

International Symposium 2022

“Fostering the Value of Lakes for Future Generations”

Report

Date : October 15, 2022 (Sat.) 10 : 00 – 16 : 30

Venue : Lake Biwa Museum Hall and Annex, Shiga Prefecture
(Hybrid format with simultaneous interpretation)



International Lake Environment Committee Foundation
(ILEC)

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1. Introduction

To realize "sustainable lake management" and "future development of resource use," it is essential to work together with residents, symbolized by the Lake Biwa Model. To this end, we will create opportunities for diverse stakeholders to reaffirm the importance of the lake environment from the aspect of cultural services to encourage action. In particular, we will promote dissemination and educational activities to deepen the understanding of young people and citizens, learn from best practices related to ecotourism, and deepen discussions for further development of sustainable lake management using ecotourism as a starting point.

Furthermore, we will share and globally disseminate initiatives to protect and enhance the value of lakes, leading to discussions at the 19th World Lake Conference (WLC19).

The first part "Lake Ecotourism Contest" will create opportunities for the next generation to consider the use of cultural resources of lakes. This emphasizes the importance of the role of youth, which was included in the WLC18 Guanajuato Declaration.

Through the contest, we will support participants who make presentations at the WLC and other events and promote capacity building for people who will be active globally.

In the second part, International Symposium 2022 "Fostering the Value of Lakes for Future Generations", we will share the cultural, historical, scenic, regional, and ecological values of lakes and efforts to protect and enhance the values through examples of lake-related ecotourism around the world, and discuss how to hand them over to the future.

Theme: "Fostering the Value of Lakes for Future Generations"

Date: Saturday, October 15, 2022 10:00-16:30

Venue: Lake Biwa Museum Hall and Annex, Shiga Prefecture

(Hybrid format with simultaneous interpretation)

Organizers: International Lake Environment Committee (ILEC),

United Nations Environment Programme (UNEP), Lake Biwa Museum

Participants: 175 people from 20 countries

Co-sponsors:



2. Program

<Part1> Lake Ecotourism Contest

- 10:00-10:06 Opening Remarks – Kazuhiko Takemoto, President, ILEC
- 10:06-10:11 Message from Guest of Honor – Taizo Mikazuki, Governor of Shiga Prefecture
- 10:11-10:13 Opening Video (Ecotourism video of Lake Biwa)
- 10:13-10:15 Introduction of Judges
- Yoshiyuki Kawato, Chair,
Biwako Visitors Bureau Public Interest Incorporated Association
 - Yoshika Yamamoto, Professor, Heian Jogakuin (St. Agnes') College
 - Kayoko Kameda, Vice Director, Shiga Prefectural Lake Biwa Museum
 - Yoichi Nakajima, Director, Lake Biwa Conservation and Restoration Division,
Shiga Prefectural Government
 - Ajit Kumar Pattnaik and Alejandro Juarez Aguilar,
ILEC Scientific Committee
- 10:15-11:15 Final Judging of Lake Ecotourism Contest
(Four cases are presented by students in Japan)
- 11:15-11:25 Break
- 11:25-12:17 Introduction of Case Studies of Ecotourism in Japan and Overseas
- Overseas: Erzsébet Sitku,
Balaton-felvidéki National Park Directorate, Hungary
Jon Bruno, The International Ecotourism Society, USA
 - Japan: Yuichi Maruhashi, Secretariat General,
Higashiomi Ecotourism Promotion Council
Ryoichi Taniguchi, Makino Nature Observation Club
- 12:17-12:19 Ecotourism Video Session
- 12:19-12:25 Judging and Awards
1 Grand Prize, 2 Excellence Awards, 1 Special Award, ILEC Award,
and Viewer's Award
- 12:25-12:30 Summary
Yoshika Yamamoto, Professor, Heian Jogakuin College; Director, ILEC

<Part2> International Symposium 2022 "Fostering the Value of Lakes for Future Generations"

- 13:30-13:35 Greetings – Walter Rast, Chair, ILEC Scientific Committee
- 13:35-14:05 Keynote Speech/Online
- ① Speaker: Junko Owada, Doshisha University
Theme: "Biwa Lake to Land Integrated System"

Possibility of GIAHS&SDGs Tourism

14:05-14:35 ②Speaker: Thomas Schaefer, Global Nature Fund

Theme: "Ecotourism and Lake Environmental Conservation Overseas"

14:35-14:50 Break

14:50-16:20 Panel Discussion

Theme: Lakes: Toward Sustainable Use of Cultural Service

Moderator: Adelina Santos-Borja, ILEC Scientific Committee

Panelist

- Hartwig Kremer, Head of the Global Environment Monitoring Unit, UNEP (Capacity Building) / Online
- Andy Joinaldy, Vice Governor of West Sumatera Province, Indonesia (Regional Participation) / Online
- Michihiro Oi, Director, Water Environment Division, Ministry of the Environment (Education, Legal System)
- Nobuhiko Miwa, Director General, Shiga Prefectural Government (Policy, MLGs)
- Masahisa Nakamura, Vice President, ILEC
- Sandra Azevedo, ILEC Scientific Committee

16:20-16:30 Summary Yasuo Takahashi, Director, ILEC



3. Opening Remarks

Kazuhiko Takemoto

President, International Environment Committee Foundation



On behalf of the International Lake Environment Committee Foundation (ILEC), I am pleased to welcome you to this International Symposium.

ILEC has played a leading role in realizing sustainable lake management with professional input from our Scientific Committee, whose members are gathering here for their general meeting. I am grateful that this International Symposium is organized back-to-back with their meeting.

Last March in Nairobi, the United Nations Environment Assembly (UNEA5) adopted its Resolution on “Sustainable Lake Management.”

Following up on this important Resolution, the ILEC has formulated its Mid-term Framework Plan for the next five years. Based on this Framework

Plan, ILEC is committed to further develop our activities to address sustainable lake management.

Now it is time for all stakeholders to accelerate actions toward our goal of realizing sustainable lake management. It is crucial for citizens to understand the values of the lake environment well. In this regard, we are here to reaffirm the importance of lake management and to foster the value of lakes.

Today, in the first part of this Symposium, we are going to convene the final stage of the “Lake Ecotourism Contest.” I am very much impressed by the many ambitious applications of lake ecotourism from the younger generations.

As the second part of this Symposium, the panel discussion is organized to discuss sustainable lake management with policymakers and experts from a variety of sectors, such as government, academia, and the local community. I hope the outcome of this Symposium will be able to contribute to the 19th World Lake Conference in Hungary next year.

Finally, I would like to conclude my remarks by wishing you a fruitful symposium with your active participation.



4. Message from Guest of Honor

Governor of Shiga Prefecture
Taizo Mikazuki



Hello, everyone. I'm Taizo Mikazuki, Governor of Shiga Prefecture, Japan.

Today, to start this International Symposium, I would like to offer a few words as the governor of the prefecture that holds Lake Biwa, the largest freshwater lake in Japan.

I am glad that this symposium is being held by the shore of the Lake Biwa, as a symbolic place for the eco-tourism. We

promote the “Biwaichi” cycling around the lake. Many cyclists come to Lake Biwa and enjoy cycling along its shore over 230 km long. In order to attract the tourists, keeping the beautiful lake environment is essential. We conduct the Shiga's comprehensive conservation initiatives for Lake Biwa for over 30 years. I think that Lake Biwa is a “mirror” that reflects our way of life. This means that it can never shine if we only focus on cleaning it. Those who live around the lake must reconsider our way of life to create a clean lake environment. In that way, protecting Lake Biwa's environment is the same as reconsidering our way of life.

Additionally, Lake Biwa shows us signs of global warming. It could function as a “window” to look through at the global environment. That's why I also think that protecting Lake Biwa is the same as protecting the global environment.

I'll now introduce you about a unique initiative in Shiga: the Mother Lake Goals. The MLGs were established in July 2021 after discussing with Shiga's residents over many years. There are 13 goals for the conservation of Lake Biwa that we aim to achieve by 2030. They were inspired by the SDGs, but are more applicable and achievable on a local scale. The goal 11 of MLGs is “Encourage more people to enjoy and love Lake Biwa.” The eco-tourism falls on this goal.

I sincerely hope that the concept of the MLGs goes beyond the boundaries of Japan and are applied in lakes around the world.

In closing, I hope that this symposium will be a productive meeting, and that the discussions we have here will contribute to accelerating the eco-tourism by the lakes around the world.

Thank you.



5. Part1 Lake Ecotourism Contest

(1) Steps to the Contest

June 24	Open for applications
July 8	Orientation (online) free participation (18:00-19:00)
August 19	Closing date for entry
September 16	Documents due
September 30	Judging Results Notification
October 15	Presentation (final judging)

(2) Judges

- Yoshiyuki Kawato, Chair,
Biwako Visitors Bureau Public Interest Incorporated Association
- Yoshika Yamamoto, Professor, Heian Jogakuin (St. Agnes') College
- Kayoko Kameda, Vice Director, Shiga Prefectural Lake Biwa Museum
- Yoichi Nakajima, Director,
Takayuki Mochizuki, Associate Director,
Lake Biwa Conservation and Restoration Division, Shiga Prefectural Government
- Ajit Kumar Pattnaik and Alejandro Juarez Aguilar, ILEC Scientific Committee

Ecotourism video of Lake Biwa

A video was produced to convey the value of Lake Biwa as an ecotourism resource and was shown at the venue before the contest began.

The video shared the definition of ecotourism and the concept of "three-way satisfaction of the environment, local community, and people," which was required for ecotourism proposals, and it incorporated the beautiful scenery of Lake Biwa into the video to encourage people to have high expectations for the contest and to attract tourism to Lake Biwa.



Youtube URL : <https://youtu.be/YCa3NFAGYTI>

(3) Contest Participants

Group Name	Affiliation	Group Member	Title
TEAM 1	Ritsumeikan University	Mana Kubozono Marina Hata Jua Fujieda	Eco-Tourism starts with Trail Running
TEAM 2	International Volunteer University Student Association (IVUSA) Kyoto University of Foreign Studies	Saeko Ito Arika Tanabe Yutai Liu	Be a Researcher Tour in BIWAKO
TEAM 3	General Incorporated Association SwitchSwitch	Masato Banno Kiyoharu Tanabe	Experience 400 years of history! Traditional Fishing Method Sustainable Tour
TEAM 4	Seian University of Art and Design	Rao Sasaki Akari Taira	Enjoying Tracing Ecotourism
	The University of Shiga Prefecture	Kano Shibata Nonami Isobe	What “Attractive Eco-tourism for young generation” be like?
	Biwako Hojo no Sato Ritsumeikan University	Kae Suzuki Hinako Suzuki Suzune Yamamoto	Creating a River Where Fireflies Fly Ecotourism to promote Shiga Prefecture’s attractions
	Kyoto Sangyo University	Shuta Suzuki	New Food Tourism as Lake Biwa’s Unique Ecotourism!
	Omi Uraraka Net	Shinnosuke Shiga Maasa Awano Ikumu Nakamura Yuta Fukumoto Hinata Yamamura	Yoshi Tourism

※TEAM 1-4 were selected for final judging. Ecotourism proposal documents of all groups are available on the ILEC website. URL: <https://www.ilec.or.jp/cooperation/mainstreaminglakes/#jis2022>

(4) Presentations for Final Judging

TEAM 1	Ritsumeikan University	Mana Kubozono Marina Hata Jua Fujieda	Eco-Tourism starts with Trail Running
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Our ecotourism plan is to make a sustainable local site assistant with mountains, rivers, people history, etc. and try to realize a clean economic cycle with them. We are considering having three programs, as you can see from the slide. First, Trail Running to see and try to preserve the mountains which Shiga prefecture has. Second, the local walk. This aims to communicate with local people and try to find any issues with Shiga Prefecture. Lastly, Glocal Simulation Gaming. Glocal refers to local and global. This will take place in order to take any ideas from any positions through the debate, and we will explain in detail later on. Maybe many of you will wonder why we chose Trail Running in the lake basin environment. Through our activities and experiences so far, Mother Lake Goals, the common sustainable goals for Shiga Prefecture, made us think a lot about how we can make it a sustainable system for the future. Please look at Goals 5 and 6. Goal 5; Conserve forests serving as rich water sources. Goal 6; Create a healthy relationship between forest, river, Community, lake, and sea. Through these two with our plan, we would like participants to think and learn about the condition of the forest and have feelings about the conservation of Lake Biwa. Those are the main values that we think about in our plans, popularity, and environment, and there are some real examples of succession. On the other hand, of course, there are some issues as well. Mainly low awareness and disagreements. I even didn't know much about Trail running before. However, we did overcome those issues and thought of the high value-added and high-quality ecotourism that can solve these issues.

Our main theme is training large and startup companies to learn about sustainability. We'd like all participants to gain their interest in eco. Those are the advantages of attending this training not only can you learn in nature, but also set business chances and high priority of learning sustainable development and environment. On the other hand, we also made clear about how we can make it eco-friendly about this program. Mainly Waste Control, Resource Recycling, and making private residence to make close to the eco field for the participants. To achieve this, we will use a cloud funding type intra-regional economic revitalization system. There are three key points. First, conduct the training with participation fees collected from employees and financial support from the companies. Second, use a portion of the participation fee and a sponsorship from the companies to pay for local Environmental Conservation efforts. Third, a portion of the participation fee should be refunded in the form of Biwa Coins to encourage local economic revitalization by setting a 1 year validity period for the Biwa Coins. It is hoped that a return visit may be possible. We are planning to use community money for Shiga, which still exists but is not really familiar in our lives right now, called "Biwako". And this community money which can provide us the enjoyment, and we pursue that many connections and communities will increase because of using this Biwa Coin.

As we mentioned in the beginning, we considered having three main programs. First, Trail Running to preserve the beautiful mountain that Shiga Prefecture has. Second, Local walk. This aims to communicate and find new perspectives and issues with local people in the local field. Third, Glocal Simulation Gaming in order to take any ideas from various positions. For Trail Running, the main purpose is to learn about the function and condition of the mountains with a guide and local staff. It will also be able to observe and feel the presence of the mountain. Life Base would be a local hall, temple, and so on. Second, local walking for learning lake environment, history, and culture. As for the environment, participants can see with their own eyes how Lake Biwa is supporting and helping people's lives and what are the issues that Lake Biwa has. Second, there are many deep histories like the soap movement or Omi merchants. And third, local people develop local companies, and the townscape can be seen for sure.

Lastly, Glocal Simulation Gaming. As we mentioned, Glocal refers to local plus global. These are the assigned classes for Ritsumeikan University International Relations. I already took that class as well. Participants will be the tri-sector and negotiate with other actors. The aim is different for each, but achieving local environmental sustainability would be the key for sure. We're planning to divide a sector into three, local companies, governments, and NPOs. Those which we have been explaining so far would be the key to solve to approach any community issues. Training can provide a sustainable run for having sponsors for tourism competitions. GSG can provide new inventions through debates and brainstorming. Moreover, the Cloud Funding system can make economic change and revitalization on a local scale.

In conclusion, the training for large and startup companies to learn about sustainability to make locals find the values in local resources, create economic cycles and create a sustainable Community system. It will develop the level of ecotourism in Shiga Prefecture and definitely be able to experience and feel the warmth of the people of Shiga Prefecture just as we did, even though we are from different prefectures. Thank you so much for all your support. We would like to truly cooperate for the prosperity of Shiga Prefecture. Thank you for listening

Question (Judge Ajit Pattnaik)

Congratulations, everyone, on the wonderful presentation. It was really impressive, and you had a very Innovative idea, so can I ask you one question? What inspired you to think of this, and what is that unique selling point which you consider the best amongst the components which you are suggesting to sell as the product to tourists?

Answer

The best thing about our ecotourism project is that it includes trail running. The other thing is that through ecotourism, we can revitalize the economic system of Shiga Prefecture.

Question (Judge Alejandro Juarez)

Congratulations again and It was very clear and well talks about your consideration from selling aspects. How do you see this proposal being implemented and realized?

Answer

We have been thinking about this program for about a month now and have visited several people to get their comments and overcome some problems through trial and error. Although the focus is on sports, there are also community connections and discussions, so the generations will be different for each theme, and we think we can recruit many participants, and the program has the potential to continue for a long time because it is structured in such a way that participants will revisit and try to solve problems again.

トレイルランから始まる エコツーリズム Eco-Tourism starts with Trail Running

立命館大学 Ritsumeikan University
窪岡 真理 / KUBOZONO Mana
島 麻理奈 / HATA Marina
藤枝 萌生 / FUJIEDA Aoi

目標 / Goal

地域資源に価値を見出し、
経済循環を生み出し、
持続可能な地域社会のシステムを作ること

Finding values in local resources,
create economic cycles, and
create a sustainable community system

エコツーリズムプラン / Eco-Tourism Plan

トレラン
Trail Running



山の保全
Mountain Preservation

まち歩き
Local Walk



価値・課題発見
地域の人との交流
Finding new perspectives and issues
with local people

GSG
Global Simulation Gaming



多様な立場で
アイデアや施策を
Take ideas from various situation

なぜ漸習のエコツーリズムでトレイルラン? / The reason why we chose trail running

Goal 5
豊かな自然
環境を
守ろう

Conserve forests serving
as rich water resources

トレイルランを通じて森林の現状を知る
偉大な自然環境に感動

- Learn about the condition of forests
through Trail Running
- Impressed by the beautiful Lake Biwa

Goal 6
森と琵琶湖の
つながりを
健全に

Create a healthy relationship between
forest, lake, community & lake and sea

感動体験が保全意識を誘発
Emotional experience triggers awareness of
conservation of Lake Biwa

**Mother Lake
Goals**
あなたと私から
変えよう



トレイルラン中に見える雄大な琵琶湖
Lake Biwa while Trail Running

トレイルランの魅力 / Values for Trail Running

-  新しいスポーツで人気 / New Sports, new option
-  滋賀の稀有な自然環境 / Rare environment from Shiga
-  国内外でツーリズムとして高い経済効果を出した事例がある
/ Some examples which achieved the high economical
effects within the country and the world as tourism

トレイルランの課題 / Issues of Trail Running


環境問題への
理解の低さ
Low Awareness with
Environmental Issue


地域住民からの
反対
Difficulties to see
the effect on community

▶ これらの課題を解決できる「高付加価値・高品質なエコツーリズム」
High value-added and high quality eco-tourism that can solve these issues

私たちが考える高付加価値・高品質エコツーリズム Our concept of high value-added, high-quality eco-tourism

テーマ / Theme
「大企業・スタートアップ企業の持続可能な社会を学ぶ研修」
「Training for large and start-up companies to learn about
sustainability」


エコへの関心
Interest in Eco


高価格に対応
Fit to high prices


発信・影響力
Dissemination
and influence


よりよい地域を
共に考える
Discuss for the
community


トレランへの
協賛
Cooperation

企業が研修に参加するメリット Advantages of attending this training

-  SDGsや環境保全について学ぶ必要性が高い
High priority of learning SDGs and environment
-  地域課題が山積している地域にはビジネスチャンスがある
Lot of business chances in the area which has a lot of local issues
-  自然の循環の中で学べる（山・湖）
Able to get the chances to learn in nature such as mountains and lakes

研修全体をエコフレンドリーに Making the entire training program eco-friendly



クラウドファンディング型 地域内経済活性化システム Crowdfunding-type intra-regional economic revitalization system



地域通貨「ビワコ」/ Community Money of Shiga "Biwako"



研修プラン / Training Plan



1 トレイルラン / Trail Running



2 湖沼環境・歴史/文化を学ぶまち歩き Local walking for Learning Lake Environment/History/Culture

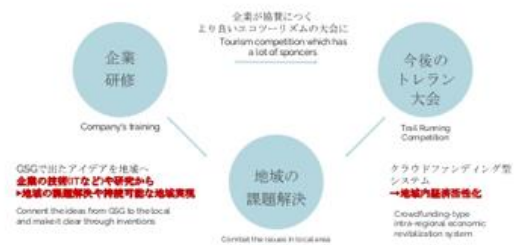


3 GSG (Global Simulation Gaming)

トライセクター（民間企業・行政・非営利団体）に扮して、それぞれの立場で、地域の環境課題解決、持続可能な地域実現のために、模擬的に交渉を行う
Be the tri-sector and have negotiations for achieving the local environment and sustainable community



企業の研修が
今後のより良いトレランの大会に、地域の課題解決に！
Company's sustainable training will be the key to solve the community's issues



まとめ/Conclusion

- ・ 地域資源に価値を見出し、**経済循環**を生み出し、持続可能な地域社会のシステムを作る
Finding values in local resources, create economic cycles and create a sustainable community system
- ・ **滋賀県のエコツーリズム（トレイルラン）のレベル向上**
Developing the level of ecotourism (trail running) in Shiga Prefecture
- ・ **滋賀県の人々の暖かさを体験する**
Experiencing the warmth of the people of Shiga Prefecture

ご清聴ありがとうございました。
Thank you for listening!

TEAM 2	International Volunteer University	Saeko Ito	Be a Researcher Tour in BIWAKO
	Student Association (IVUSA)	Arika Tanabe	
	Kyoto University of Foreign Studies	Yutai Liu	

Hello, everyone. We belong to IVUSA, and are students from Kyoto University of Foreign Studies. The tour title we propose today is 'Be a researcher tour in BIWAKO'

What can we do for lakes? We, human beings, should take action for environmental protection with all generations in order to save and recover water resources. Then we decided to target children who will lead the next generation. However, in recent years, children have spent most of their time in classrooms. In addition, the opportunities to try some experiments or to touch the real nature in the local area are decreasing. In this situation, what we can do for them is to give them the opportunity that children can learn about environmental issues with university students in nature.

We see eco-tourism as 'the tour to make children aware of the value of local water resources. Then we plan our "Be a researcher tour in BIWAKO" targeting children in Shiga prefecture. This tour is a workshop that focuses on water topics such as local rivers, lakes, or tap water. It includes fieldwork and experiments in that children and university students work together. We can provide a learning opportunity for children to realize the value of local water resources while having fun. The experience will lead the children to love and protect Lake Biwa.

The children can try three steps through this "Be a researcher tour in BIWAKO." The first step is to get children interested in and understand Lake Biwa's attractive features through various experiences on this tour. Then they will notice some issues in Lake Biwa. The second step is getting started to research causes and solutions like "What can I do for Lake Biwa?". And for their future challenges, the final step is to grow their spirit of ongoing inquiry minds and to gain knowledge and skills that are uniquely their own.

What are we expecting through this tour? Firstly, it is to give the children who participate in the tour an opportunity to appreciate water resources and to stimulate their inquisitive minds. In addition, the tour involves the cooperation of local adults, so we expect to raise the environmental awareness of the entire community. It is hoped that this will lead to a better environment for the lake, river, and surrounding area, as well as new solutions to environmental problems.

Next, I would like to introduce the details of the tour. The first time of these tours were held in March of this year in Otsu City, Shiga Prefecture. The theme of the first tour was tap water. The topic was how the water we usually drink is cleaned, and we gave the children an experiment to build a filtration system. The upper two pictures show the experiment. The children were asked to think about what, how much, and in what order to use stones and sand from the riverbank, sponges, tissues, and other prepared items. Even if they couldn't succeed at first, the children were absorbed in the try-and-error process, saying, "This was bad," or "Next time, I will use this." After the experiment was over, they presented the results and their thoughts. We college students thought that filtration equipment should use only natural materials, but we were surprised to see that

some children thought that sponges would absorb dirt while others used tissues and masks as filters. After that, we interviewed people who work at water purification plants. Some children actively asked questions, and some wanted to actually visit the water purification plant.

A second event is scheduled for the 30th of this month. The theme of the next one is water and living creatures, and we will go to see the ecosystem of each river area. This is a workshop to think together about what kind of water environment is comfortable for living creatures to live in. In this way, this tour allows participants to actually experience what they are interested in from various angles.

When I came to Japan, I saw the rivers in Japan are much cleaner than those in China, but there are still some drifting bottles or plastic bags in the rivers. So, I think it is very necessary for everyone to participate in this kind of activity to experience water resources first-hand. If people get involved in this project, everyone will pay attention to the water resources problems around them, solve the problems, and take practical actions step by step. This will have a big impact. This tour is not only about the water experience, but also the idea it can be held anywhere in the country or abroad. As a foreigner, I thought this event was held at Shiga prefecture, but this project can also be spread to our Asian countries and even the whole world through online seminars let everyone in the world through a tour like this. Environments need us to understand, see, and feel, get involved in by ourselves, then we can make this world a better place.

This tour is not an event of learning at your desks to protect nature, but this tour is a 'tour' of learning together with nature. This is the end of the presentation of our "Be a researcher tour in BIWAKO." Thank you very much for your attention.

Question (Chief Judge Yoshika Yamamoto)

I think the idea of a researcher tour is very innovative, and I like the use of the word "research," which sounds very mature to children. The first question is, how do you find children's inquisitive minds before starting the first step? Also, how would you promote it and how would you recruit participants?

Answer

We believe that publicity is the most important factor in promotion, so we need to ask for cooperation from Shiga Prefecture, and since it is difficult to market only to children, we think it is most important to inform their parents. I believe that putting up posters in various places and using catchphrases that will attract their attention will be the first step in catching their attention.

Question (Judge Yoshiyuki Kawato)

In your presentation, the phrases "in Area" and "in Nature" change to "with" at the end. Could you be more specific about your feelings about the sudden appearance of "with" at the end?

Answer

At first, I was trying to keep the nuance of "in nature" important, but when I was making the presentation, I thought, "This is working with nature to protect it". And I also thought, "This is a catchphrase that you don't usually hear," and I gave it the name "Learn with nature" in the hope that it would leave a lasting impression on everyone.

Decreasing Field experiences

Let's Go to Nature!

What was the facilitator's?

My, I mean, being able to have an action of environmental protection not all generations in order to save and improve nature and care for a coordinated technique on children who not all for the first generation.

