

# Water Funds in China

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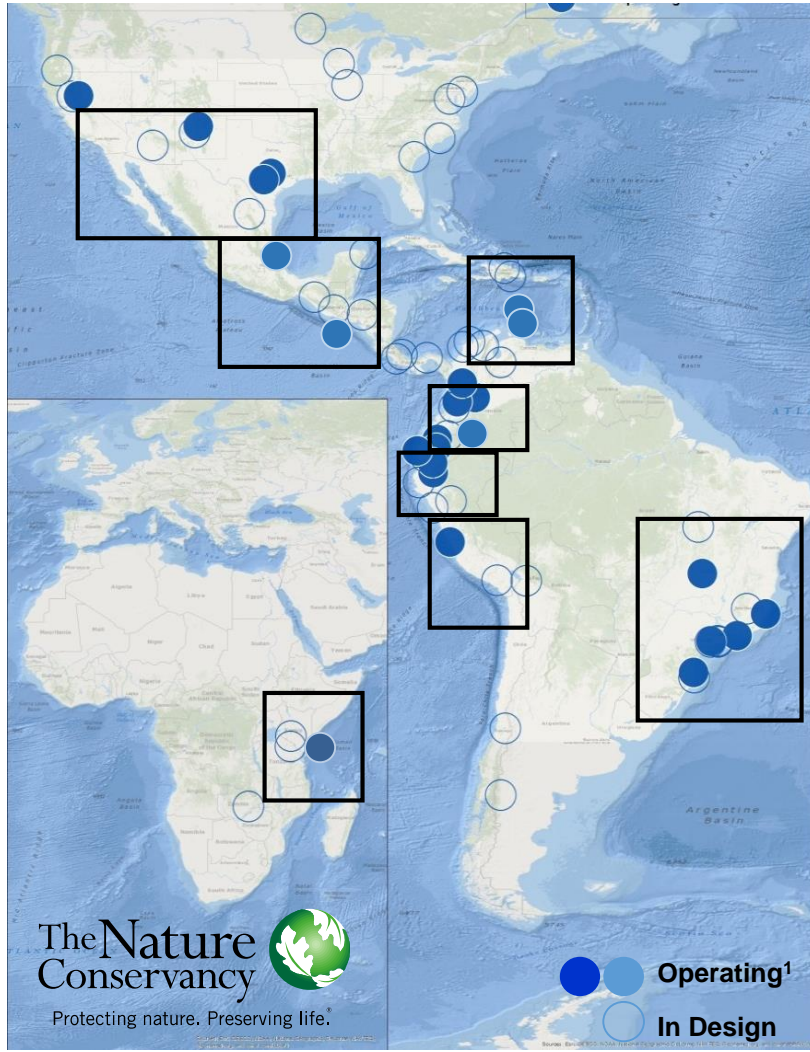


# Water Pollution in China



- About a **quarter** of China urban residents lack access to proper drinking water and sanitation facilities.
- **Over 50%** of China's water pollution comes from non-point source pollution.
- China government is investing **330 billion U.S. dollars** to protect water during 2015-2020.

# Water Fund Scheme



**24** Operating Water Funds across 8 countries <sup>1</sup>

<sup>1</sup> Defined as having a written agreement formalizing the partnership (as of Mar 2015)

**Agricultural Diffuse Pollution(TP)**

Long-term Solution

**Water Fund Scheme**

**Scientific Watershed Planning**

**Public-Private Partnership**

**Sustainable Agri. Pollution reduction**

**Flexible Collaboration Form**

**Transparent Governance**

**Enhanced Green Economy**

**3** In china

- Small scale , Longwu
- Medium scale , Qiandaohu
- **Big scale , Dongjiang watershed**

