authorities. Other types of multi-sector collaboration can be sought between Integrated Lake Basin Management (ILBM) and integrated watershed management (IWRM). It would be useful to illustrate the difference between the two concepts and how the two different frameworks can coordinate or collaborate to achieve better lake environment.

New communication tools and innovative technologies are emerging in disaster risk management. Johns Hopkins University’s<sup>3)</sup> COVID-19 tracking visualized global propagation of the pandemic. It is one of the online mappings that are becoming popular as useful communication tools. Many innovative technologies are being utilized in South Asia, such as monitoring of slow moving slopes using periodically monitored satellite data over years, or inspection of landslides utilizing drone to measure the accurate dimensions of the slides, online mapping of road assets with geohazard risk information. Artificial Intelligence (AI) uses for flood modeling or disaster damage assessments are also piloted in South Asia.

ILEC has contributed to lake environment conservation agenda globally through organizing 17 World Lake Conferences, many JICA trainings, and useful publications. On top of these tremendous



Picture 1. Identification of slow-moving slopes using satellite data analysis



Picture 2. Online mapping of road asset hazard risks in Bhutan



global efforts to protect lake environments, further introducing new communication tools, exploring new technology uses, and good

practice sharing in multi-sector collaboration would be useful to promote mainstreaming lakes in global water agenda.

Masatsugu Takamatsu is a disaster risk management specialist from the World Bank. He received bachelor and master's degrees in environmental engineering from Kyoto University Japan and Ph.D. degree in the environmental and water resources engineering from the University of Texas at Austin USA. He is specialized in hydraulic and hydrologic modeling. In his 10-year working experience in the industry, he was mainly involved with urban stormwater management projects including in New York City and Baltimore City. He holds a professional engineer license in the State of Maryland. At the World Bank, he has managed a GFDRR South Asia Regional Geohazard Risk Management Technical Assistance Program, and has supported various water resilience investment projects in the South Asia Region.

**Reference:**

- 1) <https://blogs.worldbank.org/ja/voices/2020-year-review-impact-covid-19-12-charts>
- 2) <https://www.un.org/development/desa/en/news/intergovernmental-coordination/south-south-cooperation-2019.html>
- 3) <https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

## Lake Management Strategies in the Philippines



**Adelina C. Santos-Borja**  
Vice-Chairperson of ILEC Scientific Committee

The Philippines is endowed with 221 natural lakes. There are no national policies and guidelines that are specific on the management of lakes and their basins, instead there are national laws intended to safeguard their ecological integrity. The lake management structure and governance mechanisms are diverse and are determined by the political, economic, social, cultural and environmental factors.

The following are the existing lake management mechanisms in the Philippines:

### 1. A lake management authority created through a national law

At present, the only lake management authority that was created in 1966 through Republic Act (RA) 4850 is the Laguna Lake Development Authority (LLDA), which is anchored on the national policy to promote and accelerate the development and balanced growth of the Laguna Lake area and the region around the lake. The law emphasized that development activities should be carried out with due provision on the prevention of undue ecological disturbances, deterioration and pollution. The LLDA officially started its operation in 1969.

### 2. Management under the National Integrated Protected Areas System (NIPAS)

Lakes within protected areas are covered by Republic Act 7586 (1992) better known as the NIPAS (National Integrated Protected Areas System) law and RA 11038 (2018) or the Expanded NIPAS Act as well as by international conventions such as the Ramsar Convention which provide international guidelines on the wise use of wetlands and habitat management. The Department of Environment and Natural Resources-Biodiversity Management Bureau (DENR-BMB) has pointed out some limitations in the declaration of protected areas, specifically when lakes are located within them. For some lakes, the tributaries are not included in the protected area or do not share common management unit with the lake. This becomes a challenge for the identification and management of pollution sources and environmental flows.

### 3. Management through Alliance of Local Government Units and National Agencies

The Lake Mainit Development Alliance (LMDA), was organized in 1999 through a Memorandum of Agreement (MOA) among the Province of Surigao del Norte including four of its municipalities, the Province of Agusan del Norte including four of its municipalities, six government line agencies represented by their respective regional offices, and the civil society organization. The LMDA is responsible for the conservation and protection of Lake Mainit and its watershed and also serves as a coordinating body of the various stakeholder groups. It is composed of the LMDA Board and a Project Management and Coordination Office which serves as a Secretariat.