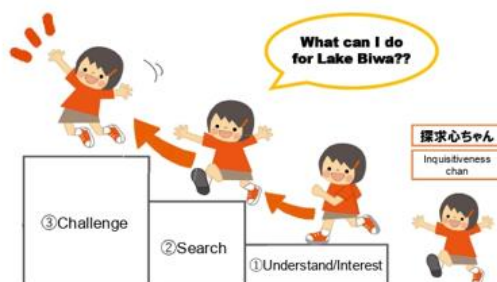
However, in most cases, the children cannot miss of their lives in a day, even, in addition, I thought, parents who have more children, it is because the last child is the most loved and the most precious in this situation, when "we" can do for them is to give the opportunity to learn about environmental issues, with a very early education in nature.

Children realize the value of local water resources
with their **inquisitive minds**
(探求心)



Be a Researcher Tour in BIWAKO

WE care for water tourism as 'the tour to make children aware of the value of local water resources'.
 We also plan our 'See a researcher tour in SUGAR' targeting to children in Shiga prefecture.
 This service is a very special feature as visitors go to a natural area, take walking tour, find water facilities in all experiments, but children and university students can't forget the
 We also provide a learning opportunity for children to be aware of an artificial water environment in the future.
 The above service can benefit children to know each water facility there.



For children can try these steps through this 'be a researcher tour in BROAD'!



What are some ways to get the most out of your trip?

Let's make your original filtration system bottle!



Presentator for their ideas Interview with people working at the water treatment plant

Next Event



And more!!! A second event is scheduled for the 30th of this month. The theme of the next one is water and living creatures, and we will go to see the ecosystem of each river area. This is a workshop to think together about what kind of water environment is comfortable for living creatures to live in. In this way this tour allows participants to actually experience what they are interested in from various angles.

2022/10/30th

~Theme~
Research
Water and lives
under water
In Yanamune river



The Possibility of our 'Be a Researcher Tour'

When I came to Japan, I saw the rivers in Japan are much cleaner than those in China, but there are still some drifting bottles or plastic bags in the rivers. So, I think it is very necessary for everyone to participate in the kind of activities to experience water resources first-hand. If people get involved in this project, everyone will pay attention to the water resources problems around them, solve the problems, and take practical actions. I'm really glad about this tour is not only about the water experience, but also it can be held anywhere in the country or abroad.

As a step, though this event held at Shiga prefecture, but this project can also be spread to our Asian countries and even the whole world, through online seminar for everyone in the world through a tour like this.

Environments need to be understood, seen, and feel, get involve in by our self, then we can make this world a better place.



This tour is not an event learning at your desks to protect nature, but this tour is a tour learning together with nature.
This is the end of the presentation of our "be a researcher" tour in BONAIO. Thank you very much for your attention.

TEAM 3	General Incorporated Association	Masato Banno	Experience 400 years of history!
	SwitchSwitch	Kiyoharu Tanabe	Traditional Fishing Method Sustainable
			Tour

I work in a place called Wakasa-cho, Fukui Prefecture. Mikata Goko (Five Lakes of Mikata) is our field. I am currently working on a tour experience program of the traditional fishing method in the area, which has been in existence for 400 years. I would like to introduce our activities.

Mikata Goko (Five Lakes of Mikata) is located about 90 minutes by car from Lake Biwa. As the name suggests, it is a collective name for five lakes. Each of them is named Lake Mikata, Lake Suigetsu, Lake Suga, Lake Kugushi, and Lake Hiruga, and they are diverse lakes with different salinities, areas, and depths of fresh water, brackish water, and seawater, respectively. It has been selected as a national park, a Ramsar Convention, and a Japan Agricultural Heritage site. In addition, a sedimentary deposit called a 70,000-year annual stripe, which is an indicator for archaeology has been found at the bottom of Lake Suigetsu.

I was born in Nagoya City, Aichi Prefecture, and spent some time in Hokkaido as a nature guide, but now I am not only a guide but also involved in community development here in Wakasa Town, Fukui Prefecture. I am involved in this tour program as a coordinator, not a fisherman.

There are three traditional fishing methods that continue to be practiced today. The three traditional fishing methods are eel tube fishing, Shibazuke fishing, and tataki net fishing. Eel tube fishing is a method of fishing that takes advantage of the eel's propensity to rest in small or narrow places, and in the old days, eels would be submerged in a bamboo tube, and the entire tube would be lifted up when they were resting inside. Nowadays, vinyl chloride pipes are used, but these tubes are still made in such a way that once an eel enters, it is not allowed to escape. In Shibazuke fishing, small fish and Tenaga shrimps rest inside a bundle of tree branches, and the branches are pulled up to prevent the small fish and shrimps from escaping. In the winter season, from December to March, a primitive method called tataki net fishing is used to catch carp and crucian carp, which are not very active at the bottom of the Lake, by tapping the surface of the water, which startles them and causes them to flee in the opposite direction of the tapping sound and get caught in the net. In the Mikata Five Lakes, especially in Lake Mikata, where we are working, fishing is conducted to catch eels and tenagaebi, as well as to eat carp and crucian carp.

The first characteristic of this eco-tourism is that the number of fishermen in this non-oceanic inland water area has been decreasing all over Japan. I think it is all due to the fact that Japanese people do not eat much freshwater fish, but carp and crucian carp are very tasty, so we are doing this to show people how delicious they are. By doing so, we are trying to create a cycle in which fishermen can sell their fish. The traditional fishing method you just saw involves taking materials from the mountains, such as bamboo and twigs, and using them in the fishing industry. A natural cycle of mountain maintenance is created there. Third, I believe that this tour will have a high educational effect. 400 years of continuous fishing means that the fishery is sustainable, and I am not sure if it will be sustainable in the future due to the aging of the population, but I

believe that it will have a high educational effect by informing participants that the fishery has continued for at least 400 years without depleting its resources.

Another is to increase the number of participants in the program to generate additional income outside of the fishing industry, and we are also planning to provide some of the participation fees to a fund that will help conserve satoyama and fishery resources. The program will begin in earnest in 2020, and we currently have about 400 participants, including educational tourists. In addition to the tours, we are also focusing on developing local products such as crucian carp and carp. We are developing products that participants can take home as souvenirs since they cannot currently buy carp.

These are local children. We are allowed to watch from other boats the actual fishing site where the fishermen are doing the tube fishing for eels. Also, in the photo on the left, they are being taught how to beat green bamboo in the tataki-net fishing method. The photo on the right shows him explaining about carp and crucian carp that he actually caught. The fisherman's unique commentary tells us that the fish is delicious as it is and how to eat it. Children these days do not have many opportunities to eat eels, and they all say that it tastes better when an eel vendor cuts the eel right in front of them or when they eat freshly grilled eels. We have learned from research in Australia and other countries that there are regions where carp and crucian carp are eaten at barbecues, so we are now developing a barbecue menu, although carp and crucian carp are only served as sashimi in this area. This is a dish of roasted crucian carp roe, which is not usually eaten. The youngest fishermen are about 45-6 years old. The average age of the fishermen is about 65 or 70, and they are working hard, so we are getting a little bit excited with the younger people coming in. This is a crucian carp burger that we are developing as an option. When I go overseas, there are quite a few areas that fry freshwater whitefish, so I'm taking a lot of cues from them. We are also selling canned crucian carp, which is a recreation of the local way of eating crucian carp, boiled in soy sauce. We are also working with fishermen to generate tourism income by introducing new sports such as sap and kayaking. By doing so, tourists will, of course, enjoy themselves, and fishermen will have the opportunity to experience the success of having people say that the food they are making and catching tastes good and that it can be turned into money. We are working on this project with various people, including researchers, fishermen, chefs, and a guide/coordinator like myself. That's all for now. Thank you very much.

Question (Judge Yoshiyuki Kawato)

You use the number 400 years, but in reality, I believe there have been various fishing methods for much longer. Could you tell us why you are so particular about the number 400?

Answer

I believe that the Jomon people in our area have been doing the same kind of fishing for about 10,000 years, but the only written record of the fishery is 400 years old, so I use that figure as a fact. We use that figure because elementary school students and tourists would be surprised to hear that fishing has been going on for 100 years, so we thought they might be more surprised to hear that it has been going on for 400 years.

Question (Judge Kayoko Kameda)

I understand that you have been active in this field for several years, so I am sure you have accumulated a lot of experience. What challenges or difficulties have you faced in the process? Also, I would like to know how you solved them and how you have continued your activities up to now.

Answer

There is a sense of resistance and uneasiness about doing something new. However, at the right time, young people started saying they wanted to fish and became members of the cooperative, and they are starting to do it while saying they enjoy fishing. So we are trying to create an atmosphere of "let's do it because it's fun" rather than because it is right or necessary. Sometimes it is difficult for fishermen to convey the message to the participants in their own words. In such cases, I, as a non-fisherman, try to interpret the fishermen's words. However, in order to do so, we have to charge a certain amount of money for the fishermen's labor, fish, and labor costs, which is something we are still struggling with.

Question (Judge Takayuki Mochizuki)

I understand that you are developing new products such as hamburgers and canned food, but I would like to know if you are on track as a business and if you have regular meetings with people from various backgrounds and develop new tours each time.

Answer

For example, each canned food costs 1,000 yen, but since the catch of crucian carp is limited, only 1,200 canned foods can be made, and even if all of them were sold, it would only amount to 1.2 million yen, so it is not clear whether it is a viable business. Even so, the fact that we have sold 1,000 burgers is a great achievement, and I think the people who say the canned foods and burgers are delicious are encouraging us. The next wave of tourism and product development is beginning to emerge, and while it is important to make it a business, it is also important to build the next engine, so we are working to create a fun cycle that is not in the red but not yet a business, and I think we are doing quite well.

400年の歴史を体感する！ 伝統漁法サステナブルツアー

Experience 400 years of history!
Traditional Fishing Method Sustainable Tour

三方五湖について About Mikatagoko

・三方湖、菅湖、水月湖、久々子湖、日向湖の5つの湖

淡水、汽水、海水と、それぞれの湖では、塩分濃度が異なることから、生息する魚類も湖により異なり、多様な生きものを育む、変化に富んだ淡水環境

・Five lakes: Mikata Lake, Sugo Lake, Suigetsu Lake, Kugako Lake, and Hyuga Lake.

Each of the lakes, freshwater, brackish water, and seawater, has a different salinity, which means that the fish fauna that inhabits each lake also differs. A richly varied lake environment that nurtures a wide variety of creatures

・国定公園、ラムサール条約の登録、日本農業遺産に選定

・National Monument, registered under the Ramsar Convention, selected as a Japanese Agricultural Heritage Site

・水月湖の湖底からは、7万年前の堆積物である「年輪」が発掘されている。

・Annual stripes, 70,000 years of sediments, have been excavated from the bottom of Lake Suigetsu.



阪野真人(ばんのまさと)

1980年5月24日 愛知県名古屋生まれ
1999～2000年 東京の野外活動の専門学校で学ぶ
2004年4月1日～ 若狭町でカヤックのガイド
2005年4月1日～ 北海道のNPO法人に所属
2016年4月1日～ 若狭町 地域おこし協力隊
2019年4月1日～ 現在 若狭町で2つ法人を設立
一般社団法人SwitchSwitch
一般社団法人熊川プロジェクト



三方五湖で400年続く伝統的な漁法 Traditional fishing method that has continued for 400 years in Mikatagoko

ウナギ罟漁



栗漬け漁



たたき網漁





このエコツーリズムの特徴 Features of this ecotourism

①漁業の持続性の確保

① Ensuring the sustainability of the fishing industry

②里山の維持、流域の保全へ

② maintaining satoyama and preserving watersheds

③高い教育効果、SDGsの視点

③ High educational effectiveness, SDGs perspective

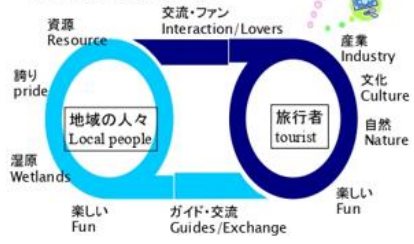
④漁業資源や環境保全の資金創出

④ Creation of funds for fisheries resources and environmental conservation

これまでに地域の子ども、旅行者など約400名が参加 エコツアー以外にも、土産物開発やランチメニュー

About 400 people, including local children and tourists, have participated so far. In addition to eco-tours, this ecotourism has developed souvenirs and lunch menus.

エコツアーの効果 Effects of eco-tourism



TEAM 4	Seian University of Art and Design	Rao Sasaki Akari Taira	Enjoying Tracing Ecotourism
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What does "tadoru" mean? The word "tadoru" encompasses a variety of uses.

We are tracing a path, tracing history, tracing the water. We propose a new journey with local people to "trace" the region from their perspectives. First of all, please look at this data. It compares the market size of "Koto" consumption between OECD member countries and Japan. "Koto" is defined by activities that tourists can do. The comparison between the two shows that the ratio of "Koto" consumption is quite high in the world and that consumption is not always materialized. Therefore, we propose ecotourism that focuses on both people and things. Our ecotourism project will take place in the Moriyama district of Otsu City, Shiga Prefecture. Located on the east side of Lake Biwa, the Moriyama district is easily accessible, only 30 minutes away from the metropolitan area. In addition, this is an area with very close proximity to mountains and lakes. In the mountains there is a belief in water, and in the villages there is a life with water. In Lake Biwa, where traditional fishing is still practiced, there is a way of working with water.

The waters, rivers, and Lake Biwa have nurtured a diverse culture and history. The Moriyama area is a place where you can feel the connection between the mountains, villages, and lakes. For this reason, we propose ecotourism, allowing visitors to feel the connection between them.

The area is also famous for "Moriyama-Stone," which has been used as a garden stone for Heian Shrine and other gardens in Kyoto for a long time.

As the first point of attraction, we propose a system called "local curator."

Let's go on our way with excitement to many special places are known only to the curator.

There are people from various professions in the Moriyama area that would be considered curators. Okada-san is one of them. There are many other people who have their specialties. This is one of the charming things about this area. We created the term "local curator" as a proposal to take advantage of such attractions. Each curator traces the region with the participants with the knowledge they possess. For example, even if it is the same landscape, it is possible to guide the area from each expert's point of view. We aim to create tourism that makes people want to visit the same place over and over and enjoy it from different perspectives depending on the curator.

Some local curators living in this Moriyama area specialize in environmental issues.

Another attraction of this tour are the local spots guided by the local curators. Local spots are places with attractions that only residents know about. For example, a place where local people gather naturally, such as a vegetable market for free or a marché. We were also impressed by the interaction with residents that we happened to meet during our trial tours.

We happened to come across a local person who was taking a break from mowing, and when he found we were on tour, he gave us accurate information about the area: "There's a water spring here! There are frogs on the verge of extinction". The local spots are places where you will encounter people and knowledge that are not part of the original tour schedule.

We target tourists according to the attractions of each local spot. "Usual & Soft Eco Tourist." We have selected eco-tourists who value enjoying and learning about the daily life of the region as our target market, and we propose ecotourism that meets this target image.

Then we will move on to the explanation of the actual tour contents. The 1st day of the tour will be dedicated to the theme of "tracing" the region. We will descend through the Moriyama district, following the water from the mountain to Lake Biwa. First, let's climb up to the Konpira Shrine on the top of the mountain and enjoy the view of Lake Biwa. You will feel the water and faith. Next, we will go to the Noriko River, the source of water in the Moriyama area. We will then descend to the village. We'll see the ancient black stone waterways and streams used in the area for centuries. After passing through the village, follow the water to the terraced rice paddies. You will see the water springs and their ecosystem. Finally, we will go to the beach and the shore of Lake Biwa. On the beach, we will recap today's tour, from the story of lake transportation to the Moriyama Stone. This is the first day of the tour, and you will feel the connection between the mountain and the village of the Moriyama area.

The second day will be spent on Lake Biwa with the theme of experiencing the bounty of the water. First, we will experience the traditional fishing method of fishermen who live in harmony with nature.

Have you ever seen these sticks coming out of Lake Biwa? This is a type of fixed fish net called "Eri," a traditional fishing method of Lake Biwa. We will join the work of Mr. Kenya Komai, a fisherman who has been involved in this traditional fishery and allow you to feel the local way of life with water.

Then, you will experience Lake Biwa's local food. You can enjoy the lake's delicacies by eating "Tankai Sushi." Tankai Sushi is a type of sushi made with lake fish. Lake fish are not often eaten raw, but they can be tasty depending on how they are cooked. We invite you to experience the unique delicacy of lake fish prepared by Mr. Komatsu, a chef who conveys the charm of lake fish. On this day, you will be able to feel the bounty of the lake directly through two contents: fishing and eating the fish.

The second day will be conducted that way.

The first day will be a day of tracing the local area, and the second day will be feeling the bounty of the water. We hope that through these two days, you will feel the connection between the "mountains, forests, and lakes" and get to know Lake Biwa firsthand.

Next, I would like to talk about the sustainability of the proposal. The Moriyama area is a very small area that is not considered a tourist destination, so the tour is designed for a small number of people considering the impact on the local community and the environment. The projected economic profit is up to 3 million yen per year. We would like to contribute 10% of that amount to the local government. We hope to use this income for forest management in the Moriyama area and for maintaining the traditional stone waterways. Here we can see that ecotourism returns profits to the community with each tour.

As a vision for the future, we would like to cooperate with in-bound tour agencies to provide guides for international visitors. As for accommodations, at this time, the most popular accommodations in the Moriyama area are the Ogoto Onsen hot springs inns. In the future, we would like to offer visitors the opportunity to stay in a local rental to feel as if they were living there.

We are looking for a cooperative system for the actual operation of this project. The following is a list of people and organizations that cooperated with us as advisors, etc.

Thank you for your attention.

Question (Judge Kayoko Kameda)

I was very impressed with the wide range of proposals, with the keyword "tracing from mountains to lakes with local people." I think it is very important to have a relationship of trust and communication with the local people to get them to cooperate. How did you establish such a relationship?

Answer

We are very careful about this point. One of the things we are considering is to hold a local marché in this area, and the people who gather at the marché are fishermen and artists. We would like to connect with these people at such events. We believe that the most difficult part is building relationships with other local residents. There is a non-profit organization called Hira no satobito (NPO) formed by local residents that manage and conducts tours in the Moriyama area, and we would like to use such an organization as a springboard to gain cooperation from local residents as well. We are actually working with an environmental specialist and local curator, Dr. Fukamachi, who is running the NPO.

Question (Chief Judge Yoshika Yamamoto)

I would like to ask from the perspective of tourism. Some people think the price of 60,000 yen per person is high, while others think it is low. How did you decide on this price, and to whom do you promote it? Also, the word "inbound" has been mentioned. Please tell us if any organizations are already cooperating with you at this stage.

Answer

We thought the tour price might be a little high. Still, we set this price based on the assumption that we would be able to offer food and accommodation experiences that would be worth the price since our target audience is expected to be overseas visitors in their 40s to 50s.

We have had overseas tour groups see the presentation of this tour and cooperate with us, so it would be feasible.

「たどる」を「たのしむ」

エコツーリズム

成安造形大学
佐々木良緒・平良珠矢

滋賀県 大津市
守山地区
Otsu City, Shiga
Prefecture,
Moriyama area,



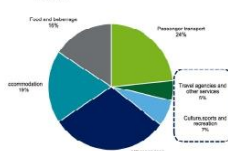
『たどる』を「たのしむ」エコツーリズム



コト消費の市場規模

旅行消費額に占める経費サービス費(2016年)

OECD加盟国の旅行消費額のうち、経費サービス費が占める割合は12%。旅行消費額は3,200億ユーロ(約36兆円、1人当たり消費単価は5,600円)である。



訪日外国人の旅行消費額の内訳(2017年)

訪日外国人の旅行消費額のうち、経費サービス費が占める割合は3.3%。旅行消費額は1,330億円(約133億ユーロ、1人当たり消費単価は5,600円)である。



※旅行消費額：飲食費・交通費・宿泊費・娯楽サービス費・買物・その他
※OECD加盟国の旅行消費額：OECD加盟国の旅行消費額のうち、経費サービス費が占める割合は12%。旅行消費額は3,200億ユーロ(約36兆円、1人当たり消費単価は5,600円)である。

消費が非物質化している

Consumption becomes dematerialized.

出典：国土交通省 観光庁「体験型観光コンテンツ市場の概観」世界の観光消費と海外旅行客の意識・実態の調査結果



モノ消費



コト消費に



From material consumption to experiential consumption

コトやヒトに焦点を当てた エコツーリズム

Focusing on things and people Ecotourism

『たどる』を「たのしむ」エコツーリズム

地域 エリアの特徴

滋賀県 大津市 守山地区

Moriyama district,
Otsu city,
Shiga Prefecture

都市圏(京都)から
電車でも車でも
約30分の距離

Approximately 30 minutes
from the metropolitan area
(Kyoto) by train or car

『たどる』を「たのしむ」エコツーリズム



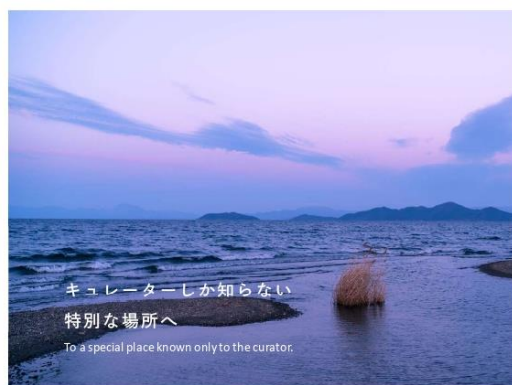


山・里・湖のつながり
Connection between mountains, villages, and lakes

※「たどる」を「たのしむ」エコツーリズム



※「たどる」を「たのしむ」エコツーリズム



※「たどる」を「たのしむ」エコツーリズム



様々な職種の地域住民が存在している



私たちが感じたこの地域の魅力のひとつ

There are local residents of various professions who can be local curators.

『たどる』を「たのしむ」エコツーリズム



キュレーターによって違う
視点の変化を楽しむことが可能
It is possible to enjoy the different views of different
curators in the same place.

何度も訪れたくなるツーリズムに
It's the kind of tourism that makes you want to visit again and again.

『たどる』を「たのしむ」エコツーリズム



【ローカスポット】…

地域住民しか知らない
魅力がある場所。

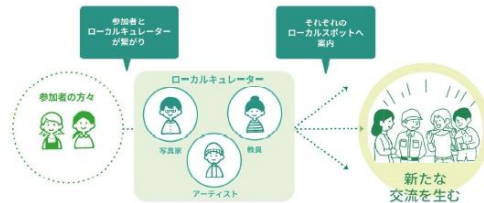
Accidental encounters
created by the curator's
guidance

ローカスポットの例



【ローカルクリエーター】… それぞれが持つ知識で参加者と一緒に地域をたどる。

Local curators will trace and guide the area with the explorers along with the knowledge they each have.



『たどる』を「たのしむ」エコツーリズム

環境に関する専門的な
ローカルクリエーター

Local curators specializing in the environment;



京都大学 准教授 農学博士

深町 加津枝先生

Dr. Kazue Fukamachi, Associate Professor of
Agriculture, Kyoto University



近江学研究所 客員研究員

成安造形大学非常勤講師

大原歩先生

Dr. Ayumi Ohara, Part-time lecturer at Selan
University of Art and Design, Institute of Omi Studies

『たどる』を「たのしむ」エコツーリズム

地域住民が集う場所で、
コミュニケーションを

実際に…

偶発的に出会った

人と人、人と場所が生み出す
コミュニケーションの面白さ

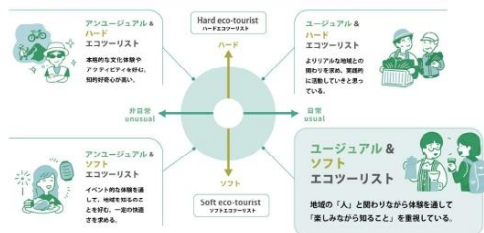
Interesting communication created by
accidental encounters between both
people and places

予定にはない
人や知識と出会う



『たどる』を「たのしむ」エコツーリズム

ターゲット・セグメント・エコツーリストの要素をもとに
ターゲット像を精緻化



ターゲット像に沿ったエコツーリズムを

『たどる』を「たのしむ」エコツーリズム

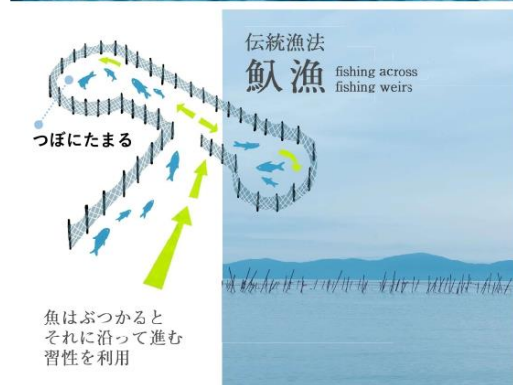
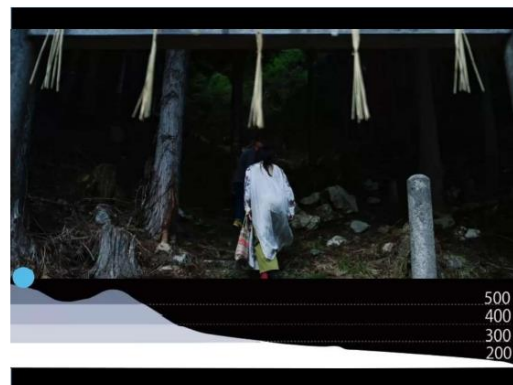




Day1 / 地域を「たどる」

09:00~	集合、アイスブレイク	
09:30~	ラーニングツアー	山からびわ湖へと、水の流れをたどりながら、歴史文化も同時に感じます。
11:30~	昼休憩	勝田やさんの地域の食材を使用した季節のお弁当です。
13:00~	石をめぐるサイクリングツアー	守山の石文化をめぐるサイクリングツアー - [NPO法人比良の里人]
15:30~	自由時間	ローカスポット巡りなど
18:30~	夕食	ローカルキュレーター 深町先生が監修したラーニングツアーコース

写真：左から「山からびわ湖へたどる」「山からびわ湖へたどる」





2日間を通して「山・里・湖」のつながりを感じ
びわ湖を肌で知る。

In two days, you will experience firsthand the connection between "mountains, villages, and lakes. And learn about Lake Biwa.



