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Conference scene



Comments and Discussion



Group photo of participants

### 2019 Lancang-Mekong Cooperation Week

## Parallel Session on Lancang-Mekong Freshwater Ecosystem Health Management

As one of the 2019 Lancang-Mekong Cooperation Week series, on March 21, 2019, the Parallel Session on Lancang-Mekong Freshwater Ecosystem Health Management of the Lancang-Mekong Roundtable Dialogue on the Outlook for Strategic Environmental Assessment (SEA) was held in Kunming, Yunnan Province. The meeting was organized by the International Environmental Cooperation Center (IECO) of the Ministry of Ecology and Environment (MEE)/ Lancang-Mekong Environmental Cooperation Center (LMEC), with the support of Conservation International (CI). Representatives from agencies under the MEE and Ministry of Water Resources of China, environmental departments of Mekong countries, industrial sectors, research institutions, local environmental departments, international organizations, businesses and media attended the meeting.

Representative of the IECO/LMEC and CI attended the meeting and delivered speeches. IECO/LMEC representative indicates that the communication and exchanges on freshwater ecosystem health management will help improve the level of regional freshwater ecosystem management and the sustainability utilization of regional ecosystem. In the future, we should promote the sharing of concepts and experiences and strengthen coordinated planning and diverse participation in regional freshwater ecosystem health management, so as to contribute to the implementation of the United Nations 2030 Agenda for Sustainable Development.

During the event, delegates conducted presentations and discussions on such topics as the relevance between ecosystem health and sustainability, methodology and application of Freshwater Health index, and international experience in freshwater ecosystem management. Representatives of Lancang-Mekong countries also shared their experience in freshwater ecosystem management and future work directions.

From March 20th to 21st, 2019, the Lancang-Mekong Roundtable Dialogue on the Outlook for Strategic Environmental Assessment was held in Kunming as one of the series of the Lancang-Mekong Environmental Cooperation Roundtable Dialogue.

Ms. LI Xia, Division Chief of the International Environmental Cooperation Center / Lancang-Mekong Environmental Cooperation Center



Dr. Liu Xiaohai, Country Director at CI China



Dr. Derek Vollmer, Sr. Director, Freshwater Science Program, CI



Dr. Nick Souter, Freshwater Research Manager, Asia Pacific, CI

# **Part of Expert Opinions**

Ms. LI Xia, Division Chief of International Environmental Cooperation Center (IECO) of Ministry of Ecology and Environment of China (MEE) /Lancang-Mekong Environmental Cooperation Center (LMEC) shared her experience in applying Freshwater Health Index (FHI) tools. She pointed out that the future development of FHI assessment system should be directed to integrated river basin management, and that market-oriented application of water resources industry should be explored.

Dr. LIU Xiaohai, Country Director at Conservation International China said that CI is working with partners around the world to maintain the key freshwater ecosystems and provide basic safeguards for sustainable development. These include fostering community forces in Africa, monitoring and ecological restoration of water sources, and improving the water health of local residents; exploring the relationship between water sources and cities in Colombia, South America, to promote the protection and restoration of river ecological corridors, and to ensure urban water supply; and exploring and demonstrating possible ecosystem approaches in the Mekong River Basin in Asia, focusing on the Cardamom-Donglisa Lake region.

Dr. Derek Vollmer, Sr. Director, Freshwater Science Program, CI, delivered an introductory speech entitled "The Freshwater Health Index (FHI): Making Clear Connections between Ecosystem Health and Sustainability". The characteristics and uses of FHI tools were analyzed from five aspects: ecosystem-based approach, watershed scale assessment, future scenario analysis, stakeholder participation and management effectiveness assessment. FHI differs from other ecosystem assessment tools in that it reflects the relationship between ecosystem integrity and ecosystem services and organically combines ecological and social indicators.

Focusing on future scenario analysis, Dr. Nick Souter, Freshwater Research Manager, Asia Pacific, introduced the FHI assessment case of the Sesan-Srepok-Sekong (3S) basin in the lower Mekong River. The 3S River Basin spans Cambodia, Laos and Vietnam, carrying the production and life of 3.4 million people in the basin. The basin is rich in fish resources and is one of the most important sub-basins for fish migration. But it is also facing increasing pressure for hydropower development. Through the scenario analysis function of FHI, based on the current situation and known planning, the FHI scientific team simulated the number and layout scenarios of different hydropower stations in the 3S basin, and assessed the impact of different development decisions on river connectivity and fish biomass.



Ms. ZHANG Cuiping, Deputy Director, Hainan Academy of Environmental Science



Professor Lu Ying of Yunnan University
21 March, 2019 Kunming, China



Mr. H.E.Tony Hell, Secretary General of Tonle Sap Authority, Cambodia



Ms. Le Thi Kim Oanh, Department of Water Resources Management, Ministry of Natural Resources and Environment, Vietnam

Ms. ZHANG Cuiping, Deputy Director, Hainan Academy of Environmental Science shared the FHI assessment case of Songtao Reservoir in Hainan Province. Songtao Reservoir covers an area of 130.4 square kilometers and is the largest freshwater lake and drinking water source in Hainan Province. The evaluation results show that Songtao Reservoir has a high score in groundwater reserves, biodiversity, sediment regulation, water quality assurance, flood regulation, disease control and other secondary indicators. Generally speaking, Songtao Reservoir has a high comprehensive score on the two first-level indicators of ecosystem vitality and ecosystem services. In terms of management, there is room for improvement in terms of increasing information disclosure, expanding sources of funds and enhancing public participation.

Professor Lu Ying of Yunnan University shared the team's work on research on ecological environment and river health in Lancang-Mekong river. By monitoring water quantity, water temperature, water quality, sediment and aquatic ecosystem, the impacts of hydropower development on the aquatic ecosystem in the basin are evaluated, and specific suggestions are put forward for the operation of hydropower stations and the protection of aquatic ecosystem.

Mr. H.E.Tony Hell, Secretary General of Tonle Sap Authority, Cambodia said that FHI is important for Cambodia's sustainable development and can better maintain the health of the water ecosystem. At the same time, it can support the formulation of laws and regulations on water resources, which is of great significance to the water quality and biodiversity protection of Tonle Sap Lake. However, Cambodia is also facing the challenge of shortage of manpower and resources. It is hoped that the cooperation of the Lancang-Mekong countries will provide more support.

Ms. Le Thi Kim Oanh, Department of Water Resources Management, Ministry of Natural Resources and Environment, Vietnam hopes to continue to carry out similar discussions and exchanges with partners in the future. And she hope to carry out brainstorming and other forms of exchanges on the assessment methods of each river according to the actual situation of each river. At the same time, we hope to form a consensus on ecosystem management of FHI in various river basins.

## **Contact Us**

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**About LMEC:** Lancang-Mekong Environmental Cooperation Center (LMEC) is an initiative proposed by Chinese Premier LI Keqiang at the 1st Lancang-Mekong Cooperation Leaders' Meeting and was established on November of 2017.