### 4. Recognition and respect for customary laws and traditions of Indigenous Peoples

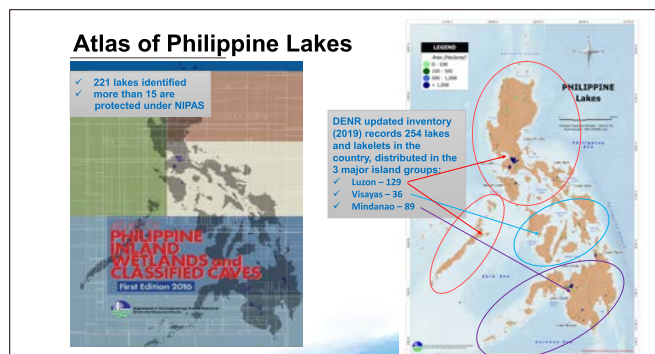
Lakes located in the ancestral domain of Indigenous Cultural Communities or Indigenous Peoples are covered by the Indigenous Peoples Rights Act or the IPRA Law of 1997 (RA 8371). The IPs have priority rights in the management and use of the natural resources within their ancestral domain with assistance of government agencies. The indigenous Tagbanua tribe of Coron Island exercises such role which was officially recognized when they were awarded a Certificate of Ancestral Domain Title in 1998. The lakes in the island are sacred to the Tagbanwas and are forbidden to outsiders. Only two lakes were eventually allowed to be opened to the public after the permission of the ancestral spirits was obtained through rites performed by the tribal leaders and elders. These are Kayangan Lake, which is in the hall of fame of the cleanest lake in the Philippines and Barracuda Lake with its brackish water and distinct thermocline. The applicable national laws are likewise implemented.

In all the lake management models and institutions presented, the DENR is always a key member of the institution and exercises its role on policy making and regulation. On a regional scale, the LLDA, by virtue of its mandate and its structure as a semi-government corporation is the apex body on the management of the Laguna Lake Basin, where the DENR exercises administrative supervision and policy guidance.

The Integrated Lake Basin Management Approach (ILBM) which evolved from the ILEC-World Bank led initiative on the assessment of the experiences and lessons learned from 28 lakes representing five continents has been adopted by the LLDA in the management of Laguna Lake Basin and the smaller eight crater lakes and their respective watershed within the region.

Lake basin management challenges are generally similar in almost all lakes and the means to address them vary due to the interplay of various factors. Thus, lake basin management is an evolving process that is enriched through sustained interactions among stakeholders, both in the local and global scale.

*The information provided by the Biodiversity Management Bureau of the Department of Environment and Natural Resources is duly acknowledged.*





## Establishment of Lake Network in Latin America

**Walter Rast**

Chairperson of ILEC Scientific Committee (USA)  
Prof. Emeritus and Director  
International Watershed Studies, The Meadows Center for Water and the Environment  
Texas State University

The Latin American members of the ILEC Scientific Committee and its Latin American partners are in the process of establishing a Lakes Network in the Latin American region, focusing on the sustainable management of its many natural and manmade lakes, wetlands and other lentic water systems.