提案の持続可能性 自治会の使用方法
How the money is used in the community association



提案の持続可能性 自治会の使用方法

How the money is used in the community association

将来的なビジョン

- ・ 守山地区の山の管理、維持
- ・ 守山地区の石組みの水路の維持

- Management and maintenance of the mountain in the Moriyama area
- Maintenance of masonry canals

開催を重ねる度に、地域に還元される。

Each time the event is held, it gives back to the community.

宿泊施設について About Accommodations

現時点

守山地区周辺の宿泊施設
・おごと温泉の温泉宿



長期的な計画

暮らすように滞在できる
守山地域の一棟貸しの宿



今後のビジョン

外国人観光客向けのインバウンド
農村生活文化体験型ツアー団体との連携。

Collaboration with rural lifestyle and culture experience tour groups for foreign tourists

海外向けの
ガイド人材の協力

Cooperation of tour guides for international tourists



協力体制

運宮主体▶

一般社団法人シガーシガ

湖西エリアを中心に活動する地域団体。

コンテンツ協力者

- ・漁業体験
- ・石をめぐるサイクリングツアー
- ・淡海寿司
- ・昼食提供

フィッシャーアーキテクト
駒井健也

NPO法人比良の里人

小松聖児

鼓邑や

ローカル
キュレーター候補

- ・ 深町先生
- ・ 大原先生
- ・ 岡田豊
- ・ 山崎純敬
- ・ 岡山泰士
- ・ 市村恵介
- ・ 市村初奈
- ・ 西翔太
- ・ 佐々木良緒
- ・ 平良珠朱

ご協力いただいた方々

アドバイザー:一般社団法人シガーシガ

京都大学 准教授 農学博士
深町加津枝先生

近江学研究所 客員研究員
成安造形大学非常勤講師 大原歩先生

守山地域の
アドバイザー:NPO法人 比良の里人

写真提供:山崎純敬

ご清聴ありがとうございました。

Thank you for listening.



大津市は県外への通勤者が多いため、昼間人口は少ない。

Otsu City has a small daytime population due to the large number of out-of-prefecture commuters.

ローカルキュレーターのシステムが

昼間、地域に滞在する理由を作る。

The local curator system will provide an incentive for people to stay in the area during the daytime.



【出典】能務省①

(5) Case Studies of Ecotourism in Japan and Overseas

● Overseas Case1 : Ecotourism in the Balaton-felvidéki National Park

Erzsébet Sitku, Nature Conservation and Ecotourism Officer,
Balaton-felvidéki National Park Directorate, Hungary



Ecotourism takes place in natural areas, where visitors can enjoy all the benefits that only nature can give. National parks and protected natural areas are popular destinations for tourism all over the world. Tourism is a booming business and is one of the main economic drivers worldwide. The Covid19 pandemic strongly affected especially international tourism in 2020. As a result of the pandemic, people primarily turned to domestic and local natural values. Consequently, the pandemic has increased the number of visitors to natural habitats, which also results in greater pressure on these areas. This means new

challenges for tourism.

The Balaton-felvidéki National Park is located in western Hungary on the northern shore of Lake Balaton in Central Europe. Lake Balaton is Hungary's second largest tourist destination, which is why the Balaton-felvidéki National Park has a very high number of visitors.

Balaton-felvidéki National Park was founded in 1997. The area of 56,997 hectares of the National Park mainly consists of these six landscape protection areas: Kis-Balaton, Keszthely Hills, Tapolca Basin, Káli Basin, Pécsely Basin, and Tihany Peninsula, as well as some smaller nature reserves. Among its regions, Kis-Balaton is also protected by the international Ramsar Convention, serving the protection of wetland habitats. The birdlife is very significant here, counting more than 260 bird species. Tihany Peninsula – as a recognition of its outstanding geological values and the work of nature conservation in that region – was awarded of European Diploma in 2003. The Bakony–Balaton Geopark – the area which partly covers the National Park - became a member of the European Geoparks Network and the Global Geoparks Network – assisted by UNESCO in 2012. The current operational area of the Balaton-felvidéki National Park is 1,013,850 hectares, which also includes 71 areas belonging to Natura 2000 European Ecological Network.

As you can see, the territory of the national park is extremely diverse in terms of natural, geological, and cultural heritage. Here you can find volcanic mountains, wetlands, wide valleys, historic vineyards, old castles, and churches. A thoughtfully planned ecotourism system is needed to present these values.

Our goal is: To present our protected natural values and cultural heritage in a way that has the least negative impact and pressure on these unique areas but increases people's environmental awareness and behaviors, as well as helps preserve these irreplaceable values for future generations.

These natural, geological and cultural values are presented for visitors in 16 exhibition sites and visitor centers, including 4 caves, as well as 22 nature trails and several guided tours during the whole year. Environmental education is very important to us, we currently have 5 certified nature schools. Partnership and

cooperation with stakeholders are an essential part of successful work. We operate several communication channels with the aim of reaching the widest possible range of different generations of people as we can with up to date information. Monitoring, data analysis, evaluation and review are very important parts of long-term and short-term plans. The ecotourism system in the Balaton-felvidéki National Park is well structured, but new challenges require continuous development. Thoughtfully planned and organized ecotourism promotes the protection of natural and cultural values, helps local communities, ensures people's well-being, and supports sustainable development in the long term.

Balaton-felvidéki National Park Directorate is committed to the realization of these goals.



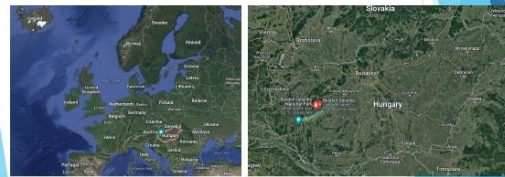
Ecotourism in the Balaton-felvidéki National Park

Erzsébet Sitku
Nature Conservation and Ecotourism Officer
Balaton-felvidéki National Park Directorate, Hungary



ILEC International Symposium Oct. 15th 2022
„Fostering of Value of Lakes For Future Generations”

Location of Balaton-felvidéki National Park



Balaton-felvidéki National Park General information

Established: 1997
Operational area: 1013 850 ha
National Park: 57 019 ha
Protected Landscape Reserves (3): 11 240 ha
Nature Conservation Areas (27): 5064 ha
Bakony-Balaton UNESCO Global Geopark: 320 000 ha
Five country biosphere Reserve Mura-Drava-Danube: 100 898 ha (total: 942 338 ha)
Ramsar sites (3): 84 228 ha
Natura 2000 Areas (71): 254 629 ha
European Diploma of Protected Areas (1): 645 ha
Caves: 690

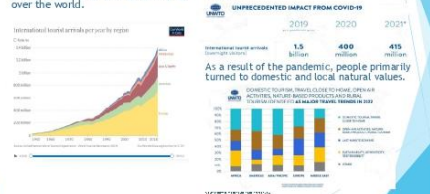
Source: Annual report 2021 Balaton-felvidéki National Park Directorate



Outlook on the development of global tourism

Tourism is a booming business and is one of the main economic drivers all over the world.

The Covid-19 pandemic strongly affected tourism in 2020.



Challenge of tourism

Problems:

- The burden caused by tourism on the natural environment is not negligible.
- As a result of pandemic, more people go out into the nature for recreation but not everyone behaves responsibly.

What way can we solve these problems? Ecotourism!

Ecotourism is defined as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education" (TIES, 2015)



How is the ecotourism system structured in the Balaton-felvidéki National Park?

Our goal: Presenting our protected natural values and cultural heritage in a way that has the least negative impact and pressure on these unique areas, but increases people's environmental awareness and behaviors, as well as helps preserve these irreplaceable values for future generations.

Principles: - priority to protection

- build environmental and cultural awareness and respect
- contributing to sustainable development (travel, organic farming, etc.)

Strategy and action plan: long-term and short-term, key topics, key actions

Partnership: engaging all stakeholders

Communication: to reach the widest possible range of different generations of people

Monitoring, evaluation and review: tickets, registered visitors, feedback, etc.



To protect and enhance the area's natural, historic and cultural heritage



Effective tools of ecotourism: visitor centers, exhibition sites

Visitor Center: 7 Exhibition sites: 9



Effective tools of ecotourism: nature trails and guided tours

22 nature trails

Guided tours: nature, geo, cave, birdwatching, photo, water, bike and E-bike tours.



Effective tools of ecotourism: environmental education

Five certified nature schools



Effective tools of ecotourism: events, open days, fairs



Partnership

Engaging all stakeholders: local communities, institutions, schools, business and service sector, local entrepreneurs, farmers, producers, NGOs, local people, Ministry, etc.

Collaborations with national and international professional partners: other national parks, universities, research centers, EUROPARC Federation, Global Geoparks Network, Living Lakes Network, etc.

Cooperation agreements, determination of common interests, exchange of experiences, coordinated actions:

Good for nature, good for local communities, good for people!

National park branded products: local products made in harmony with nature.



Communication

Objective: To reach the widest possible range of different generations of people.

Website: www.bfnp.hu

Publications, newsletter, reports, presentations

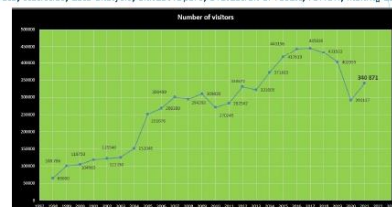
Smartphone Application

Social media: 10 Facebook pages, Instagram, Youtube



Monitoring, evaluation and review

Data, statistics, data analysis, annual report, evaluation of result, review, making decision.



Conclusion

In many places all around the world, our natural values and natural habitats are damaged or destroyed as a result of human activity and changed environmental effects. Ecotourism is an effective tool for nature conservation. Ecotourism is becoming more and more widespread, but many countries have not yet recognized its potential.

Thoughtfully planned and organized ecotourism promotes the protection of natural and cultural values, helps local communities, ensures people's well-being, and supports sustainable development in the long term.

Balaton-felvidéki National Park Directorate is committed to the realization of these goals.



Thank you for your attention!



Erzsébet Sitku
Nature Conservation and Ecotourism Officer
E-mail: sitkuerzsabet@bfnp.hu
Balaton-felvidéki National Park Directorate, Hungary

●Overseas Case2: Ecotourism at Ba Be Lake, Vietnam

John Bruno

The International Ecotourism Society (TIES), USA



I think everyone knows that ecotourism is growing dramatically around the world and has been for quite some time. There's a lot of demand on the consumer side for ecotourism. The problem is we do not see the capacity; in other words, we are not allowing eco travelers to see ecotourism capacity globally, and that's something that we need to fix up by making more assets available online for people to book and see. This is an excellent example. You can find excellent information about it, but

not enough to really craft an itinerary. I want to talk about the primary definition of ecotourism first. It is responsible for travel to natural areas that conserve the environment, sustains the well-being of local people, and involve interpretation and education. I go ahead and read that out because it's important. This is a definition that has been used in over 100 countries around the world. It is currently I would say used in about 50% of the world. It is one of the strongest definitions, although there are other excellent definitions. The International Union for Conservation of Nature (ICUN) has one that's very good, and The World Tourism Organization (UNWTO) has one. But I think ours is important because it travels well and it makes a lot of sense, so it's very widely used. It matters in this context because it guides how people consider ecotourism, and that's why I want to talk about three very important elements around us, specifically ecotourism at this Lake.

Ba Be Lake, anyone in Vietnam knows and all our folks in Vietnam, all our experts, and a lot of our operators and numbers in Vietnam love it as a treasure. The absolute treasure is the highest and largest Lake in Vietnam, actually a combination of three different lakes, and is one of the most biodiverse and beautiful areas that you'll see anywhere in the world. So a lot of people are very attached to it and care about it deeply. It also has two thousand years of history with civilizations there in the area and the region. There are different minorities and Indigenous tribes and peoples and Villages that are around this area, all of which are intimately attached to the history and culture of this amazing lake. This site is a Ramsar site. It's a UNESCO-applied site, and the government of Vietnam has been engaged, since the late 90s, in making this site more sustainable and more answerable to the history and customs of the local people. As I mentioned before, the government relies heavily on local and Indigenous efforts and knowledge, and you see why this matters because these are steward communities. They have a long history of taking care of these areas, and that's how ecotourism fits into this. It relies heavily on local indigenous efforts and now. It's because now there are different tribes around this lake, all of them have varying degrees of history and they work with the lake in various ways. They monetized the lake in various ways, and they added it into their lives in various ways. Some of them are now doing homestays, which is where they're inviting eco travelers into their homes to

experience their cuisine, their lives, and the way that they interact. They also act as tour guides, they also do crafts, and they also do excursions on the lake. Thousands of the critical local species are part of the biodiversity package of this Lake, and the reason it's important is that each one of these species, some of them are unique, but all of them are critical to our Earth, all of them are critical to Vietnam, all them are critical to the community and to the history. So it's extremely important that they're able to protect the species in the way they do it by engagements not necessarily forced, but by the fact that it's so important to the community. So as you see below, I'm not going to read all these off, but there's much unique flora and fauna and several on the IUCN red list because they're quite endangered. This ecosystem is incredibly important in that way. Ecotourism is about community, and there are several Villages that surround the lake. There's actually one that has a two-thousand-year history. and you know in America, we don't properly respect our indigenous people and consider their history. The way that Vietnam considers the history here, so it's very important to me that these folks are well-regarded. If you look at the second line, they are community-based stewardship programs, and basically, what the government has done is going and connected with these communities that have such a long history, and that's incredibly important again. They have the knowledge. They have the ability to take care of the ecosystem. They have the desire in the engagement to manage all of the conservation. They also understand what kind of demand there is for tourism and they know what to show people; they know what looks great, and they know what people like for having done it for a long period of time. These two thousand years of history and tradition are engaged.

Here is the final slide, education. I mentioned already that this was the proposed UNESCO world heritage site. It's one of the most important in Vietnam, it contains a lot of ethnic minority communities. Tay, in particular, are pretty much located in this region, so it's very important to them to learn about these rich cultural histories and traditions, and festivals. It is something that means that when an eco traveler goes to this destination, he or she can truly understand what's going on. And that provides the best experience, so we have a supported, educated community and educated eco travelers to come together not only to conserve the environment and make the ecosystems more robust but also to take care of the community and the finances and the future of this community that has such a long history. Without those three things, conservation, the community, and education, you don't really have ecotourism. Ecotourism isn't just about nature. It's about making sure that there is a positive outcome through these methods, and that means that the eco travelers have to be engaged from the perspective of this community as well as the communities in the region are taken care of, they continue to have their livelihood from this lake but also from the people that is it on that adds to their livelihood in a positive way not by destroying their culture or changing it but by uplifting and celebrating their history and their traditions.

The final thing I mention is the indigenous leadership structure. That has been respected by the government. It means that there is strong engagement in the community to do this work and to continue conserving this incredible and unique site in Vietnam. I think what we can say is that this site is an example of successful management of not only critical biodiversity but history, community, culture, tradition, conservation, and generation of revenue through ecotourism and some other sustainable Industries. I'd like to hold this site up

as a possible example for other lake communities that are looking to increase potentially sustainable development in their area, but not lose who they are and their areas. I finally want to draw attention to someone who is the local TIES expert who wants to thank everyone here and hope that everyone will come and visit Vietnam. Some experts will come and look at this incredible lake and share in the beauty of it with him and the Vietnamese community. That brings my short presentation to an end, but if anyone wants to contact me or talk to me, I'm always happy to talk about sustainable development ecotourism and the future of conservation. Thank you.

Question

Mr. Bruno, thank you very much for introducing the very interesting Lake from Vietnam. My question is where it is located in Vietnam.

Answer

It is in the central north and it's not really close to any border.

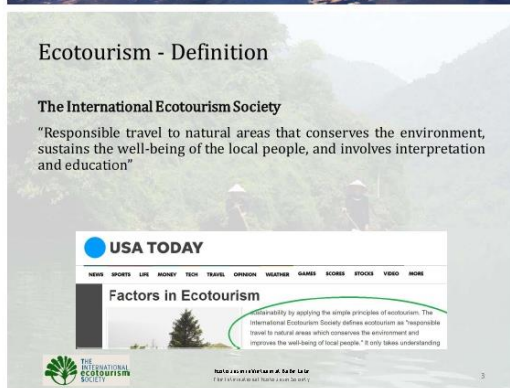
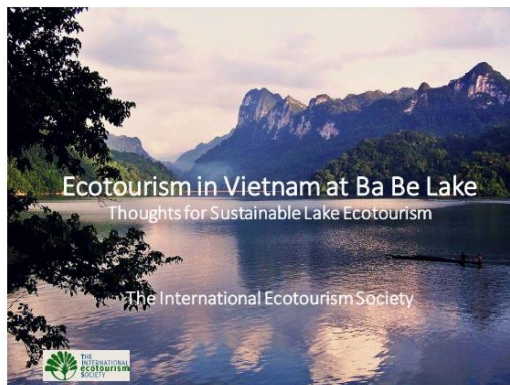
Question

What are your thoughts on how we educate tourists to be sensitive and responsible regarding the ecosystems and their services and so on? I totally agree with you, but you're trying to educate the public like this place is wonderful, and then a lot of people come out, and as you say or somebody said, people don't necessarily act responsibly, and I'm wondering how we make that come about because it's a wonderful goal.

Answer

That's a superb question. I think that's one of the most important goals and, as you mentioned, not the easiest. There are several ways. One is to have the government have that as an idea of focus and to have the community understand that it's a necessity, So as well as I do a lot of times when a tourist goes into a community, they imagine that the community needs to cater to them and so if we help that mindset to not exist, if we start with the government, let's say in the community, this isn't the mindset that's beneficial to you or even to the tourist. That's what the amazing thing is. When the tourist has some education, when the eco tourist begins to feel connected to a place, that's when they're really excited about being there, and that's when they have the best time. If we can gift them with this education, if we look at it as something we're giving them, then many times the three parts of that there's the place, there's a community, and there's the visitor. If those places are ready to educate through interpretation and through believing that the traveler needs to be educated. That's kind of half the bottle, but then making things available. If you were, I wanted to go visit this place a lot of the stuff isn't online. A lot of the stuff is unavailable. In this day and age, there should be information because what we're seeing is that 70% of tourists now want to travel sustainably, and they're looking for these things in there, trying to educate themselves; we should give them that information, that's our side of the point, and if we do those things, it brings results, believing that people are going to read the things that we put out, and it works. We have a couple of million visitors to our site every year, and only 40% of them are from industry, and the rest are just travelers; they come and look at them, so they're really doing these

things if they can find them I think it's not on our site what we can do to answer your question very succinctly is on board some of these assets and put this information where it's available.



Ecotourism Conservation

- Relies heavily on local and indigenous effort and knowledge
- Thousands of critical local species
- Freshwater lake, and the limestone and the lowland evergreen forests.
- Unique flora and fauna, many IUCN Red List
- Critical "lungs" of Vietnam



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2



Ecotourism Education

- Proposed UNESCO World Heritage Site (1997)
- Viet Kinh, Tay, Dao and H'mong ethnic minority communities
- Rich cultural history
- Traditions and festivals
- Indigenous leadership structures



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3



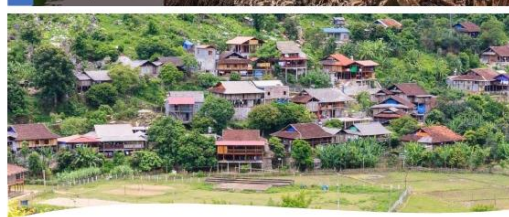
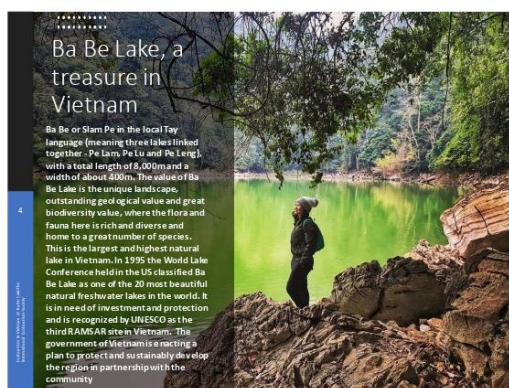
The Primary Definition of Ecotourism

- "Responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education" – TIES
- Used in many countries around the globe to help protect and preserve nature. It has guided implementation on every continent, including Antarctica.
- Quoted by *The New York Times*, *The Washington Post*, *USA Today*, *National Geographic*, and the *UN University*, among many others. It is the most widely used globally because it is compact yet complete.



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Ecotourism Community

- Pac Ngoi Village, Cam Ha Village, Coc Toc Village, Bo Lu Village
- Ba Be Lake Community-based Stewardship Program
- 2000 years of history and tradition
- Local tour guides, local food, local conservationists, local fishing, local lake based industry



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6



Thanh Nguyen, Local TIES Expert

Ecotourism has been growing at Ba Be Lake and will continue to do so. The local people know it is the best choice to protect their home and help their communities to thrive. As a TIES representative, it is important to see the world taking an interest in the work we are doing in Vietnam. I would love for stakeholders to give efforts in making a good plan to continue to conserve and develop Ba Be toward environmentally sound tourism and sustainable growth for the local communities. We have done excellent work, but more must be done to support education, financial opportunity, and sustainable practice for the next generation.

Thanh Nguyen, CEO Travelshop Vietnam, TIES Vietnam



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8

●Domestic Case1: Ecotourism in Higashiomi City, Shiga Prefecture

Yuichi Maruhashi,

Secretariat General, Higashiomi Ecotourism Promotion Council



Hello everyone. My name is Maruhashi, Secretary General of Higashiomi City Ecotourism Promotion Council. The Secretariat is located in the Forest and Water Policy Division of the City Hall. I am also the manager of this section, and I am also a certified nursery teacher, so I am usually involved in nature experience activities for children. I have been involved

in ecotourism since 2015, when the Forest and Water Policy Division was established in Higashiomi City, and in 2016 I established the council to implement ecotourism based on the basic philosophy of linking the original landscape of the forests, villages, rivers and lakes of Higashiomi City to the future.

Although we call it "Mori-sato-kawa-umi or Forests-villages-rivers-lakes," ecotourism, but the actual ecotourism is quite biased. This is Higaeko, a magazine for ecotourism in Higashiomi City, and it is now in Vol. 11. We have published 214 ecotourism articles in this magazine up to Vol. 10. Of these 214 eco-tours, 199 were forest- or village-themed, or 93% of the total. Unfortunately, only 15 or 7% of the eco-tours were based on rivers and lakes. I think this is due to the fact that there is still a lack of know-how on ecotourism in rivers and lakes, as well as a lack of resources of people who can guide the tours. We place great importance on the connection between forests, villages, rivers, and lakes, and rivers and lakes are very important for participants to feel this connection.

Higashiomi City is located east of Lake Biwa and has become a very large city as a result of the merger. The climate zone is very complex, with the Sea of Japan side in the north and the Pacific side in the south, and the Suzuka Mountains, with limestone in the north and granite in the south, creating a very diverse natural environment. The rain that falls on the mountains of Suzuka collects and joins the Oike River, Chaya River, and Kanzaki River to form the Echi River, which flows into Lake Biwa. The plains have a typical fan shape, and groundwater quickly flows underground in a fan-shaped area. Because of the large amount of subsoil water, the area has been troubled with water use for a long time. This is why the Eigenji Dam was built for agricultural use, and it is still in use today.

In this natural environment, I would like to introduce a tour of Lake Biwa. This year, for the first time, the Notogawa Fishermen's Cooperative Association offered a tour of the lake, where visitors could board a fishing boat and observe the fishing process. The tour was sponsored by the Higashiomi City Tourist Association and cost 8,000 yen for adults and 6,500 yen for elementary school students and younger. The maximum number of participants was 20, but only 7 people took part, which was not a large number. The tour was very interesting because it was the first time for many people, including children, to ride on a fishing boat. The fishing trap called "eri" is shaped like this, and many of the eri in the Higashiomi City area are quite large, up

to 200 meters long. The fish that collide with the Eri tend to head offshore and accumulate in the trap hole called “tsubo”, and the fishermen catch the fish in the nets from the tsubo. The fish are gathered in one place in a very large urn, so a very large number of fish are gathered here. The fishermen scoop up these fish with nets of various sizes, first using the larger nets to scoop up only the larger fish and then gradually changing the size of the nets to catch the smaller fish. Black bass, crucian carp, and many other things went in, and at this time of year in May, there were many ayu and moroko. The fish caught that day were moroko, ayu, hasu, wataka, hagai, nigorobuna, and ginbuna, all endemic to Lake Biwa. The fact that more than half of the fish caught were endemic to Lake Biwa was quite a surprise, and this is a tour that can only be seen here. On this day, we happened to catch a Biwa trout of nearly 50 cm in length, and since eating was an important part of the tour that day, we immediately cooked the fish we caught and served it to the group. The Biwa trout was served as Ara-jiru (Biwa trout head soup) and Sashimi. The Biwa trout head soup is a rare opportunity to eat and is very tasty. The participation fee was 8,000 yen, which at first I thought was a bit expensive, but I thought it was a very attractive tour that would allow me to experience something I had never experienced even though I live in Higashiomi City, and also it could support fishermen.