# China Securing Water Strategy

## PROTECT

**Non-point source  
pollution reduction**

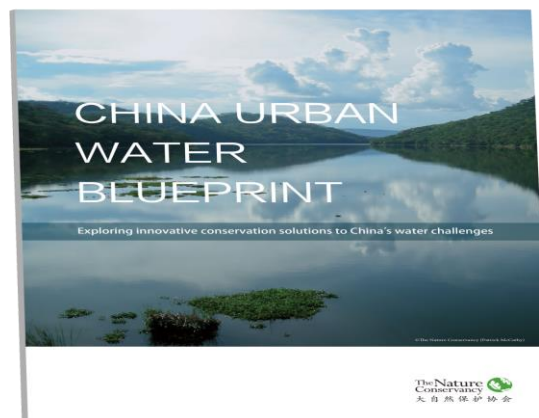
## TRANSFORM

**Farming practice and  
restoration**

## INSPIRE

**Investors and public  
policy**

Science



Financial  
Governance  
Implement

## Water Fund

Efficient mechanism in  
different scale

**Small**

**Medium**

**Large**



# China Water Fund in Progress

Water Fund

Small

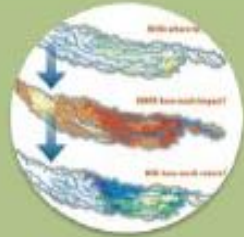
Medium

Large

PHASES



PRE-FEASIBILITY



DESIGN



CREATION



OPERATION

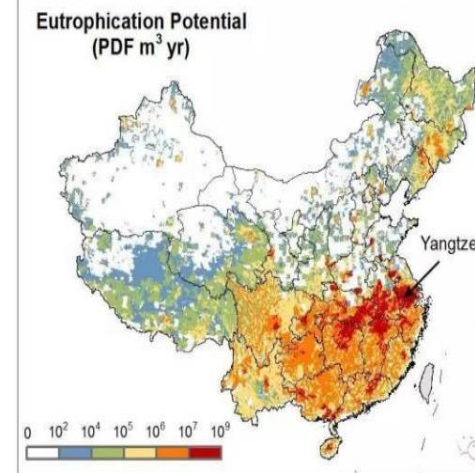
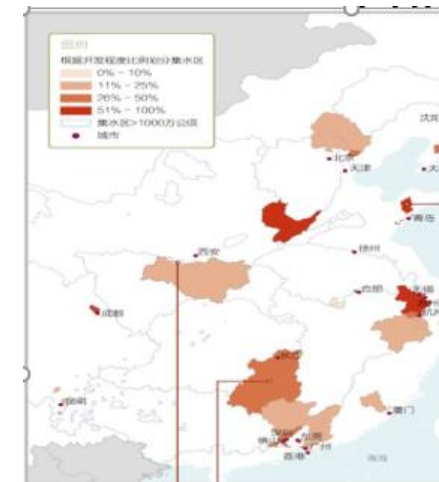


