

# PROJECTS AND RESEARCH IN THE LAKE TAI AREA

*CURRENT STATE OF RESEARCH AND INSTITUTIONAL PROJECTS*

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## ACEDP LAKE TAI WATER POLLUTION TREATMENT PROJECT

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*Prepared by:*

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## List of Acronyms

ACEDP	Australia China Environment Development Program
ADB	Asian Development Bank
AUS	Australian Urban Systems
CAS	Chinese Academy of Science
COD	Chemical Oxygen Demand
CRAES	Chinese Research Academy of Environmental Sciences
EC	European Commission
ES	Earth Systems Consulting
IRBM	Integrated River Basin Management
MEP	Ministry of Environmental Protection
MWR	Ministry of Water Resources
NIES	Nanjing Institute of Environmental Science
NDRC	National Development and Reform Commission
NGO	Non Governmental Organization
NIGLAS	Nanjing Institute of Geology and Limnology
NPS	Non Point Source
NWPCP	National Water Pollution Control Program
RCEES	Research Centre for Eco Environmental Science
WB	World Bank
WWF	World Wildlife Fund
WWTP	Wastewater Treatment Plant

## 1. General Information

<b>1.1 Activity Name</b>	Lake Tai Water Pollution Treatment Project
<b>1.2 Project Code</b>	Activity Number P 0002
<b>1.3 Activity Location(s)</b>	Beijing, Suzhou Municipality, Wuxi Municipality, Jiangsu Province, Huzhou Municipality, Zhejiang Province
<b>1.4 Implementing Partner and Counterpart</b>	Aus Lake Tai Cluster with Earth Systems Consulting as lead partner, National Development and Reform Commission (NDRC)

## 2. Introduction

Many research institutes and donor programs have worked on water pollution issues in Lake Tai, and continue working during the execution of the Lake Tai Water Treatment Pollution Project (the Project). These include Chinese and Australian universities, multilateral entities and bilateral donors, NGOs and different Chinese government authorities. The topics covered by their work are many times of direct relevance to the Project such as algal monitoring, algal control and disposal and non point source pollution assessment and control. Without effective knowledge of this previous and on-going work and without the proper coordination with the described institutions, there is a risk that this project may replicate or overlap the work that these groups are doing. This will also represent a lost opportunity for ongoing partnership between these research agencies and Australian partners.

For this reason a thorough investigation has been done on the different research programs and projects previously done and currently ongoing on the lake, the different actors have been contacted, and links have been established were pertinent. Ahead is a description of the key players involved, their scope of work and other relevant information.

## 3. Research

The research on Lake Tai has mainly three different sources: research institutes related to the CAS (Chinese Academy of Science), research institutes dependent of the MEP (Ministry of Environmental Protection) and Universities. Table 1 provides a summary of the major institutions and a full list of institutions with published research on the Lake is included in Appendix A "Different donor and institutional work relevant to the Lake Tai Water Pollution Treatment Project".

**Table 1: Major research bodies working in Lake Tai**

CAS (Chinese Academy of Sciences)	Ministry of Environmental Protection	Universities
NIGLAS (Nanjing Institute of Geology and Limnology)	CRAES (Chinese Research Academy of Environmental Sciences)	Nanjing University
RCEES (Research Centre for Eco Environmental Sciences)	NIES (Nanjing Institute of Environmental Sciences)	Hohai University
		Zhejiang University
Other institutions with some pertinent research but to a less extend: Taihu Basin Authority, Suzhou Environmental Monitoring Centre, Jiangsu Environmental Monitoring Centre, Environmental Monitoring Centre of China and the Chinese Research Academy of Environmental Sciences.		

### 3.1 China Academy of Sciences (CAS)

#### 3.1.1 Nanjing Institute of Geology and Limnology (NIGLAS)

NIGLAS has conducted the most in-depth analysis of the status of the Lake Tai. It is the only institute specializing in the research of lake-catchment systems in China, and their field of studies is very comprehensive including lake environment and restoration, lake-catchment system evolution and manipulation, catchment exploitation effects on ecosystem, and environment and development of economy-developed areas.<sup>1</sup> NIGLAS consists of 197 staff members in total, including one academician of CAS, 35 professors, 89 associate professors and senior engineers as well as 20 post-doctoral fellows and more than 150 master and PhD students. Particularly relevant to the Project is the monitoring system established on Lake Tai, developed by the University of Waikato<sup>2</sup> of New Zealand. The station was constructed in October 2007 and commissioned by NIGLAS, with a range of environmental sensors including a chlorophyll a sensor and a dissolved oxygen sensor. It also forms part of the Global Lakes Ecological Observatory Network<sup>3</sup> an international grass-root, voluntary network of researchers, educators, and community groups interested in making and utilizing time series of high-frequency observations made on and in lakes and reservoirs all over the world.

NIGLAS data monitoring goes back to 1991, nowadays they collect data on a monthly basis in 32 different sites of the lake (manually) including temperature, pH, conductivity, and chlorophyll.

NIGLAS are also currently implementing the project “PI, Monitoring and Forecast of Algal Bloom in Lake Taihu” sponsored by the Chinese Academy of Sciences that will have 13 high frequency

<sup>1</sup> NIGLAS, [english.niglas.cas.cn](http://english.niglas.cas.cn)

<sup>2</sup> <http://www.waikato.ac.nz/>

<sup>3</sup> From [www.gleon.org](http://www.gleon.org)

wireless monitoring stations providing real time data on the status of the lake. Currently they have already installed 9 and expect to have all stations in place by next year.

This project has two components, one is the monitoring system itself and the other is the development of a model for an early warning system. This system will include links with provincial Taihu Basin authority (that currently coordinates Jiangsu EPB and WRB) and Wuxi EPB for them to take appropriate actions if their model predicts an algae bloom outbreak.

They have also research papers combining the use of GIS and remote sensing images to analyse the patterns and behaviour of the algae blooms in the lake, and globally have worked on all the different topics covered by the LTWPT project (see Appendix A).

### **3.1.2 The Research Centre for Eco Environmental Sciences**

RCEES from the Chinese Academy of Sciences, was formerly the Institute of Environmental Chemistry of Chinese Academy of Sciences founded in 1975 and the first comprehensive research institution engaged in research on eco-environmental science and technology in China. Currently there are 377 staff in RCEES, including 3 academicians, 47 research professors, 78 associate professors, 148 assistant professors and 47 junior researchers or administrators working in various areas.

The main purpose of RCEES is to carry out some national and international research projects in environmental sciences, environmental engineering, systems ecology and environmental biotechnology. They have research work on many of the different topics covered by the LTWPT project (see Appendix A1) Professor Gang Pan is a member of this institution and participated in the writing of the Activity Design Document of the Project.

During a Study Tour to Australia, much discussion about algal control technology of Dr. Pan Gang has led Wuxi to indicate that it will fund the test application of this technology. The Project Design Team has much experience in this issue and is also of the opinion that Dr. Pan's technology is certainly the most feasible and most applicable technology and has conveyed this opinion to Wuxi officials. Wuxi has the funds required to implement a test of this technology, but it needs to be confirmed with Wuxi Municipal official.

## **3.2 Ministry of Environmental Protection (MEP)**

### **3.2.1 Chinese Research Academy of Environmental Sciences (CRAES)**

CRAES was established on Dec.31, 1978 as a national non-profit institute for environmental protection under the Ministry of Environmental Protection (MEP). CRAES carries out basic scientific research on environmental protection, taking national strategy of sustainable development as a priority<sup>4</sup>. Their work concentrates on NPS, pollutant removal and sediments (see Appendix A).

### **3.2.2 Nanjing Institute of Environmental Sciences (NIES)**

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<sup>4</sup> <http://www.craes.cn>

Also under the Ministry of Environmental Protection, NIES is characterized by scientific research work on nature and ecology conservation and rural environmental protection. Their published papers concentrate on IRBM and Water treatment technologies (see Appendix A).

### 3.3 Universities

#### 3.3.1 Nanjing University

Regarding university professors conducting research on Lake Tai, the Nanjing University has the most number of published papers. Of particular interest is the work of the State Key Lab of Pollution Control and Resource Reuse & School of Environment from the University with articles like the “Outline for establishment of the Taihu-Lake Basin early warning system”.

#### 3.3.2 Hohai and Zhejiang Univeristy

Hohai University (in Nanjing) and Zhejiang University (in Hangzhou), have also conducted research mainly on NPS contamination and sediment analysis.

## 4. Donor Projects

Different organizations work in fields that are relevant to the Project are the World Bank (WB), Asian Development Bank (ADB), the European Commission (EC) and World Wildlife Fund (WWF). Their work concentrates on the managerial aspects of our project including IRBM, market mechanisms, laws and legislation in China. It is specially the case for ADB, EU and WWF. The World Bank work concentrates on infrastructure projects including WWTPs and lake dredging among others.

### 4.1 The World Bank (WB)

Two projects from the World Bank have extensive impact on Lake Tai, the ongoing “Tai Basin Urban Environment Project” concentrating on infrastructure development, and the still pending of approval “Jiangsu Wuxi Tai Lake Environment Project” concentrating on remediation activities for the lake.

#### 4.1.1 Tai Basin Urban Environment Project

<b>Executing Agency</b>	<b>Tai Basin Project Management Office (WB)</b>	<b>Location</b>	<b>Wuxi and Suzhou</b>	<b>Total Value</b>	<b>178.71 million USD</b>
<b>Date started</b>	<b>August 3, 2004</b>	<b>Closing Date:</b>	<b>June 30, 2010</b>	<b>Contact officer</b>	<b>Mingyuan Fan: mfan@worldbank.org</b>
<b>Summary</b>					
This WB funded project concentrates on the construction of waste water treatment facilities (WWTP) as well as canal network rehabilitation. Their management component concentrates in WWTP management, including pricing strategies and public-private enterprise relationships. This project was extended over the original closing date and some of its subcomponents changed.					