Biwa trout climb rivers to spawn in the fall. They climb rivers here and there in Lake Biwa. They also climb up the Echi River, although not in large numbers. In autumn, in many rivers in the prefecture fish climb from a few kilometers to a dozen kilometers from the lakeshore. In the case of the Echi River, the fish climbs up to just before the Eigenji Dam, so it is possible to see the sight of the Biwa trout climbing up for about 30 kilometers. I think that's because there are not many man-made structures to hinder their ascent in this river. You can observe the spawning of Biwa trout in the environment surrounded by forest and a flowing river. When the underwater camera is used during spawning season, if the timing is right, the Biwa trout run-up can be seen like this. You can see big fish, about 50 centimeters long, coming up from Lake Biwa one after another, right next to the road. And further upstream, you can also see Biwa trout that have finished spawning and are running out of strength. The size of the gravel, a blessing from the mountains, is very important for spawning. We try to guide the visitors to notice the connection between the mountains and the river, not only the fish but also the connection between mountains and the river, by taking into account the size of the gravel for this spawning show, the flow, and the slope of the river, and so on. After spawning, trout are worn out and washed up here and there in the river. Birds eat them, and the cycle of nature continues. I hope that children, in particular, will see this cycle and think for themselves about what nature is.

There is a weir 2 meters 50 centimeters high upstream in the river where the Biwa trout spawn. The local Echi River Fisheries Cooperative Association is trying to let the trout pass over the weir, and last year they built a fish passage by manually constructing a single-pipe fishway. We are trying to connect this kind of project to ecotourism.

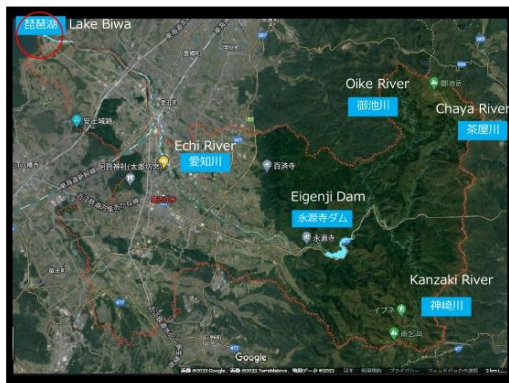
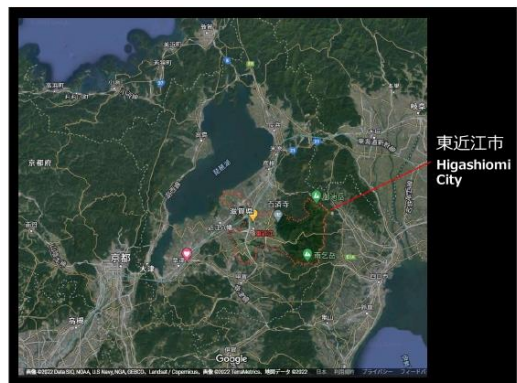
Lastly, we will hold a commemorative forum on October 22 to celebrate the 21st accreditation of Higashiomi City's ecotourism promotion plan, the first in Shiga Prefecture. The forum will be held at Eigenji Temple. Higashiomi City is trying to promote tourism by organizing eco-tours to see how we can make the connection between forests, villages, rivers, and lakes more important. Thank you very much.

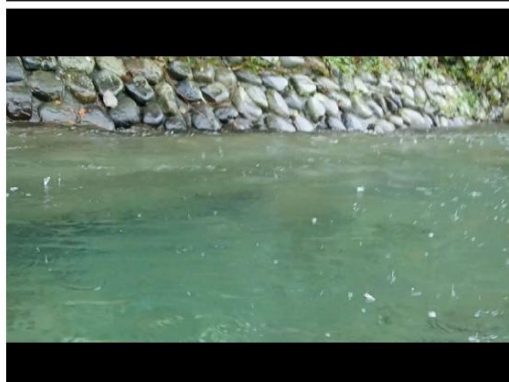
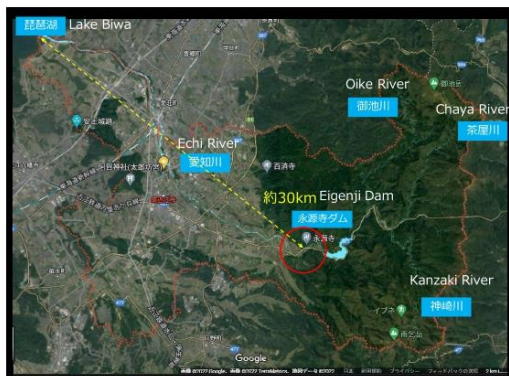
Question

Thank you for your presentation. I enjoyed it very much and learned a lot. What are the biggest challenges to promote ecotourism?

Answer

Ecotourism will not progress unless we work together with local people. We are in the position of the government, but even if only the government gives money, it will never go well, so it is important to create an atmosphere in which local people are willing to work together. It is a matter of human relations, so it is not just a matter of giving money and asking people to do something, but it is also necessary to gain their understanding through daily social interaction and other such activities. City halls are in a relatively better position than prefectural and national government offices to do this, so I think it is easier for us to proceed.





10月30日（日）9:00～13:30
 ビワマスのエコツアー
 Biwa Trout Ecotour
 東近江市エコツーリズム推進協議会主催

湖から森へと続く命のリレー
 琵琶湖の宝石「ビワマス」の
 産卵観察とビワマス料理

10月30日（日）9:00～13:30
 琵琶湖の宝石「ビワマス」の産卵観察とビワマス料理
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申込・問合せ 東近江市エコツーリズム推進協議会 TEL 0748-24-1807 FAX 0748-24-1807



エコツーリズム推進全体構想
 認定式・フォーラム in 東近江市

「東近江市エコツーリズム推進全体構想」
 Overall Concept for Promoting
 Ecotourism in Higashiomori City

- ・全国で21番目
- ・滋賀県内では初

10月22日（土）9:30～
 永源寺コミュニティセンター

2022年 10.22(土) 9:30-11:30
 参加費無料 予約不要

●Domestic Case2: Ecotourism in Makino District, Shiga Prefecture

Ryoichi Taniguchi,
Makino Nature Observation Club



Hello everyone. My name is Taniguchi of the Makino Nature Observation Club. I would like to introduce the activities of the Makino Nature Observation Club. Makino is located roughly 50 kilometers north of here, on the border with Fukui Prefecture. The monsoon blows from the Sea of Japan, so we get a lot of snow in

the winter. As you can see on the map, the mountains, villages, and Lake Biwa are very close to each other, so you can enjoy a variety of experiences in a compact form. Although it is located in the northern part of the prefecture, it takes about 1 hour and 40 minutes from Osaka by Limited Express train, so many tourists from Keihanshin (Kyoto, Osaka, and Kobe) can visit the area.

In the rural areas of Shiga Prefecture, I hear people say, we thought "There is nothing good about the area where we live." But from what I have seen, that is not true. "There must be many more good places," and that is how we started our activities. There is a mountain called Akasaka-Yama in the former Makino Town that attracts many tourists because of its many flowers. We started the work of creating a guidebook to inform these people about manners and the charms of the area. After two years, the guidebook was completed, and we disbanded. In 1998, we established the Makino Nature Observation Club and started activities to convey the charms of the area to the public. We had discovered the charms of the mountains in the former Makino Town, but we thought, "There must be more, so let's look into the villages and the area around Lake Biwa." We began researching the history and lifestyle of the area, and in 2002, we produced a guidebook that summarized our findings. We were able to discover the charm of the region, from the mountains to the village and Lake Biwa, and we decided to start ecotourism in 2002 to make use of it.

The Central Divide runs through the mountains, so if you look east, you can see Lake Biwa, and to the other side, you can see the Sea of Japan. In spring, there are many beautiful flowers in bloom, and in winter, there is a lot of snow. If you look toward the village, you will see wooded areas where people used to make charcoal and firewood in the old days. The sawtooth oak and other trees are used over and over again. At present, they do not make firewood or charcoal, but they continue to use the logs to cultivate shiitake mushrooms and other industries. In spring, before the leaves come out, you can see a variety of plants, such as katakuris, and the surrounding rice paddies, where rice and vegetables are grown. This metasequoia was planted in 1981 as a windbreak when the orchard was started on the fan-shaped land. It has now grown to become a major tourist attraction that will attract many visitors in the autumn foliage season. Of course, there is a lot of snow in the village. In ancient times, people from the Korean Peninsula came to this area, and iron ore was produced here because of the sedimentary rock and granite in the area. This area also hosted Emperor Keitai. There were powerful families that had the technology to produce iron ore and iron, and there are still burial mounds and kilns (which can still be accessed today) where charcoal, necessary for iron production, was burned.

The Kaizu area was also a port town that transported goods from the Hokuriku region by the Sea of Japan to the capital, and many temples and shrines can be seen in historical novels. This is a temple called Hodo-in, which appears in Tsutomu Mizukami's novel "Koteki" (The Drum and Fife). There are still some old paths that are no longer in use but can still be walked. The water from the beech forest flows into the creek through the river, and many fireflies are seen in the creek. If you are lucky, you can see a moon rainbow at night. Plum blooms in abundance in the river next to the rice paddies overflowing with underground water. You can see many landscapes that have not yet become tourism resources. Local people cast nets near Lake Biwa to catch fish for their own consumption.

In early summer, trout come up to the river from Lake Biwa to spawn, and if you kayak into the river, you can experience fish jumping into your kayak.

Lake Biwa is said to be the Tendai Yakushi no Ike (Pond of the Tendai Yakushi) by Saicho, the founder of the Tendai sect of Buddhism. It is said because Yakushi Nyorai (Buddha of Medicine), or Ruriko-nyorai (Buddha of lazuline light), lives here, you can see this lapis lazuli color before dawn.

Kaizu prospered as a port town, and this kind of scenery can still be seen today. Kaizu-Osaki is lined with cherry blossom trees for 4 kilometers, attracting many tourists in spring. In summer, many visitors enjoy swimming in the lake and kayaking on the beautiful Lake Biwa. In autumn, mushrooms can be gathered. The area also flourished as a post station town, so there are sake breweries, and there are still stores that serve funa-zushi, a fermented food made from the endemic species of crucian carp. This is grilled honmoroko. We also have opportunities to eat endemic species, such as the Biwa trout that I mentioned earlier. We are planning summer tours taking advantage of these kinds of food. We will have everyone walk through a street with metasequoia trees, pick fruits, and observe fireflies. Then we will have a kayaking experience.

In the winter, when it snows a lot, we invite people to experience the snow by snowshoeing up mountains, going out on a fishing boat to Lake Biwa to watch the sunrise, experiencing the cultivation of wild mushrooms, making soba (buckwheat noodles), and having a social gathering in the evening where everyone can enjoy a meal prepared using local ingredients. I worked in Tokyo for three years, and people in Tokyo go all the way to Mt. Takao or Hakone on weekends in search of nature, but thinking about me, I have nature right around me, so this was an opportunity for me to take a fresh look at precious nature. I started this activity in order to make the most of it, and I am very happy if I could share my valuable discoveries in the field with others and if more people could sympathize with me. So I retired in 2018, renovated my old house, and started a guest house so that I can share the charm of Makino with you 365 days a year.

Makino has much more to offer, so now, in the spring, we offer guests the opportunity to dig bamboo shoots and bring them home ready to eat, kayak to see the cherry blossoms, cook with children using local ingredients in a drum, and in the summer enjoy playing in the river. The cast-netting experience is enough for children to learn about this kind of traditional fishing method. There is also the experience of trolling for Biwa trout. Visitors can also experience vegetable harvesting and forest therapy for healing, and in winter, they can make kamakura (snow dome).

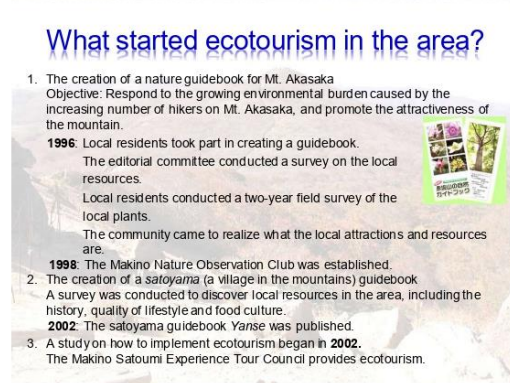
Since I retired, I have been promoting ecotourism in order to directly convey the charms of Makino, and we are also conducting activities to let elementary and junior high school students know the good points of the region so that we can work together as a community. Thank you very much.

Question

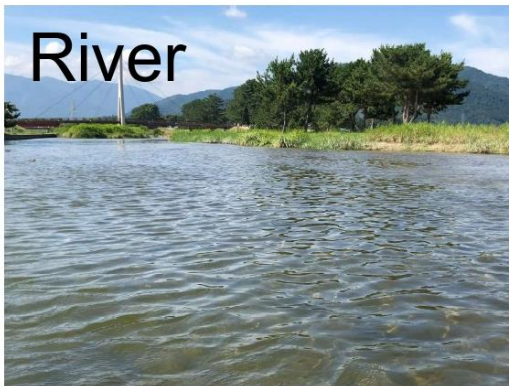
Is there any financial support from the prefecture or the government in terms of coordination? What support, if any, do you currently receive, or would you like to receive in the future?

Answer

In Takashima City, we need to create an overall future plan and consider what to do at that point. In the past, the Ministry of the Environment held a national eco-tourism convention, but it has not spread to other areas, and the city administration needs to make more progress. I would be happy if the city government would support local efforts to make the most of local attractions and continue to do so.



River



Lake Biwa



Food



Summer Ecotour



Winter Ecotour



My Feelings for the Area

When I moved from Shiga Prefecture to Tokyo for three years for work, I realized how attractive my hometown of Makino is.

Through research, I also realized that the nature in Makino is fragile.

Nothing would make me happier than being able to convey Makino's attractiveness and how valuable nature is to other people through my research, and to get as many people as possible to agree with my views.

Opening of the experiential guesthouse Shiki No Mori (Four Season Forest)



Many More Forms of Ecotourism Using Local Resources Are Yet to Be Explored



Thank you for your attention.

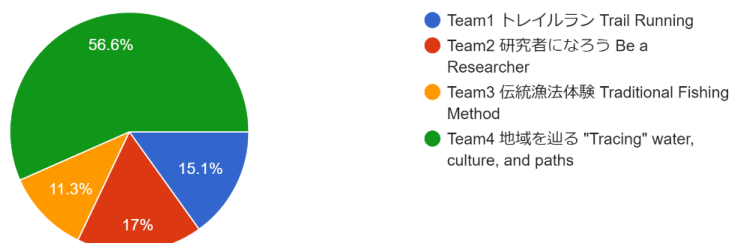


(6) Judging and Awards

- ◇ Grand Prize and Viewer's Award : Seian University of Art and Design
“Enjoying Tracing Ecotourism”
 - ◇ Excellence Award : International Volunteer University Student Association (IVUSA) ,
Kyoto University of Foreign Studies
“Be a Researcher “Tour in BIWAKO”
 - ◇ Excellence Award : Ritsumeikan University,
“Eco-Tourism starts with Trail Running”
 - ◇ Special Award : General Incorporated Association SwitchSwitch
“Experience 400 years of history!
Traditional Fishing Method Sustainable Tour”
 - ◇ ILEC Award : Biwako Hojo no Sato / Ritsumeikan University
“Creating a River Where Fireflies Fly Ecotourism
to promote Shiga Prefecture's attractions”
- ※Grand Prize winner will participate in the 19th World Lake Conference (Lake Balaton, Hungary).
- ※Viewer's Award winner was selected by real-time voting by all participants (both onsite and online)

Viewer Vote Results

Please vote for the presentation you find most fascinating. 最も魅力を感じたプレゼンテーションに投票してください。
53 responses



6. Lunch Break "Let's Eat the Blessings of Lake Biwa!"



During the lunch break, "Let's Eat the Blessings of Lake Biwa!" was held as an opportunity for symposium participants to interact with each other and deepen contest presenters' motivation for the next new step. They could deepen exchanges while praising each other's efforts, and shared their perspectives on future activities with the judges and other participants.

The ILEC Award winners: Biwako Hojo no Sato and Ritsumeikan University.

Although they could not give a presentation on stage, their tour incorporating the creation of a clean river where fireflies fly was very attractive. We look forward to the future development of their environmental conservation activities implemented in the Metagawa River.



The bento lunches were prepared by Biwako Daughters, a tsukudani (fish boiled in soy sauce) shop in Yasu City, Shiga Prefecture, run by fisherwomen who have been in business for three generations.

Biwako Daughters is committed to local production, local consumption, and direct delivery and offers the joys of Shiga's local specialty. We enjoyed a delicious bento lunch box that fully used Lake Biwa's bounty, including fried Biwa trout, Urori, and Ebimame(Shrimp and beans)

International Symposium 2022 Commemorative Badge

With the support of 17 companies and organizations in Shiga Prefecture, we produced Shigaraki-ware pin badges in the shape of Lake Biwa, commemorating the symposium to share information with the world. The six-color badges represent the diverse beauty and value of Lake Biwa, such as pellucid water and sunset, and express "Fostering the Value of Lakes for Future Generations"



Exhibits

The panel and equipment display disseminated information at the symposium venue
(Lake Biwa Museum Hall and Annex).

- Panel Exhibits
 - Globally Important Agricultural Heritage Systems / Lake Biwa System
 - Mother Lake Goals (MLGs)
 - Activities of ILEC (Integrated Lake Basin Management (ILBM), JICA training, World Lake Conference)
- Exhibit of equipment
 - Hiyoshi Corporation
 - HORIBA Advanced Techno Co., Ltd



7. Part2 International Symposium 2022

“Fostering the Value of Lakes for Future Generations”

(1) Greetings

Walter Rast, Chair, ILEC Scientific Committee



It's a great pleasure to be here. I want to begin this afternoon's program. And I want to adjust a couple of quick things since I do not have much time to talk about them. And one of them is that water is arguably the most important natural resource on our planet because we don't know

any life that can exist without it. And when you look at the Earth from space, like the space shuttle, it's all blue, and it suggests we have a lot of water. When you stand back and look at the statistics, you find out that literally, only 1% of all the water on our planet is liquid freshwater. We have most of the rest of it tied up with icebergs and snow and so forth. One percent of liquid freshwater is readily accessible. And of that one percent, ninety percents exist in lakes and reservoirs and other lentic water systems, which are always outstanding statistics to commit me to. And we're here to talk about sustainability which is a good introduction to anything we should always be sustainable. What's the sustainability of lakes? In particular, they give us a massive range of what we call ecosystem services, life-supporting ecosystem services. I watch Eco-tourism as one of them, one of the cultural services. I like to tell my classes that nature doesn't need us, but we need nature, so if we don't protect it, we're going to basically ultimately change our style of life, even destroy it in some ways. We're going to go ahead this afternoon, and there are a couple of presentations that are going to talk about sustainability.

One is Globally Important Agricultural Heritage Systems on one thing, and another one deals with conservation and lake sustainability. There are going to be some excellent talks. After that, we're going to have a panel discussion, and it's basically the theme of the conference the sustainability of lakes in the future. And I should tell you that we're going to have a panel discussion, but all of you are on the panel. We're going to have some people up here, but we would like to hear your comments, your perspectives, your questions, your suggestions, your recommendations and your thoughts. We talk about ourselves all the time but tell us what you think: where we might be wrong, where we might be right and what we can do. When we're finished with the panel discussions and beyond, speak out- so think of things that would help us move forward with sustainability of water, and we move forward. Thank you for your kind attention.

(2) Keynote Speech

① “Biwa Lake to Land Integrated System” Possibility of GIAHS&SDGs Tourism

Junko Owada, Doshisha University



Hello everyone. My name is Junko Owada.

It is a pleasure to meet you. First of all, let me briefly introduce myself. I was born and raised in Tokyo and worked in corporate marketing. I worked as a communications manager for The Body Shop, a British cosmetics company in the Aeon Group, where I was involved in social campaigns against animal testing, fair trade, and endangered animals. Later, I discovered the American lifestyle called LOHAS (Life Style Of Health And Sustainability) and wrote

several articles and books introducing it to Japan. This LOHAS lifestyle emphasizes natural energy, organic farming, and local economies. In 2011, I published a book titled "Agri-Community Business," which covers the LOHAS lifestyle in Japan. I have been a member of various committees, especially the World Agricultural Heritage Expert Committee, for 6 years since 2014. I was also involved in the review of the Lake Biwa System, which is the main topic of today's talk, and I have been a faculty member of the Social Innovation Course at Doshisha University since last spring.

This is a picture of my recent visit to Lake Biwa, where I visited the Lake Biwa Museum to study with a research group of Korean and Doshisha researchers. We also visited the Yurikago paddy field, where Mr. Hori talked about various topics, and we had a lunch box of Kyoto's obanzai for lunch. One of the issues we are discussing today is the succession of fishermen, but we are also seeing the emergence of young fishermen like Mr. Komai. It is already the time of year when the eri fishing for lake fish is over, but we are experiencing eel tube fishing.

First of all, I would like to introduce what keywords and concepts are being emphasized now, especially in Japanese society, in order to realize a sustainable society, and what the basic policies related to them are. In addition, today, I will discuss the World Agricultural Heritage and talk about its basic concept and current status. Next, I will introduce the Lake Biwa System, which was finally certified in April of this year. Then I will talk about the relationship between Globally Important Agricultural Heritage System (GIAHS) and the SDGs, which is the theme of my research. Lastly, the main theme of today's session is "Fostering the Values of Lakes for Future Generations," and I heard that every presenter gave an enthusiastic presentation this morning as one of the possibilities to achieve this. I would like to talk about the possibility of spreading this value domestically and internationally from the perspective of tourism.

This is an SDG wedding cake. This is a diagram of the 17 goals divided into three layers, which were conceived at the Resilience Center of Stockholm University. In Japan, various ministries, especially the Ministry of Agriculture, Forestry and Fisheries, have included this diagram in pamphlets and other materials introducing their policies. The concept of this chart is based on the natural capital at the bottom, which

includes water and climate, the richness of the sea, the richness of the land, and the richness of the lakes. This is why it is said that if the bottom does not grow, the top will not grow either.

The Planetary Boundary, which was also developed by the Stockholm Residence Center, has recently been included in domestic pamphlets and policy brochures and has become widely known. This shows nine environmental capacities, and in particular, this red area, chemical pollution, loss of ecosystem function, nitrogen, and phosphorus, are particularly at risk. They need to be within this green circle. We are beginning to recognize that we need to solve these problems. The third is the Circular Economy. There should be a shift from a linear economy to a circular economy, and companies in Japan are beginning to take this approach.

As a related policy, I would like to introduce an approach called the Green Food System Strategy proposed by the Ministry of Agriculture, Forestry and Fisheries. This year, a new law has just been enacted. The first policy is to reduce CO2 emissions from agriculture and forestry to zero by 2050, and the second policy, which has attracted a lot of attention, is the second red line. Japan still has a low percentage of organic agriculture, but plan to convert 25% of farmland to organic agriculture by 2050. This means Japan has also decided to turn in this direction following the lead of the EU and the US.

The Ministry of the Environment publishes an annual report of the environment called White Paper. In the latest edition of the report, the Ministry of the Environment has stated that we should change our communities and lifestyles to obtain a green society so that our lifestyles and communities are the starting point for the realization of a green and sustainable society. The period up to 2030 will be a critical decade for the decarbonization of Japan and abroad. I am saying that we should take action to accelerate decarbonization or create “decarbonization dominoes,” both domestically and internationally, by 2030. The three pillars I mentioned earlier, decarbonization, resource recycling, and coexistence with nature, are the pillars that we should aim to realize a green society.

In addition, the Ministry of the Environment's concept of Circular and Ecological Economy is now being put into practice in various regions as a mainstream concept.

The last policy I would like to introduce is the "SDGs Future City" policy of the Cabinet Office. This policy was launched in 2018, and currently, 154 municipalities in Japan have been certified as SDG Future Cities. About 30 municipalities are selected each year, and in addition, prefectures are also certified, with Shiga Prefecture being certified in 2019. According to a survey conducted every year by the Asahi Shimbun newspaper, the recognition level of the SDGs in Japan is currently over 70%. Students, in particular, are highly interested in the SDGs and have been engaged in various exploratory studies since they were high school students.

Next, I would like to introduce GIAHS, a project initiated by the Food and Agriculture Organization of the United Nations in 2002. It initially started out as a system to certify traditional agriculture, forestry, and fisheries systems unique to regions mainly in developing countries, but since then, 13 regions have been certified in Japan, and it is just now spreading around the world.

Currently, 67 regions in 22 countries have been recognized as GIAHS. In July of this year, Lake Biwa and the grape-growing region in the Kyoto district of Yamanashi Prefecture were recognized.

There are five criteria. The first of these five criteria is what kind of products are being produced, the guarantee of livelihood, and what the people are earning their livelihood from. The second criteria is agricultural biodiversity, which is the presence of rare plants and animals due to the presence of agriculture, forestry, and fisheries. The third is the local traditional knowledge system. The fourth is culture, including food culture and agricultural rituals. Then there is the question of what kind of social organization supports it. The fifth is what kind of landscape or seascape results from that. Each of these is very thoroughly researched by the regions that apply, and then the application is submitted as the story of the system. After passing the domestic screening, the regions are recommended to the FAO for review, and then the FAO conducts another on-site survey, and then the regions are certified.

There are currently 13 certifications in Japan, most of which are in agriculture, forestry, and fisheries, that have existed since the Edo period 400 years ago, but Lake Biwa system has a long history of 1,000 years. In order to link what our predecessors have created to the future, this is exactly the same as today's theme. We made an action plan or conservation plan after certification as a system to be monitored every five years and continued. At least in these 13 areas, we are making efforts to connect them to the future in accordance with such a system.

Now, I would like to start talking about the Lake Biwa system. By the way, if you are wondering where Lake Biwa is located, those of you who are in the venue know of course, but as I understand that people from 22 countries are watching online today, please take a look at this map of Japan, and you will see that it is really next to Kyoto. Only a 10-minute train ride from Kyoto will take you to Lake Biwa. The population is 1.41 million, the average male life expectancy is the highest in Japan, and the number of people who volunteer is the highest in Japan. I live in Kyoto now, and 14.5 million people in Shiga Prefecture as well as Kyoto, Osaka, Hyogo in the Kinki region drink water from Lake Biwa. It is used not only as a source of tap water, but also for agricultural and industrial use, which is why it is called the Mother Lake.

