



Implementing the Strategic Action Programme for the South China Sea and Gulf of Thailand (SCS SAP) Project

Second Meeting of the Regional Working Group on Land-Based Pollution (RWG-LBP)

11-12 November 2024, Shenzhen, China

Status of Preparation and Implementation of Land-Based Pollution Activities

China

South China Institute of Environmental Sciences, MEE





Updates on LbP related activities & achievements for 2023-2024 (following the 1st RWG-LbP meeting)

Legal & institutional matters

National Legal & policies & action plan

1. Marine Environmental Protection Law of the People's Republic of China (2023 Revision)
2. Action Plan for the Comprehensive Management of Key sea areas (2021~2025)
3. Action Plan for the Urban Black and Odorous Water Pollution Control (2021~2025)
4. The 14th Five-Year Plan for Marine Ecological and Environmental Protection (2021~2025)
5. The 14th Five-Year Plan for Water Ecological and Environmental Protection (2021~2025)

Provincial regulation & action plan

1. Regulations on Implementation of Marine Environment Protection Law (Guangdong, Guangxi and Hainan) (2024~)
2. Action Plan for Total nitrogen control for key rivers (2023~2024)
3. Provincial Water discharge standard for aquaculture (Guangdong, Guangxi and Hainan) (2023~2024)
4. The 14th Five-Year Plan for Marine Ecological and Environmental Protection (Guangdong, Guangxi and Hainan) (2021~2025)
5. The 14th Five-Year Plan for Water Ecological and Environmental Protection (Guangdong, Guangxi and Hainan) (2021~2025)

Updates on LbP related activities & achievements for 2023-2024 (following the 1st RWG-LbP meeting)

Research and Assessment

- More than 4,000 papers published on the South China Sea (2023~2024).
- Highly cited papers involved: climate change, spatio-temporal distribution of algal bloom, gas recovery from marine hydrate reservoir, wind-wave power generation, three-dimensional modeling and so on.

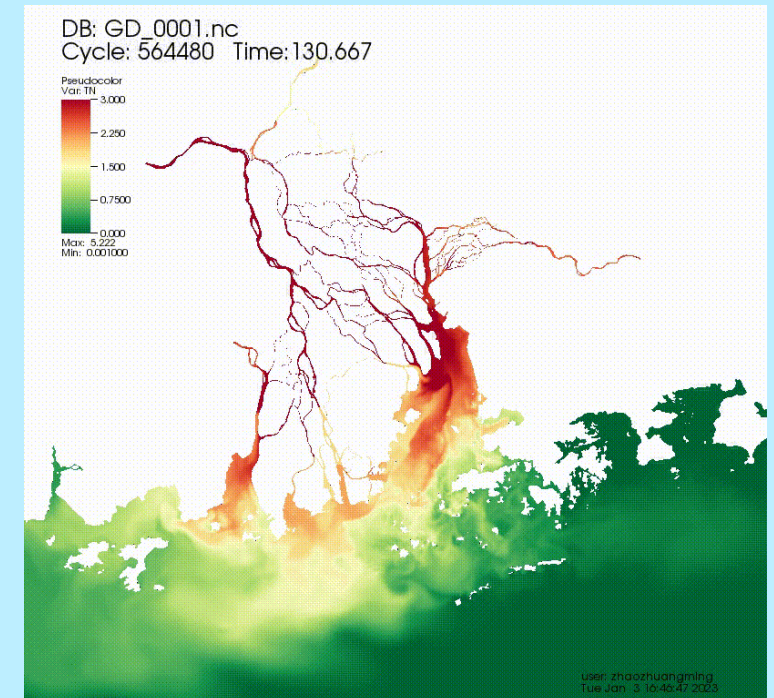
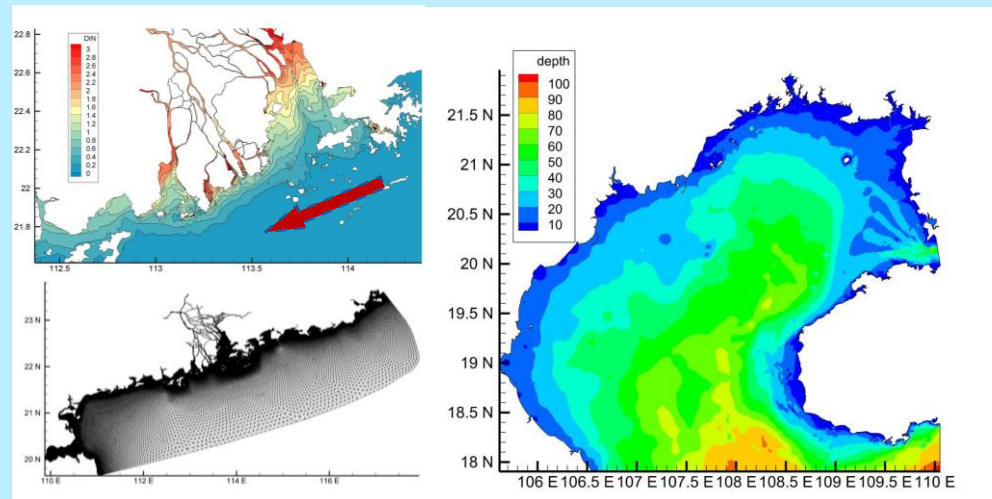