<b>Main Components</b>
The project consists of three parts: (i) Wuxi municipality including Wuli lake sub-project, and wastewater treatment plants and networks; (ii) Suzhou municipality incorporating urban area canal network rehabilitation; and wastewater treatment plants and networks; and (iii) implementation management and sector development assistant.
<b>Outcomes or expected outcomes</b>
Component 1) deals with the most-heavily polluted perimeter lake - Wuli Lake, and include: (a) pollution control facilities (b) lake-bank restoration; and (c) pilot research in ecological restoration. Component 2) will control gates on Xujiang and Shangtang Rivers to enhance flood protection and prevent the intrusion of polluted water from the Grand Canal into Suzhou's urban canal system; and to prevent the loss of clean water diverted through Xitangh River from the WangYu River. Component 3) will include: (a) technical assistance for capacity building for wastewater utilities management, and financing; (b) training in project management; (c) technical assistance for engineering design and construction supervision; and (d) locally-financed preparation and updating of wastewater master plans for Wuxi and Suzhou Municipalities.
<b>Potential interest from the Lake Tai Project perspective</b>
Many similarities with the Project but more focused on infrastructure development.

#### 4.1.2 Jiangsu Wuxi Lake Tai Environment Project

<b>Executing Agency</b>	<b>Wuxi Municipal Project Management Office (WB)</b>	<b>Location</b>	<b>Jiangsu Province and Wuxi Municipality</b>	<b>Total Value</b>	<b>350 million USD</b>
<b>Estimated Date of Board Approval</b>	<b>October 26, 2010</b>	<b>Time Length</b>		<b>Contact officer</b>	<b>Mingyuan Fan: mfan@worldbank.org</b>
<b>Summary</b>					
Prepared on April 2009 and expected to be approved on October 2010 this project has many common point with the LTWPT project, although is more focused on remediation activities than on IRBM development. It includes dredging of parts of the lake, wetlands restoration and rural pollution management. The total estimated project cost excluding contingencies is approximately RMB2.4 billion (US\$352 million). A World Bank loan of US\$150 million has been proposed.					
<b>Main Components</b>					

Component 1: Selective Dredging of Lake Tai: The component would comprise sediment dredging in Lake bed areas with high levels of pollution release, using: hydraulic modeling to study sediment movements;

Component 2: Ecological Restoration of Wetlands: The component will include integrated ecological and environmental restoration of two wetlands, namely Changguangxi and the Lake Shore wetland.

Component 3: Rural Pollution Management Demonstration: Interventions under the component would include: reduction of pollution discharges to local streams and rivers; ecological restoration planning under a harmonious development approach that retains most of the existing households; demonstration of technologies for non-point source pollution reduction; rural solid waste and wastewater management; and organic eco-friendly farming.

Component 4: Capacity Building and Project Implementation Support for Lake Tai Environmental Management.

#### **Outcomes or expected outcomes**

The Danish Hydrology Institute (DHI), who has done Lake Tai modeling in 2003, will carry out two-dimensional mathematical modeling of aspects relevant to the proposed dredging of Lake Tai. (Taihu Lake Modeling of Water Quality, DHI is providing modeling experts and models (MIKE 21) for analysis of impact of measures to reduce pollution and eutrophication of Taihu Lake near Shanghai, China.)

The mission had detailed discussions with officials of the Project Management Office (PMO), Finance Bureau (FB), Development Reform Commission (DRC), Environmental Protection Bureau (EPB), Water Affairs Bureau (WAB) and the consultants engaged for project preparation - Jiangsu Engineering Consulting Company (JECC), Beijing Environment Science Research Institute and Hohai University.

Based on the national master plan for Tai Basin Integrated Environment Rehabilitation, Jiangsu Province and the Wuxi Municipality have formulated the Provincial Environment Protection Plan for Lake Tai, which comprises: dredging in Meilinghu and Gonghu lakes, gates on rivers to stop all river flows to Lake Tai, (which are not opened without Provincial Government permission); 80m to 100m tree buffers with no human or industrial activity; dredging of internal river beds; and ecological restoration of the river courses for natural purification; lake shore wetland protection barriers; ban on fish farming, swimming or boat traffic; and relocation of residents from protection barriers along the Lake.

#### **Potential interest from the Lake Tai Project perspective**

This project has many synergies with ours as is trying to tackle with the same problems but using a different perspective. They are mainly working with Wuxi municipality and Jiangsu province, but they will eventually need to see the lake as an integrated basin.

## **4.2 Asian Development Bank (ADB)**

The ADB has major experience working on environmental policy, IRBM, environmental law and market mechanisms in China. They have worked mostly with the MEP and the MWR.

Their work results, lessons learnt and conclusions can be of much relevance to the Project component 1: IRBM and should be read by the people involved in this component. Their recent work on Market mechanisms could also be of help in our project.

#### 4.2.1 Evaluation of Environmental Policy and Investment for Water Pollution Control in the Huai River and Lake Tai

<b>Executing Agency</b>	<b>State Environment Protection Administration</b>	<b>Location</b>	<b>Jiangsu Province and Wuxi Municipality</b>	<b>Total Value</b>	<b>USD 500,000</b>
<b>Approval</b>	<b>25 Nov 2004</b>	<b>Closing date</b>	<b>30 September 2008</b>	<b>Contact officer</b>	<b>Akmal Siddiq</b>
<b>Summary</b>					
The objective of the TA was to help improve water pollution control in HRB and TLB through review and analysis of the policy and investment programs implemented during the 9th and 10th FYPs.					
<b>Main Components</b>					
This project aimed to produce three major outputs: (i) a comprehensive evaluation report assessing the performance during the 9th and 10th FYP periods and identifying the necessary priority reforms and the phasing required for long-term control of water pollution; (ii) recommendations on legal, policy, and institutional reforms, as well as financing and investment directions for river basin-based water pollution control; and (iii) an integrated and basin-based evaluation methodology suitable for use in other river and lake basins, with related training materials and guidelines.					
<b>Outcomes or expected outcomes</b>					
The main recommendations included (i) empowering SEPA as a unified authority to administer all pollution control affairs in the PRC and providing it with sufficient financial resources; (ii) establishing water pollution control monitoring, supervision, and management systems with detailed regulation and enforcement measures; (iii) setting up a unified and sound pollutants discharge permit system with detailed management and implementation guidelines; (iv) establishing a market-based water pollution control financing mechanism supervised by the Government; (v) revising the Environmental Protection Act, the Water Act, and the Water Pollution Prevention Act to ensure mutually supporting and coordinated environmental laws, and a more effective environmental protection supervision system where the government agencies coordinate and collaborate in pollution control; (vi) establishing a comprehensive watershed-based planning system, which includes water pollution control, water ecology, water resources utilization, flood prevention, and regional economic development; (vii) establishing a coordinated and unified water environment management institution for each watershed; (viii) conducting a comprehensive agricultural non-point source pollution survey and developing a pollution control plan together with the current rural development plan in the PRC; (ix) modifying or updating the General Principles of Civil Law, the Criminal Law, and the Civil Procedural Law to establish and improve the environmental pollution dispute handling mechanisms; and (x) establishing a mechanism for public participation in environmental monitoring, decision-making, and law enforcement and plan implementation by establishing specific regulations and implementation guidelines.					
<b>Potential interest from the Lake Tai Project perspective</b>					
The main interesting outputs of this project are the recommendations on legal, policy, and institutional reforms for river basin-based water pollution control, as well as the NPS survey.					

#### 4.2.2 Policy Study on Market-Based Instrument for Water Pollution Control

<b>Executing Agency</b>	<b>State Environment Protection Administration</b>	<b>Location</b>	<b>China</b>	<b>Total Value</b>	<b>£500,000.00</b>
<b>Approval date</b>	<b>11 Sep 2007</b>	<b>Time Length</b>	<b>2 years</b>	<b>Contact officer</b>	<b>Fei Yue, fyue@adb.org</b>
<b>Summary</b>					
The expected impact of the TA is to strengthened water pollution management systems to help the PRC achieve its water pollution control target more effectively and efficiently. The ADB officer in charge of the project has already been contacted but as the project has not yet finished we have not access to any of the results.					
<b>Main Components</b>					
The outcome of the TA is a set of policy advice and recommendations that will serve as the basis for introducing in the PRC market-based instruments and mechanisms to combat its severe water pollution problems and in particular help reduce COD discharge					
<b>Outcomes or expected outcomes</b>					
The TA outputs will include policy advice and recommendations with an action plan for introducing and implementing the recommended mechanism, and a recommended operational system for piloting and demonstration in selected cities in the Lake Tai watershed.					
Social and environmental impacts of the proposed market-based environmental management instrument will be identified and assessed during the study.					
<b>Potential interest from the Lake Tai Project perspective</b>					
It is a good starting point for the Project's market mechanisms subcomponent (3.4).					