Then there is a bioregion formed around this lake, with the 47 indigenous species, 16 of them are endemic.

Thus, this system, which has been passed down for more than 1,000 years, is characterized by its coexistence with nature. The other day I was talking with Mr. Tanaka, the chief priest of Kamigamo Shrine. He told me that fish from Lake Biwa has been offered for 1,000 years to the shrine, which means this fishing method has been continued for 1,000 years.

This is a standby fishing method called Eri fishing. It continues to be practiced as a sustainable fishing method in which smaller fish are let go. This is the "Fish Cradle Paddy Field," which has been practiced since 2000 and has a 20-year history. With the development of paddy field plots around Lake Biwa, the lake and the paddy fields had become separated, and fish could no longer travel between the paddy fields and the lake. This fishway was built to reconnect the lake and the rice paddies; now fish can come and go.

In terms of food culture, the culture of fermented and preserved funa-zushi, a type of fermented and preserved nare-zushi made from various lake fish as an important source of protein in farming villages, has also continued. As you may know, Japanese food has been registered as an intangible cultural heritage by UNESCO.

The forests in the region are closely related to the lakes, rivers, and conservation activities for these forests are also being conducted enthusiastically.

The lake's fish are a guarantee of livelihood and a source of livelihood. The lake is also a source of livelihood and the biodiversity is preserved. The Lake Biwa system has been highly evaluated for its culture, food culture, and the maintenance of the landscape as a result. I have been talking about this system in my classes, and I would like people in Japan and around the world to know about them.

However, there are three threats. One is environmental risk, including the deterioration of water quality and global warming. We need to tackle these issues as well. The second threat is the decrease in the number of keeper of the system. There are still not many young fishermen. It will be difficult to succeed in the fishing industry alone, so it will be important to train a new type of successor, which will have to be combined with other activities or work. The third threat is the decline of the Japanese food culture. This can be seen as a shift away from rice consumption, but how can we carry on Japan's rice culture and food culture? In addition to serving lake fish dishes and rice in school lunches, one of the challenges is how to pass on Japanese food culture through dietary education.

In the case of Lake Biwa, Shiga Prefecture has always placed importance on a global perspective, as evidenced by the fact that it hosted the first World Lake Conference, and has continued to conduct research and practice. I hope that the prefecture will continue to accept more engineers, conduct research, and hold international conferences.

Now, what is the relationship between the GIAHS and the SDGs? Last year, in collaboration with the United Nations University, we surveyed 11 regions in Japan to determine which of the 17 goals they were working on, and the first ones we identified were "sustainable agriculture" (No. 2 of the SDGs) and terrestrial ecosystems (No. 15). The survey also revealed that the regions recognized as Japan's agricultural heritage are working on areas such as quality education and sustainable water management, production, and consumption.

In terms of quality education, many of the regions are focusing on promoting the study of agricultural heritage to local children. I believe that this is also an indispensable initiative to connect this agricultural heritage to the future.

In the case of Lake Biwa, Shiga Prefecture has been providing local children with excellent learning opportunities such as Umi-noko (Children of Lakes), Tambo-noko(Children of Rice fields), and Yamanoko(Children of Mountains). I hope you will provide such learning opportunities not only to local children but also to children and adults in neighboring prefectures, including university students. Shiga Prefecture has also created an original logo called "Mother Lake Goals (MLGs)" and is now making efforts to promote and raise awareness of the issue. I would like to invite you all to visit Lake Biwa to see these very advanced efforts.

Now I would like to talk about what kind of initiatives you can take in your region. These are the five criteria for agricultural heritage that I mentioned earlier. I think these five criteria are also very useful for regions that have not applied for agricultural heritage to reevaluate the value of their region. So, from these five perspectives, why don't you investigate what the environment surrounding the lake is like, what kind of fish

and other living creatures are in the lake, create a story based on that story, and build learning programs and tourism based on that story?

Today, I would like to introduce two areas in Japan that have been recognized as World Agricultural Heritage sites, although they are not necessarily lakes. One is Mt. Takachihogo-Shiibayama in the mountains of Miyazaki Prefecture. It is the place where terraced rice paddies are located on this steep mountain.

A few years ago, we invited foreign visitors to this area, which consists of five towns and villages, for a three-day, two-night tour. The purpose of the tour was to show them life in these mountain villages. First of all, in Gokase Town, we did not actually experience the roasting of tea leaves in a kettle, but we had a tasting of the tea leaves and listened to a talk by a green tea producer.

We also visited the neighboring town of Takachiho, famous for its kagura, a Shinto ritual to offer thanks to the gods for the harvest, where we were shown the kagura performance and were served kagura dishes eaten by the villagers during the kagura performance. We also visited "Ama-no-Iwato Shrine" and toured a "mountainside irrigation canal," one of the components of the agricultural heritage. Next visit, Shiiba Village, the birthplace of folklore, is a place famous for its yakihata (roasted fields). Yakihata are done in summer, but since the tour was in autumn, we listened to a talk from one of the yakihata masters, who is the inheritor of yakihata, and cooked and ate local traditional food together.

The neighboring village of Morotsuka is a shiitake mushroom-producing area, so we picked fresh shiitake mushrooms together and grilled them on the spot to eat.

In Hinokage Town, the fifth village, visitors experienced bamboo crafts, forest therapy, and local cuisine, which is especially popular with foreign tourists. We have also learned that bamboo crafts and other experiences are good ways for people to learn about the value of living in the mountains, which are recognized as a GIAHS.

The second case is Osaki City in Miyagi Prefecture in Tohoku Region, which is a sacred place for migratory birds. It is a sanctuary for migratory birds, where more than 100,000 geese winter in the area. This city has applied to become an SDGs Future City this year. Japan's SDGs Future Cities are characterized by their integrated economic, social, and environmental efforts to be certified. I have heard that this city has just started to work on key phrases such as "Nature Positive," "30 by 30," "Carbon Neutral," and "Organic," not to mention "Agricultural Heritage". If I have a chance, I would like to introduce the SDGs Future City system in this Japan to you, and I would like to suggest that you plan similar initiatives in your community. We have also prepared pamphlets for foreign visitors. I think it is important to start with food. We have also created a learning program called "Osaki-Kodo SDGs Quest" in this city. This is a program for university students to learn about the SDGs in the area that has been certified as an agricultural heritage site.

In summary, with the Agricultural Heritage SDG Framework, I would like to suggest that you reevaluate the value of your community based on these five criteria and connect it to the SDGs to make the value of the community apparent, and then create learning programs and tours that allow people to experience the value of the community.

Last but not least, in Japan, 90% of the population lives in 10% of the area, and 90% of the population lives in 10% of the cities. Conversely, 90% of farming, mountain, and fishing villages are supported by 10% of the population. However, we city dwellers are supported by farming, forestry, and fishing villages, so why don't we think about mutually supporting each other?

Think globally and act locally. We would like to share with other regions in the world the successful methods that have been used in your region. We are faced with various challenges, but we can create a new sustainable society through the lives of each of us and our local communities. I would like to conclude my keynote speech by saying that we would like to pass on the value of lakes to the next generation. Thank you very much for this valuable opportunity.

Question

I learned a lot from your explanation about the GIAHS. You mentioned that monitoring is conducted every five years, but what kind of local efforts are necessary and are there any restrictions to keep the site registered, such as not being able to introduce new farming methods?

Answer

For monitoring, stakeholders create a conservation plan and set their own targets. They are then measured over a five-year period, and they self-check to see if they have achieved their goals. The Ministry of Agriculture, Forestry and Fisheries checks the plan at the planning stage, and there is also a review during the evaluation process, but the basic idea is that the local people create their own action plan for the future of this agricultural heritage system. Therefore, there is no obligation to do anything, but rather it is a mechanism for local people to decide for themselves.

Unlike the World Cultural Heritage, there are no restrictions. There may be a problem if what was approved as a system becomes significantly modified. But basically, the emphasis is on how to preserve the base while passing it on to the future.

"Biwa Lake to land integrated system"

Possibility of GIAHS & SDGs Tourism



Junko Owada, Ph.D.

Professor, Graduate School of Policy and Management,
Social Innovation Course
Doshisha University

[Appointments]

- The Japanese Institute of Irrigation and Drainage, Director June 2020 - Present
- MIC, Regional revitalization advisor April 2017 - Present
- Nagano Prefecture, member of the Environmental Council April 2017 - Present
- Certified NPO JKSK, Chief director June 2015 - May 2017
- JST-Ratex, Designing a Sustainable Society through Intergenerational Co-creation, Advisor April 2014 - March 2020
- MAFF, GIAHS scientific committee, member April 2014 - March 2020

[thesis, Publications]

- [In Japanese] Doctoral dissertation[Study on the role of Globally Important Agricultural Heritage in the SDGs era]Miyagi University, Graduate School of Project Design, 2020.September
<https://www.myu.ac.jp/application/files/7216/0335/6391/7545b876af3830ccaf95651392a7ec.pdf>
- 共著『ソーシャル・イノベーションの理論と実践』（朝倉書店）2022年
- 編著『SDGsと地産地消』（朝倉書店）2022年
- 編著『アグリ・コミュニケーション』（学芸出版社）2011年
- 共著『新モンスーン』（中央大学出版会）2018年
- 共著『ロハスビジネス』（朝日新聞）2008年 他

Junko Owada, self-introduction

[Education]

- Miyagi University, Graduate School of Project Design, PhD (Project Design), September 2020
- Gakushuin University, Department of Philosophy, Faculty of Letters, March 1982

[Work Experience]

- Doshisha University, Graduate School of Policy and Management, Social innovation course, Professor, April 2021 -
- Independence, April 2006 - May 2021
- E-Square Co., Ltd. Marketing Director, 2000-2002
- Aeon Forest Co., Ltd. (The Body Shop Japan) Communication Manager, Sales Promotion Manager, 1993-2000
- Tokyu Research Institute, Lifestyle Research Department, Researcher, Japan, 1998-1992
- Tokyu Department Store Co., Ltd. Sales Planning Department, 1982-1988, 1992-1993



Recent relationship with Lake Biwa

8月23日 - 9月4日

【今日も滋賀 琵琶湖博物館&魚のゆりかご水田】

韓国と日本のソーシャル・イノベーション研究者のリアル研究会。
私は去年から参加しましたが、4年目のこと。
... もっと見る

9月4日 - 9月4日

【琵琶湖の魚・ウナギ、ビワマス】

世界農業遺産の琵琶湖システムを語るには魚の現場を知らない！
ということで先日、滋賀県立大学の授業で出会った漁師の町井 俊也さんの船に乗りました。
... もっと見る

Contents

1. Road to the sustainable society
2. GIAHS
3. Biwa Lake to land integrated system
4. GIAHS & SDGs
5. Possibility of GIAHS & SDGs Tourism

1.Road to the sustainable society

(1) SDGs Wedding Cake

When the 17 goals of the SDGs are stratified, natural capital is the foundation for the other goals. Our society is built by making use of the various elements produced by natural capital, and we cannot achieve the other Goals unless we make natural capital sustainable.

出典：農林水産省ホームページ「みどりの食料システム戦略（コンセプト）」



(2) Planetary Boundary (Earth's Limits)



- The Planetary Boundary is a scientific display of the Earth's environmental capacity and a specific assessment of its boundaries (critical points) for nine planetary systems that represent the Earth's environmental capacity.
- The concept was developed in 2009 by Rockstrom, director of the Stockholm Resilience Center, and others.
- The concept has had a significant impact on the SDGs, and global environmental goals have been set to be achieved within the planetary boundary.

出典：Sto
<https://www.stockholmresilience.org/en/our-work/publications/planetary-boundaries.html>

(3) Circular Economy (CE)

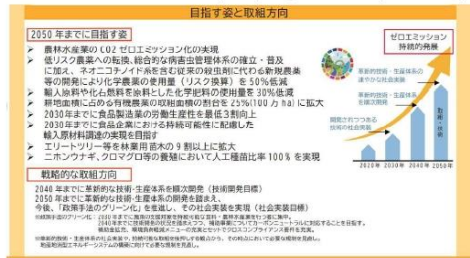
The circular economy is an economic activity that generates added value while reducing resource input and consumption and making effective use of stock, in addition to conventional 3R initiatives (Reduce, Reuse, Recycle). It aims to maximize the value of resources and products, minimize resource consumption, and curb waste generation.



図解：リニア・サーキュラー・エコノミー (A Circular Economy in the Netherlands by 2050: Government-wide Program for a Circular Economy) (2014) 資料提供：環境省 (2015) 資料提供：環境省 (2015)

(4) Featured Policy "Green Food System Strategy"

(Ministry of Agriculture, Forestry and Fisheries)



(5) Featured Natural Capital Related Policies



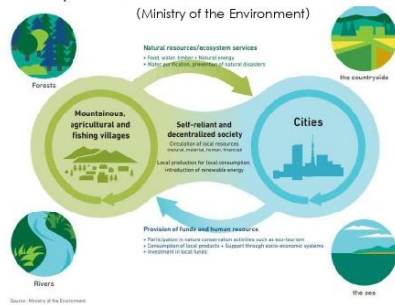
The theme of this year's White Paper is "Changing Our Communities and Lifestyles to Achieve a Green Society: The Decarbonization Dominoes from Our Own Transformation".

We have positioned the period up to 2030 as the "decade of victory". In order to create "decarbonization dominoes" domestically and internationally, each of us must act with a sense of being that will influence the future. Through decarbonization, a multilateral approach of resource recycling, decentralization, and coexistence with nature, we can achieve a green society.

(6) Circular and Ecological Economy

(地域循環共生圏) = Local SDGs

(Ministry of the Environment)



(7) "SDG Future Cities" (2018~)

(Cabinet Office)



SDG Future Cities are selected from cities and regions that intend to promote basic and comprehensive initiatives in line with the principles of the SDGs. The SDG Future Cities are cities and regions that have high potential to realize sustainable development through adding new value in the three aspects of economy, society, and environment.

・内閣府より選定

・2022年は21都府県の30自治体が選定。累計で154自治体に。

・これまでに都道府県は16：2018年 北海道、神奈川県、長野県、広島県、2019年 富山県、愛知県、滋賀県、2020年 岐阜県、大阪府、三重県、2021年 群馬県、埼玉県、福井県、沖縄県、2022年、鳥取県、新潟県

2. GIAHS

What is GIAHS?

Globally Important Agricultural Heritage Systems (GIAHS) is defined by Food and Agriculture Organization of the United Nations (FAO) as "Remarkable land use systems and landscapes which are rich in globally significant biological diversity evolving from the co-adaptation of a community with its environment and its needs and aspirations for sustainable development".



Source: MAFF



Source: FAO GIAHS Homepage

Since 2005, FAO has designated **67 systems in 22 countries** as agricultural heritage sites.



<https://www.youtube.com/watch?v=DXtd0xZupQ>

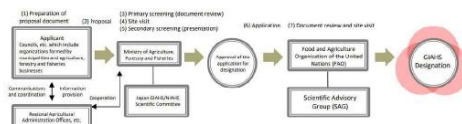
Source: MAFF

Criteria of GIAHS designation

The proposed GIAHS site will be assessed based on the following **five criteria** and an **Action Plan**.

1. Food and livelihood security
2. Agro biodiversity
3. Local and Traditional Knowledge System
4. Cultures, Value systems and Social Organisations
5. Landscapes and Seascapes Features

Procedure of GIAHS designation in Japan

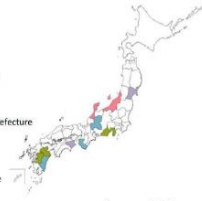


Source: MAFF

GIAHS designated sites in Japan

In Japan, there are 11 sites designated as GIAHS (as of December 2018). The value of Japan's agriculture, forestry and fisheries, and their variety and regional characteristics, have been recognized internationally.

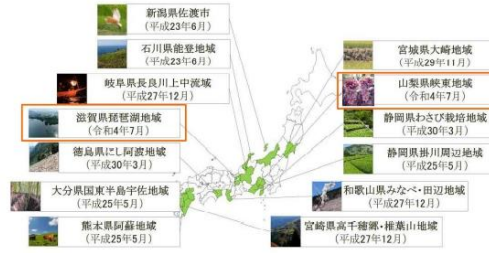
Designated in June 2011
Sado City in Niigata Prefecture
Noto Peninsula in Ishikawa Prefecture
Designated in May 2013
Kakigawa and surrounding region in Shizuoka Prefecture
Aso region in Kumamoto Prefecture
Kumakura Peninsula Utsa area in Oita Prefecture
Designated in December 2015
The upper and middle basin of the Nagara River in Gifu Prefecture
Minabe-Tanabe region in Wakayama Prefecture
Takachiho-Shibayama in Miyazaki Prefecture
Designated in November 2017 and March 2018
Osaki region in Miyagi Prefecture
Shizuoka Wasabi Cultivating region in Shizuoka Prefecture
Nishi-Kawa Area in Tokushima Prefecture



Source: MAFF

17

GIAHS designated sites in Japan, 2022



Source: MAFF

18

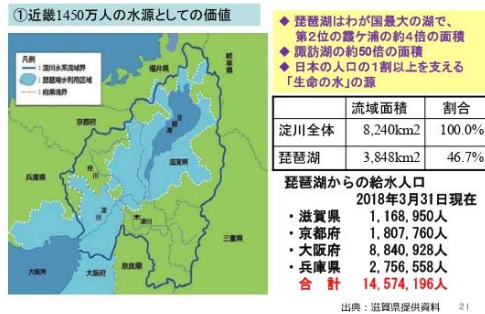
3. Biwa Lake-to-Land Integrated System



Shiga Council for Promoting Agriculture, Forestry and Fisheries that Coexist with Lake Biwa

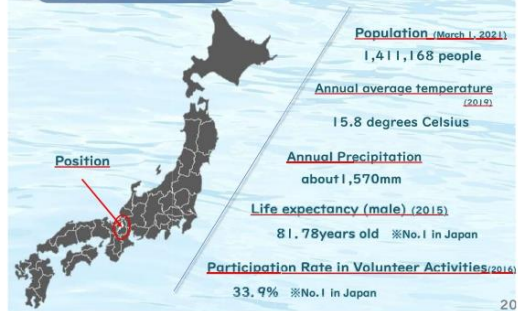
19

"Lake Biwa" with Various Values



21

Area Information



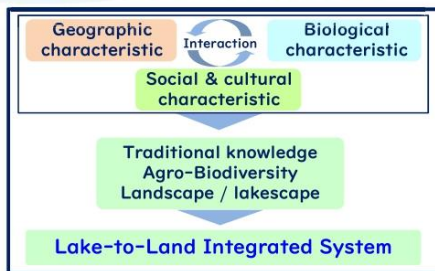
20

Lake Biwa Ecosystem with abundant nature



22

Interactions between Humans and Nature



23

Traditional Eri Fishing has been passed down along with social structures



24

Fish Cradle Paddy (2000~)

Serving as Spawning Grounds for Lake Fish

琵琶湖周辺の田園環境



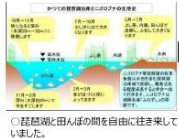
昭和40年代から現在にかけて



魚のやりかた水田プロジェクト



湖岸の田んぼと魚の関係



Lake fish come to Fish Cradle Paddy to spawn



○琵琶湖と田んぼの間を自由に往き来して
いました。

○排水路の整備に伴い、琵琶
湖と水田が分離されました。

○魚道の設置により水位が固定され、
田んぼの水位が上がり、湖魚が田ん
ぼで産卵できるようになりました。

25

Traditional Lake-Fish Oriented Food Culture and Festival

Narezushi,
fermented
fish for
preservation



Funazushi
(round crucian carp)



Hasuzushi
(three lips)

Narezushi
has been
used as
ambrosia



Sushi-cutting festival
Shimo-hikawa shrine



Kokera-zushi
(Biwa salmon)



Moroko-zushi
(Honmoroko)

Other traditional
local cuisine



Ebimame
(shrimp with beans)



Isaza Jun-jun
(Isaza with vegetables)

26

Water Source Forests Conservation



Traditional Lake Biwa fisheries
have been supported by water
source forest conservation efforts
led by various actors.

Proposed designated forests are limited
to areas that meet both conditions:
① Located in the areas of rivers where lake fish
migrate upstream
② Site for forest building efforts with local
participation

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Biodiversity and Food Web Fostered by Rice Farming



28

Landscape Conservation



Designating a Special District for Lake Biwa Landscape Development to
conserve the landscape along the coast of Lake Biwa

16

Characteristics of the Proposed System



30



Threats to the Proposed System

Threat 1
Changes in the spawning and breeding environment of lake fish

1970s-
Red tide outbreak



→ Found by fishermen
→ Citizen-led campaigns
→ Ordinance for prevention
of eutrophication

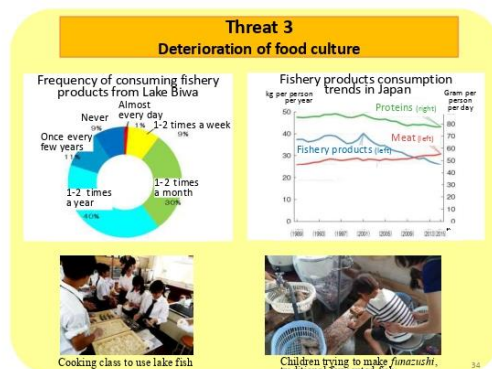
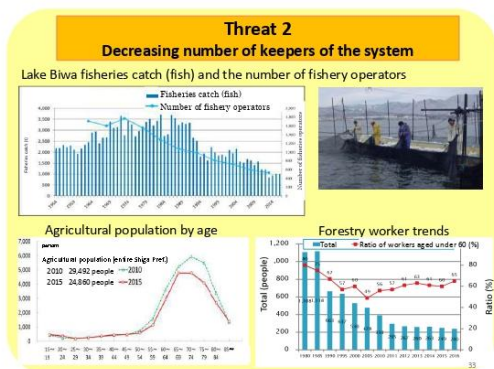
1990s- Extraordinary increase of
invasive species and aquatic plants



Climate change
Trend in the average temperature +1.0C in 100 years



32

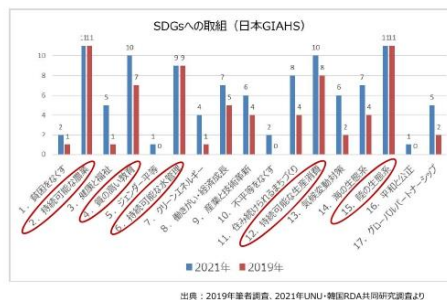


Global Partnerships and International Cooperation

世界湖沼会議の創設、世界水フォーラムへの参画や研修受け入れ



4. GIAHS and SDGs



5. Possibility of GIAHS & SDGs Tourism

Potential of tourism to learn about the SDGs in a Ramsar Convention Wetland & GIAHS sites.

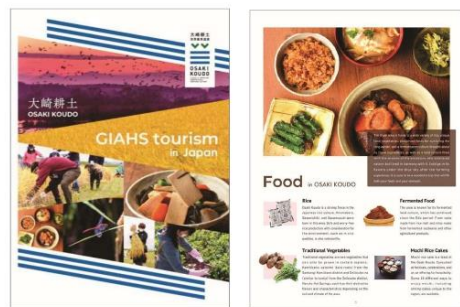
[Case Study 1] Takachihogo-Shiibayama Mountainous Agriculture and Forestry System, sharing knowledge about sustainable mountain living with the world (Miyazaki prefecture)





【Case Study2】

Osaki Kôdo's Traditional Water Management System for Sustainable Paddy Agriculture (Miyagi prefecture)



SDGs learning program for university students



出典：「大崎郷土SDGsクエスト」みやぎ大崎観光公社 2020

Possibility of GIAHS&SDGs Tourism "Agri-Heritage SDGs Framework"

地域固有のストーリー Area specific story				
Food and Livelihood security 食料および生計の保障	Agro-biodiversity 農業生物多様性	Local and Traditional Knowledge System 地域の伝統的な知識システム	Cultures, Value systems and Social Organizations 文化、価値観及び社会組織	Landscapes and Seascapes Features ランドスケープ・ブランド・シーランドスケープの特徴



Supporting each other in urban and rural areas

➡ the starting point is SDGs and GIAHS tourism

- Our urban life is supported by farming, mountain and fishing villages
- Farming, forestry and fishing villages teach us the wisdom of living
- The foundation of the SDGs is in the rural areas

Keyword : Nature Positive, Agri Heritage, Regeneration

<To all of you around the world>

- Find out how your community is addressing the SDGs.
- Conduct a tour to learn about the SDGs in a Ramsar wetland or GIAHS-certified area.
- Please come and see the leading cases in Japan!



② Ecotourism and Lake Environmental Conservation Overseas

Thomas Schaefer,
Head of Living Lakes, Global Nature Fund



Good morning from Germany. Thank you very much for the invitation and for giving me the opportunity to share some of our experiences with you today.

You might know that the Global Nature Fund has been coordinating the Living Lakes Network for almost 25 years now. And since the very beginning, there was a close connection between our friends and colleagues at Lake Biwa and also to ILEC. And I was very pleased to be invited to the 18th World Lake Conference last year to give a presentation on the project of diversity in climate of Living Lakes. And I can report that this project has been started two months ago I will invite you to the 16th Living Lakes Conference which will be held in Lake Titicaca. Just a quick introduction, I'm a biologist. I have been working for 10 years for the Global Nature Fund in Germany with many visits overseas and also am responsible for many projects in Living Lakes nationally and internationally. And since this year, I am very pleased to work in this network of more than 100 organizations worldwide as the head of Living Lakes. My task of today is to show you a bit what we learned in the past years about the Living Lakes ecotourism and Lake Environmental Conservation. And in the preparation of this talk, we talk about tourism in lake regions. We know it's a growing threat but there are also growing opportunities.