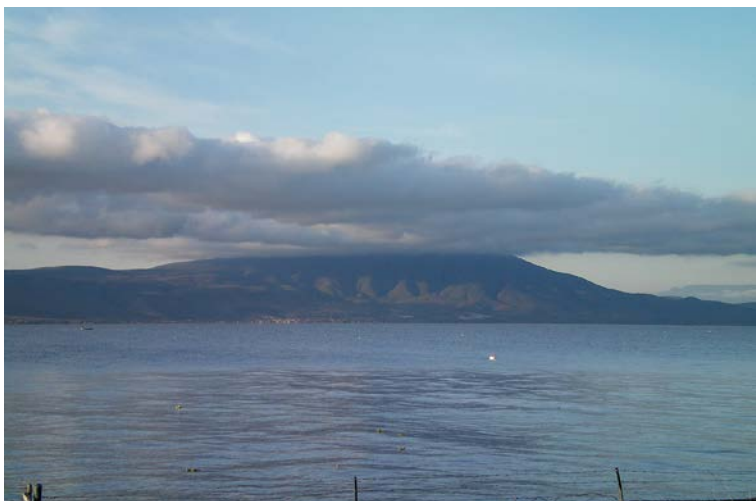
Efforts to establish the Lakes Network evolved from recommendations arising from the 1st South American ILBM Workshop (*"The ILBM Platform: Challenges and perspectives for its application in Latin America"*) held during July 28-29, 2017 in Rio de Janeiro, Brazil. With participants from Argentina, Brazil, Chile, Colombia, Mexico, Uruguay and the USA, Workshop discussions focused on introducing the International Lake Environment Committee (ILEC) and its work in Central and South America, as well as the need for integrated management of lakes and other lentic water systems in Latin America for the sustainable use of their ecosystem services.

Recommendations resulting from the Workshop discussions included: (1) The need for training courses on the ILBM Platform Process; (2) Establishing a regional nucleus of ILEC in Latin America; (3) Identifying ongoing Latin American environmental education water use projects as possible lake case studies; (4) Diagnosing different institutions involved in the management and conservation of water resources in South American countries; (5) Publishing a Special Issue of the ILEC Journal (*Lakes and Reservoirs: Science, Policy and Management for Sustainable Use*) on management and governance actions focusing on lakes and other lentic water systems in South America; and (6) Selecting projects already under development to deploy pilot projects using the ILBM Platform Process. Discussion also ensured on how the recommendations could best be addressed,

with the establishment of a Latin American Lakes Network being considered a major approach for achieving this goal.

An ILBM Training Course webinar was subsequently hosted by El Bosque University in Bogota, Colombia involving participants from Argentina, Brazil, Chile, Colombia, Mexico, Nicaragua, Uruguay and the USA. In addition to insightful discussions on the ILBM Platform Process, the recommendation for establishing a Lakes Network in Latin America was revisited. The webinar topics included: (1) Determining participant interest in being involved in a Latin American Lakes Network; (2) Facilitating the recommendations arising from the previous Rio de Janeiro ILBM Workshop, including consideration of the benefits of establishing a Lakes Network; (3) Identification of the relevant topics and activities to be undertaken by the Latin American Lake Network; and (4) Development of a common/compatible vision of the Network methodology.

The Latin American Lakes Network is still in the developmental stage. As an initial unifying activity for the various involved individuals and agencies, a Survey is being conducted on the status of the legislation and institutions in the Central and South American countries that specifically address the management of lakes, reservoirs, wetlands and other lentic water systems. Prepared in the form of a Survey questionnaire, it has been forwarded to the various individuals participating in the above-noted Workshops, as well as relevant ministries and agencies of their national governments. Surveys also are being forwarded to international agencies involved in water-related projects and activities in the Latin American region. Upon receipt of the Surveys, the intention is to analyze, compare and contrast the types, magnitude and status of the legislation and institutions involved in such activities at the national level. The resulting information on the status of the management of these important water systems will be distributed to national and state governments in Latin America, as well as being made available to countries in other regions. It also is anticipated that the results will be the subject of a Special Session at the upcoming 18th World Lake Conference (*"Governance, Resilience and Sustainability of Lakes for a Better Society"*) to be convened in November 2021 at the University of Guanajuato in Mexico. Further information on the Latin American Lake Network can be found at the Network website: [www.iiswr.org/latinlakenet](http://www.iiswr.org/latinlakenet)



Lake Chapala (Mexico)



## Report from a Former JICA Training Participant

**Zinabu Abrham Lera (Ethiopia)**

Environmental and Water Quality Monitoring Senior Expert  
Rift Valley Basin Development Office, the Federal Government of Ethiopia

I am an Ecologist and Environmentalist and work as an Environmental and Water Quality Monitoring Senior Expert in the Basin Development Authority Rift Valley Lakes Basin Development Office of the



Rift valley Lakes Basin Development Office

Federal Government of Ethiopia. The main functions we perform are to promote and monitor the implementation of integrated water resources management process in an equitable and participatory manner in the Rift Valley Lakes Basin; ensure that projects, activities and interventions related to water in the basin are, in their content, schedule, impacts and management is in line with the integrated water resources management process; as well as undertake activities necessary for, and facilitate, the implementation of integrated water resources management in the basin.