#### 4.2.3 Transjurisdiction Environment Management

<b>Executing Agency</b>	<b>State Environmental Protection Agency (SEPA)</b>	<b>Location</b>	<b>China</b>	<b>Total Value</b>	<b>\$2.1 million USD</b>
<b>Approval</b>	<b>11 December 2000</b>	<b>End</b>	<b>End of 2004</b>	<b>Contact officer</b>	
<b>Summary</b>					

<p>The TA aimed to assist the Government in operationalizing transjurisdictional provisions of the Water Pollution Prevention and Control Act (WPPCA) using the Yellow River Basin as a case study.</p> <p>The State Environmental Protection Agency (SEPA) is the Executing Agency (EA) for the TA cluster, and each component has its own implementing agency (IA). Resources Conservation Committee of the National People’s Congress (NPC) is the IA for the first component, and SEPA is the EA for the second component. The Yellow River Basin Water Resources Protection Bureau (YRBWRPB) and China Council for International Cooperation in Environment and Development (CCICED) are the respective IAs for the third and fourth components.</p>
<p><b>Main Components</b></p>
<p>The cluster TA consists of four components, namely, (A) Legislative to Support Transjurisdictional Water Pollution Prevention and Control; (B) Procedure and Methodology for Transjurisdictional Water Pollution Management; (C) Capacity Building for transjurisdictional Water Pollution Monitoring and Information Management; and (D) Dissemination of the TA Findings and Recommendation.</p>
<p><b>Outcomes or expected outcomes</b></p>
<p>The objectives are to help the Government (i) strengthen environmental management of the Yellow River Basin by developing transjurisdictional administration, environmental standards and regulations, and environmental monitoring and enforcement mechanisms; (ii) develop local legislation and regulations for implementing the transjurisdictional provisions of the WPPCA; (iii) examine the need for a national law to integrate various dimensions of river basin environmental management; and (iv) disseminate the findings and recommendations for potential application in other river basins.</p>
<p><b>Potential interest from the Lake Tai Project perspective</b></p>
<p>Interesting for the legal implications of IRBM and identification of the main shortcomings.</p>

#### 4.2.4 Study of Control and Management of Rural Non Point Source Pollution

<b>Executing Agency</b>	<b>State Environmental Protection Administration (SEPA)</b>	<b>Location</b>	<b>China wide</b>	<b>Total Value</b>	<b>US\$600,000</b>
<b>Approval</b>	<b>26 June 2002</b>	<b>End</b>	<b>21 June 2005</b>	<b>Contact officer</b>	
<b>Summary</b>					
<p>This project was funded by the Japanese government and was finished in 2004 with the SEPA (now MEP). Its main objective was to help prepare national policies, plans, and programs for the control and prevention of rural nonpoint source pollution.</p>					
<b>Main Components</b>					

The TA scope covered three main tasks: (i) assessing and identifying the key problems and underlying causes of nonpoint source pollution (NPSP); (ii) setting priorities to control and prevent rural NPSP, and preparing a medium-term national action plan with a focus on livestock pollution, in consultation with all key stakeholders; and (iii) building institutional capacity and improving Government expertise in NPSP control and management.

#### Outcomes or expected outcomes

The objectives of the TA were to (i) help prepare national policies, plans, and programs for the control and prevention of rural NPSP based on better understanding of the status and trends of the problem; and (ii) strengthen national and local institutional capacity for controlling and managing rural NPSP. The outputs of the TA were to include (i) a report on the main problems and underlying causes of rural NPSP; (ii) a report on international experience with rural NPSP control and implications for the PRC's policies, plans, and programs; (iii) a medium-term national action plan for the control and management of rural NPSP, with a focus on pollution generated from livestock production; and (iv) dissemination of materials reporting the TA findings.

#### Potential interest from the Lake Tai Project perspective

Although its scope is not specific to the Lake Tai area the findings can be interesting for our NPS experts.

### 4.3 World Wildlife Fund (WWF)

WWF has been conducting different projects in China which could have an interest from the TLWPT project perspective: the IRBM roadmap project funded by AusAID and the Yangtze Focal Project funded by different WWF country agencies.

#### 4.3.1 IRBM Roadmap Project

<b>Executing Agency</b>	<b>WWF China</b>	<b>Location</b>	<b>China wide</b>	<b>Total Value</b>	<b>\$440,000</b>
<b>Project Start</b>	<b>8/01/2007</b>	<b>Time Length</b>	<b>3 months</b>	<b>Contact officer</b>	<b>ying.gao@dfat.gov.au</b>
<b>Summary</b>					
The IRBM roadmap project, completed in 2007 seeks to address China's severe water crisis through support to manage freshwater resources efficiently. Specifically, the project's aim is to assess the status of Integrated River Basin Management (IRBM) in China.					
<b>Main Components</b>					
In 2007, AusAID engaged WWF China undertaking a desk study "IRBM Roadmap" to define the situation regarding integrated river basin management (IRBM) as a potential approach to water resource management.					
<b>Outcomes or expected outcomes</b>					

The IRBM Roadmap provides comprehensive information about key IRBM players; illustrates current water governance arrangements in China, including its legislative, administrative and financial structures and mechanisms, and the donor communities to cooperate on; develop suggestions on how to proceed with IRBM in China.
<b>Potential interest from the Lake Tai Project perspective</b>
Interesting to analyze and internalize the main outputs and lessons learnt from the IRBM component.

#### 4.3.2 Yangtze Focal Project

<b>Executing Agency</b>	WWF China	<b>Location</b>	Hunan, Hubei, Jiangxi and western part of Anhui	<b>Total Value</b>	
<b>Approval date</b>		<b>Closure date</b>		<b>Contact officer</b>	Tan Lulu, <a href="mailto:lltan@wwfchina.org">lltan@wwfchina.org</a>
<b>Summary</b>					
The Yangtze Focal Project focuses on field demonstration sites in the Dongting Lake region and aims to initiate Integrated River Basin Management policy work in the Poyang Lake. The project area of the Yangtze Focal Project is the Central Yangtze embracing four provinces, Hunan Province, Hubei Provinces, Jiangxi Province and western part of Anhui Province, including Dongting Lake, Poyang Lake and Jiangnan floodplain.					
<b>Main Components</b>					
The Yangtze Focal Project will focus on field demonstration sites in the Dongting Lake region and initiate Integrated River Basin Management policy work in Poyang Lake, aiming to restore the Yangtze and to rehabilitate ecological processes of wetlands through pilot sites and magnifying experiences to the wider region of the Central Yangtze.					
The project area of the Yangtze Focal Project is the Central Yangtze embracing four provinces, Hunan Province, Hubei Provinces, Jiangxi Province and western part of Anhui Province, including Dongting Lake, Poyang Lake and Jiangnan floodplain.					
<b>Outcomes or expected outcomes</b>					
Objectives are to restore the Dongting lake and Poyang lake wetlands, and to enhance the management of the Yangtze as a Living River:					
<ul style="list-style-type: none"> <li>* Dongting Lake and its wetlands are restored to their size of 1950s (4350 km<sup>2</sup>) in 10 years and are managed in a sustainable way to provide good quality of habitats to wetland wildlife (waterfowls, fish etc.) and livelihoods to its people.</li> <li>* By 2008 ecotourism is established in Dongting Lake Region as one solution to support wetland restoration and protection.</li> <li>* To realize demonstration on integrated coordination and management of Poyang Lake basin.</li> </ul>					

WWF China has worked closely with the China Council for International Cooperation on Environment and Development (CCICED) a high level non-governmental advisory body with the purpose “to further strengthen cooperation and exchange between China and the international community in the field of environment and development.” They have developed different reports on Integrated River Basin Management in China.

Partnerships have been established for the formulation of the Yangtze River and Lakes ecoregion biodiversity conservation and action plan. This process will produce a common vision for the conservation of the Yangtze River that can be shared by all stakeholders.

#### **Potential interest from the Lake Tai Project perspective**

It is mainly interesting due to their IRBM approach to the project but also due to the fact that they are working in Dongting lake, including executing different pilots there. Their lessons learnt and problems faced during this execution could be of great help to the project.

## **4.4 European Commission (EC)**

The EC is providing 25m Euro to their joint programme with the Chinese government to improve river basin management. The programme began in January 2007 and will run for five years.

### **4.4.1 EU – China River Basin Management Programme**

<b>Executing Agency</b>	<b>Ministry of Commerce, Ministry of Water Resources, Ministry for Environmental Protection</b>	<b>Location</b>	<b>China wide</b>	<b>Total Value</b>	<b>186,5 Million Euros with an European grant of 25 million.</b>
<b>Date started</b>	<b>2007</b>	<b>Closing Date:</b>	<b>2012</b>	<b>Contact officer</b>	<b>Simon Spooner</b>
<b>Summary</b>					
The project aims to establish integrated river basin management practices in the Yellow and Yangtze River Basins that are environmentally sustainable, address global, national and local environmental concerns, and which can be replicated in other regions of China.					
<b>Main Components</b>					
Component 1 - Policy/ EU-China dialogue platform					
1.EU China Dialogue					
2.Research Studies					
3.Capacity Building in IRBM					
4.Awareness Raising and Dissemination of Results					
Component 2 - Yellow River					
IRBM Action Framework					

### Climate Change Adaptation

Institutional Strengthening Water Pollution Control Pollution Prevention and Control Plan

Industrial integrated pollution prevention control (IPPC) and water saving

Water Quality Monitoring Management

Component 3 - Yangtze River

Yangtze River Basin Master Plan

Comprehensive (integrated) Planning for the Chi Shui Sub-basin

Changjiang and Pearl River Watershed Rehabilitation Project

### Outcomes or expected outcomes

The general main expected outcomes are:

- To learn from international experience regarding IRBM
- To improve international network on IRBM
- To get a better understanding of IRBM in China
- To improve mechanisms for integrated river basin management.
- Raised capacity of Chinese officials in the field of IRBM

Expected research projects (but not limited) :

- Support to set up and improvement of river basin legislation in China
- Decentralized wastewater treatment and reuse of effluent in Northern China
- Institutional mechanisms to enhance trans-provincial and cross-sectional river basin management
- Water functional zoning system for Chinese water bodies, definition of good ecological status
- Climate change: scenario development and adaptation policies

On the Yangtze river basin:

- Identification of significant water management issues in a select pilot sub-basin
- Agreement on an IRBM action framework fitting within the Yellow River Master Plan
- Development of integrated climate change scenario's
- Preparation of climate change adaptation policies in the Yellow River Basin
- Institutional Coordination for river basin water quality
- River basin water pollution control planning
- Early warning and emergency response (EWER) Systems
- Industrial integrated pollution prevention control (IPPC) and water saving
- Water Quality Monitoring
- Support Cross sectoral and transboundary Coordination

- Assist YRCC with preparation of water pollution control planning
- Development of decision support systems
- Improved forecasting and response systems in connection with toxic water spills

#### **Potential interest from the Lake Tai Project perspective**

On the IRBM components of the project, especially at basin level, the outcomes of this project could be of high interest to the Project.