First, I will talk a bit about the connection between lakes, wetlands and tourism. Then I'll show you some examples about how tourism can support wetlands conservation and introduce to you some tools and methods that we gathered, and partly also developed, in the past years to support our Living Lakes partners and also, of course, beyond to improve severe impacts tourism has on lakes and wetlands. First, let me show some figures about tourism worldwide. This graph speaks for itself, tourism in Europe and the Americas are still increasing, and you see the huge potential of Asia and Pacific. You will also know that with the pandemic those figures dropped a bit, but I think we are back on track and tourism is increasing again. This is the situation we have faced and wherever I go- in Europe, in Germany, also worldwide- people expect tourism to save their lives, to help increase the economic growth, and to help make livelihoods better. And I always ask myself, "Is this really the best solution?" or "Shouldn't we try to find other solutions?". The truth is that in many places of the world, more and more tourists come to the areas where you could travel easily maybe 20-25 years ago, and as a result of it, these places are getting more and more scarce.

And the New challenge, we do see, with the improvement in economy also in the developing countries is the development of domestic tourism. This is a graph from domestic tourists in China, you see, that the number of international tourists is quite stable. That's not much change in the yellow line and the blue line,

you see, that's a lot of domestic tourism, this case within China, but we do this to see the same, for example, in Mongolia, some African countries and Central American countries.

This is an example from Mongolia, one of our Living Lakes and you just see the figures used to be like 5000 people coming every year. And in 2019, it was 150,000 and the prediction is to go to 300,000. But there's actually no infrastructure to really cope with those quantities of people who stay maybe 10 to 14 days and spend their holidays and it's very much domestic tourists, in this case the yellow line. The people at lake Huvsgol are really struggling with this amount of people and we are having a project here to work on the waste management, at least solid waste management, to implement at least some measures to cope with.

What is important to understand is tourism is not necessarily providing beautiful holidays to people. You see on the pictures on the right-hand side such as hotels, such as infrastructure. It's about billions of dollars invested here on the upper right-hand side, you see, that's to build this hotel they just cut into the hill. And below to put such a hotel in the middle of the desert, I think it's somewhere in Saudi Arabia. And you see the dry areas around and might think about the water supply this hotel needs. The graph you see is the number of some huge international hotel chains manage worldwide. So, it really is about big money. When it comes to the management on site, we must really understand how to do that well and who are our target groups of everything.

The environmental impacts of tourism. We have the destruction of ecosystems, and the destruction of habitats. As you see the pictures, those places are really eating up landscape. We have fragmentation of natural areas and biological corridors through roads, new settlements and so on. We have huge impacts on fauna and flora by many means and of course through also accelerating climate change with the huge amount of greenhouse gas emissions which are produced here.

Again more threats. It's the contamination of air, water, soil, and the contamination of the landscape. It is a picture from Dominican Republic where the waste from hotels and settlements is just thrown into the landscape, and over exploitation of water resources. A huge problem with water was just mentioned at the beginning of the session. We have only 1% of freshwater available for us and 70% is spent on Agriculture and increasing parts are also spent for watering golf sites. And we do know from European statistics that tourism needs up to four times more water than the local population needs. It's for parties at the beaches of lakes and wetlands and so on. It's overexploitation of local and regional resources that the supply chains and agriculture need to be intensified when so many tourists come from overseas and so on.

So we do have a strong dependency of a tourism on nature; on the other hand, we do have this impact.

And the dependency is quite clear. It's the beauty of the landscape. In this case, I just took a picture of beaches. It's the food, you see here, the all-natural food all made from biodiversity, in this case, agro-biodiversity. It's construction material, in this case, wood, of course, water and also the landscape around the touristic facilities. I took here a picture of mangroves. There's a strong dependency. For example, in many places in the Caribbean where we are active with Living Lake partners and beyond, we see many

signs that natural resources like beaches are overexploited. Then it's getting more difficult also for tourism to maintain the growth expected to help in the economic development of those countries.

This is just a picture again a statistic from China. I took it from the internet honestly where you can see how closely related tourist activities are to water pollution in this case in the West Lakes Basin in China. But this is just one example of many. You can take many others and you see here the number of tourists and tourism income. And then the yellow lines show the close correlation between the number of tourists and the production of waste. And the gray and the blue lines show the close correlation between the touristic income and comprehensive pollution index.

Related to tourism, people talk about ecotourism, about sustainable tourism. In Germany or Europe there is another term called "responsible travel." Some definitions from Wikipedia, which is the easiest way in this case, "tourism" is the commercial organization and operation of holidays and visits to places of interest. So it's about commerce as we said before. "Ecotourism" is niche of tourism in natural areas. So it's not necessarily about something good for nature. It's just people visit natural places. And then we have the term "Sustainable Tourism". This does not refer to a specific type of tourism, rather it is an aspiration for the impacts of all forms of tourism, which we discussed earlier, to be sustainable for generations to come. So to do tourism in a way that will not harm natural resources and to keep those natural resources for our children and beyond. "Responsible Travel", just makes this complete, that term referring rather to the behavior of the individual travelers. So when I go somewhere, I consider how I behave in those areas, and I have the mindset of being responsible, and I care about my impact when I'm traveling there. And the idea is to make rather the positive than negative impact to the destination.

There are some very typical examples of ecotourism in South Africa safaris in wetlands. There are no more of those safaris people see zebras, elephants, and lions. There is a safari for people with any outdoor activities like canoeing or birdwatching. And what we do see worldwide is that this is also why ecotourism is really fostered by many governments. This can really improve the situation of lakes and wetlands of protected areas in general through the new and growing economic opportunities for the local people. And also when you do it sustainably and in a good way, you can also reduce the environmental impact. You might know that to enter some national parks in Africa, you would need to pay like 50 or 100 maybe even more dollars a day just to be there, and of course, this money is being used to pay rangers to improve the situation in the parks in general. Ecotourism can also be a tool and this is the other perspective to really valorize ecosystem services and generate income manage and protect ecosystems. This means that if you want to practice conservation and want to protect those areas, you must give something back to the local communities at least if you are in developing countries because those people are from the rural, from the remote places, and from the protected areas. There must be something you give them back if you protect those areas. Although there are countless practices from protected areas worldwide, there are also many not-so-good practices which need to be improved.

Let me introduce two examples from current ongoing projects from our Living Lakes networks. The first one is from Cambodia, Tonle Sap. Tonle Sap is a very particular system of the Mekong River and this

usually grows like 10 times in the rainy season and shrinks again back. In the last decade, population has grown, and the pressure on fish population has increased very much. One of the tasks of our colleagues was to make this fish populations recover from the huge pressure of fishermen. What they invented were fish breeding protected areas, where fishing was prohibited. This caused decrease fishing, youths of the fishermen, so they invented floating markets and ecotourism activities in general to cope with the decrease of income in fishing, and instead, allow some increase of income in ecotourism. What they report is that it's the local people from Phnom Penh who use those facilities, not that many international tourists. This is a similar example from the Dominican Republic where there is a national park with a huge mangrove area, which is still being cut down by the local people and threatened by an unsustainable fishery. Here you see the tourist activities, we invented together with our colleagues who work on the ground, which are especially for young people who like watching mangrove trails, canoeing, and some other activities to allow the generation of alternative income instead of income from fisheries.

However, there are always two sides of a medal. You will find many discussions on the internet about the costs and the benefits of ecotourism. I do not want to go into detail here too much, but of course, I already talked about the benefits of it, but of course, there's also cost. You see here on the pictures, it's a crowd going to a national park in the United States, so you generate a lot of traffic. You have a permanent environment restructuring, generation of waste residuals which must be managed, and the touristic activities are having an impact. You see a picture from Slovenia national park wetlands where it's just a crowd walking down and of course, this will have an impact also on the protected area, so this must be managed well. And the conclusion of this is that ecotourism must be organized as sustainable tourism. You cannot just say "It's good because I bring people into nature." You must really watch and understand well what can be the impact and how you can manage this impact on nature and protected areas on lakes and wetlands.

There are a number of tools for managing sustainable tourism for bringing it into reality. There are a number of internationally recognized standards like ISO 14001 and Global Reporting Initiative and a huge number of standard labels you will find worldwide. And there are some methods we, as the Global Nature Fund, invented and tested in the past, or implemented, in the past like 10 years on tourism which we call "the biodiversity check." I will go more into detail with that.

The International Organization for standardization, there is ISO 14001. This is an international norm for environmental management of companies in any branch, also for touristic companies with reference to many ecological topics. What we experienced in the past is that at least European touristic businesses, so those who have huge hotels worldwide, really offer tourism to many people like the German TUI. They do have an environmental management system and this helps at least to implement some basic standard. So, in those international chains, you will always find wastewater management. You will always find solid waste management and also drinking water, at least some drinking water management, which does not harm drinking water resources in the countries. It's a complex system and you need really specialized people in

your organization to implement this. So this is why it is a bit restricted to larger companies and not as easy for just a single hotel or for small touristic entities.

Then some of you might know the Global Reporting Initiative. This is a standard with a huge framework of questions and criteria- which a company can fulfill its social criteria, economic criteria, and environmental criteria- covering this framework of sustainability which we used in past years. As a company, you can use this reporting standard to structure your work and to really understand where you can create an impact and where your impact can be managed better. There's a huge number of topics covered and some of those have a reference to also lakes and wetlands protected areas like those of environment 11 to environment 14 which I put here. And just taking the last one, it's a number of IUCN red list species and national red list species, where habitats in areas affected by operations of the given company, by level of extinction risk. So this is just one example where a company, who reports after the standard, needs to give information about it. You will report this to the Global Reporting Initiative. I think it's every second year or so. Again, for huge companies, it's been a very good approach to manage the impact on biodiversity, and if it's a touristic company operating worldwide, this is a very good tool.

You need a huge number of standards and labels to sell something in Germany. The rainforest alliance is based in Europe. TUI has its own standard as well as ECO-CAMPING, GREEN GLOBE, Sustainable Tourism- you will find information about this on the "destinet.eu" website, so there is a collection of all those criteria and labels. What do they do? You can call those entities, and usually they will send an expert person who will help the hotel or the touristic business to get involved with the management to become a sustainable business. These are just some European organizations and Eco Award Namibia. So there are many and I think also worldwide there will be many more.

As I said, you will find a collection of those here on the website, destinet.eu. It's a privately driven website from an organization here in Europe from "ECO TRANS". You can find all the certifications with, the "CERTIFICATION QUICKFINDER". Anyway, I recommend you use this website because it's just interesting and a lot of information about sustainable tourism has been gathered here.

One example of this certification schemes, this works very well in Central America where we have gathered some experience in the past 10 years. It's the certification for sustainable tourism and this is important to a tourist, if you travel somewhere, you can use this directory to find hotels who have been certified. Websites show increasing numbers of people looking at those places, and individual travelers want to find sustainable tourism. This is very much an increasing market which gives some hope if we talk about tourism worldwide and the huge impact it has on lakes and wetlands.

Finally, just to be the complete, we invented the biodiversity check tourism 10 to 12 years ago. This is not a label or standard, it's an instrument to help tourist companies to get into biodiversity management and run a catalogue of questions to enter this structured dialogue. And in the meanwhile, we have a number of tourists, so touristic entities can do a self-check. There is a basic check. And for the complete check, you would need an expert to implement that. And the result of this biodiversity check, biodiversity action plans, a

number of activities, a number of measures, the hotel or touristic enterprise would take to improve impact on biodiversity.

In conclusion, tourism has a huge impact on the environment, even in the most remote places. In the meantime, this was not true some 20, 25 years ago. Sustainable ecotourism can really support the management of protected areas like lakes and wetlands. Tourism's goal is not necessarily to be ecotourism, but to be really sustainable. The growing income of the local communities may help to take pressure from protected areas like lakes and wetlands. Again, there are huge number of tools and best practices to make tourism in general and also ecotourism more sustainable. And I would recommend "just do it" taking this phrase from a well-known sport producer.

I will finish my speak with an invitation. We are currently organizing the 16th International Living Lakes Conference which will be held in person in Lake Titicaca on the highlands of Peru. It's online and on-site conference. So if you cannot travel, you can watch it online, and if you see the "livinglakestiticaca.org" website, you will find information on how to attend. Here are my contact details, if you want to send me an email in case that you need any help. And then of course I will be happy to answer you. Thank you very much.

Question

Thank you so much for your presentation. I understand that the introduction of sustainability into tourism has been implemented for various reasons. I'm just curious how much impact ecotourism has on improving the environment, compared to the normal conventional ways. You have mentioned that there are so many certifications that allow the tourism centers or the tourism companies to train the guidance to become more sustainable or to provide more and cost friendly to the tourists. So I'm just curious if you think it really makes a very significant impact compared to the conventional up to now. Thank you so much.

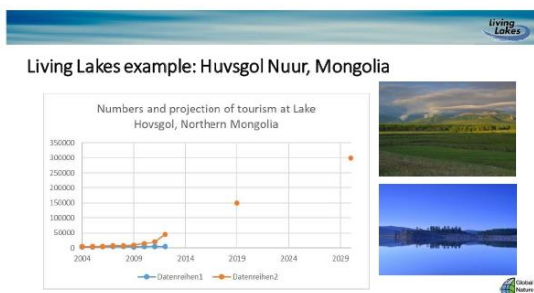
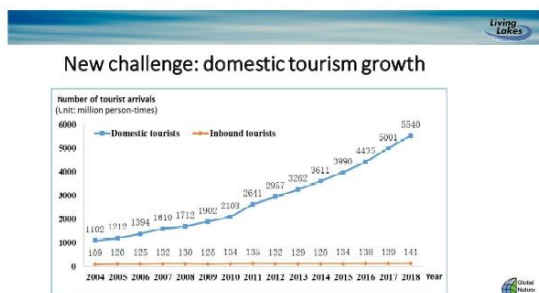
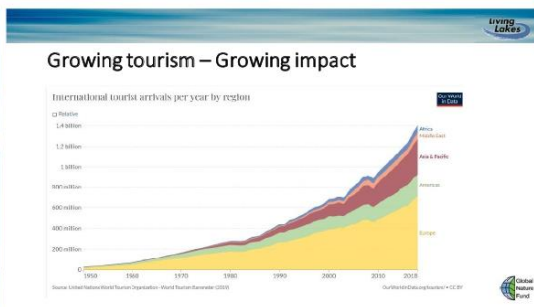
Answer

Thank you very much for that question. I can share two observations. My impression is when I go somewhere, there are offers which are called ecotourism. They usually managed in a sustainable way and because international tourists can come from Japan, Europe, the United States and from anywhere are very much sensitized about the impact tourism has on nature and about sustainability in general. So, there is a huge pressure on eco-touristic activities to be sustainable in a comprehensive way. In some places where I go those offers are very young, and they are still improving this aspect of becoming more sustainable. But I feel that usually ecotourism is done in a sustainable manner. The other observation is that some development might be in keeping with those international standards like GRI and ISO14001. I'm reporting that even huge tourist hotel chains are developing in more sustainable directions, such as doing wastewater treatment. Of course, this is not necessary for sustainable tourism but at least to be able to decrease the overall impact. Those international financially- driven entities I presented on one of the slides, they must follow international standards of financing and so on, and investors ask for sustainability standards.

Ecotourism and Lake Environmental Conservation Overseas

Tourism in lake regions: Growing threats! – Growing opportunities?

Dr. Thomas Schaefer
Head of Living Lakes - Global Nature Fund



Environmental impacts of tourism

- Destruction of ecosystems and habitats
- Fragmentation of natural areas and biological corridors through roads, settlements, etc.
- Impacts on fauna and flora
- Emissions of CO₂ and GHG = climate change

Impacts of tourism on lakes and wetlands

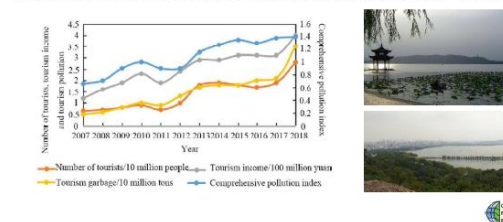
- Contamination of air, water, soil, landscape
- Overexploitation of water resources
- Noise, light, etc.
- Supply chains: Overexploitation of local and regional resources



Dependency

Living Lakes

Touristic activities and water pollution in the West Lakes Basin - China



Some definitions in tourism

- Tourism** is the commercial organization and operation of holidays and visits to places of interest.
- Ecotourism** is a niche segment of tourism in natural areas.
- Sustainable Tourism** does not refer to a specific type of tourism, rather it is an aspiration for the impacts of all forms of tourism to be sustainable for generations to come.
- Responsible Travel** is a term referring to the behavior and style of individual travelers. The behaviors align with making a positive impact to the destination rather than negative ones.

Living Lakes

Typical Ecotourism Activities:

- Safari
- Outdoor activities
- Visit of National Parks, Reserves, etc.

→ Ecotourism can improve the situation of lakes and wetlands through economic opportunities for local people and reduce environmental impact

→ Ecotourism can be a tool to valorize ecosystem services and generate income to manage and protect these ecosystems

Countless best practices from protected areas worldwide!

Living Lakes

Best practice from the Living Lakes

- Tonle Sap, Cambodia: Ecotourism and homestay accommodation increase acceptance for protection of fish breeding areas → fish populations increased significantly
- Mangroves Lower Yuna National Park, Dominican Republic: Pro Biodiversity Business (bird watching, mangrove trails, canoeing) improve income for local people and pave the ground for management plans

Living Lakes

Costs and benefits of ecotourism

Environmental impacts	DIRECT BENEFITS	DIRECT COSTS
• Incentive to protect natural environments	• Impacts of permanent environmental restructuring and generation of waste results	• Impacts of permanent environmental restructuring and generation of waste results
• Incentive to rehabilitate modified environments	• Impacts of tourist activities (wildlife observation, hiking, introduction of exotic species)	• Impacts of tourist activities (wildlife observation, hiking, introduction of exotic species)
• Provide funds to manage and expand protected areas	• Ecotourists assist with habitat maintenance and ecosystem services	• Ecotourists assist with habitat maintenance and ecosystem services
• Ecotourism serves as environmental watchdog	• Ecotourism serves as environmental watchdog	• Ecotourism serves as environmental watchdog
INDIRECT BENEFITS	INDIRECT COSTS	INDIRECT COSTS
• Exposure to ecotourism fosters environmentalism	• Effects of indirect environmental restructuring (e.g. unplanned development in adjacent villages due to migration for ecotourism related employment)	• Effects of indirect environmental restructuring (e.g. unplanned development in adjacent villages due to migration for ecotourism related employment)
• Areas protected for ecotourism provide environmental benefits	• Exposure to less benign forms of tourism	• Exposure to less benign forms of tourism
	• Problems associated with the economic valuation of nature	• Problems associated with the economic valuation of nature

→ Ecotourism must be organized as sustainable tourism!

Living Lakes

Tools for managing sustainable tourism

Environmental Management: ISO 14001 & GRI	Standards and Labels	Consulting tools: Self-Check, Biodiversity Check Basic, Biodiversity Check Complete
→ Management to reduce environmental impact	→ Criteria to comply with to safeguard a certain level of environmental quality	→ Support to: Identify negative impacts, Prioritize objectives, Identify measures and indicators

Living Lakes

ISO 14001 (International Organization for Standardization)

International norm for environmental management with reference to many ecological topics:

Environment: surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans and their interrelationships

Note 1 to entry: Surroundings can extend from within an organization to the local, regional and global system.

Note 2 to entry: Surroundings can be described in terms of biodiversity, ecosystems, climate or other characteristics.

ISO 14001 is a solution for touristic businesses who can feed a complex management tool.

Living Lakes

GRI Reporting Standards



"The GRI Standards are a modular system of interconnected standards. They allow organizations to publicly report the impacts of their activities in a structured way that is transparent to stakeholders and other interested parties."

→ 42 topics covered

→ Several sectors covered

G4 EN11: Operational facilities owned, leased, managed that are adjacent to, contain, or are located in protected areas and non-protected areas of high biodiversity value.

G4 EN12: Description of significant impacts of activities, products, and services on biodiversity in protected areas or areas of high biodiversity value outside protected areas.

G4 EN13: Habitats protected or restored.

G4 EN14: Number of IUCN red list species and national red list species with habitats in areas affected by operations, by level of extinction risk.



Standards and Labels

More than 100 national and international standards/labels for tourist offers

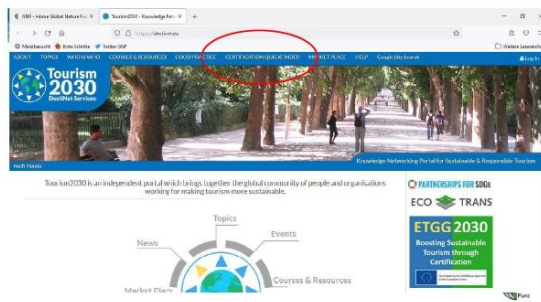
List of the most important labels:

www.destineteu

Global Sustainable Tourism Criteria:

→ Criteria for standards/labels

→ Good orientation for companies that respect the most important sustainability aspects



Tool offered by Global Nature Fund: Biodiversity Check Tourism

- No label or standard, it is an instrument
- Analysis of the company's management in relation to biodiversity in a broad sense
- Catalogue of questions to enter a structured dialogue
- Confidential
- Result: recommendations on how to act to protect biodiversity, action plan



Conclusions

- Tourism has a huge impact on the environment, even in the most remote places
 - Sustainable ecotourism can support the management of protected areas like lakes and wetlands
 - There are many tools and best practices to make tourism more sustainable
- Just do it!



Thank you for your attention!
Dr. Thomas Schaefer
Head Living Lakes
Global Nature Fund
Schaefer@globalnature.org



(3) Panel Discussion

Theme: “Lakes: Toward Sustainable Use of Cultural Service ”

Moderator: Adelina Santos-Borja, ILEC Scientific Committee

Panelist

- Hartwig Kremer, Head of the Global Environment Monitoring Unit;
UN Environment Programme, UNEP
- Andy Joinaldy, Vice Governor of West Sumatera Province, Indonesia
- Michihiro Oi, Director, Water Environment Division,
Ministry of the Environment
- Nobuhiko Miwa, Director General, Shiga Prefectural Government
- Masahisa Nakamura, Vice President, ILEC
- Sandra Azevedo, ILEC Scientific Committee



● Panel1 : Tackling the Global Water Crisis

A Focus on Water Quality, Capacity Development and Cultural Dimensions of
bringing Data to Action where needed

Hartwig Kremer,
Head of the Global Environment Monitoring Unit,
UN Environment Programme (UNEP)



I would like to say, first of all, it's a big thanks for the invitation and letting us give you some perspective on the aspects of capacity development in the water context. It will be on lakes, it will not just be your lakes. It's more about concepts, so what we are talking about tackling the global Water Crisis and focus on water quality and capacity development and the cultural

dimensions of bringing data to action. I think we all are aware that we do have UNEA resolution on sustainable Lake management behind us, which was adopted at UNEA5, which really brings all dimensions of water body management to the focus of lentic waters. I think that is important to look into when we think about what it means as operational request to UNEP to support the advancement of sustainable Lake management at all levels. The second operational request to the executive director of UNEP includes the collaboration of member states need to talk about transboundary systems as well as how we can make people speak to each other. And finally, the mainstreaming on Lake management in global agenda including the multilateral environmental agreements. It is a wicked problem in the way that many of the aspects of water management and SDGs are not self-supporting or counter-supporting. If we talk about pathogen pollution, pharmaceuticals, excess nutrients, organic pollution, SDG 3,2,5,7 to name a few, boosting one means at the other side to compromise another. I just put that up as an example that came from the snapshot report on surface water bodies in 2017. How can we arrange proper capacity development and couch Intercultural exchange on these wicked problems? We got UNEA resolution from UNEA3 to watch water quality assessment, water quality improvement and engagements towards emerging issues. As a consequence, we launched the Water Quality Alliance, the only global mechanism that looks into water quality at the moment, and it has reached the membership of 150 organizations, private-sector, local bodies, and so on. What we are doing is assessing and agenda-setting. We are co-designers for solutions, and we had ILEC in it. We hope to continue this collaboration. It's about SDG 6 but it's also about the interlinked SDGs. One modeling output of the assessment just to illustrate something that we are looking into is what would be the consequences of future agricultural production as well as cosmetics production when it comes to pathogens and chemicals. There can be many other examples. The key issue we are tackling is what came out of the second data drive of the SDG monitoring. When it comes to water quality, for example, over three billion people are at risk because they absolutely have no clue what the quality of the rivers, lakes and groundwater actually is. That's in the absence

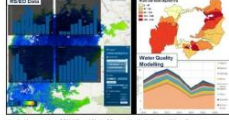
of data. That's in the absence of many times and many occasions of capacity to monitor. If you look at the water quality composite indicator, which is really simple, it relies on 75 physical and chemical parameters combined to one. Still many countries are not in the position to do that. Whether it's lakes, reservoirs or rivers, it becomes even worse when we talk about groundwater. So we are facing an issue of absence of capacity or at least shortfalls of capacity on data ,monitoring and sharing. As a consequence of that, one example that I want to lift out here is the Lake Victoria system. We actually try to work with local communities to bring together what's out there in the first place. What do we know about the water quality in the water situation of Lake Victoria In-situ information based? What can remote sensing satellite observations tell us, where we are coming from, when we look into, what are the latest modeling outputs? We need to triangulate these different sources of information to come to a coherent picture. This is capacity development at its best and it has two ways. It starts top down by sharing those global products and normative information with local communities. And vice-versa local communities, in this case, the fisheries communities in all the three lake coast countries, share with us what they actually meet and where they have a data at demand or where they have anecdotal or historical knowledge that our data doesn't reflect. So it's capacity development in both directions. What they were really keen to learn about was coastal eutrophication, temperature dynamics and release of nutrients from land-based runoff. You see what the modeling and the observation community can tell us. At the end of the day, to transform that into a tool that fisheries associations can use is a co-creation process. It's a bi-directional learning curve. What are the challenges? The data information and sharing protocols notably the cross boundaries hardly exist. Capacity development is falling short. Also the absence of respective resources. Innovations and solutions shared by many UN assets are not necessarily in line with what the people really want. What are the opportunities? Opportunities are to bring in the latest state signs with a bottom-up approach where the people work for their own solutions. The ownership is better and it's based on the local scale. Professor Owada alluded to that in her last slide when she said "Think Globally, but act locally". I think that summarizes it very well. How do we come from data to action? Through citizen engagement, citizen science, digitalization, those are all cultural aspects in a sense of multicultural learning. Digitalization of the water sector is the key and that also applies to supply chains to blockchain technology. But when you come from information into tangible action, we have to have a very clear pragmatic and that demonstrable information chain that works on the local scale. The WWQA is trying to do that in terms of pushing and advocating co-creation of solutions currently with 50-plus municipal water forums. That's really bottom up. Some of which are on lake basins in Uganda, for instance, looking into the cleanup of plastics. Scientific observations and monitoring undertaken by communities based on complementing official mechanisms through citizen science is way more viable and long term relevant if communities have been engaged from the onset. It generates awareness and worship. There is one mechanism out there that is currently conducted by UNEP ecosystem division which works closely with the Rotary Foundation to build partnerships for cleaning up rivers. They call it Adopt-a-River. What does it mean? Do we need to mobilize civil society with a kind of notion of being an elite society? I don't think that is actually the case. Because it's really bottom up communities that are mobilized to a global network. The impact on addressing local systems

and building ownership and respond to global problem to beat climate temperature or pollution is significant. Currently this program has 29 rotary clubs involved, 3 in Ethiopia, 17 in Kenya at 9 clean up and funded foundations. What it illustrates is certainly the involvement and mobilization of Civil Society. That brings in the notion of science diplomacy. I think the link between the international agencies and ordinary citizens in municipal or lake level permits a dialogue. Exchange of knowledge and experience between local communities from different nations and regions is a tangible existence of science diplomacy and engagement. The capacity development is an essential element to it notably in a two-way street as I said before. What is it good for? We have heard a lot about it in the keynote. Its tourism, fisheries, climate regulation, recreation, historical values, spiritual values. I would even want to add "identity". Let me also take the opportunity that we take these operational paragraphs in the lake resolution very seriously. We're not just constraining us to lakes. We think it's really also reservoirs, rivers and groundwater bodies. And we will have a first proof-of-concept of these municipal water forums telling us what kind of experiences they made in a conference between 28 and 30 November at Lake Constance in Germany and we would invite ILEC and the Global Nature Fund to join us to learn. We will not ask the big entities like IOCN or Ramsar and the donor communities to speak but to listen and to learn. So its capacity development bottom up to us and then we can decide "Is that a good model?" "What does it need for Improvement?" Thank you very much.