CONSOLIDATION

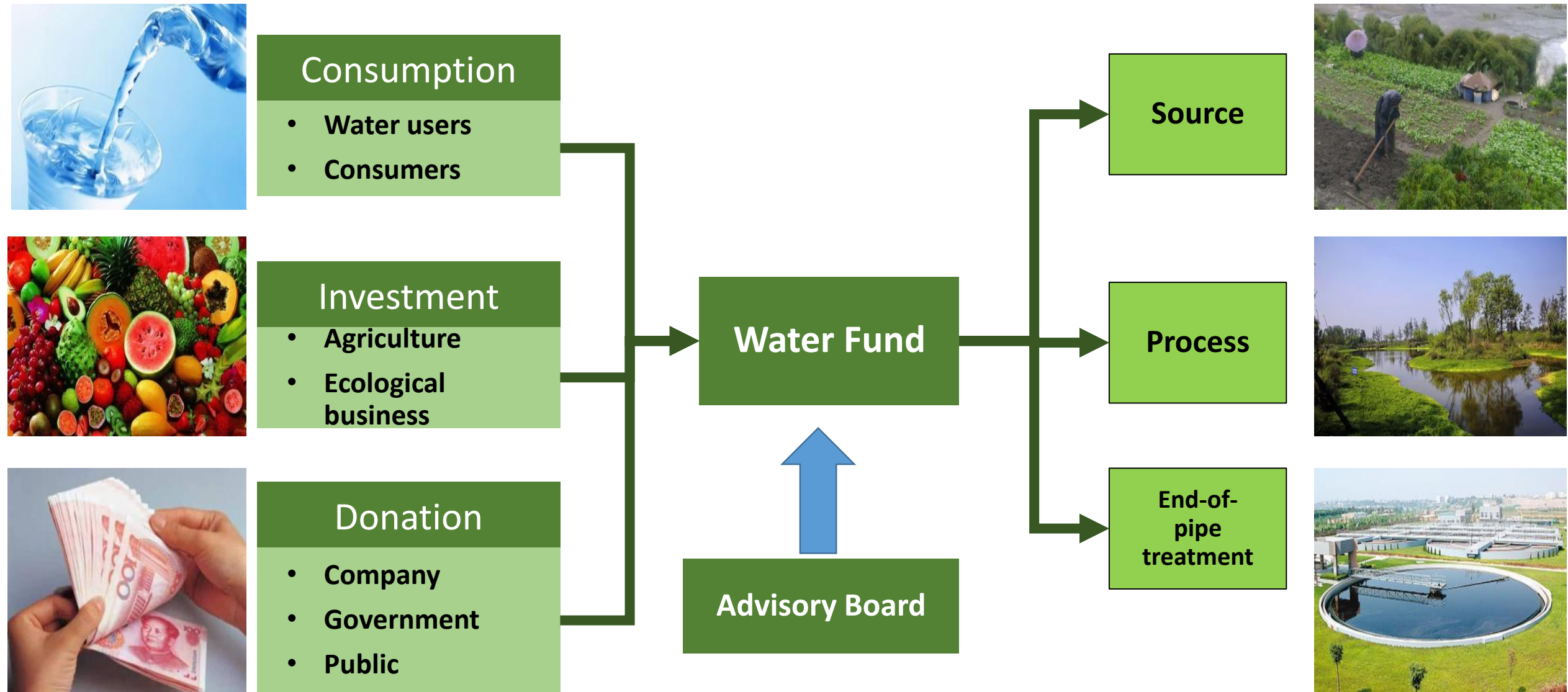
Longwu, Zhejiang Province

Qiandao Lake, Zhejiang Province

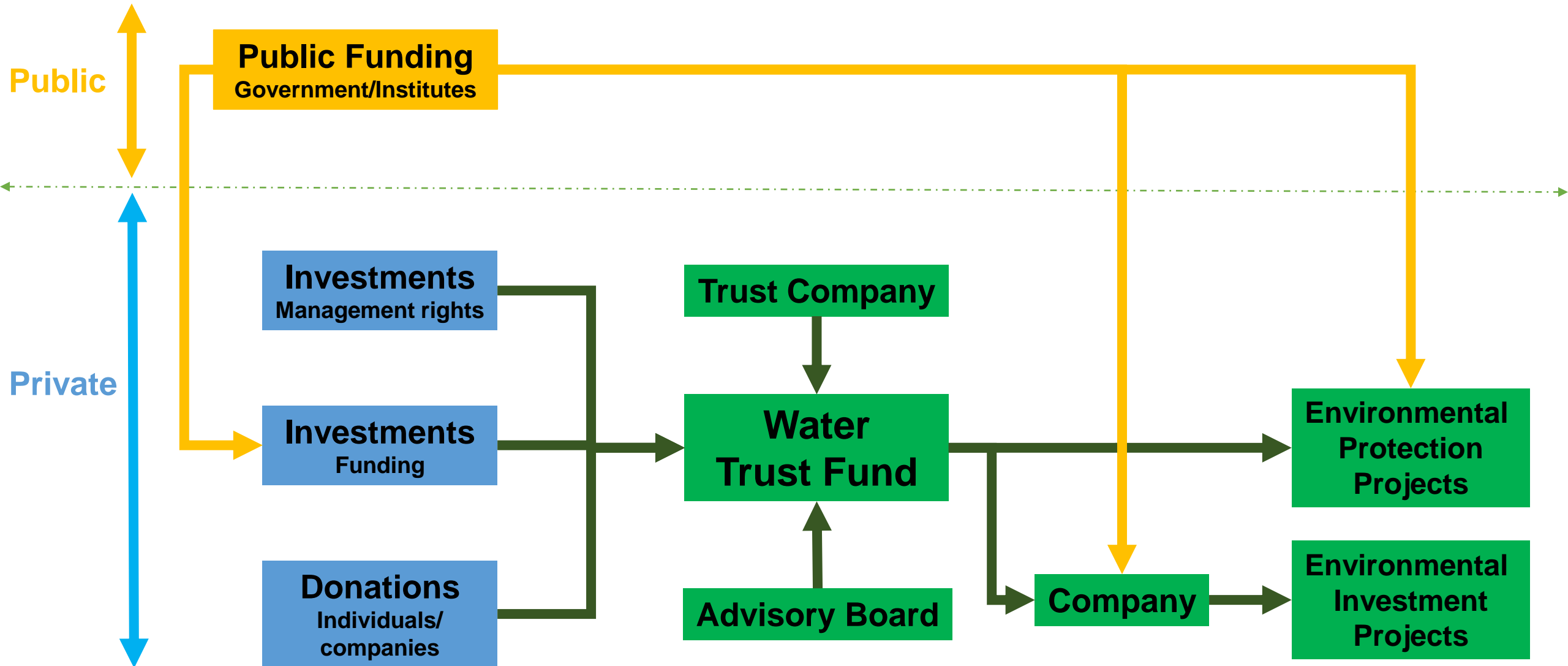
The East River, Guangdong Province



# Water Fund Concept Model



# Water Fund Operation Model





# Longwu Water Fund

Established on November  
1, 2015