## **5. Governmental Programs**

### **5.1 Comprehensive MasterPlan for the Restoration of Lake Tai**

This is a national plan that will be implemented over 15 years and will be led by NDRC. The main tasks of the plan include:

- Establishment of a provincial level pollution discharge permits based on a set of a maximum lake environmental capacity;
- Industry restructuring;
- Enforcement of Industrial point pollution treatment, by shutting down small scale pulp-paper and other manufactories on the area, and setting up cleaner standards for the chemical industry;
- Enforcing boats to carry better oil-water separating facilities;
- Enforcing all wastewater treatment plants to reach the P and N standards by 2010, and processing 80% of the water for cities and 60% for towns;
- Controlling NPS pollution by promoting better practices;
- A set of dredging projects to be carried out by the Jiangsu provincial government;
- Increasing the water transfer from Yangtze river;
- Building a monitoring system by stabilising 128 NPS monitoring stations in the Lake; and
- Building a total of 10 wetlands in the lake area.

*Although the plan looks comprehensive it seems not to address a series of topics, including an improved IRBM system.*

### **5.2 National Water Pollution Control Program (NWPCP)**

This large, 15 year national program involves nine ministries and will be led by MEP and has been approved in principle but is not yet fully developed.

### 5.2.1 NWPCP – Lake Tai Eutrophication Control and Treatment Technologies and Demonstrative Projects

<b>Executing Agency</b>	Research Institutes & Universities	<b>Location</b>	Jiangsu Province	<b>Total Value</b>	More than 500 million RMB
<b>Date started</b>	2008	<b>Time Length</b>		<b>Contact officer</b>	Jiangsu Environmental Protection Department

#### Summary

The project is sponsored by Chinese National Water Pollution Control Program and Jiangsu Provincial Government; aims to improve the water quality of demonstration areas of Lake Tai Basin through a series of research studies and demonstration projects on lake eutrophication control, water pollution and algal treatment measures. Part of the sub-projects already started in 2008.

#### Main Components

This project includes 15 sub-projects that were conducted by different research institutes and universities.

Sub-project 1: Lake Tai Basin Environment Comprehensive Investigation and Lake Eutrophication Control Measures Study (YU Hui, Chinese Research Academy of Environmental Science, 32,340,000 RMB)

Sub-project 2: Main Inlet Pollutions Control and Reduction Technology Study in Highly Polluted Areas of Lake Tai Basin (XIA Mingfang, Jiangsu Academy of Environmental Science, 32,510,000 RMB)

Sub-project 3: Countryside Wastewater Treatment & Key Industries Pollutions Reduction Technology Study and Demonstration Project (ZHANG Limin, Jiangsu Academy of Environmental Science, 85,750,000 RMB)

Sub-project 4: Pollution Control Technology and Demonstration Project in Multiple Pollutions Inlet River – Wu-Jin-Gang River and other Small Catchments (ZHENG Zheng, Nanjing University, 67,070,000 RMB)

Sub-project 5: Pollution Control Technology and Demonstration Project in Gating Control Inlet River Zhi-Hu River and other Small Catchments (YANG Linzhang, Nanjing Institute of Soil, China Academy of Science, 62,550,000 RMB)

Sub-project 6: Non Point Source Polluted River – Tiao-Xi River Comprehensive Treatment Technology and Demonstrative Project

Sub-project 7: Pollution Control Technology and Demonstration Project in Tai-Ge Canal and Hudang Area (ZHANG Yimin, Nanjing Institute of Environmental Science, MEP, 61,590,000 RMB)

Sub-project 8: Water Diversion and Lake Water Quality Improvement Technology and Assessment (WANG Chao, Hohai University, 61,190,000 RMB)

Sub-project 9: Ecological Remediation and Buffer Area Building Technology and Demonstration Project in Lakeside

Sub-project 10: Poisonous and Harmful Sediments Dredging, Disposal and Reusing Technology and

Demonstration Project (ZHANG Qingbo, Shanghai Waterway Engineering Design & Consulting Co., Ltd., 59,860,000 RMB)

Sub-project 11: Lake Large-scale Algal Removal, Treatment and Disposal Technology and Demonstration Project

Sub-project 12: Lake Tai Water Sources Protection Technology and Demonstration Project, and East Lake Tai Swamping Prevention Study (HU Weiping, Nanjing Institute of Geology and Limnology, China Academy of Science, 52,660,000 RMB)

Sub-project 13: Lake Tai Water Pollutions (N/P) and Algal Blooming Reason Analysis and Mechanism Study

Sub-project 14: Environment and Ecology Management Platform Building and Running Mechanism Study in Lake Tai Basin (ZHANG Yuhong, Jiangsu Environment Monitoring Centre, 53,980,000 RMB)

Sub-project 15: Rural Biomass and Waste Recycling and Reusing Technology and Equipment Study in Lake Tai Basin

#### **Outcomes or expected outcomes**

Completing Lake Tai pollution treatment strategies, policies, and measures, emphasize the safety drinking water protection and algal control and treatment, serve Lake Tai and other big lakes in China.

#### **Potential interest from the Lake Tai Project perspective**

Many of the different subcomponents are interesting and related to our projected outcomes.

# Appendices



## Appendix A: Different Donor and Institutional Work with Relevance to the Lake Tai Water Pollution Treatment Project

Table A1: Work of Different Institutes According to Project's Components and Subcomponents

	CAS		MEP		UNIVERSITIES		
	NIGLAS	RCEES	CRAES	NIES	Nanjing	Hohai	Zhejiang
1 Integrated River Basin Management (IRBM)	X	X		X	X	X	X
2.1 Lake Tai Science Assessment	X	X	X			X	
2.2 Non Point Source Assessment	X				X	X	
3.1 Source Identification and Pollution Audit for Nutrient Management	X	X	X		X	X	X
3.2 Improved Wastewater Treatment and Recycling Technologies	X		X	X	X	X	X
3.3 Water Quality and Algal Bloom Monitoring and Assessment	X				X		X
3.4 Algae Control and Disposal Technologies	X	X					
3.5 Sediment	X	X			X	X	X

Table A2: Work of donors related to Project components and Subcomponents

	<b>World Bank</b>	<b>ADB</b>	<b>WWF</b>	<b>EU</b>
1 Integrated River Basin Management (IRBM) & Environmental Governance	X	X	X	X
2.1 Lake Tai Science Assessment	X			
2.2 Non Point Source Assessment		X		
3.1 Source Identification and Pollution Audit for Nutrient Management				
3.2 Market Mechanisms		X		
3.3 Improved Wastewater Treatment and Recycling Technologies	X			
3.4 Water Quality and Algal Bloom Monitoring and Assessment				
3.5 Algae Control and Disposal Technologies	X			
3.6 Sediment	X			

## Appendix B: List of Research Paper on Lake Tai

Project Components	Type	Author Unit	Source
<b>1 Integrated River Basin Management (IRBM) &amp; Environmental Governance</b>			
General Outline of Comprehensive Treatment for Lake Tai Basin Water Environment	Gov. Document	NDRC	2008(Chinese,CN)
Recommendations of Eutrophication Control of Taihu Lake from an International View	Scientific Paper	Yu Xiaogan, Nanjing Institute of Geography & Limnology	Acta Geographica Sinica, 2007,62(9):899-906 (Chinese,CN)
To Think on Improving Ecological Compensating Model in the Taihu Lake Basin	Scientific Paper	Han Xianghua, Shihezi Univ.	Value Engineering, 2009,1:38-40(CN)
The Absence of Public Management in Regional Government Cooperation: A Case Study on the Taihu Lake Region	Scientific Paper	Fang Wei	Modern Urban Research, 2008,4:6-12(CN)
Research on Standardization of Compensation for Trans-regional Water Pollution Based on Protection of Water Eco-system in River Valley	Scientific Paper	Liu Xiaohong, Jiaying Univ.	Ecological Economy, 2008,7:129-135(CN)
Efficiency Evaluation on Taihu Lake Water Pollution Control	Scientific Paper	He Guizhen, Research Centre for Eco-Environ. Sci., CAS	Acta Ecologica Sinica, 2008,28(12):6348-6354(CN)
Concordant Analysis of Water Resources Management of Taihu Basin and Development of Yangtze River Delta Region	Scientific Paper	Xu Xuehong, Taihu Basin Authority	Water Resource Economics, 2006,24(1):55-57 (CN)
Comprehensive Improvement of Water Environment and Ecological Restoration in Taihu Lake Basin	Scientific Paper	Chen Hesheng, Taihu Basin Authority	Advances in Sci. and Technol. of Water Resource, 2008,28(3):76-79 (CN)