Lake Victoria Basin Products & Services

Assessment of wq challenges and associated impacts at Lake Victoria and its catchment:

- Bottom-up social engagement with riparian fisheries organizations to identify wq products and services to be co-developed to target hotspots.
- Data sources are assessed to indicate the potential of coastal eutrophication.
- Assessments demonstrate the potential of algal blooms to impact fisheries.



Left side: examples of available data sources (remote sensing and earth observation) to complement in-situ data, showing time-series of chlorophyll-a.

Right side: total phosphorus (TP) loadings modelled from main sources per lake sub-basin.



Lake Victoria Fisheries Photo credit: Andrew Gernand



Lake Victoria Basin – Challenges and Opportunities

Challenge	Opportunities
Reliance on in-situ data (limited temporal/spatial detail)	Alternative data sources (Triangle)
Innovations/solutions not aligned with stakeholder needs	Bottom-up approach
Lack of shared databases	Common (transboundary) data-management system
Project-specific databases	Databases owned/operated by data providers
Data/information sharing protocols	Ensure data ownership/ recognition. Data sharing trust building
Capacity building	In-country capacity building in the data collection, data analysis, & data management
"North-south" divide	Develop trusted collaboration
Research impact	More effective science-policy interface (solving real-world problems for real impact)
Funding	Long-term sustainable investment



Data to Action

Citizen Engagement, Citizen Science, Digitalisation

- Data must be employed, and the process enhanced by digitalisation of the water sector.
- Transformation from information into tangible action be that policy creation or individual programmes undertaken at a supranational, regional, national, sub-national or local level must be clear, pragmatic and demonstrate an awareness of drivers such as Climate Change, Pollution and Biodiversity.
- The WWQA combines the expertise enabling socio-political engagement and co-creation based on scientific fact and technological responses.
- Scientific observation and monitoring undertaken by communities and Youth are of far greater value over an extended period if built on previously engaged.
- Awareness of both local and global water-based issues leads to interest and ownership.



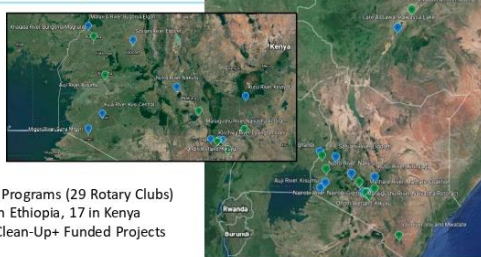
What is Adopt-a-River?



- Locally focused, global initiative that takes action to protect, restore and sustain freshwater ecosystems to assist and promote the sustainable development of communities
- Active partnership benefiting from the technical expertise and mandate of UNEP and the global reach at community level of Rotary
- Focus and mechanism for community members, with the support of other stakeholders, to mobilise to increase their wellbeing through the improvement of their natural environment
- Local Rotary Clubs or Club Coalitions adopt a section of a local waterbody and develop a long-term programme to protect, restore and sustain the waterbody.
- formed over 50 partnerships with local organizations and agencies
- citizen science programme in 2022, to utilize the global network of Rotary Club, its 30,000 local clubs and over one million worldwide



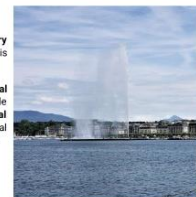
Current Progress



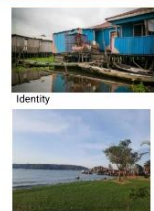
- 20 Programs (29 Rotary Clubs)
- 3 in Ethiopia, 17 in Kenya
- 9 Clean-Up+ Funded Projects

Science Diplomacy and Cultural Dimensions

- The direct link between the international agencies and ordinary citizens at a municipal level permits a dialogue that very often is inadvertently blocked by regional and national actors.
- The exchange of knowledge and experience between local communities from different nations and regions and the tangible existence of science diplomacy based on actors at a sub-national and local level working together to resolve shared environmental crises, constitutes an important international aspect of the WWQA.
- So far WWQA has established 50+ municipal water forums
- Capacity Development is central and a two-way street



Cultural services of Lakes



Identity



Recreation
(Photo credit: Andrew Gernand)



Tourism, Fisheries, Climate Regulation



Thank you!

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● Panel2 : National Priority Lake Conservation Through Eco-Edu Tourism and Community Engagement in West Sumatera Province, Indonesia

Andy Joinaldy, Vice Governor of West Sumatera Province



Thank you everybody, distinguished guests and ladies and gentleman, I would like to present about national priority Lake conservation through eco-edu tourism and community engagement in west Sumatera Province of Indonesia. West Sumatera Province is located on Sumatera Island. It is one of the largest islands in Indonesia. The mainland area is about 42,000 square km and the water area is more than 50,000 square km. It consists of 19 cities

and regencies with a total population of around 5.6 million people. It makes us number 11 in terms of population out of 34 provinces in Indonesia. It is located in confluence of two major tectonic plates, the Eurasian Plate and Indo Australian Plate, also passed by the Great Sumatran Fault. Forestry and Biodiversity: 54.07 percent of our area is fires areas, and 35.86 % is protected areas. Wild species with economic value: 101 plants, 22 birds, 59 marine fish species and 16 freshwater fish species. West Sumatra is one of the provinces with the largest number of lakes in Indonesia. We have five major lakes in our province. Lake Singkarak is in Solok Regency and Tnah Datar Regency, and Lake Maninjau is the biggest lake in the West Sumatera and others are Lake Diatas, Lake Di bawah and Lake Talang. Most of the lakes are located in the Solok Regency, in the south of the capital. The capital of West Sumatera is Padang. In general, lakes in west Sumatera Province are formed by tectonic and volcano-tectonic processes. The largest lake is Lake Singkarak and the area is 11,127 ha. The area of Lake maninjau is 9,737 ha. The potential of our lakes is Fisheries. These 2 lakes have more than 15 fish species for each lake. About biodiversity of lakes, Lake Maninjau has 2 endemic species and Lake Singkarak has 1 endemic species. Only Lake Singkarak has *Mystacoleucus padangensis*. About Socio-culture, local wisdom and regional festivals are held in this region. About tourism, we have natural tourism, history, and religious tourism. For your information, West Sumatra is one of the provision become their own mothers of the Republic of Indonesia. The first vice president of Indonesia is coming from West Sumatra. The Lake also has a hydroelectric power plant. Lake Maninjau generates up to 21.5 MVA of capacity and 175MW capacity in Lake Singkarak.

We have a problem in our province, namely damage of catchment areas and lake borders, changing of land use, illegal building, and solid waste dumping on the lake borders, making changes of lake ecosystem, decreasing of water quality, sedimentation, decreasing of endemic species population, solid waste dumping and wastewater's effluent disposing into the lake. Then, in terms of community and socioeconomic, we have decreasing tourism activities and community economic dependence focused on lake activities.

Next topic is conservation of Priority Lakes in West Sumatera through Eco-Edu Tourism and community Engagement.

First, lake area as a site of the geopark masterplan. Second, control of the growth of water hyacinth in Lake Maninjau through handicraft. We make use of water hyacinth for handicrafts and we sell them.

Third, Developing the Biodiversity Conservation Area in Lake Maninjau with the Eco-Edu Tourism Concept, and development of tourism villages and lake tourism on those lakes.

About the control of the growth of water hyacinth in lake Maninjau through handicrafts, we collaborate with the Provincial Government of West Sumatera, the Government of Agam Regency.

About 10 hectares of water hyacinth grow on the surface of Lake Maninjau. We have cleaned and removed plants from the lake surface, but it requires high operating costs and a wide area to dispose of waste.

Next, Lake as a site of geopark master plan. Lake maninjau is a site of Ngarai sianok-Maninjau national Geopark. Lake Maninjau will go for the UNESCO global and national Geopark. Lake Singkarak is also a candidate of Singkaak national geopark.

The benefits of geopark as a lake conservation program are as a natural laboratory for environmental management research, nature conservation, biodiversity, culture, and disaster mitigation, and to improve community participation in the environmental conservation and education process. In addition, geopark increases public welfare through empowering the community around the lake as the geo site's organizer. and develop the geo-tourism concept.


Next, biodiversity conservation area in lake Maninjau. We Constructed Lake Maninjau's Floating Wetland in Sungai Batang Village. Floating Wetlands are planned for improving the quality of lake water through water purification and supply of water oxygen needs, habitat of endemic species conservation, tourist attraction for eco-edu tourism, research center, and natural laboratory including information and education media. We also develop the Maninjau Lake Tourism Area. The Masterplan for the Development of the Tapian Kualao Tourism Area is initiated by the central government, the Ministry of Tourism.

Here are tourism villages around the lakes. The tourism villages were initiated by the Ministry of Tourism around Lake Maninjau and Lake Singkarak. Both lakes are, as I mentioned earlier, two biggest lakes in West Sumatera Province. There are 9 villages in the Lake Maninjau area, 2 villages in Solok regency, and 5 villages in Tanah Datar regency that become tourism villages. In West Sumatera, Agro-Tourism grows. Also around Lake Singkarak, there are Tourism Village of Sapodilla Fruit and Endemic Fish Bilih and Lake's Agro-Tourism and Endemic Fish Bilih. This is a picture of Maninjau Lake Tourism Development. We have Linggai Park, Historical Museum of Buya Hamka, cultural attraction and paragliding in Puncak lawang with Lake Maninjau view. You can paraglide from the land and see all the lake and even land on the lake. Also you can enjoy local culinary made from Endemic species. These are some examples of Kampung Minang village. We used to have international bike tours, but have been postponed because of the pandemic. This local culinary made from Endemic species Bilih is found only in Singkarak. That's all I present today. Thank you very much. We hope to see you in West Sumatera Province in Indonesia. Please come and enjoy our beautiful lake.



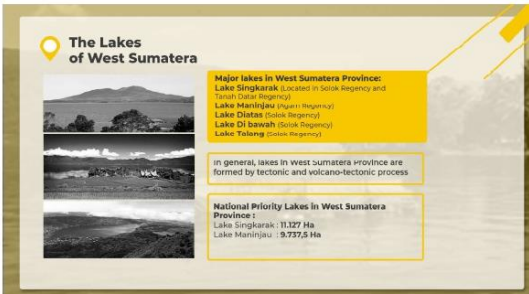
NATIONAL PRIORITY LAKE CONSERVATION THROUGH ECO-EDU TOURISM AND COMMUNITY ENGAGEMENT IN WEST SUMATERA PROVINCE, INDONESIA

Dr. Ir. Audy Joinaldy
S.Pt, M.Sc, MM, IPM, ASEAN Eng
Vice Governor of West Sumatera Province



WEST SUMATERA PROVINCE

- 1 Total Area and Total Population**
Total Area: 42,287.20 km²
Western Area: 10,442.45 km²
Consists of 19 sub-regencies
Total Population
5,580,232 people
- 2 Geomorphological Condition**
Located in confluence of 2 major tectonic plates (The Eurasian Plate & Indo Australia Plate) also passed by The Great Sumatran Fault.
Hydrological Condition
Has 3,303 rivers (806 rivers are identified)
Has 5 major lakes
- 3 Forestry and Biodiversity**
64,07% of Forest Areas and 35,85% of Protected Areas
Wild species with emblematic value: 103 plants, 77 birds, 68 marine fish species and 18 freshwater fish species.



The Lakes of West Sumatera

Major lakes in West Sumatera Province:
Lake Singkarak (Located in Solok Regency and Tanah Datar Regency)
Lake Maninjau (Nagari Regency)
Lake Diatas (Indragiri Regency)
Lake Di Bawah (Solok Regency)
Lake Talang (Solok Regency)


in general, lakes in West Sumatera Province are formed by tectonic and volcano-tectonic process

National Priority Lakes in West Sumatera Province:
Lake Singkarak: 11,127 Ha
Lake Maninjau: 3,727,5 Ha




West Sumatra Lake Potentials

- 1. Fisheries**
Lake Maninjau: 17 fish species
Lake Singkarak: 18 fish species
- 2. Biodiversity**
Lake Maninjau: 2 endemic species (Philippia sp and Rastrea argentea)
Lake Singkarak: 1 endemic species (Mastomys javanicus)
- 3. Socio-culture**
Local wisdom and regional festival
- 4. Tourism**
Natural tourism, history and religious tourism
- 5. Hydroelectric Power Plants**
Lake Maninjau: 21.5 MW capacity since 1983
Lake Singkarak: 175 MW capacity since 1995



The Problems of Priority Lakes in West Sumatera

- 1. Damage of Catchment Areas and Lake Borders**
Changing of land use, illegal building and solid waste dumping on the lake borders
- 2. Changing of Lake Ecosystem**
Decreasing of water quality, sedimentation, decreasing of endemic species population, solid waste dumping and wastewater's effluent discharging into the lake
- 3. Community and Socioeconomic**
Decreasing of tourism activities and community economic dependence toward to lake activities



Conservation of Priority Lakes in West Sumatera through Eco-Edu Tourism and Community Engagement

1. Lake as a site of the Geopark masterplan
2. Control of the growth of water hyacinth (Eichhornia crassipes) in Lake Maninjau through handicrafts
3. Developing the Biodiversity Conservation Area in Lake Maninjau with Eco-Edu Tourism Concept
4. Development of Tourism Village and Lake Tourism

Conservation programs of Lake Maninjau and Lake Singkarak through tourism approaching and also involving the community to join and organize the programs with their own local wisdom.



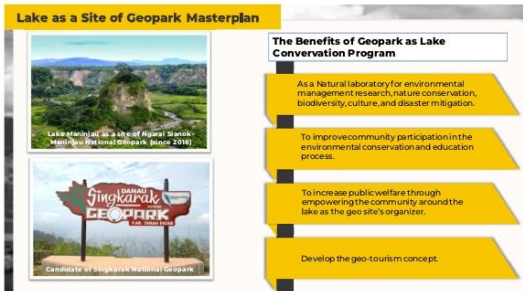
Control of the growth of water hyacinth (Eichhornia crassipes) in Lake Maninjau through handicrafts

Water Hyacinth Crafts Produced by the Maninjau Lake Community

In collaboration with the Provincial Government of West Sumatra, the Government of Agam Regency, and PT. PLN UPR Bukitdaging

About 10 hectares of water hyacinth grow on the surface of Lake Maninjau

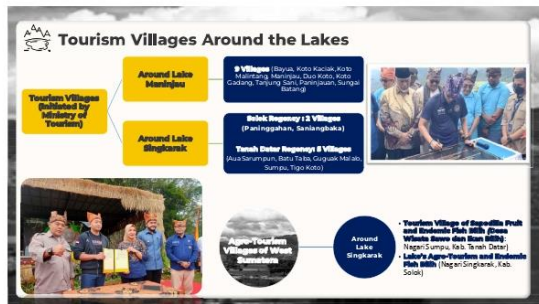
We have cleaned and removed plants from the lake surface, but it requires high operating cost and a wide area to dispose of waste



Lake as a Site of Geopark Masterplan

The Benefits of Geopark as Lake Conservation Program

- As a Natural laboratory for environmental management, research, nature conservation, biodiversity, culture, and disaster mitigation.
- To improve community participation in the environmental conservation and education process.
- To increase public welfare through empowering the community around the lake as the geo-site's organizer.
- Develop the geo-tourism concept.



● Panel 3 : Educational and Legal Initiatives Related to Lakes and the Water Environment

Michihiro Oi, Director,

Water Environment Division, Ministry of the Environment



My name is Michihiro Oi, and I am the Director of the Water Environment Division of the Ministry of the Environment. Thank you very much for inviting me to this symposium, and I would like to thank ILEC, UNEP, the Lake Biwa Museum, and everyone at the secretariat for their great efforts in organizing this event. I would like to express my gratitude to all of you. I have been given the task of introducing Japan's legal system, particularly with regard to education and lake

conservation, and I would like to begin with that.

As in many other countries, Japan, in particular, began with the problem of pollution, and environmental efforts began with the question of how to prevent water pollution, especially in lakes. The Water Pollution Control Law was enacted in 1970. The first step was to reduce the number of pollutants emitted from factories and other sources. The water quality of rivers improved as a result of this law and other measures. However, the situation of water pollution in lakes, where water stays for a long time and does not circulate for a long period of time, had not improved. In 1984, a law was enacted to protect the water quality of lakes. 11 lakes across the country were designated by the law for eutrophication, nitrogen and phosphorus control, etc., and plans for these lakes are being formulated and monitored by the local governments concerned. In particular, Lake Biwa is the largest lake in Japan, and people are very conscious of its conservation. In 2015, a special law on the conservation and restoration of Lake Biwa was enacted. In terms of environmental education, Environmental Education Promotion Law was enacted in 2003 and was further amended in 2010. The law was revised in 2010, and current efforts are being made to promote education for a sustainable society and sustainable development, which means education to protect cultural values and various other things beyond the mere environment. There is also a law to promote ecotourism, which was enacted in 2008. There is also the Basic Act on Water Cycle, which governs all of the above. This is also a new law that was created in 2014, and although it appears to be systematic, it actually starts with how to prevent pollution, then moves on to overall conservation, then to environmental education, and gradually the parts are being filled in to form this overall picture. The overall picture is now being formed.

I would like to explain a little about the Basic Act on Water Cycle that I mentioned earlier. The most important point of the Basic Act on Water Cycle is that it defines what a sound water cycle is. It defines the sound water cycle as a state in which the function of water in fulfilling human activities and environmental conservation is properly maintained, and that this state is a sound water cycle. The national government sets a basic plan for this, and then each community is asked to make its own local plan for that water cycle. Water is used in our daily life in various ways, and this law is designed to ensure water and the water cycle in each region,

including not only environmental conservation but also its use. For example, Lake Suwa in Nagano Prefecture has a regional plan called the Lake Suwa Creation Vision based on this law. The ultimate goal of the plan is to create a town that makes the most of Suwa Lake, and there are three major visions. The first is to make Lake Suwa a place where people want to swim, the second is to make the Lake a place where people can catch whitebait, and the third is to make the Lake a place where everyone wants to visit. I believe that these are the same basic goals as those of the local communities in Lake Biwa, which have been presented by many people today. I think that our goal is to protect the lake and the environment while also protecting the lives of the people living around it.

I would also like to introduce a new initiative that is also based on this law. In particular, there is now talk of a "30-by-30" goals in the world of biodiversity conservation. This is a new initiative based on the Convention on Biological Diversity (CBD), which is being discussed for the next target after 2020. As a member of the G7, Japan is committed to this "30-by-30" concept, and we would like to make the best use of our efforts to increase the number of protected areas and to protect water in such efforts.

The Ministry of the Environment has been working on selecting "100 Famous Waters" for a long time. We have selected about 200 water sources and regions in Japan, including famous waters, tasty waters, and waters protected by local communities, as the 100 best waters of the Showa period and the 100 best waters of the Heisei period. Now that the era has changed to Reiwa, we would like to select "Reiwa 100 Famous Waters". In selecting the 100 best waters of Reiwa, we would like to take a slightly different perspective from that of the past and consider how the local people can protect the water in addition to the efforts of the local community. For example, the water in Azumino, Nagano Prefecture, has been designated as one of the 100 best waters, and the people of the town are using it as a tourism resource while protecting it.

Finally, there is a relationship with environmental education. There is a law on environmental education. The Ministry of Education, Culture, Sports, Science and Technology (MEXT) is playing a central role in this effort by, for example, certifying eco-schools, positioning environmental education in the curriculum guidelines, and, moreover, continuing learning that is not simply classroom lectures but also includes hands-on experience. The Ministry of the Environment is cooperating with these efforts by providing teaching materials and information, such as the 100 best water sites mentioned earlier that can be used as educational sites. Two examples of environmental education in Shiga Prefecture are Josai Junior High School in Hikone City. This is a school that has been designated as a UNESCO School, where the children are engaged in systematic learning to become familiar with nature and the local community through the exploration of the town and school district, with the goal of deepening their awareness of Lake Biwa, our mother lake. Another project is the Yamauchi Eco Club in Shiga Prefecture, which is subsidized by the Ministry of Education, Culture, Sports, Science and Technology's "Kodomo Yume Fund" and conducts river surveys along the Yasu River every year.

Therefore, the Japanese government is now making efforts to conserve the water environment, including lakes, and to utilize this environment for education and tourism. The government is working to protect the water cycle as a whole, not only for the environment, but also for regional development. Thank you very much.

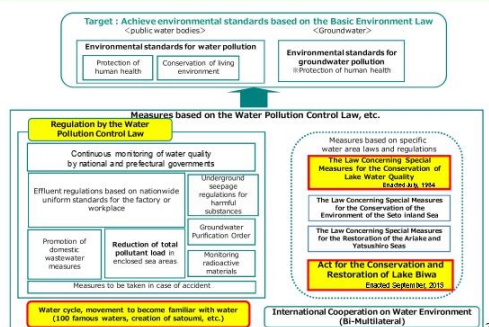
International Symposium 2022 "Fostering the Value of Lakes for Future Generations"

Lakes & Water Environment for Education, Legislative Framework

October 15th, 2022

Water Environment Division,
Environmental Management Bureau,
Ministry of the Environment, Japan

Scheme of Water Environment Conservation Measures



New Initiatives (Creation of Sound Water Cycle and Water Environment)

- Aiming for comprehensive water environment management that contributes not only to water quality management, but also to conservation of biodiversity and regional development toward achieving the 30-by-30 goals
- Implement a model project to form and disseminate good practices, and consider to conduct "Reiwa's 100 Famous Waters" project for the purpose of revitalizing regional development activities.

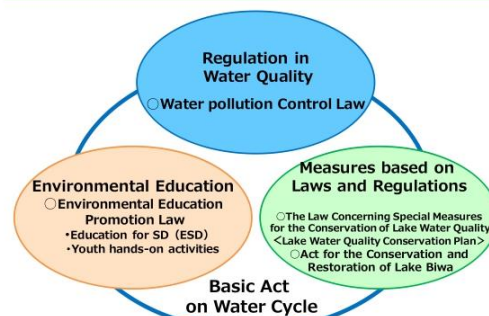


Efforts for Environmental Education

- The Ministry of Education and other related ministries and agencies cooperate to promote initiatives such as hands-on environmental activities based on the Basic Act on Environmental Education, etc.
- Promote learning and educational activities for "Education for Sustainable Development" (ESD), which fosters the creators of a sustainable society.



Framework for Lake Water Conservation



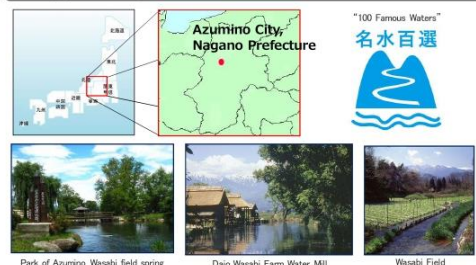
Water Cycle Basic Act Promulgated on April 2, 2014, Enforced on July 1

- Clarify cardinal principles and responsibilities of those involved in the water cycle in implementing water cycle measures
- Comprehensive and integrated promotion of policies for water cycle
- The National government map out the water cycle basic plan, and local governments formulate basin water cycle plans based on the water cycle basic plan.