I was one of the ten participants of the training course on Integrated Lake, River and Coastal Basin Management for Sustainable Use and Preservation of Water Resources held in 2018. The course was an eye opener as I realized that some of the aspects were possible to do and or improve through my organization and our Basin. The concept of Integrated Lake Basin Management (ILBM), which was the main focus of the course, enables us to obtain an appropriate approach to achieve sustainable management of Lake Basin resources, through a governance arrangement based on commitment to continuous improvement of the six pillars of governance. The six pillars must be integrated with each other to achieve real progress. The concerned administration has to define the relevant policies which are the starting point of the actions to be carried out; there has to be support and collaboration among various government agencies and institutions; with involvement of all key stakeholders including ordinary citizens and the private sector; and use of relevant technological and information systems.

It was an educational experience to interact and share experiences with other members of the training course with a

diversity of thoughts, religion, values, practices, and socio-economic backgrounds. These differences allowed us to evaluate the positive aspects and the qualities that stand out in our country with 80+ ethnics and languages, and most importantly they allowed us to know the elements and aspects that could be improved or modified to achieve real change towards becoming a developed country, combining economy, politics, education, technology and financing.

In countries like Ethiopia, where agriculture serves as a backbone of the economy as well as ensures the well-being of the people, the availability of water resources is quite essential. However, unless the available water resource is utilized with a balanced approach of the supply and demand and with careful consideration of sustainability, satisfying the needs of the future generation will remain under a question mark. One of the major challenges of implementing the water use policy in Ethiopia is, as a tradition, water is considered simply as a natural resource and most people are not aware of its economic value. On the contrary, the investment requirement of water is high while the time requirement to get returns is long.

Therefore, as an Ecologist and Environmentalist, I am interested in contributing to the implementation of the various water activities related to lake basin management and actively participating in the activities of strategic basin planning, with the purpose of playing a great role in my organization to address all components of ILBM and the existing IWRM. With collaboration from universities and industries under the modality of university industry linkage, I hope to amplify the concept of ILBM in my basin and basin wide collaborative process, social learning and facilitative leadership as intermediary support function for proper implementation of lake basin management by using ILBM concept and existing IWRM.



Water quality inspection



Lake basin stakeholder meeting



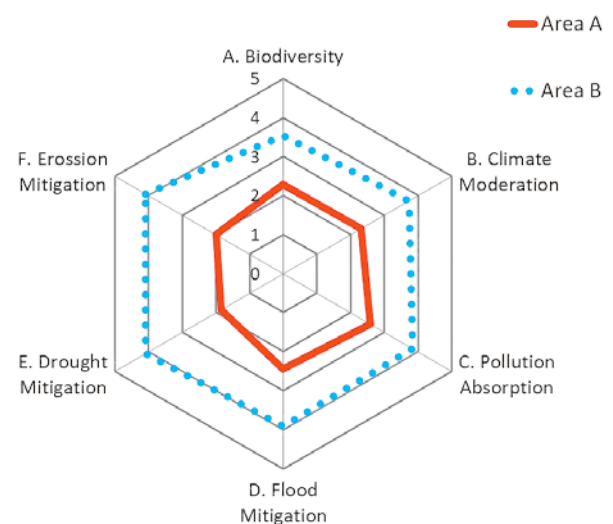
# Ecosystem Service Shared Value Assessment (ESSVA)

