



TAIHU (LAKE TAI) BASIN

CHINA



WWF's programme in China is focused on influencing the national level and Yangtze region by targeting sector transformation, delivering conservation outcomes in priority ecosystems and demonstrating the business benefits of impact reduction activities.

Covering an area of 2,338 km² (almost the same size as the state of Luxembourg), Lake Tai is the third largest freshwater lake in China. Densely populated and economically developed, the lake borders Jiangsu and Zhejiang provinces, and provides water to 30 million residents (equivalent to 4.4% of China's total population) and contributes 9.8% to the country's GDP.

Country	China
Region	Taihu Basin
Population	30 million
Area of Taihu Lake	2,338 km ²
Area of Taihu Lake Basin	36,900 km ²

TEXTILE SECTOR

Around 70% of the global textile supply chain is located in China, Southeast Asia, and South Asia, and the textile sector is critical to China's economy bringing in US\$1 trillion per year. China accounts for 58% of global fiber processing. China's textile exports contribute to 25% of the country's total exports and are valued at US\$ 29 billion.

China's textile industry withdraws over 3 trillion litres of water, accounting for 8% of the country's total industrial water withdrawals and making it the fourth largest industrial water user. Since the 1970s, the annual discharge of industrial effluent into the Yangtze has increased three-fold, discharging more than 30 billion tonnes per year.

With more than 50 national and province level industrial parks, Taihu Lake Basin is home to 37% of China's textile production – along with 23% of its electronic production and 8% of its chemical production.

Hundreds of international and domestic brands are headquartered or source their products from the region, nearly 10,000 textile printing and dyeing facilities are also based within Jiangsu Province alone. Most of these facilities are small and medium enterprises located within industrial parks or clusters.

Main Challenges in the Basin

Potential Impacts from the Sector

Implications for Business

WATER QUALITY

Agricultural runoff, intensive livestock and intensive aquaculture are large polluters in Taihu. In the last 20 years, the amount of agriculture land area has been significantly reduced due to rapid expansion of industrial and populated areas which also contributes to the pollution of the basin.

Wastewater discharge from the textile sector accounts for a relevant amount of the total wastewater and the hazardous components discharged.

In response to the 2007 algae bloom, "The Taihu Regulation" was published restricting technological upgrades and expansion for certain industries, including the printing and dyeing industries. These regulations serve as a barrier to expansion of industries. Despite the changes in legislation, challenges still remain and government is looking for alternative solutions such as stewardship.

WATER GOVERNANCE

Responsibility for the management of water resources and pollution is divided between different regulatory boards, government agencies and different provinces in the Taihu Region.

Businesses that are not prepared to comply with increasingly more stringent regulations aimed at addressing environmental challenges, are in risk of losing their license to operate.

A great number of multi-national brands and leading state-owned enterprises operate in the basin. In the past 30 years, expansion in the size, production capacity and water demand/pollution of businesses has created high operational and reputational risks.

PROJECT INFORMATION

WWF PROGRAMME VISION

By 2030, prioritized sectors are working collectively to improve the health of freshwater ecosystems and drive better water governance in key basins, such as Taihu, for a living Yangtze, and introduce best practice in WWF priority basins.

MULTI-LEVEL ENGAGEMENT ON TEXTILES

National level	Improved governance in the sector at national level and through the Belt and Road Initiative (BRI)
Sub-basin level	Collective action in key basins
IP-level	Industrial Park (IP) sustainable transformation within China and other countries
Site level	Water stewardship training and transformation of the sector