Project Components	Type	Author Unit	Source
Achievements, Problems and Development Plan for Ecological Agriculture Construction in the Tai Lake Valley	Scientific Paper	Li Ronggang, Dept. Agri. Forestry, Jiangsu Province	J. of China Agri. Resources and Regional Planning, 2003,24(4):11-15 (CN)
Analysis on the Current Situation and the Evolvement Reason of the Trans-region Water Environment in Taihu Basin	Scientific Paper	Guo Yuhua, Sichuan Univ.	Ecological Economy, 2009,2:158-164 (CN)
Implementation of Comprehensive Control and Management to Improve Water Environment of Taihu Basin	Scientific Paper	Ye Jianchun, Taihu Basin Authority	Water Resource and Hydropower Engineering, 2008,39(1):20-24(CN)
Water Quality Assessment of Taihu Lake after Wangyu River Drawing Water from Yangtze River to Taihu Lake	Scientific Paper	Zhang Xiaoyu, Zhejiang Univ.	Energy Environ. Protection, 2008,22(5):60-64 (CN)
Investigation of Other Important Factors that Lead to the Eruption of Cyanophyta in Taihu Lake	Scientific Paper	Xiao Q, China Univ. Min. Tech.	Jiangsu Environ. Sci. and Technol., 2008,21(1):133-138(CN)
Investigations on Environmental Consciousness of Corporation Employee in Huaihe and Taihu Regions	Scientific Paper	Ding ZK, Beijing Normal Univ.	Environ. Sci. and Manage., 2007,32(3):18-22(CN)
Mechanism of Economic Stimulating Systems in Environmental Regulation—A Legal and Economic Analysis of the Event of Algae Flooding Lake Taihu	Scientific Paper	Zhang Ruijia, Fudan Univ.	Western Law Review, 2009,1:108-112(CN)
Research on Identifying of Environmentally Sensitive Area and Zoning in Taihu Lakeside Region	Scientific Paper	Chen Cheng, Nanjing Institute of Geography & Limnology	Economic Geography, 2009,29(1):97-101(CN)
Inspiration from the Improvement of Taihu Lake from the Improvement of the Environment of Lake Biwa	Scientific Paper	Yu WG, East China Univ. of Sci. and Tech.	J. of East China Univ. of Sci. and Tech.(Social Sci. Edition),2008,1:83-91(CN)
Ecological Impact of Socio-Economic Activities on Taihu Basin	Scientific Paper	Liu Z, Nanjing Inst. Environ. Sci.	J. of Ecology and Rural Environ., 2009,25(1):27-32(CN)

Project Components	Type	Author Unit	Source
Preliminary Suggestion for Controlling Taihu Pollution by Tax lever	Scientific Paper	Zheng Chuiyong, Hohai Univ.	Ecological Economy, 2008,5:426-428(CN)
Water Pollution and Its Control in Tai Lake Basin		Jun Bi	
Tracking China's Water Pollution Problems: A Legal and Institutional Perspective from Taihu Lake Water Pollution Control		Zunxuan Chen	
Water Management Practice of Lake Tai	Scientific Paper	Ye Shouren, Taihu Basin Authority	
Toward Integrated Environmental Management for Challenges in Water Environmental Protection of Lake Taihu Basin in China	Scientific Paper	Qingeng Wang, Nanjing Univ.	Environ. Manage., 2006,37(5):579-588(CN)
<b>2 Science-based Lake Management</b>			
<b>2.1 Lake Tai Science Assessment</b>			
The Application of Google Earth and ARCGIS 9.2 Software to the Visualization of Water Pollution and Cyanophyta Algae monitoring Data from the Taihu Lake	Scientific Paper	Li Xuwen, Jiangsu Environ. Monitoring Centre	Remote Sensing for Land Resource, 2008,1:97-99(CN)
Remote Sensing and Analysis on Meteorological Factors of Blue Algal Bloom in Lake Tai	Scientific Paper	Wu Shengli, National Satellite Meteorological Centre, 2009	Meteorological Monthly, 2009,35(1):18-23(CN)
Research on the Ecological Impact Assessment of Taihu Lake Affected by Basin's Society and Economy Based on Fuzzy Comprehensive Evaluation	Scientific Paper	Zheng Gang, Nanjing Forestry Univ.	Chinese J. of Environ. Engineering, 2008,2(12):1705-1710(CN)

Project Components	Type	Author Unit	Source
Tai Lake Drainage Area Water Environment Decision Support Model Based on Nonlinear Theory	Scientific Paper	Feng Jiangfan, Chongqing Univ. of Post	Resource Development and Market, 2008,24(7):601-602(CN)
Eutrophication Evaluation of Taihu Lake Based on Quantitative Remote Sensing Inversion	Scientific Paper	Yang Yipeng, Environ. Monitoring Centre of China	Geography and Geoinformation Sci., 2007, 23(3):33-37(CN)
Waste Load Model for the Taihu Basin	Scientific Paper	Ding Xunjing, Hohai Univ.	Advanced in Water Sci., 2003,14(2):189-192(CN)
Assessment of Ecosystem Health in Lake Taihu	Scientific Paper	Hu Zhixin, Nanjing Institute of Geography & Limnology	J. of Lake Sci., 2005,17(3):256-262(CN)
Building Nutrient and its Response Indications Reference State for Criteria Enaction: on the Case of Lake Taihu, a Typical Shallow Lake in Eastern China	Scientific Paper	Zheng Binghui, Chinese Res. Academy of Environ. Sci.	J. of Lake Sci., 2009,21(1):21-26(CN)
Synthetic Evaluation of the Landscape Ecological Security around Taihu Lake	Scientific Paper	Chou H, Suzhou Agri. School.	J. of Anhui Agri. Sci., 2008,36(3):1185-1188(CN)
Chemical Composition and Its Origin in Spring Rainwater over Taihu Lake	Scientific Paper	Wang Xuemei, Sun Yat-san University	Chinese J. of Oceanology and Limnology, 2006,24(4):421-427
A Vertical-compressed Three-dimensional Ecological Model in Lake Taihu, China	Scientific Paper	Weiping Hu, Nanjing Institute of Geography & Limnology, CAS	Ecological Modelling, 2006,190:367-398
Development and Application of an Integrated Surface Runoff and Groundwater Flow Model for a Catchment of Lake Taihu Watershed, China	Scientific Paper	Qi Zhang, Nanjing Institute of Geography & Limnology, CAS	Quaternary International, 2009, in press
Three-dimensional Eutrophication Model and Application to Taihu Lake, China	Scientific Paper	Mao Jingqiao, Research Centre for Eco-Environ. Sci., CAS	J. of Environ. Sci., 2008,20:278-284

Project Components	Type	Author Unit	Source
Nutrient Cycling in Eutrophic Shallow Lakes and Comparable Aquatic Ecosystems	Conference PPT	Wayne S. Gardner, Univ. of Texas Austin	
Environmental Issues in Large Shallow Eutrophic Lake Taihu	Conference PPT	Qin Baoqiang, Nanjing Institute of Geography & Limnology, CAS	
The study of spatial and temporal nutrient limitation in Meiliang Bay, Lake Taihu	Conference PPT	Longyuan Yang, Nanjing Institute of Geography & Limnology, CAS	
<b>2.2 Non Point Source Assessment</b>			
Preliminary Application of Agricultural Non-point Source Pollution Potential Index in Typical Area of Taihu Lake	Scientific Paper	Zhou Xuhai, Nanjing Univ.	J. of Agro-Environment Sci., 2006,25(4):1029-1034(CN)
Quantitative Evaluation of Non-point Pollution of Taihu Watershed Using Geographic Information System	Scientific Paper	Cui Guangbai, Hohai	J. of Lake Sci., 2003,25(3):236-244
Modeling and Simulation of Point-non-point Source Effluent Trading in Taihu Lake Area: Perspective of Non-point Sources Control in China	Scientific Paper	Wang Xuejun, Peking Univ.	Sci. of Total Environ., 2004,325:39-50
Quantification and Index of Non-Point Source Pollution in Taihu Lake Region with GIS	Scientific Paper	H Y Guo, Nanjing Univ.	Environ. Geochemistry and Health, 2004,26:147-156
A GIS-Based Agricultural Decision Support System for Optimal Use of Water and Fertilizers (N and P) for Sustainable Agricultural Production and Environmental Quality in the Lake Tai Region	Project Doc.	Yongping Wei, Univ. of Melbourne	
<b>3 Technical Measures in Support of IRBM</b>			

Project Components	Type	Author Unit	Source
<b>3.1 Source Identification and Pollution Audit for Nutrient Management</b>			
Land Use/Cover change of Catchment and its Water Quality Effects-A Case of Xitiaoxi Catchment in Zhejiang Province	Scientific Paper	Ding Xingxiu, Nanjing Institute of Geography & Limnology	Resources and Environ. in the Yangtze Basin, 2003, 12(3):211-217(CN)
Nitrogen Loss via Runoff from Paddy Field Using the Large Catchment Area in Taihu Region	Scientific Paper	Wangxiaozhi, Yangzhou Univ.	J. of Agro-Environ. Sci., 2007,26(3):831-835(CN)
Effect of Surface Management and Fertilization Mode on Nitrogen Runoff from Upland in Taihu Lake Region	Scientific Paper	Duan Liang, Institute of Soil Sci.	J. of Agro-Environ. Sci., 2007,26(3):813-818(CN)
Isotopic Tracing of Terrestrial Contribution to Organic Matter of Sediments in the Estuary of Taihu Lake Basin	Scientific Paper	Zeng Haiao, Nanjing Institute of Geography & Limnology	Marine Geology and Quaternary Geology, 2009,29(1):109-114 (CN)
Primary Estimation of Atmospheric Wet Deposition of Nitrogen to Aquatic Ecosystem of Lake Taihu	Scientific Paper	Song Yuzhi, Nanjing Institute of Geography & Limnology	J. Lake Sci., 2005,17(3):226-230 (CN)
Non-point Source Pollutant Concentration in Typical Towns of Taihu Upriver Region	Scientific Paper	Li Hengpeng, Nanjing Institute of Geography & Limnology	J. of Agro-Environment Sci., 2006,25(6):1598-1602 (CN)
Simulating Fluxes of Non-point Source Nitrogen from Upriver Region of Taihu Basin	Scientific Paper	Li Hengpeng, Nanjing Institute of Geography & Limnology	Acta Pedologica Sinica, 2007,44(6):1063-1069 (CN)
Pollution Source s and Control Countermea sure s of Non2Point Source s of Wuli Lake , Lake Taihu	Scientific Paper	Nian Yuegang, Chinese Res. Academy of Environ. Sci.	Res. of Environ. Sci., 2006,19(6):40-44(CN)
Annual Changes of Water Quality in an Upstream River of Taihu Lake	Scientific Paper	Xu Mei, Nanjing Univ.	J. of Nanjing Forestry Univ. (Natural Sci. Edition), 2007,31(6):121-124 (CN)