Updates on LbP related activities & achievements for 2023-2024 (following the 1st RWG-LbP meeting)

Research and Assessment: LbP modelling

1. Numerous numerical simulation research in nearshore areas such as Guangdong, Guangxi, and Hainan.
2. A numerical model of the South China Sea (FVCOM): support national strategic decision-making and regional land-based pollution reduction action plan.

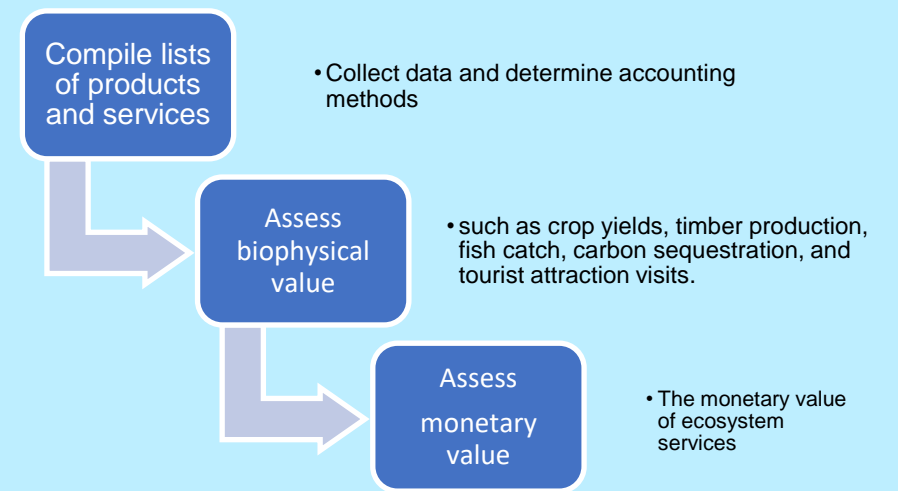




Updates on LbP related activities & achievements for 2023-2024 (following the 1st RWG-LbP meeting)

Research and Assessment: Blue Economy

1. China actively promotes the valuation of marine ecosystem services and has explored a novel accounting method based on Gross Ecosystem Product (GEP).
2. The **national Marine product** in 2022 is 9.46 trillion yuan (1.33 trillion US dollar) (2022 *Statistical Bulletin on China's Marine Economy*).
3. The value of **shared wealth fund** in China's marine sector is 5.4 trillion yuan (0.76 trillion US dollar), with the annual sustainable marine GDP at 210 billion yuan (*The Blue Economy Report 2022 for China*).





