It Started with a Tree

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Regional Areas (including counties, regions, provinces)
Nature & Environment

Summary of Good Practice Story
Liyu Lake, Hualien's largest inland lake in Taiwan's East Longitudinal Valley, serves tourism, resident livelihoods, water activities and ecological habitat all at once, but summer eutrophication and falling dissolved oxygen were killing native fish, while different government agencies each managed their own slice of the problem without anyone addressing the lake as a shared whole. Starting in 2015, the East Longitudinal Valley authority partnered with National Dong Hwa University on long-term water quality and ecology monitoring, shifting lake management from experience-based guesswork to scientific evidence, and promoted low-intervention approaches like managing sewage runoff and removing invasive species. A symbolic debate over whether to remove a "tree in the lake" became the turning point, forcing agencies, residents, businesses and scholars to sit down together and ask not whether to keep one tree, but how to jointly manage the lake's future — leading to night traffic diversion, low-impact tourism and water-safety training. Native fireflies, fish and waterfowl have since returned. The lesson: managing a heavily used natural resource is less about environmental engineering and more about negotiating a shared future among competing users, with long-term data serving as the starting point for conversation, not the final answer.

Setting the Scene: Destination & context

Situated at the north end of the East Longitudinal Valley, Liyu Lake is the largest inland lake in Hualien, significant to the local livelihood, natural ecology, and tourism travel. It relies heavily on tourism while constantly facing earthquakes and changes, with tourists easily choosing other destinations while the lake can only stay put. How to turn tourism from consumption to co-existing with residents and the natural environment has been our battle.

Liyu Lake is where we begin the search for answers.

The Turning Point: Why change was needed

Over the years, Liyu Lake has been burdened with being used for tourism and leisure, resident livelihood, water activities ecological habitat, and student training, enduring great pressure of overuse and still accumulating. The eutrophication continues to worsen during the heat in summer, leading to the decrease of dissolved oxygen in the lake, which ended in large amounts of native fishes dying, impacting the entire tourist environment and local life.

We came to realize that the real challenge lies not just in the deteriorating water quality, but the ever-increasing conflicts between different requirements and different authorities

When water quality, leisure, safety, ecology, and local developments are owned by different authorities, each agency is busy solving their own problem, but no one really answers the question:

How do we jointly manage the future of this lake which everybody uses?

The issue of whether to remove the “tree in lake” led to the eruption of bottled-up mixed feelings. Therefore, government agencies, residents, and business operators in respective positions sat down to discuss, how do we jointly use this place and how do we jointly safeguard it in the future.

The Vision: What you set out to do

We want Liyu Lake to be more than just a tourist spot which hopes to attract tourists, but a highly used system that enables tourism, local life and natural ecology to co-exist on a long-term basis.

We believe that real change comes not from just managing our own parts but getting more people to be willing to safeguard the lake together.

The Journey: How change happened

When we realized that the problem is not just water quality but the way we govern it, we decided to start from “understanding this lake”.

Starting 2015, we collaborated on a long-term program with National Dong Hwa University on water quality and ecology monitoring system, collecting data on the changes of the lake so that the lake management which relied heavily on experiences in the past can now be slowly built on scientific evidence.

With the monitoring data slowly building up, we realized that Liyu Lake faces not just one single environmental issue, but long-term pressures built up from the interlacing uses of tourism

activities, resident use, ecological conservation, and water use. So, we began promoting low-intervention governance approaches including managing sewage and runoff, removing alien species and restoring the habitat; aiming to ease the lake burden instead of fighting nature with engineering methods.
The real transition took place during the discussion of the “tree in lake”. Government agencies, residents, business operators, and experts and scholars who cared about different issues began to sit down and think hard about what we are really saving? Is it the tree? Or the joint livelihood we will lead with this lake in the future?
Instead of passively following policies, the conversations prompted residents to become participants in the governance. Environmental patrol, water maintenance, ecological education, and local partnership, these became more than just functions promoted by the government, but what everybody engages in to safeguard Liyu Lake.