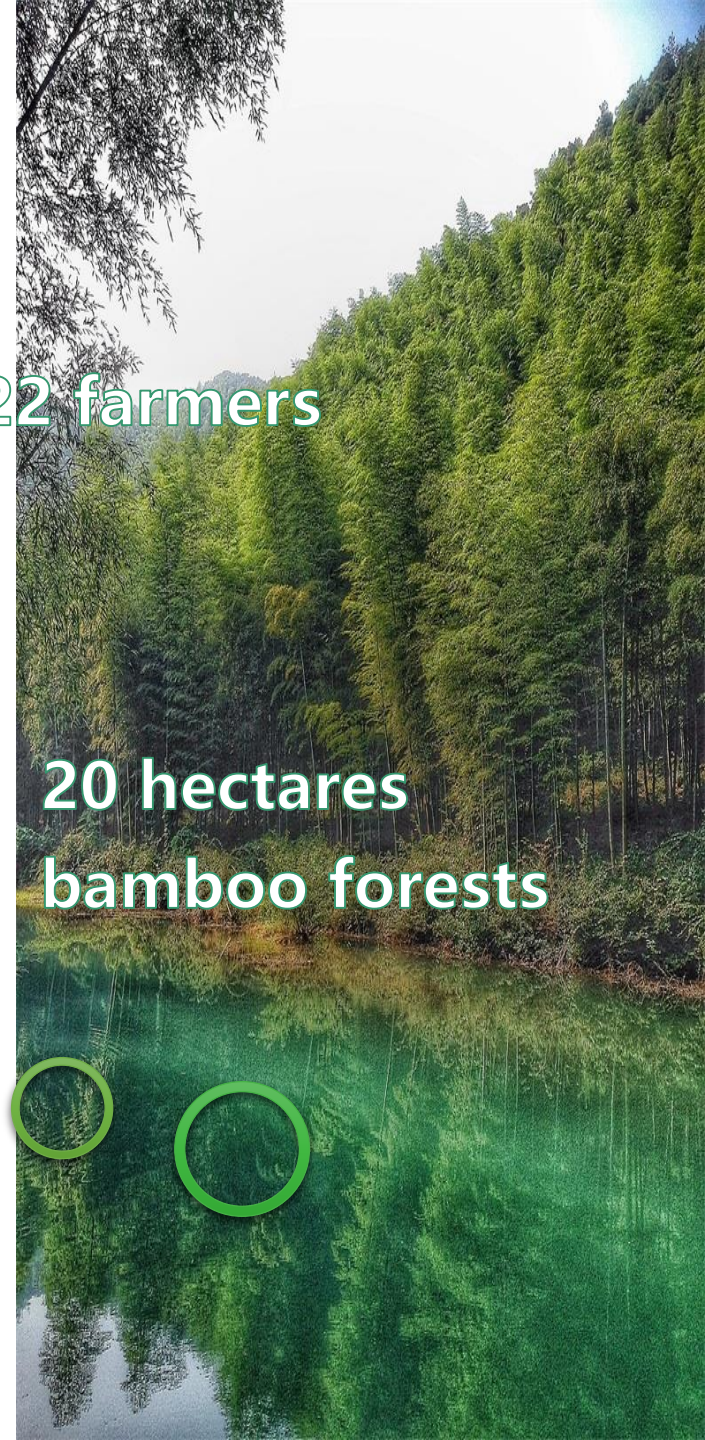
50,000 USD investment



22 farmers



20 hectares  
bamboo forests





# Qiandao Lake and Xin'an River Basin Water Fund



- Watershed area of 11,453 km<sup>2</sup>
- drinking water source for 900 residents of Hangzhou
- Biggest lake in Yangtze River Delta