Project Components	Type	Author Unit	Source
Spatial Distribution and Exchange Fluxes of Nitrous Oxide(N <sub>2</sub> O) in Lake Taihu and Surrounding Rivers	Scientific Paper	Wang Shilu, Institute of Geochemistry, CAS	Quaternary Sci., 2009,29(1):144-152(CN)
A Study on Law of Non-point Source Pollutions Losses in a Typical Small Watershed of Taihu Basin-A Case Study at Meilaing Watershed in Yixing City of Jiangsu Province	Scientific Paper	Zhang Rongbao, Hohai Univ.	Resources and Environ. in the Yangtze Basin, 2005,14(1):94-98(CN)
Research on the Loss of Nitrogen in Direct-seeding Rice Field in Taihu Lake Region	Scientific Paper	Cheng Wen, Hohai Univ.	J. of Anhui Agro. Sci., 2009,37(6):2620-2621 (CN)
Nitrogen Loss with Runoff in Rice Season in the Taihu lake Region, China	Scientific Paper	Tian Yuhua, Inst. of Soil Scil.	Acta Pedologica Sinica, 2007,44(6):1070-1075 (CN)
Non-point Pollutant Concentrations for Different Land Uses in Lihe River Watershed of Taihu Region	Scientific Paper	Li Hengpeng, Nanjing Institute of Geography & Limnology	China Environ. Sci., 2006,26(2):243-247 (CN)
Nitrogen Load from Rural Non-point Source in River Network Region, Taihu Lake: A Case Study from Dapu Town in Yixing City	Scientific Paper	Wang Ning, Nanjing Univ.	Chinese J. of Ecology, 2008,27(4):557-562 (CN)
Pollution Situation of Nitrogen and Phosphorus in Rural Water Environment in Typical Region of Tai Lake	Scientific Paper	Wo Fei, Nanjing Agri. Univ.	J. of Agro-Environ. Sci., 2007,26(3):819-825 (CN)
Phosphorus Status and Retention Capacity of Wetlands in South Region of Taihu Basin,China	Scientific Paper	Wang Zhaode, Zhejiang Univ.	J. Lake Sci., 2009,21(1):53-60 (CN)
Research on Non-point Source Pollution in Tai Lake Region	Scientific Paper	Xia Lizhong, Inst. of Soil Sci.	Resources and Environment in the Yangtze Basin, 2003,12(1):45-49(CN)
Effects of Phosphorus Application on Phosphorus Loss in the Typical Vegetable Plot of Taihu Watershed	Scientific Paper	Yang Lixia, Nanjing Institute of Geography & Limnology	China Environ. Sci., 2007,27(4):518-523 (CN)

Project Components	Type	Author Unit	Source
The Controlling Effects of Shelter Forest on Non-point Source Pollution of Agricultural Lands in Taihu Lake Area	Scientific Paper	Chen Jinlin, Nanjing Forestry Univ.	J. of Nanjing Forestry Univ. (Natural Sci. Edition), 2002,26(6):17-20 (CN)
Soil Nitrogen and Phosphorus Losses with Surface Runoff from Typical Vegetable Field of Taihu Lake Region and Their Control with Grass Bufferstrip	Scientific Paper	Li Guodong, Nanjing Institute of Geography & Limnology	Chinese J. of Ecology, 2006,25(8):905-910 (CN)
Spatio-temporal Variation of Non-point Source Pollutants in Wuli Lake, Taihu Lake	Scientific Paper	Li Yingjie, China Univ. of Mining Tech.	J. of Sichuan Univ. (Eng. Sci. Edition), 2009,41(2):125-130 (CN)
Farm Ecosystem Management and Control of Non-point Source Pollution in Taihu Lake Areas, China	Scientific Paper	Jia Dean, Nanjing Forestry Univ.	Resources and Environ. in the Yangtze Basin, 2007,16(4):489-493 (CN)
Study on Transfer and Transformation of Nitrogen and Phosphorus in Agriculture Ditch under Rainfall Runoff	Scientific Paper	Hongdeng Xu, Beijing Unvi. of Chem. Tech.	The J. of American Sci., 2006,2(3):58-65
Stable isotopic composition of nitrate in Lake Taihu, China, and major inflow rivers	Scientific Paper	Amy Townsend-Small, Univ. of Texas Austin	Hydrobiologia, 2007,581:135-140
The Ecologically Optimum Application of Nitrogen in Wheat Season of Rice Wheat Cropping System	Scientific Paper	X Q Liang, Zhejiang Univ.	Agronomy Journal, 2008,100(1):67-72
Potential Loss of Phosphorus from a Rice Field in Taihu Lake Basin	Scientific Paper	Zhijian Zhang, Zhejiang Univ.	J. Environ. Qual., 2004,33:1403-1412
Reducing Environmental Risk by Improving N Management in Intensive Chinese Agricultural Systems	Scientific Paper	Xiaotang Ju, China Agri. Univ.	PNAS, 2009,106(9):3041-3046
The Roles of Countrywomen in Controlling Non-point Source Pollution	Scientific Paper	Jiang Dongmei, Nanjing Univ.	Chinese J. of Population, Resources and Environ., 2006,4(2):28-32

Project Components	Type	Author Unit	Source
Studies on Nutrient Uptake of Rice and Characteristics of Soil Microorganisms in a Long-term Fertilization Experiments for Urrigated Rice	Scientific Paper	Zhang Qichun, Zhejiang Univ.	J. Zhejiang Univ. SCI, 2005,6B(2):147-154
Alternative Policies to Control Nitrogen Runoff and Its Impact on Water Resources Supply: The Case of Tai Lake Valley, China	Scientific Paper	Weiwen Zhang, Zhejiang Univ.	
Sustainable Traditional Agricultural in the Lake Tai Region of China	Scientific Paper	E C Ellis, Cornell Univ.	Agriculture, Ecosystems and Environemt, 1997,61:177-193
A Simple Estimation Model of Groundwater Discharge and Phosphorus Flux from Nearshore Unconfined Aquifer to Lake: A Case Study of Taihu Lake	Scientific Paper	Li Yong, Hohai Univ.	Environmental Informatics Archives, 2005,3:239-245
Temporal and Spatial Distributions of Phosphine in Taihu Lake,China	Scientific Paper	Xiaojun Niu, Nanjing Univ.	Sci. and Total Environ., 2004,323:169-178
Assessment of Nitrogen Pollutant Sources in Surface Waters of Taihu Lake Region	Scientific Paper	Xie Yingxin, Institute of Soil Sci. CAS	Pedosphere, 2007,17(2):200-208
Nitrogen Export from an Agriculture Watershed in the Taihu Lake Area, China	Scientific Paper	C Guo, Institute of Soil Sci. CAS	Environ. Geochemistry and Health, 2004,26:199-207
NitrogenInterception in Floodwater of Rice Field in Taihu Region of China	Scientific Paper	Liang Xinqiang, Zhejiang Univ.	J. of Environ. Sci., 2007,19:1474-1481
Phosphorus Interception in Floodwater of Paddy Field during the Rice-growing Season in TaiHu Lake Basin	Scientific Paper	Zhijian Zhang, Zhejiang Univ.	Environ. Pollution, 2007,145:425-433
Identification of Anthropogenic Influences on Water Quality of Rivers in Taihu Watershed	Scientific Paper	Wang Xiaolong, Research Centre for Eco-Environ. Sci., CAS	J. of Environ. Sci., 2007,19:475-481

Project Components	Type	Author Unit	Source
Phosphorus Losses to Water from Lowland Rice Fields under Rice–Wheat Double Cropping System in the Tai Lake Region	Scientific Paper	Z H Cao, Institute of Soil Sci., CAS	Environ. Geochemistry and Health, 2004, 26:229-236
Nutrients exchanges on sediment-water interface in Lake Taihu	Conference PPT	Zhang Lu, Nanjing Institute of Geography & Limnology	
<b>3.2 Improved Wastewater Treatment and Recycling Technologies</b>			
Pretreatment of Taihu Lake Raw Water by $\gamma$ -irradiation	Scientific Paper	Zhang Jibiao, Nanjing Univ.	Ecology and Environment, 2007,16(3):735-738(CN)
Studies on the Removal of Nitrogen and Phosphorus by Artificial Enrichment Microbes in Resource Water of Taihu Meiliangwan	Scientific Paper	Zhan Xu, Southeast Univ.	Jiangsu Environ. Sci. Tech., 2006,19(6):1-2 (CN)
Feasibility Study of Johkaso with the Process of Anaerobic Filter Bed-contact Aeration Treatment dispersed Domestic Wastewater to Tai Lake Basin	Scientific Paper	Gao Rongjing, Jiangsu Academy of Environ. Sci.	Chinese J. of Environ. Eng., 2007,1(11):59-63 (CN)
Efficiency of Treatment and Operation on the Algae-laden Water in Taihu Lake Watershed	Scientific Paper	Jiang F, Suzhou Water Co., 2008	Water Tech., 2008,2(3):24-28 (CN)
Demonstration Engineering for Safe Drinking Water Ensuring Technology in the Tai Lake Valley—Advanced Water and Sludge Treatment Part of Yangshupu Waterworks in Shanghai	Scientific Paper	An Dong, Shanghai Shibe Water Co.	Water and Wastewater Eng., 2006,32(8):5-8 (CN)
Potential and Countermeasures of Water Saving in Taihu Lake Basin	Scientific Paper	Zhu Liang, Hohai Univ.	Water Resources Pollution, 2007,23(2):77-80 (CN)
.	Scientific Paper	Dai Shiming, Southeast Univ.	Tech. of Water Treatment, 2007,33(4):28-29 (CN)