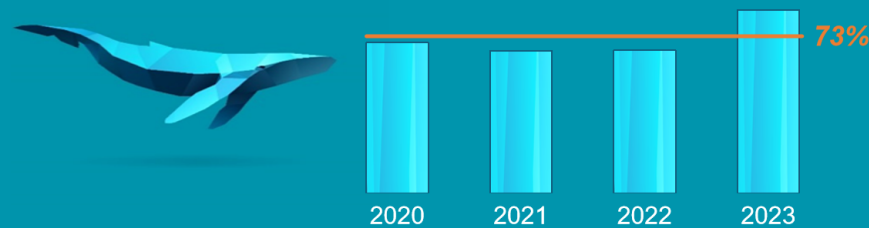
Updates on LbP related activities & achievements for 2023-2024 (following the 1st RWG-LbP meeting)

Monitoring status and trends of changes, specially in identified hot spots and monitoring stations

Action Plan for the Comprehensive Management of Key sea areas (Pearl River Estuary, PRE)

- ✓ Fund investment: tens of billions.
- ✓ LbP (TN) into the PRE has decreased.
- ✓ Water quality of PRE is improving.

The proportion of the area of the Pearl River Estuary with excellent water quality



Drainage Area	440,000 km ²
Annual Runoff	349 billion m ³
Sea Area	15,500 km ²
Population	86 million
GDP	13 trillion RMB (1.8 trillion US dollar)

Updates on LbP related activities & achievements for 2023-2024 (following the 1st RWG-LbP meeting)

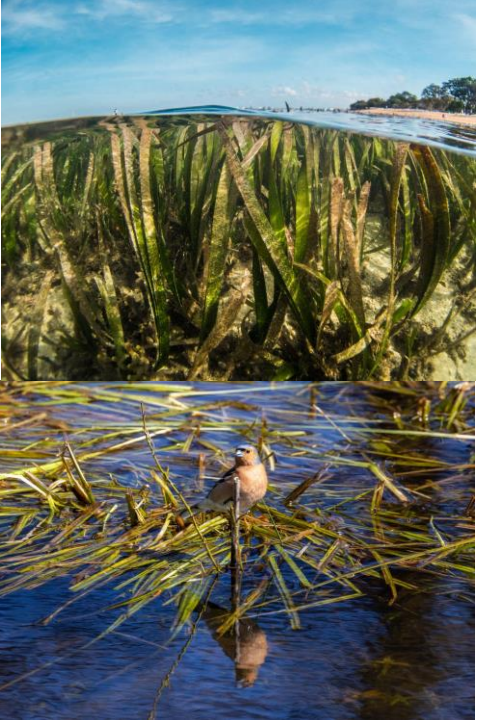
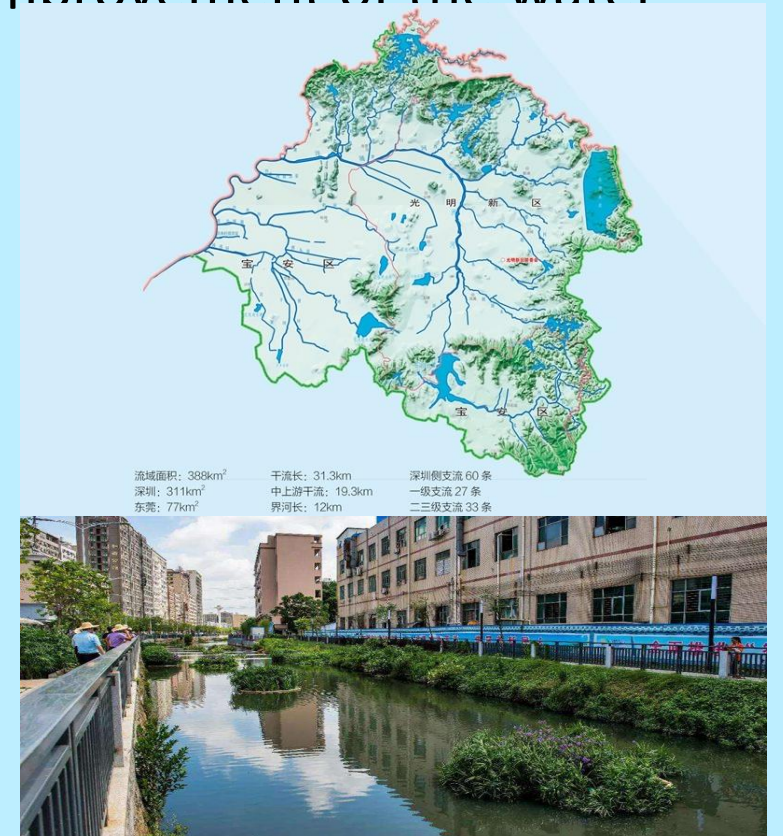
Good Practice: Maozhou River