The ESSVA (Ecosystem Services Shared Value Assessment) methodology features assignment by stakeholders of scores to the perceived magnitude of Ecosystem Service components, i.e., Provisioning Services (PS), Regulating Services (RS), Cultural Services (CS) and Supporting Services (SS) for characterizing a lake basin. It was originally conceptualized in 2014 as part of the ILBM (Integrated Lake Basin Management) research project supported by the Ministry of Education, Culture, Sports, Science and Technology and conducted at the Research Center for Sustainability and Environment, Shiga University, Japan. The methodology still at its inspectional stage under different naming was test-applied first to a United Nations global project called TWAP (Transboundary Waters Assessment Project) over the period between 2015 and 2016, with support from a team of several ILEC Scientific Committee members and a few ILEC secretariat members, and in collaboration with several East African Great Lakes NGO members. Encouraged by the interesting observations made on the application results, a follow-up pilot project was launched in the subsequent years to apply this methodology to three lake basins in the East African Rift Valley region including Lakes Victoria (Nyanza Bay), Nakuru, Baringo and Turkana as well as a few selected lake basins in India and in the Philippines. The methodology provided us with a great deal of insights particularly through many rounds of workshop deliberations.

While the ESSVA methodology has been regarded as a useful tool for enhancing stakeholder participation in ILBM, some concern has arisen about the inherent subjectivity in the magnitude of ecosystem service components, and about the statistical confidence levels of assigned scores. In the actual application to the ILBM process, however, the pilot project implementation teams have come to agree that the above methodological shortcomings will not seriously hinder the adoption of ESSVA in the ILBM Platform Process. It is because the Platform Process itself features the cyclicity of gap assessment from one assessment period to the next, for which the basin stakeholders gradually come to consensus on the subjective notions of (1) Institutions to manage the lake and its basin for the benefit of all lake basin resource users; (2) Policies to govern people's use of lake resources, and their impacts on lakes; (3) Involvement of People to facilitate all aspects of lake basin management; (4) Technological Possibilities and Limitations that are often quite dictating in regard to long-term decisions; (5) Knowledge and Information of traditional, as well as modern scientific nature, forming the basis for informed decisions; and (6) Sustainable Finance to support implementation of all of the above activities.

Nonetheless, the ESSVA application guidelines under preparation will include as part of the methodological process the usefulness of conducting statistical analysis for interpretation of the survey results. The most suitable statistical methodology is what is generally called ANOVA, or the "Analysis of Variance".

Sample results of an ESSVA questionnaire survey are shown here. Respondents in two neighboring areas in a lake basin (Area A and B) were asked to rate the degree to which various functions of nature (Regulating Services, namely, biodiversity, climate moderation, pollution absorption, flood mitigation, drought mitigation and erosion mitigation) decreased in the past decades, by giving scores ranging from 1 (none) to 5 (very much). Respondents in Area A gave low scores for all the Regulating Services (mean score 2) while those in Area B gave higher scores (mean score 4), with the differences between the scores of the two area being statistically significant ( $p=0.05$ ). To understand the observed differences requires matching the ESPP (Ecosystem Service Perception Profile) with the ESFP (Ecosystem Service Factual Profile, based on factual data) and also understanding the characteristics of each area such as geographical features. The observed differences or gaps in perception provide a convenient entry point for stakeholders in the two regions, for example, to jointly discuss how to narrow the gaps through the ILBM Platform Process.



In summary, ESSVA provides an opportunity for the basin population to undertake a comprehensive assessment of their lake basin ecosystem and ecosystem services, helping them to shape a shared vision and common understanding of the issues and challenges facing the lake basin. It provides a useful and practical tool to support ILBM Platform participatory process. This includes providing a methodology to overcome differences by identifying and filling perception gaps between different stakeholders. It also includes providing a methodology for the government to listen to the voice of community, enabling the government to develop policies and programs to be widely supported and easily implemented. ESSVA also provides a universal framework for mutual collaboration within a basin and across basins, by enabling stakeholders to discuss their problems based on the same general framework.

**Victor Muhandiki**  
**Masahisa Nakamura**

## Our Activities Overview (FY2020)

- **May** 1 Release of Up-graded World Lake Data Base
- **June** 12 Receipt of a donation from Kinki Rokin Bank  
23 Receipt of a donation from Kansai Mirai Bank, Limited
- **August** 27 Participation in “Asean Talks” as panelists (Web)
- **October** 27 ILEC/UNEP co-hosted international webinar “Mainstreaming Lakes” with 133 participants from 27 countries (Web)
- **November** 7 “Autumn Environmental Study Session on the Metagawa River”, joint hosted with the Kinki Rokin Bank (Moriyama City)  
9 WLC18 One Year to Go Pre-Conference Virtual Event (Web)
- **December** 17 Seminar for JICA Nicaragua officers (Web)