COLLECTIVE ACTION

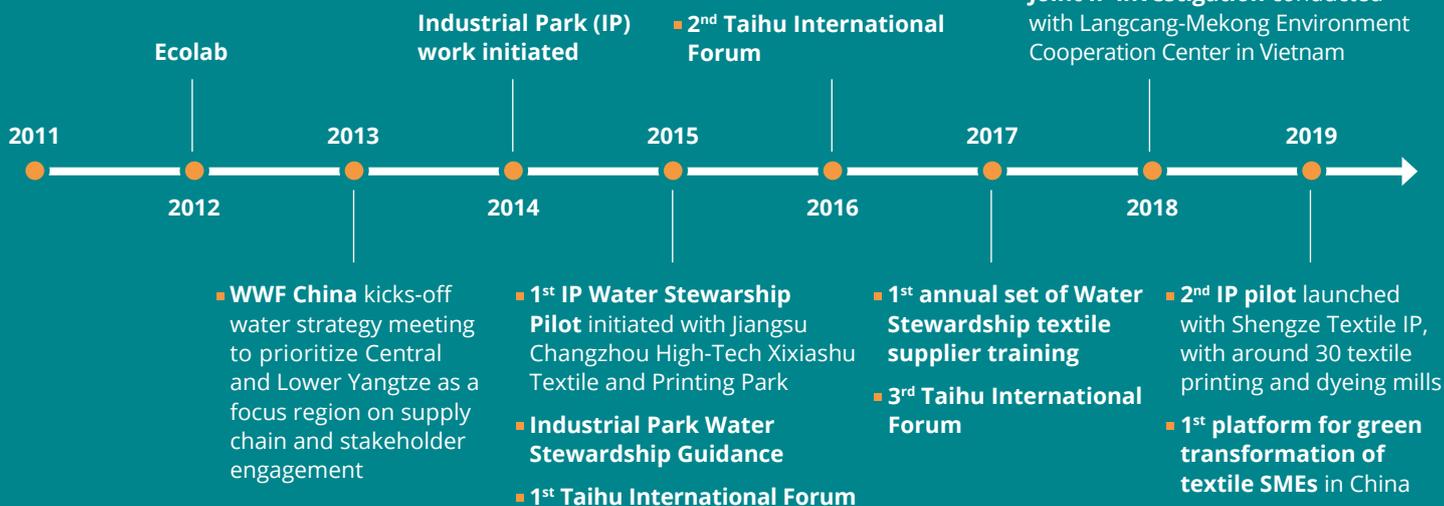


WATER STEWARDSHIP PROGRAMME MILESTONES 2011–2019

Partnership activations:

- 2014 H&M
- 2014 HSBC
- 2016 Tommy Hilfiger
- 2017 US Retailer Brand
- 2018 HSBC China

- 1st Online Water Stewardship Textile Supplier Training App
- 2nd annual Water Stewardship IP training
- 4th Taihu International Forum
- Joint IP investigation conducted with Langcang-Mekong Environment Cooperation Center in Vietnam
- Textile industry standard mapping and construction of standard system
- 2nd Taihu International Forum



MAJOR NATIONAL, REGIONAL AND LOCAL PARTNERS IN CHINA

China National Institute of Standardization (CNIS) ■ China National Textile and Apparel Council (CNTAC) ■ Policy Research Center for Environment and Economy (PRCEE), Ministry of Ecology and Environment (MEE) ■ Langcang-Mekong Environment Cooperation Centre (MEE ASEAN) ■ Jiangsu Development and Reform Commission (JDRC) ■ Jiangsu Engineering Consulting Center (JECC) ■ Donghua University ■ Hohai University ■ Shanghai Academy of Social Sciences (SASS) ■ Tongji University ■ Tsinghua University

