

CLEVER Cities Podcast

This Environment Day, learn about the ups and downs of managing Lake Dianchi

Introduction

UrbanByNature is an exchange platform that has been rolled out in a number of countries and regions across Latin America, Eastern Europe and Asia. The project's main focus is on bringing together practitioners, experts and scholars from different fields in urban ecology protection to share their experiences and communicate results based on the project's conceptualisation and methodology. The aim is to allow us to learn from great examples, not only in our own backyards but also from nature-based solutions around the world, and to share experiences in areas such as urban development, urban transformation and climate governance.

In this podcast, we are lucky to have with us Landi He from the Ecology Centre at the Kunming Ecology and Environment Science Research Institute in Kunming China to chat about the management of the city's Lake Dianchi. The management of the lake has been a particularly important and instructive model of ecological and environmental governance in China over the past 20 to 30 years.

Podcast Transcript English

The UrbanByNature China project is almost a year old now. At this juncture, we would like to ask you to look back over the governance of Lake Dianchi to see if it implemented the seven steps proposed by the project, that is, how you can use multiple-stakeholder participation to formulate development goals and policies, and how you can assess, monitor and upscale governance experience over time.

Actually, all seven steps have been implemented in the governance of Lake Dianchi. Managing Lake Dianchi is difficult. This task is not only the responsibility of Kunming City and Yunnan Province, it also requires the support and attention of the whole country. The lake comes under the national Three Rivers Three Lakes key governance policy. Staff from the city's administrative departments as well as provincial, national and even international experts all help formulate governance plans during the management process. As one of the nine largest plateau lakes in Yunnan, the governance of Lake Dianchi actually requires a huge amount of exploratory work in terms of plateau lake management. We formulate five-year governance plans for the lake. Each plan has corresponding programmes for implementation. After five years, an assessment

mechanism is used to examine programme outcomes, water quality improvements and biodiversity conservation. Any progress achieved during exploratory governance processes will be promoted further.

So, the seven steps are all represented in the governance of Lake Dianchi. For example, the first step is participation. We invite various experts, including those from business and government, to take part in the exploration step. We are currently in the latter phases of the Lake Dianchi governance process. Our focus is on the implementation of the actual plans and monitoring. We are now involved in the participation, implementation, monitoring and upscaling steps. But all seven steps are included in the overall management process for the lake.

Sixty global partners from ICLEI, including cities, research bodies, social groups and other organisations, worked together to develop the seven steps, which are join, explore, prioritise, commit and plan, implement, monitor and upscale. The aim is to use a set of gradual stepwise planning and action guides to provide technical support to local governments and cities to help them incorporate biodiversity and ecosystem conservation into urban development policies, spatial planning and sustainable management.

What main challenges and issues do you face in terms of pollution management and overall planning? Have you recently had any issues you needed to urgently resolve?

Managing Lake Dianchi involves a number of challenges. For example, the lake is located downstream of Kunming. Its location means that it is the only discharge point for the city. Therefore, Lake Dianchi receives a huge amount of urban wastewater. The governance plan adopts measures to intercept the wastewater at source. At the same time, the Lake Dianchi basin also gave birth to the city, a place with a huge population surrounded by a large amount of industry. The tension between protection and pollution is particularly pronounced in the Lake Dianchi basin and represents a challenge for governance. The Kunming and Yunnan governments both attach a high degree of importance to the lake. With this in mind, they proposed an ecology-first measure, i.e. the implementation of the Four Retreats and Three Restorations policy.

Four Retreats and Three Restorations aims to use regulations and a range of different incentive mechanisms to relocate agriculture, people and industry away from the lake periphery, restore the wetlands and lake, and increase the area of the lake. The measures have had a significant effect, but the process has been very difficult. Residents who live off the lake have been reluctant to accept the relocation plan, but the government has used inducements and incentives to successfully draw residents and industry away from Lake Dianchi's ecological zone and restore the lake's vitality.

The management of Lake Dianchi provides important lessons for both China and foreign countries, especially developing ones. What lessons do you think other countries can learn from your experiences and the approaches developed while solving the governance challenges of Lake Dianchi?

Managing a lake, particularly a plateau lake, is difficult. It requires the effort of the entire city, even the entire province. The top priority in this process is to formulate regulations, then to raise awareness and increase education. Lake Dianchi is the mother lake for Kunming residents. Many residents have an emotional connection to it, so both individuals and businesses want the ecology of this lake that supports their lives to improve. That's the sentiment in Kunming. It's likely that there is no-one in Kunming unaware of the lake's water quality and management problems. Any ordinary person you find will be able to talk about how they experience and understand Lake Dianchi.

Since the Four Retreats and Three Restorations policy was rolled out, the lake's wetlands have grown to around 40 square kilometres. So how much of a difference can 40 square kilometres make in terms of lake management and improving water quality and biodiversity? Many species had disappeared from Lake Dianchi. Using artificial cultivation, breeding and water flows, many species have now been re-introduced. But these species need to be constantly monitored to understand exactly how much the water quality has improved. Nowadays, many people and businesses have a strong awareness of environmental issues, but monitoring and management have also played a big part.

What can exchange platforms such as UrbanByNature and CitiesWithNature do for cities implementing nature-based solutions and actively exploring climate adaptation pathways? How can they have greater value?

First, I would like to thank ICLEI. Kunming joined CitieswithNature and signed a strategic framework with ICLEI during Part Two of COP 15. This gives the city the chance to share its experiences in biodiversity conservation and management, and engage with other cities. Kunming shared its example at COP 15 and learned about the experiences and approaches of other cities. Therefore, we hope that this platform will enable more communication and exchanges of typical cases from each city in the future.

Since you have already mentioned Part Two of the COP 15 UN Biodiversity Conference and you went to the host city Montreal, could you please share with us your experiences and biggest impressions of the event?

I attended the whole of last year's city summit. What made the biggest impression on me was that the content was closely related to the work that Kunming is doing. For example, the Chinese language version of the City Biodiversity Index was published on China Day. Kunming paid close attention to this. The publication can help the national government and local governments carry out further research on biodiversity in Chinese cities and develop related standards and systems. The fact that the biodiversity index includes an assessment of how biodiversity impacts human physical and mental health also made a deep impression on me. This is a future trend for Kunming too, and it has been included in ecological product value practices as part of building an ecological city.

The City Biodiversity Index (CBI) is a set of standards and systems for cities to use to evaluate their progress and achievements in biodiversity conservation. It is the first assessment tool to be adopted by the international community to measure the outcomes of work on biodiversity conservation by cities and local governments and has been called the "gold standard" for urban biodiversity monitoring and assessment. On 13 December 2022, ICLEI, the Secretariat of the Convention on Biological Diversity and the Singapore National Parks Board jointly published the Chinese version of the City Biodiversity Index at the China Day events at COP 15.

We would like to thank Kunming for its support for the work of ICLEI. Our long-term cooperation is creating sparks. We also hope that Kunming continues to act as a remarkable model for urban biodiversity conservation and the development of nature cities.