Project Components	Type	Author Unit	Source
Performance of Aquatic Plant Filter Bed for the Treatment of Taihu Lake Inflow Water	Scientific Paper	Song Hailiang, Southeast Univ.	J. of Southeast Univ. (Natural Sci. Edition), 2004,34(6):810-813 (CN)
The Improvement of the Fishing Net Paling Medium on the Eutrophic Waters in Meiliang Bay, Taihu Lake	Scientific Paper	Dai Yaqi, Shanghai Foxin Aj Co.	China Environ. Sci., 2006,26(2):176-179 (CN)
Application of Direct Filtration Advanced Treatment Process in Taihu Xincheng Reclaimed Water Reuse Demonstrational Project	Scientific Paper	Liu Xuehong, Wuxi Municipal Institute Co.	China Water and Wastewater, 2008,24(4):55-57 (CN)
Study on Taihu Rural Domestic Wastewater Treatment Performance in a High Rate Algal Pond System	Scientific Paper	Li Xudong, Tongji Univ.	J. of Tongji Univ. (Natural Sci.), 2006,34(11):1505-1509 (CN)
Study on PPC and PAM Enhanced Coagulation Process Treating Slightly Polluted Raw Water from Tributary of Taihu Lake	Scientific Paper	Sun Shiquan, Changsha Univ. of Sci. Tech.	Water and Wastewater Eng., 2007,34(5):26-29 (CN)
Potential of Constructed Wetlands in Treating the Eutrophic Water: Evidence from Taihu Lake of China	Scientific Paper	Linfen Li, Institution of Botany, CAS	Bioresource Technology, 2008,99:1656-1663
A Model for the Effects of Water Hyacinths on Water Quality in an Experiment of Physico-biological Engineering in Lake Taihu, China	Scientific Paper	Weiping Hu, Nanjing Institute of Geography & Limnology, CAS	Ecological Modelling, 1998,107:171-188
A Physico-ecological Engineering Experiment for Water Treatment in a Hypertrophic Lake in China	Scientific Paper	Peimin Pu, Nanjing Institute of Geography & Limnology, CAS	Ecological Engineering, 1998,10:179-190
Controlling Effects of Forest Belts on Nonpoint Source Pollution of Agricultural Lands in Taihu Lake Area	Scientific Paper	Chen Jinlin, Nanjing Forest Univ.	J. of Forestry Res., 2002,13(3):213-216
Phosphorus Removal of Rural Wastewater by the Paddy-rice-wetland System in Tai Lake Basin	Scientific Paper	S Li, Zhejiang Univ.	J. of Hazardous Material, 2009, in press

Project Components	Type	Author Unit	Source
Phragmites Australis and Typha Orientalis in Removal of Pollutant in Taihu Lake, China	Scientific Paper	Tian Ziqiang, Chinese Research Academy of Environ. Sci.	J. of Environ. Sci., 2009,21:440-446
Rural Wastewater Irrigation and Nitrogen Removal by the Paddy Wetland System in the Tai Lake Region of China	Scientific Paper	Song Li, Zhejiang Univ.	J. Soils Sediments, 2009, in press
Wetland Utilization in Lake Taihu for Fish Farming and Improvement of Lake Water Quality	Scientific Paper	Wenchao Li, Nanjing Institute of Geography & Limnology, CAS	Ecological Engineering, 1995,5:107-121
Resource Recycling and Urban-Rural Sustainability in China	Conference PPT	Minjun Shi, Graduate School, CAS	
Water Pollution Prevention and Control: Successful Cases in China	Report	SEPA	2005
Application of Complicated Floating-bed for Pre-reservoir Non-point Sources Pollution Control Project	Conference Paper	Yimin Zhang, Nanjing Inst. of Environ. Sci.	2006, Proceedings of the 7th International Conference on HydroScience and Engineering
<b>3.3 Water Quality and Algal Bloom Monitoring and Assessment</b>			
Comparison of Chlorophyll a Concentration Estimation in Taihu Lake Using Different Methods	Scientific Paper	Li Yunliang, Nanjing Univ.	Environ. Sci.,2009,30(3):680-686(CN)
Seasonal Variation of Microcystis Community in Taihu Lake	Scientific Paper	Tan Xiao, Nanjing Institute of Geography & Limnology	J. of Ecology and Rural Environ., 2009,25(1):47-52 (CN)
Characteristics of the Diffuse Attenuation Coefficient and Its Impact on Aquatic Ecology Environment	Scientific Paper	Huang C, Nanjing Normal Univ.	Environ. Sci., 2009,30(2):348-355 (CN)

Project Components	Type	Author Unit	Source
Changes of Water Quality and Eutrophication in Taihu Lake	Scientific Paper	Mao X, Taihu Basin Authority	Water Resources Protection, 2009,25(1):48-51(CN)
Temporal and Spatial Distributions of Periphytic Algae in Taihu Lake	Scientific Paper	Yuan Xinfang, Nanjing Univ.	J. of Agro-Environment Sci., 2006,25(4):1035-1040(CN)
Character of Blue-green Algal Blooms Outbreak in Taihu Lake	Scientific Paper	Zhang Ninghong, Jiangsu Environ. Monitor Centre	Environ. Monitoring in China, 2009,25(1):71-74(CN)
Monitoring Cyanobacteria Bloom Based on MODIS Data in Lake Taihu	Scientific Paper	Zhou Ligu, Nanjing Univ.	J. Lake Sci., 2008,20(2):203-207(CN)
Cyanobacteria Bloom Monitoring with Remote Sensing in Lake Taihu	Scientific Paper	Duan Hongtao, Nanjing Institute of Geography & Limnology	J. Lake Sci., 2008,20(2):145-152(CN)
Discuss on Early Warning Monitor System to cyanobacteria Bloom-forming in Taihu Lake	Scientific Paper	Xu Hengsheng, Suzhou Environ. Monitor Centre	Environ. Monitoring in China, 2008,24(2):62-65 (CN)
Application of Remote Sensing on Spatial - Temporal Distribution of Chlorophyll - a in Taihu Lake	Scientific Paper	Zhang Yuchao, Nanjing Univ.	Environ. Protection Sci., 2009,35(1):105-108(CN)
The Role of Periphytes in the Shift between Macrophyte and Phytoplankton Dominated Systems in a Shallow, Eutrophic Lake (Lake Taihu, China)	Scientific Paper	Qin Baoqiang, Nanjing Institute of Geography & Limnology, CAS	Science in China Series C: Life Sci., 2006,49(6):597-602
The Modeling for Dynamic Algae Blooms Prediction Based on Remote Sensing	Scientific Paper	Wei Qingyu, Nanjing Univ.	The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sci., 2008, Beijing
Dynamic Monitoring the Algae Bloom in the Taihu Lake Using Modis Images	Scientific Paper	Di Wu, Beijing Normal Univ.	

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Detecting Aquatic Vegetation Changes in Taihu Lake, China Using Multi-temporal Satellite Imagery	Scientific Paper	Ronghua Ma, Nanjing Institute of Geography & Limnology, CAS	Sensors, 2008,8:3988-4005
Decomposition and Phosphorus Release from Four Different Size Fractions of Microcystis spp. Taken from Lake Taihu, China	Scientific Paper	Wang Yuanyuan, Nanjing Univ. of Info. Sci. Tech.	J. of Environ. Sci., 2008,20:891-896
Analysis of Microcystins in Cyanobacteria Blooms and Surface Water Samples from Meiliang Bay, Taihu Lake, China	Scientific Paper	P P Shen, Nanjing Univ.	Environment International, 2003,29:641-647
Application of Remote Sensing Techniques in Monitoring and Assessing the Water Quality of Taihu Lake	Scientific Paper	X J Wang, Peking Univ.	Bull. Environ. Contam. Toxicol., 2001,67:863-870
Changes of Nutrients and Phytoplankton Chlorophyll-a in A Large Shallow Lake, Taihu, China: an 8-year Investigation	Scientific Paper	Yuwei Chen, Nanjing Institute of Geography & Limnology, CAS	Hydrobiologia, 2003,506-509:273-279
Distribution of Organic Contaminants in Lake Taihu	Scientific Paper	Huixian Zou, Nanjing Univ., 1996	Wat. Res., 1996,30(9):2003-2008
Dredging Effects on P Status and Phytoplankton Density and Composition During Winter and Spring in Lake Taihu, China	Scientific Paper	Xiuyun Cao, Institute of Hydrobiology, CAS	Hydrobiologia, 2007,581:287-295
Identification of Microcystins in Waters Used for Daily Life by People Who Live on Tai Lake During a Serious Cyanobacteria Dominated Bloom with Risk Analysis to Human Health	Scientific Paper	H Zhang, Zhejiang Univ.	Environ. Toxic., DOI 10.1002/tox
Monitoring the Genotoxicity of Lake Taihu, Using Two Kinds of Micronucleus Tests	Scientific Paper	Z M Kong, Nanjing Univ.	Environment Pollution, 1998,99:279-283
Relationship Between Bacterioplankton and Phytoplankton Community Dynamics During Late Spring and Early Summer in Lake Taihu, China	Scientific Paper	Xin Peng, Nanjing Institute of Geography & Limnology, CAS	Acta Ecologica Sinica, 2007,27(5),1696-1702