ACTIVITIES

Level of work	2020 Objectives	Activities	Key Performance Indicators
Site/Facility Awareness and Knowledge of Impact	Corporates understand and act on their shared water risks and have reduced the impacts of their activities on freshwater ecosystems.	Through the use of the app and in-person trainings, site/facility understands water stewardship and make changes/improvements suitable to their conditions.	<ul style="list-style-type: none"> No. of suppliers registered in the APP. No. of suppliers participating in physical training.
Industrial Park Collective Action	Two pilot Industrial Parks (IPs) are implementing and promoting the IP Water Stewardship Guidance, and contributing demonstration projects to the national Eco-IP Initiative.	<ul style="list-style-type: none"> IP water management training is building capacity through a package of resources to support WS implementation. Scale best practice and experience to BRI countries. 	<ul style="list-style-type: none"> Completion of Guidance for WS implementation at the IP level. Capturing IP best practice across China.
Sub-basin Taihu Basin Collective Action	The Roundtable for multi-stakeholder dialogue is created and operated for better Taihu governance.	Multi-stakeholder basin governance model facilitated by the Taihu International Forum as well as regular meetings with relevant stakeholders in working groups.	<ul style="list-style-type: none"> Number of recommendation reports submitted to government decision makers.
National level-Policy Multiplication	Water stewardship practices and mechanisms are scaled to improve national textiles standards and are being applied in other countries.	Build partnerships with strategic policy-makers and provide support and further understanding of how international best practices can be useful in the Chinese context. Share textile industry impacts and textile best practices to support a greener BRI textile sector strategy.	<ul style="list-style-type: none"> No. of high-level meetings with policy decision-makers.

MAIN ACHIEVEMENTS TO DATE

Case 1: Innovative Water Stewardship Trainings increase awareness and build capacity

Since 2017, annual water stewardship supplier trainings have been held for the suppliers of the partner brands. In total, more than 100 textile mills have participated. 80% of respondents reported improved awareness on business and related environmental impacts in the post-training surveys. To reach a wider group of suppliers, an online Training App, based on the annual physical training program and feedback from suppliers, was developed and launched at the 4th Taihu International Forum. CNTAC and associated experts will help drive continuous improvement of App content and App promotion into the future.

Case 2: Xixiashu Industrial Park: the case study of Weile Dyeing mill

Weile Dyeing, a small-size factory specializing in the production of polyester, knitted, printing and dyeing flannel, implemented a wide range of water stewardship practices as the internal IP pilot site. Tools were applied to establish water balance, improve water use efficiency, and reduce wastewater generation from the production. The total investment in water stewardship projects was about 1.2 million RMB (179,000 USD), and resulted in the following annual reductions and savings:



118.9 Million Litres of industrial water saved



113.7 Million Litres of wastewater reduced



3,329,000 KWH of electricity saved



Over 3 Million RMB (448,000 USD) in production cost savings

THIS PROJECT CONTRIBUTES TO THE ACHIEVEMENT OF:

6 CLEAN WATER AND SANITATION



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



17 PARTNERSHIPS FOR THE GOALS



Imprint

Authors Angela Ortigara (WWF Germany), Chaochao Chen, Yifeng Liu and Aihui Yang (WWF China)
Map res.mdpi.com/water/water-08-00525/article_deploy/html/images/water-08-00525-g002.png
Pictures WWF China, Sun Xiaodong
Design Marijke Küsters, www.studioazola.com



BENEFITS FOR PARTNERS

1. Participation in creating multi-stakeholder solutions

Participating in multi-stakeholder work with other basin stakeholders – governments, research institutes, technology providers, and NGOs – helps mitigate the water risk within the supply chain. Textile brands can bring a valuable viewpoint and leverage on their business partners and stakeholders to support participation, while active engagement ensures brands viewpoints are represented in these processes.

2. Support for Suppliers

Annual trainings are organized for suppliers of participating partner brands helping sites increase their knowledge of water risks, regulatory changes and impact reduction opportunities. Suppliers are also included in all multi-stakeholder workstreams to include their viewpoints into IP, regional and national planning processes.

3. Benefits for Brands

Participating brands get a better understanding of the water risks that their supply chains face in the Taihu basin. Briefings and expert updates are provided on changing policy and business landscape within China, including policy shifts affecting production and sales. This helps mitigate their supply chain water risk and create a healthier basin for people and nature.

en.wwfchina.org

Basin Lead: Yifeng Liu (WWF China)

For further information, please contact:
globalpartnerships@wwfint.org