The Breakthrough: What you achieved
Long-term monitoring and continued governance slowly brought about changes to Liyu Lake. The water quality improved, native fireflies and fishes, and waterfowls have returned to this lake, showing residents and tourists renewed vitality of this lake.
But the real breakthrough came not from improvements in environmental data.
One of the significant transformations took place while discussing the “tree in lake.” People used to fight about whether the tree should be kept, some argued from a landscape perspective, some were worried about water safety, while others felt that it was all part of natural succession. However, as we repeated the conversations, we came to realize that the real answer to this question is not whether to keep the tree, but how to manage the future of the lake that everybody uses together?
Since then, government agencies, residents, business operators and schools focused not only on their own issues but began to think about the future of this lake together.
Such change was slowly reflected in the new tourism methods and water management. We started diverging traffic at night, introducing low-impact tourism, providing water activity safety training, and working across different agencies rethinking how to lower the pressure of lake use, and strike a balance between tourism, water activity, public safety and ecological conservation.
To us, the most significant change is not making the lake more beautiful, but the fact that increasingly more people are willing to safeguard it together.

Reflections: What you learned and what others can learn
The process reminded us that the management of highly used water is not just about environmental governance, but the negotiation between different requirements and sharing of burdens.
1.What really needed managing was not just the lake, but the balance between different requirements.

We had assumed that the problem would be solved if we each fulfilled our duty in respective agencies, only to realize that when tourism, local life, ecological conservation, and water safety were interlaced, what we really needed was to discuss solutions and make decisions together.
2.Data is not the answer, but the beginning of conversations.
Long-term monitoring allows people from different perspectives to discuss problems based on the same set of facts. What mattered was not that everybody agrees, but that everyone was willing to face the same challenge together.
3.The real lasting effect is not the engineering, but the joint stewardship.
We have come to realize that resilience of a highly used water lies not in better water quality or more animals, but the fact that increasingly more people are seeing themselves as part of the ecosystem.
Managing a lake is never about solving all the problems but bringing more people on board to safeguard it together.

The Ripple Effect: Lasting impact
1.The change at Liyu Lake is not just the improved environment, but us understanding that the challenge lies in balancing different needs instead of solving one single environmental issue. With long-term monitoring, cross-agency cooperation, and local participation, we built up a model and new way of thinking for co-governance and space-sharing.
2.Environmental protection was seen as the responsibility of the government or experts, but now, residents, schools, business operators and community partners are also taking part in safeguarding the lake.
We collaborated with local partners to combine environmental education, ecological experience, and local culture, so more people can participate and become stewards of this land. This convinced more people that local governance can start with individual participation.
3.The area is rich in natural resources, yet it faces challenges including talent drainage, earthquake impact, and rapid changes in the tourism market.
We hope that when tourists visit in the future, they see not just the beautiful scenery, but how we strived to maintain the human and nature balance on this land and choose to support us. The lake is now a better place with people willing to safeguard it together, we are stewards and not just consumers.

Awards or Certifications
2025 Lighting Design Awards
2025 London Design Awards

Web Articles
1. A public discussion triggered by the "Tree in the Lake.
https://www.erv-nsa.gov.tw/zh-tw/event/news/6820
2. Long-term monitoring and scientific methods for lake governance.
https://news.pts.org.tw/article/646798

3. The ecology of Liyu Lake is gradually recovering.
https://www.erv-nsa.gov.tw/zh-tw/event/news/6497
https://www.erv-nsa.gov.tw/en/event/news/7086
4. Liyu Lake Environmental EducationEcotourism
https://travel.udn.com/travel/story/7210/7277142

Other Relevant Links

1.Eastern Longitudinal Valley National Scenic Area Official Website
https://www.erv-nsa.gov.tw/en/
2.Liyu Lake Environmental Education & Ecotourism Information
https://theme.erv-nsa.gov.tw/edu
3.Stay Safe, Have Fun! – Liyu Lake Water Recreation Guide (Official Video)
https://www.youtube.com/watch?v=y-l-R_bNgZU
4.Liyu Lake Visitor & Recreation Management Guidelines
https://admin.taiwan.net.tw/ervnsa-en/businessinfoerven/ListPage?a=21771
5.Long-term Environmental Monitoring Program
https://admin.taiwan.net.tw/erv-nsa/zhengfuzixunerv/FilePage?a=8608

Quotes or Testimonials

Then we realized that no one is talking about the tree anymore, we were all discussing what kind of Liyu Lake we want for the future.