Promotion of Tourism through Water (Azumino Wasabi Field Spring Water Group)

- Select 100 Famous Waters in Japan, which exists in many forms. (Showa's and Heisei's 100 Famous Waters)
- "100 Famous Waters" contributes to regional development as tourism resources that are popular in the region.



● Panel 4 : Sustainable Use of the Cultural Services of Lake Biwa

Nobuhiko Miwa, Director General, Shiga Prefectural Government



Hello everyone. My name is Nobuhiko Miwa, and I am a director general of Shiga Prefecture. I have been involved in environmental administration for about 35 years as a technical official of science in Shiga Prefecture. Today, I would like to talk about the sustainable use of cultural services in Lake Biwa. I will also talk about the Mother Lake Goals, the Lake Biwa version of the SDGs.

First of all, I believe that cultural services, from among the values of this Lake Biwa, are those that humans recognize as cultural and utilize. The value of Lake Biwa was mentioned earlier by Professor Owada, so I will explain it very briefly.

The first is the value as a rich natural environment that is said to be 4 million years old. There are many endemic species found only in Lake Biwa. The second is, very importantly, its value as a source of drinking water for 14.5 million people. Even if it is the same closed water area, it is definitely different from the sea.

The third is its value as a place for fisheries, such as the production of baby Ayu, Honmoroko, Seta shijimi clam, and so on. Fishermen have been mentioned many times in the past, and through their relationships with people, they have created a unique food culture, such as Funazushi (fermented crucian carp sushi).

The fourth is its value as a tourism resource. Tourism is the theme of today's discussion.

This is a new tourism concept in Shiga called "Shiga Rhythm." This is a new travel proposal to adjust the rhythm of the mind by experiencing the flow of time and the lifestyle of Shiga, where people have lived slowly and carefully in step with nature, including Lake Biwa.

The fifth is the value of a place for academic research, with many research institutes and universities. The sixth is its value as a Ramsar site. The seventh is its value as a heritage site related to prayer and life. This is because Lake Biwa has been regarded as a water purification site since ancient times with the spread of Buddhism, and it is also religiously related. Lake Biwa and its waterside landscape, where water and human activities are in harmony, was recognized as a Japan Heritage in 2015. As Professor Owada mentioned, it was recognized as a World Agricultural Heritage Site by the Food and Agriculture Organization of the United Nations (FAO) in July of this year as the Lake Biwa System, an agriculture, forestry and fishery industry that coexists with Lake Biwa.

While Lake Biwa has brought us such blessings, it has also given us many challenges, such as the heavy flood of 1896. There is only one natural river, the Seta River, flowing out of Lake Biwa. Therefore, the people of Shiga Prefecture have suffered from floods many times.

Although the long relationship between Lake Biwa and those of us who live around it can be considered individually, I believe that it is more important to look at the relationship as a whole.

Unlike after the 1960s, when the problems of Lake Biwa were focused on specific major sources, the issues facing Lake Biwa today are more diverse, and complex. At the same time, we are expressing that there are no measures that can lead to dramatic improvements for Lake Biwa. In other words, it shows that the only way to make beautiful Lake Biwa is through the cooperation of many people and through small, incremental efforts.

Lake Biwa can be a mirror reflecting our lives. Polishing a mirror will not make what is reflected in it beautiful. We need to reconsider our lives, and this is the only way to make Lake Biwa beautiful.

At the same time, the effects of global warming and climate change have begun to appear in Lake Biwa in recent years. For example, in Lake Biwa, oxygen-rich surface water cools and sinks to the bottom in the winter, and oxygen-starved bottom water rises to the top, which is called Lake Turnover has occurred every year. However, this has not been seen in the winter of 2018 and 2019 in a row. Through these changes that appear in Lake Biwa, we can also learn about global environmental issues.

We have created Mother Lake Goals last July with the participation of citizens in Shiga since the issues surrounding Lake Biwa are becoming more complex and diverse and that the only way to make Lake Biwa more beautiful is through the efforts of many people, little by little. It is a scheme to create a sustainable society with Lake Biwa as its starting point, and we have set 13 goals to make the SDGs more localized and applicable. In particular, I think numbers 11 and 12 are relevant to what we are talking today.

In September, we prepared our first evaluation report. This report is called "Shin Biwako Now. In this report, we also refer to the issue of trade-offs among goals or what is the overall optimal solution, which is one of the challenges in the SDGs.

As for cultural services, which is the theme of today's session, for example, Kitakyushu City defines cultural services as providing opportunities for recreation, fostering spiritual satisfaction, and a rich sense of sensitivity and aesthetics derived from the ecosystem.

Let me talk a little about Goals 11 and 12. Goal 11, "Encourage more people to enjoy and love Lake Biwa" was evaluated as not being in bad condition, but the trend has not changed.

In recent years, opportunities to come into contact with Lake Biwa and its rivers have been decreasing, but in Shiga Prefecture, the percentage of people who care about Lake Biwa and its rivers has reached a whopping 93%. This is a very high level of awareness.

Lake Biwa is swimmable. The table on the left side shows the recent changes in the water quality assessment, and in recent years, in the fiscal year 2018, AA is the best, but the ratings are A, AA, and B. The situation has remained flat. However, the number of people visiting this bathing beach has been decreasing very much in recent years. The graph on the right shows that there has been an increase in the number of problems, such as an increase in the number of water bikes and dangerous activities on Lake Biwa. The general comments on Goal 11 indicate that various activities by tourists have become a problem in recent years, as exemplified by the use of water bikes or as mentioned earlier, the act of taking Instagram-worthy photos in the middle of a row of metasequoia trees.

Regarding Japanese heritage and World Agricultural Heritage, it has been pointed out that the population, especially in rural areas, has been decreasing, and it has become difficult to change lifestyles and pass on culture. Goal 12 has been rated as a bad evaluation, with the condition being poor and the trend worsening. This is a diagram we created in Shiga Prefecture four years ago. We have taken the wedding cake model of the SDGs one step further and added some dynamic elements to it. We have also added images such as Earth Limit and Circular Economy. We believe that a sustainable society is one in which there is a healthy cycle that links the environment with economic and social activities and that we are required to utilize the cultural services of Lake Biwa wisely only within the scope of this healthy cycle.

I would like to close my presentation by introducing this song that I recently composed. It is a song of Mother Lake Goals. We are currently working hard to spread the idea of singing this song with the melody of “Song for circumnavigating Lake Biwa”, which is loved by the people of Shiga Prefecture , and doing exercises to the tune of the song. The video is posted on the Mother Lake Goals channel on YouTube, so please take a look. I believe that the symbiotic relationship that has been built up between people and Lake Biwa over many years and the culture rooted in this relationship has great potential. I believe that the way of life in Shiga can be a model for sustainable societies around the world, and I am confident that it will resonate with visitors to Shiga. Thank you very much.

Mother Lake Goals
Lake Biwa, Shiga, Japan

2022.10.15 International Symposium 2022

Sustainable Use of the Cultural Services of Lake Biwa

Nobuhiko Miwa
Shiga Prefecture Director General
(for Lake Biwa Policies and MLGs Promotion)

The Seven Values of Lake Biwa

Mother Lake Goals
Lake Biwa, Shiga, Japan

(1) Value as a rich natural environment

Endemic species living in the Lake Biwa water system:

- Plankton (4 species)
- Aquatic plants (2 species)
- Fish (16 species)
- Parasitic animals (1 species)
- Benthos (39 species)

Volvox's asiatica var. biwaensis
Praestephanois suzuki
Jesogammarus annandalei
Carasius auratus grandoculis

Mother Lake Goals
Lake Biwa, Shiga, Japan

(2) Value as a water resource

Populations supplied by Lake Biwa (2013)

- Shiga Pref. 1,168,950 people
- Kyoto Pref. 1,807,760 people
- Osaka Pref. 8,840,928 people
- Hyogo Pref. 2,756,536 people

14,574,196 people in total

Mother Lake Goals
Lake Biwa, Shiga, Japan

(3) Value as a fisheries site

Corbicula sandai
Gnathopogon caeruleus
Eri fishing weir
Plecoglossus altivelis
Gillnets

Mother Lake Goals
Lake Biwa, Shiga, Japan

(4) Value as a tourism resource

Mother Lake Goals
Lake Biwa, Shiga, Japan



Shiga Rhythm proposes a new type of tourism offered at Lake Biwa in Shiga Prefecture. Visitors can calm their hearts by experiencing the flow of time and life in Shiga, where residents have lived side by side with Lake Biwa and the surrounding nature enjoying slow and gracious lives.

(5) Value as a site of academic research

Haruhama archaeological site (Takashima City)
Awazu-kofei archaeological site (Otsu City)

Major research institutes in Shiga Prefecture:

- (1) Lake Biwa Environmental Research Institute
- (2) Shiga Prefectural Institute of Public Health
- (3) Lake Biwa Museum
- (4) Industrial Research Center of Shiga Prefecture
- (5) Forestry Center
- (6) Livestock Technology Promotion Center
- (7) Agricultural Technology Promotion Center
- (8) Fishery Experiment Station
- (9) Shiga Prefecture Samaga Trout Farm
- (10) The University of Shiga Prefecture
- (11) Shiga Prefecture Samaga Trout Farm
- (12) Northeastern Industrial Research Center

Mother Lake Goals
Lake Biwa, Shiga, Japan

(6) Value as a Ramsar Convention wetland

1993

Lake Biwa was designated as a Wetland of International Importance by the Ramsar Convention (the Convention on Wetlands of International Importance Especially as Waterfowl Habitat).

In 2008 the west lake was also designated.



(7) Value as a heritage of prayers and lifestyle

2015

"Lake Biwa and its Surrounding Waters: the Water Heritage of Prayers and Lifestyle" was certified as a Japan Heritage by the Agency for Cultural Affairs.

2019

The "Biwa Lake to Land Integrated System," comprising fisheries and agriculture nurtured by forests, settlements, and the lake, was certified as a Japanese Nationally Important Agricultural Heritage System by the Ministry of Agriculture, Forestry and Fisheries.

2022

The "Biwa Lake to Land Integrated System" was certified as a Globally Important Agricultural Heritage System by the Food and Agriculture Organization (FAO).



Photographs from the Japan Heritage "Culture of Water" Tourism Promotion Council



The flooding in September 1896 (Omihachiman City)

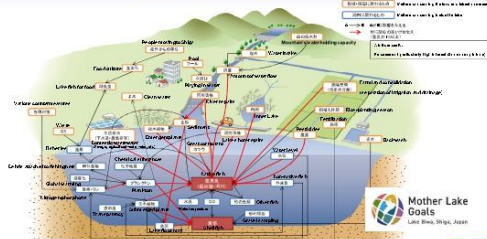


We have protected our lifestyle together with Lake Biwa.

(We have done so long before the SDGs were created.)
(Lake Biwa has given us gifts as well as challenges.)
(It is important to look at it not partially but **as a whole**.)



Diversifying issues and increasingly complex relationships = diversified solutions



Lake Biwa is a mirror that reflects our lifestyle.

Polishing the mirror will not make the object it reflects beautiful.



Protecting Lake Biwa = correcting our lifestyles



Lake Biwa is a window for us to understand the global environment.



Mother Lake Goals

Lake Biwa, Shiga, Japan

The Mother Lake Goals (MLGs) is aimed at realizing a sustainable society in 2030, using "Lake Biwa" as a starting point. It is Lake Biwa's version of the SDGs.

The logo circle represents planet earth, as well as Shiga prefecture that encompasses the lake.

The logo also depicts Lake Biwa as both a "mirror" that reflects our way of life and a "window" to look through at the global environment.





Mother Lake Goals (Song for MLGs Exercise)

／Nobuhiko COZY Miwa

- 1
 - 1 Mother Lake is clear and calm, forever and more.
 - 2 Ayu and Biwa salmon and Seta clam, et cetera.
 - 3 We cherish diverse life forms, shining with us all.
 - 4 Won't throw in garbage. Won't pollute the Lake.
- 2
 - 1 Father forests nourish water, forever and more.
 - 2 Flow down from the river to Sea, in the end.
 - 3 CO₂. We have to reduce to zero.
 - 4 We will never surrender against climate change.
- 3
 - 1 We have a lot of resources, right beside us.
 - 2 You and you are growing up in your home town.
 - 3 On the Lake reflected and spread our smiles.
 - 4 Thank you for our Mother Lake. Thank you for your love.
 - 5 Everyone get together! MLGs



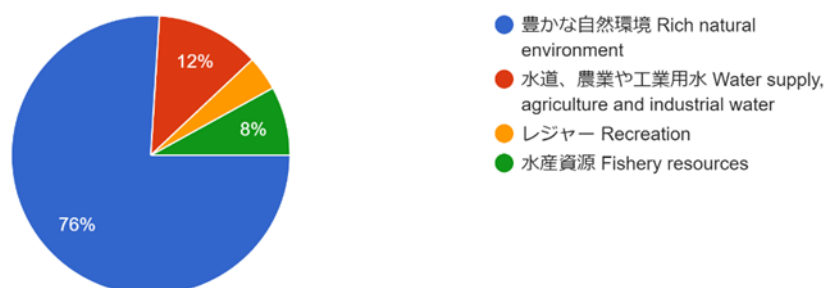
● Panel Discussion

★Questionnaire for Participants

Before beginning the discussion, we posed two questions to the participants. What do each of them think is the value of the lakes? And what do they feel is needed to protect and nurture that value? The answers were as follows.

“湖沼の価値”としてあなたが思い浮かべるものは何ですか。 What do you associate with the value of the lake?

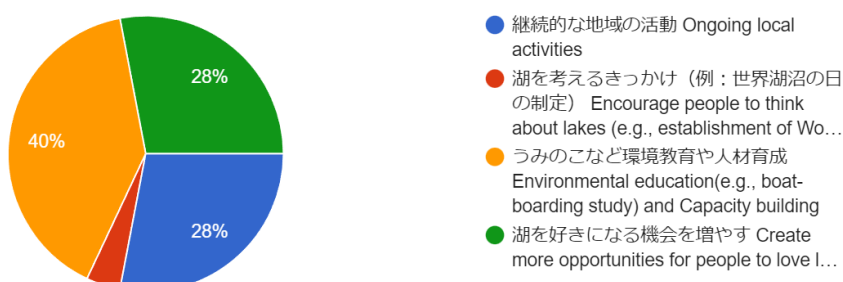
25 responses



あなたが考える湖沼の価値を守る・育てる、さらに次の世代につなげるのには何が必要でしょうか。

What do you think is needed to protect and foster the value of the lake, and also to connect it to the next generation?

25 responses



Moderator: Adelina Santos-Borja

Having heard of the voice of participants, they will give the value of the natural beauty of lakes. So how do we maintain the natural beauty of lakes. It's a challenge for all of us. Maybe a call to action will be needed. We saw in the survey that the rich natural beauty of lakes is the primary volume that the people have. But when we're promoting ecotourism, local contribution and local participation are important. To be more effective, there should be a need for the visitors to know the local culture, and the visitor has to be culturally sensitive to

the people in the particular village that they're going to visit. The economic incentives are also needed because some of the local communities engaging in ecotourism also depend on that for their livelihood. So economic factors are very important to sustain this ecotourism. So with that in mind, I would like to start the discussion with our panelists.

Hartwig Kremer (UNEP)

The system view that we try to promote is a social ecological system. It's a system where Lifestyles aspirations, the needs, and requirements of economy on the one end, but also the ecosystem goods and services which are not just the economical flows, but which are at the same time also cultural values, recreational value, spiritual values play a significant role to generate the ownership on all these different values. To create ownership of these various values, it is necessary to start locally and involve the entire community, that is, the riparian community of a given body of water (which, as I said earlier, includes the river). When it comes to tourism, it is a different story. Tourism brings seasonal population pressure. Take the Mediterranean as an example, the population of coastal areas more than doubles every year due to the recreational value of tourism. Creating socioecological value and ownership that allows people to relax and enjoy life can be challenging. The same is true for resource use, including waste management and climate change applications. On top of that, some countries are facing the problem of pressure generated by large numbers of refugees on their lakeshores and coasts. We are facing pressures of many dimensions. One important thing is to continuously bridge cultural, natural, and economic values for the benefit of local communities. Another is to be able to respond in time and in season. We saw good examples of this in this panel discussion and in the keynote presentations. I believe we can build on these examples. The key is to manage and guide our aspirations in our lifestyles.

Sandra Azevedo (ILEC Scientific Committee)

First of all, I wanted to express that I am so happy when I hear during the UNEP presentation that the principles of ILBM platform developed by ILEC for the last 20 years are completely in agreement in World Water Quality Alliance goals. We have a good connection and the same principles. It's so important to continue this work because it's a long-term work, not a goal that we can achieve in a short time in this world that constantly changes. But I would like to emphasize one point. As our colleagues from Sumatra present today, I think ecotourism comes after a long way, as Dr. Kremer were talking to us. It's a long way to change from tourism activity to eco-tourism activity. During this long way, we need to think about the restoration and environmental education process. We need to keep in mind, thinking carefully, how it can be achieved in a socially and economically sustainable way. It is different in the world, for example, when you compare Japan's condition and reality in other parts of the world. We can realize that you are so far from all the developing countries, but it's important to get this goal to change for tourism, which is predatory activity sometimes and gives much more trouble when you think about it environmentally and consequently because nobody wants to

go to a dirty place, a destroyed place, and polluted places. In short time, it could be a good business, but in the long-term, we are destroying the value of that community so how can we achieve this challenge in a socially, economically sustainable way when you consider the diversity of the socio-economic conditions? In some areas ecotourism can support and can give a better-quality life for local people.

Moderator

Dr. Sandra has expressed a concern that is not just in a particular country, but this is a global concern which in terms of degree of concern it may not be much for very developed countries like Japan, but for developing countries, it's really a concern.

The values of lakes of course depend on the perception and the connection of the people living around the lake. For example, the people of Shiga and the stakeholders of Lake Biwa got involved in the process of making a concept of MLGs. Is there a strong science basis into how the communities engage in making up the Mother Lake Goals?

Nobuhiko Miwa (Shiga Prefecture Government)

People in Shiga Prefecture know sensitively that Lake Biwa is finite. This is very important, and there is a fishery called "Eri" in Lake Biwa. It is important to understand that continued exploitation of the lake beyond its limits is unsustainable. Many people in Shiga Prefecture are aware of this, and we have worked carefully with them to convey and expand this awareness. Shiga Prefecture was originally an agricultural prefecture with forestry and fishing industries. It had been making the most of these without taking too much of them, which can be sensibly understood thanks to the presence of Lake Biwa. I think that by conveying this to many people now, in this day and age, we can help curb this over-exploitation of eco-tourism.

Masahisa Nakamura (ILEC Vice President)

I think there is a great affinity between the subject of ecotourism and "sustainable lake management." When considering how lake ecotourism differs from other types of ecotourism, it is very important to consider the nature of lakes, which accumulate all kinds of stress (including water control, runoff, and sedimentation). Such issues must be addressed over a very long period of time in the case of a pooling body of water like a lake. Ecotourism is also a very important tool for considering what "sustainability" means in the context of "Sustainable Lake Management". It is probably not as simple as saying that sustainability can be achieved in 10-30 years by doing these things. Sustainable lake management and sustainable ecotourism will continue to be a matter of trial and error. We need to consider the fact that we thought we were practicing sustainability in Lake Biwa, but in fact we are destroying sustainability somewhere else. It is meaningful to create an opportunity to think from various perspectives, such as the case of a lake like Lake Biwa, but there are various lakes and various ways of thinking about sustainability in the world. Furthermore, the history, culture, and values of each country are completely different, so we must learn from them. The same must be considered

for ecotourism. Lake management will likewise proceed with a variety of issues. I think that both lake management and eco-tourism have in common the need to constantly evaluate through trial and error what changes need to be made.

Moderator

The Japanese Ministry of the Environment has positioned the term "water cycle" as part of its Basic Law and environmental education. I believe that the process of environmental education mentioned earlier could be a good model for other countries. However, what are your thoughts on how we can help children understand in which part of the water cycle their role will be very important?

Michihiro Oi (Ministry of Environment, Japan)

Since each site offers hands-on environmental education programs, what the children feel depends on the program itself. In the case of Shiga Prefecture, Lake Biwa is an excellent teaching tool. It is rich in natural resources and is also a mother lake used for fishing and is very close to people's lives. I thought that the children in Shiga Prefecture are especially aware of the importance of protecting the nature of Lake Biwa and that the programs are designed to help them understand the appreciation of water.

Moderator

It would be interesting to find out if environmental education in elementary and secondary schools is already integrated into the curriculum in areas such as sustainability, nature appreciation, ecotourism, and lake values. I would like to take this opportunity to thank our panelists and, of course, our speakers, and thank Dr. Kremer from UNEP for joining us. Thank you also for informing the participants about sustainable lake management as adopted at UNEA5. It was not only a call to action for government member states and UNEP, but also a call for everyone to be part of this sustainable lake management process.

Hartwig Kremer (UNEP)

Thank you. I am happy to engage with you all, notably between the Water Quality Alliance and ILEC, which needs revitalization. We would need to work with the lake resolution as well as the degraded ecosystems we have. That's the big global framework that you are operating, and let's remember we have the Water conference in March 2023, which will probably lead towards a new water architecture. We have an open portal invitation for our social engagement congress at the end of November. The lakes will likely play a prominent role there. Stay in touch.

Moderator

Thank you very much. I will now summarize the panel discussion. As Dr. Kremer pointed out, there needs to be holistic ownership of the value of the lake. It is also very good to see that UNEP is very focused on putting

data into action. Because while data, measurement, and citizen science are necessary, not everything can be done in a laboratory. And as the saying goes, "You can't manage what you can't measure." Also, bottom-up social engagement is very important. In the presentation from West Sumatera Province, we learned that when structuring an ecotourism program, it is important to involve the local community and incorporate local wisdom into the program. From Japan, we heard about the Basic Act on Water Cycle from the Ministry of the Environment. The Basic Act on Water Cycle is truly impressive and may inspire other countries to adopt the framework developed by Japan. A healthy water cycle depends on how sustainable human activities and environmental conservation are. I also appreciate the presentation of Mother Lake Goals in Shiga Prefecture. Perhaps we will know how to achieve the goal by 2030 and the evaluation mechanism. I would also like to have the opportunity to learn more about Mother Lake Goals.

We heard from four perspectives in this panel discussion: capacity building, community engagement, environmental education, and law and policy making. We also hope to have the next opportunity to hear directly from communities involved in ecotourism and from people in the field about what sustainable ecotourism means to them.

8. Summary

Yasuo Takahashi

Director, International Environment Committee Foundation



My name is Yasuo Takahashi. I'm the executive director of the Institute for Global Environmental Strategies (IGES) and a member of the board of directors of ILEC. It was my great pleasure to make conclusion remarks for today's International Symposium titled "Fostering the Value of Lakes for Future Generations."

First of all, I would like to thank all the participants, speakers, panelists, and also the judges of the contest and also including the distinguished members of the scientific committee of ILEC, for your valuable contributions to the success of the Symposium. I would also like to sincerely thank all the audience in the room and also on line for your active participation in the Symposium today.

In the morning, we had a very interesting discussion and the lake ecotourism contest with fantastic presentations by four groups of students. New ideas of ecotourism which are good for the environment, community, and people. We were truly inspired and moved by these presentations for the creative ideas and strong will toward the sustainable use of the lake Basin environment. I would like to congratulate all the contestants for their achievements and thank all of them for giving us great hope for the future of Lake Biwa. In the morning session, we also had very attractive presentations on the case studies of ecotourism in Japan, namely Higashi Omi City and Makino region, and also Vietnam, and a presentation from the representatives of Lake Balaton who will play an important role to hold the 19th World Lake Conference in Hungary next year, which will be the important next step for us.

In the afternoon, we had an intensive discussion on protecting the cultural, historical and scenic, regional, and ecological values of lakes and how to pass this on to future generations. We had two valuable keynote speeches by Professor Owada and Dr. Schaefer, presenting the great potential of the Globally Important Agricultural Heritage System and SDGs tourism and some risks of tourism on the environment, and the importance of various tools and practices to make ecotourism more sustainable. And we had a very interesting panel discussion with key stakeholders, including UNEP. UNEP is a very important partner for us and the central international organization on this issue; the local government of Indonesia, the country that played very important for the recent UNEA 5 resolution on Sustainable Lake Management, which is the first-ever UNEA resolution focusing on lakes. It should be a strong message for all stakeholders, including policymakers, to understand the importance of Sustainable Lake Management. We also have the representatives of the Ministry of the Environment and Shiga Prefecture, which are very important players in enhancing sustainable Lake Management policies and measures in Japan and also take initiatives for international cooperation on this matter, utilizing the rich experiences we have been accumulating in Japan for the integrated management of lakes, in particular for Lake Biwa, the mother lake for Shiga Prefecture. I am pleased to say ILEC and its scientific committee could also make valuable inputs to the discussion. Their best and long continuing efforts contribute to sustainable lake management and conservation for the lake and their basin and environment through scientific knowledge, development, and institutional arrangement. I would like to say that after the historical UNEA 5 resolution, we are now in a new stage in our efforts to protect the lake environment. It is important for us to keep the momentum generated by the UN resolution and further

encourage all the stakeholders to enhance efforts and mutual cooperation on this issue. As we all know, the global environment is now under critical conditions because of unsustainable human activity, causing climate change and environmental pollution all over the world. We have additional challenges caused by the covid-19 pandemic and also further hampered by ongoing geopolitical conflicts.

We have to tackle these global environmental challenges in an urgent manner with close cooperation among various stakeholders domestically and internationally and, in particular, evaluating the cultural, historical ecological, and regional values of lakes presented today. I sincerely hope today's Symposium will be an important occasion for all of us to reconsider our daily life and activities from the viewpoint of sustainability. And strengthen our effort toward our common goal of realizing sustainable lake management for the future generation. Last but not least, I would like to thank all the people, in particular ILEC Secretariat, for making a big effort to prepare for the Symposium.

Thank you for your kind attention.



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