(More than 30 billion yuan (US\$4.2 billion) investment)

➤ Successful results: From “the most polluted river in Guangdong Province” to “the typical example of the remarkable improvement of the water environment”

Actions taken

- ✓ A1: Pollution source control
- ✓ A2: Rain and sewage diversion
- ✓ A3: Sludge and sewage co-governance
- ✓ A4: Sewage treatment and pipe integration
- ✓ A5: Ecological restoration
- ✓ A6: Continuous maintenance



Updates on LbP related activities & achievements for 2023-2024 (following the 1st RWG-LbP meeting)

Data/Database

1. Marine-related bulletins and ocean monitoring data.
2. National monitoring programs of marine environment.
3. National procedures for LbP management (environmental quality standards, environmental monitoring standards and pollution discharge standards).
4. Local legislation and institution for LbP and Habitat management (LbP control regulation, estuary management regulation).
5. Distribution data of aquaculture in coastal cities.
6. Numerical model of offshore waters of South China Sea based on FVCOM.



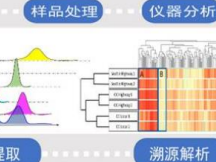
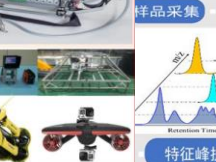
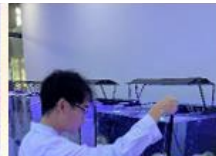


Status on coordinating national activities and contributing regional activities for 2025-2026

Introduction of specialized executing agency on LBP

Executing Agency: **South China Institute of Environmental Sciences, MEE**

- Comprehensive Environmental Scientific Research (River-Estuary-Marine)
- 10 research centers, 4 key laboratories
- More than 700 researchers (26% PhD, 35% Master)





Status on coordinating national activities and contributing regional activities for 2025-2026

Outline on National Working Group on LBP (members, organizations): Expert/s to join TDA team

In this regard, the South China Institute of Environmental Sciences (SCIES), MEE, China would like to nominated the TDA/SAP as follows:

1. Governance

Dr. YU Yunjun

Email : yuyunjun@scies.org

2. Marine habitats/ ecosystems

Dr. CHEN Qinghua

E-mail : chenqinghua@scies.org

3. Pollution - Nutrients, Waste water, Plastics

Dr. ZHAO Xiao

E-mail : zhaoxiao@scies.org

4. Socioeconomics and Livelihoods - Blue economy, Vulnerabilities to climate change and natural extreme events

Ms. LI Qiuyan

E-mail : liqiuyan@scies.org



Challenges and recommendations for implementing LbP activities for 2024-2026

Time schedule for signing and implementing new/amended PCA/GSAs

Time of signing the amended PCA: June 2024

Challenges:

1. The forms and guidance of site characterization are not established.
2. Quantify the value of non-market ecosystem services.
3. The available quantitative data on source, flows , and impacts of marine pollution for regional assessment.
4. There is no harmonized methodology on regional assessment.
5. Quantify the amount of wastewater generated by coastal aquaculture.
6. The key principles for regional TDA and LbP management should be discussed and agreed.



Challenges and recommendations for implementing LbP activities for 2024-2026

Recommendations

Regional activities:

Develop a regional mechanism for sharing best practices to enhance the capacity building of member states.

National activities:

Combined with existing relevant action plans/policies, update country reports and national action plans on land based pollution.

Thank you very much!