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Seasonal Variations in Microcystin Concentrations in Lake Taihu, China	Scientific Paper	Qiujin Xu, Nanjing Institute of Geography & Limnology, CAS	Environ. Monit. Assess., 2008,145:75-79
Temporal and Spatial Distributions of Phosphine in Taihu Lake, China	Scientific Paper	Xiaojun Niu, Nanjing Univ.	Sci. of the Total Environ., 2004,323:169-178
The Status of Pesticide Residues in the Drinking Water Sources in Meiliangwan Bay, Taihu Lake of China	Scientific Paper	Ta Na, Nanjing Univ.	Environ. Monit. Assess., 2006,123:351-370
Toxicity evaluation of Meiliang Bay, Lake Taihu, China—a drinking water source	Scientific Paper	Yuangao Chen, Nanjing Univ.	Hydrobiologia, 2007,581:297-303
Horizontal Distribution and Transport Processes of Bloom-forming Microcystis in a Large Shallow Lake (Taihu, China)	Scientific Paper	Xiaodong Wu, Nanjing Institute of Geography & Limnology, CAS	Limnologica, 2009, in press
Relationship between Microcystis blooms and crustacean zooplankton in the subtropical lake in China	Conference PPT	Feizhou Chen, Nanjing Institute of Geography & Limnology, CAS	
Cyanobacteria Blooms: Effects on Aquatic Communities	Conference PPT	Karl E. Havens, Univ. of Florida	2007
Cyanobacterial Blooms and the Microbial Food Web in Lake Taihu	Conference PPT	Peter Lavrentyev	
Chemical Agriculture Pollution and Reasons of Aglae Blooming Analysis	Report	Reyes Tirado, Green Peace China	2008 (CN)
Cleaner Water from the Space	Report	Jane Beitler	2008

Project Components	Type	Author Unit	Source
<b>3.4 Algae Control and Disposal Technologies</b>			
Study on Removal Process of Putrefactive Products of Algae from Source Water of Taihu Lake	Scientific Paper	Sun Pingyu, Jiangnan Univ.	China Water and Wastewater, 2008,24(7):34-37(CN)
Potential of Methane Production of Blue Algae and Its Feasibility of Fermentation with Anaerobic Baffled Reactor	Scientific Paper	Du Jing, Jiangsu Academy of Agri.	Jiangsu J. of Agr. Sci., 2008,24(6):948-953(CN)
Harm less Disposal and Resources Utilizations of Taihu Lake Blue Algae	Scientific Paper	Han Shiqun, Jiangsu Academy of Agri.	J. of Natural Resources, 2009,24(3):431-438(CN)
Parameters Optimization of Ultrasound Algae Removal Technology and Bloom Removal Study in Taihu Lake	Scientific Paper	Ding Yang, Southeast Univ.	J. of Southeast Univ. (Natural Sci. Edition), 2009,39(2):354-358(CN)
Algal-Flocculation Removal by Modified Sediment of Taihu Lake in Wind Action	Scientific Paper	Liu Guofeng, Nanjing Institute of Geography & Limnology	Environ. Sci., 2009,30(1):52-57(CN)
Two-Decade Reconstruction of Algal Blooms in China's Lake Taihu	Scientific Paper	Hongtao Duan, Nanjing Institute of Geography & Limnology, CAS	Environ. Sci. Technol., 2009,43:3522-3528
Removal of Cyanobacterial Blooms in Taihu Lake Using Local Soils:Equilibrium and Kinetic Screening on the Flocculation of Microcystis Aeruginosa Using Commercially Available Clays and Minerals(Part 1, 2)	Scientific Paper	Gang Pan, Research Centre for Eco-Environ. Sci., CAS	Environ. Pollution, 2006,141:195-200
Biological Degradation of Algae and Microcystins by Microbial Enrichment on Artificial Media	Scientific Paper	Rong P Ji, Southeast Univ.	Ecological Engineering, 2009, in press
Phosphorus fixation in lake sediments using LaCl <sub>3</sub> -modified clays	Scientific Paper	Xianzheng Yuan, Research Centre for Eco-Environ. Sci., CAS	Ecological Engineering, 2009, 35: 1599-1602

Project Components	Type	Author Unit	Source
In-lake algae removal and submerged macrophyte restoration using modified local soil technology		Gang Pan, Research Centre for Eco-Environ. Sci., CAS	Environ. Sci. Technol., 2009
<b>3.5 Sediment</b>			
Application of ADP in the Study of Sediment Resuspension in Lake Taihu	Scientific Paper	Luo Liancong, Nanjing Institute of Geography & Limnology	J. Lake Sci., 2003,25(4):331-338(CN)
Preliminary Study of Sediment Eco-dredgingEngineering in Taihu Lake	Scientific Paper	Chen Hesheng, Taihu Basin Authority	Water Resources and Hydropower Engineering, 2004,35(11):11-13(CN)
Seasonal Changes of P Adsorption /DesorptionCharacteristics at the Water-sediment Interface in Meiliang Bay, Taihu Lake, China	Scientific Paper	Jin Xiangcan, Chinese Res. Academy of Environ. Sci.	Acta Scientiae Circumstantiae 2008,28(1):24-30(CN)
Relationship between N and P Contents in Aquatic Macrophytes, Water and Sediment in Taihu Lake, China	Scientific Paper	Lei Zexiang, Zhongkai Univ. of Agri. Tech.	J. of Plant Ecology, 2008,32(2):402-407(CN)
Quantitative Simulative Method of Sediment Resuspension in Lake Taihu	Scientific Paper	You Bensheng, Nanjing Institute of Geography & Limnology	J. Lake Sci., 2007,19(5):611-617(CN)
Comparison between Wave Effects and Current Effects on Sediment Resuspension in Lake Taihu	Scientific Paper	Luo Liancong, Nanjing Institute of Geography & Limnology	Hydrology, 2003,23(3):1-4(CN)
Distribution Characterization of Heavy Metal Pollution in Typical Sediment from Lake Taihu Region	Scientific Paper	Chen Shouli, Inst. of Soil	Jiangsu J. of Agr. Sci.,2007,23(2):124-130(CN)
Characteristics of Phosphorus of Sediments with Reed Community in the Littoral Zone of Lake Taihu	Scientific Paper	Xu Delan, China Univ. of Mining Tech.	Wetland Sci., 2007,5(2):133-139(CN)

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Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyl in Surface Sediments of Taihu Lake: the Distribution, Sources and Risk Assessment	Scientific Paper	Chen Yanyan, Nanjing Univ.	China Environ. Sci., 2009,29(2):118-124(CN)
Effects of Wave dissipation Engineering on Sediment Resuspension and Nutrient Release in Lake Taihu	Scientific Paper	Gao Yongxia, Hohai Univ.	Resources and Environ. in the Yangtze Basin, 2007,16(3):57-62(CN)
Influence of Dredging and Aquatic Macrophytes Reestablishment on the Forms of Phosphorus, Nitrogen in the Sediments of the West Wuli Hu, Taihu Lake	Scientific Paper	Yu Haiqiao Wuhan Univ. of Tech.	J. of Agro-Environment Sci., 2007,26(3):868-872(CN)
Bacterial Diversity of Sediment in Different Regions of Taihu Lake During the Algal Bloom	Scientific Paper	Chen Nan, China Agri. Univ.	Microbiology, 2009,36(4):544-550(CN)
Distribution and Chemical Fractionation of Heavy Metals in Recent Sediments from Lake Taihu, China	Scientific Paper	Ji Shen, Nanjing Institute of Geography & Limnology, CAS	Hydrobiologia, 2007,581:141-150
Distribution of Phosphorus in Sediments of Onshore Reed Areas of Lake Taihu	Scientific Paper	Xude Lan, China Univ. of Mining Tech.	J. China Univ. Mining and Technol., 2007,17(4):0557-0561
Distribution Sources and Potential Toxicological Significance of PAHs in Taihu Lake Sediments	Scientific Paper	Qu Wenchuan, Univ. of Wollongon	Hydrobiologia, 2002,485:163-171
Environmental Changes in Lake Taihu During the Past Century as Recorded in Sediment Cores	Scientific Paper	Bin Xue, Nanjing Institute of Geography & Limnology, CAS	Hydrobiologia, 2007,581:117-123
Evaluation of Phosphorus Bioavailability in Sediments of Three Contrasting Lakes in China and the UK	Scientific Paper	Qixing Zhou, Zhejiang Univ.	Chemosphere, 2001,42:221-225
Geochemistry of Iron, Sulfur and Related Heavy Metals in Metal-Polluted Taihu Lake Sediments	Scientific Paper	Yin Hongbin, Nanjing Institute of Geography & Limnology, CAS	Pedosphere, 2008,18(5):564-573

Project Components	Type	Author Unit	Source
Persistent Organic Pollutants in Water and Surface Sediments of Taihu Lake, China and Risk Assessment	Scientific Paper	Hai Wang, Research Centre for Eco-Environ. Sci., CAS	Chemosphere, 2003,50:557-562
Polychlorinated Dibenzo-p-dioxins Furans and Polychlorinated Biphenyls in Sediments and Aquatic Organisms from the Taihu Lake, China	Scientific Paper	Qinghua Zhang, Research Centre for Eco-Environ. Sci., CAS	Chemosphere, 2005,61:314-322
Sedimentary Evidence for Recent Eutrophication in the Northern Basin of Lake Taihu	Scientific Paper	Wu Jinglu, Nanjing Institute of Geography & Limnology, CAS	J. Paleolimnol, 2007,38:13-23
Simultaneous Monitoring of Phosphine and of Phosphorus Species in Taihu Lake Sediments and Phosphine Emission from Lake Sedime	Scientific Paper	Jinju Geng, Nanjing Univ.	Biogeochemistry, 2005,76:283-298
Water and Mass Budgets for Estimating Phosphorus Sediment–Water Exchange in Lake Taihu	Scientific Paper	Peter Kelderman, UNESCO	Hydrobiologia, 2005,544:167-175
<i>Note: All the references to Taihu Lake, Lake Taihu, Tai Lake bear the same meaning of Lake Tai in this project.</i>			