### 2021

- **January** 18-22 Training Course of Lake Conservation for officers of Indonesian Ministry of Environment and Forestry (Web) **[Picture ①]**  
25 JICA commissioned training program, “Integrated Lake, River and Coastal Basin Management (ILLBM) for Sustainable Use and Preservation of Water Resources” kicks off (Web, -Feb.12) **[Picture ②]**  
31 Publication of “ILBM Platform Process” in French
- **February** 26 ILEC Scientific Committee Bureau Meeting (Web)



[Picture ①]



[Picture ②]

## Replacement of Auditors

As of July 10, 2020, Mr. Toshiyuki Kaneko (Certified Public Accountant) was newly appointed to the auditor as a successor of Mr. Manabu Hishikari.

## Global Water Issues and the Importance of Lake Basin Management (Greetings from the newly appointed Secretary General)

My name is Koichi Aoki, and I was appointed as the Secretary General of ILEC in April 2020. I look forward to working with you.

The world is facing a serious water crisis, listed as the fifth risk in the 2020 report of “Global Risks”. This is a list of potential risks by experts that are likely to have a significant negative impact in the next decade. In addition, the sixth goal (SDG6) of the Sustainable Development Goals (SDGs), adopted at the UN Summit in September 2015 to promote action over the next 15 years, is to “ensure the availability and sustainable management of water and sanitation for all.”

Of the water resources that exist on the earth, only 0.01%

is readily available for human use, and 90% of this is in lakes and their basins. In view of this situation, we emphasize the importance of lake basin management to the world’s water agenda mainly through the World Lake Conference. We also promote global lake conservation activities and education, supported by the ILEC Scientific Committee members, who are lake experts from various regions, and the United Nations Environment Programme (UNEP). I believe that it is the mission of ILEC to pass on clean and safe water resources of our lakes to the next generation.

I would like to ask for your continued understanding and support for ILEC’s activities.



Lake Biwa in early winter

# WLC18 One Year to Go Pre-Conference Virtual Event

In view of the ongoing COVID-19 pandemic, the 18th World Lake Conference Organizing Committee made a difficult decision to postpone the Conference originally scheduled to be held in Guanajuato, Mexico, during 9-14 November, 2020 to a new date in November, 2021. As a means for providing our WLC18 prospective participants with a surrogate event between the original and re-scheduled WLC18 dates, the Organizing Committee hosted a pre-conference virtual event on 9 November, 2020, with a focus on natural and manmade lake sustainability challenges and solutions.

The event was divided into two parts to take into account the time differences of participants from around the world. Each session consisted of a keynote speech and a panel discussion based on the keynote speech including some ILEC Scientific Committee members and an ILEC Board member as the speakers.

In the first part, Dr. Sandra Azevedo, a member of ILEC Scientific Committee, gave a keynote speech on the cyanobacterial problems in South American reservoirs. Then, a

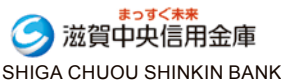
panel discussion was followed by a Q&A session and an introduction to ILEC's activities. Similarly, in the second part of the conference, after a presentation on the "Earth Project in Lake Tana, Ethiopia" by Dr. Shinjiro Sato, Professor of Soka University, ILEC Scientific Committee members participated as panelists and discussed case studies and issues in other regions.

In this pre-conference, panelists from Latin America mainly emphasized the strong need and interest in lake basin management in this region. We have a high hope for this growing momentum toward "Mainstreaming Lakes" to be further accelerated at the forthcoming World Lake Conference.



## Thank You for Your Support!

● In the Fiscal Year 2020, ILEC received donations from the following organizations



● In the Fiscal Year 2020, ILEC received sponsorships from the following supporting member organizations



Your donation could provide funding to our activities on the world lake environmental conservation.  
If you are interested, please visit our webpage at <https://www.ilec.or.jp/en/support/>



INTERNATIONAL LAKE ENVIRONMENT COMMITTEE FOUNDATION (ILEC)



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\*The latest issue and back issues of this newsletter are also available on our website above.