- NRDC" *An Integrated Plan for Water Resources and Eco-Environment Protection in the Basin of Qiandao Lake and its Upstream Xin'an River*"

# Dongjiang(DJ) Watershed



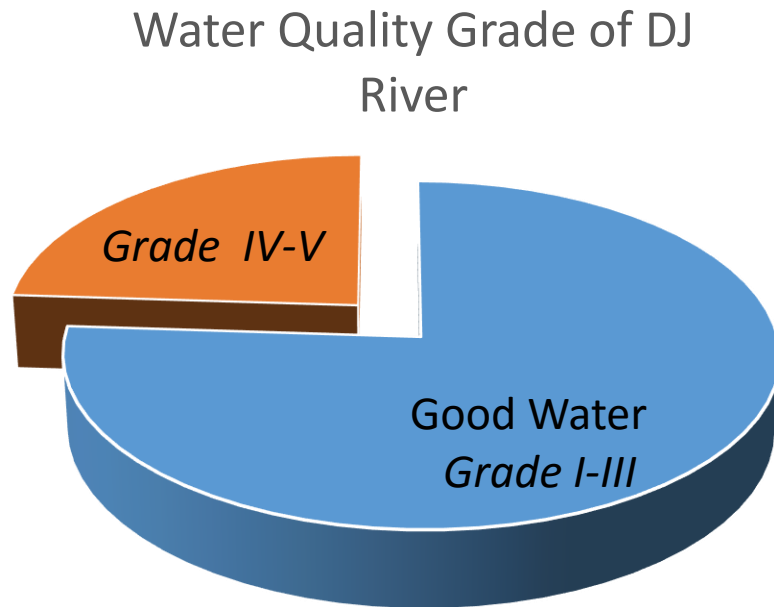
- Watershed areas of 35,340 km<sup>2</sup>, **90%** located in Guangdong Province
- **Drinking water source** for **40Million** residents in Pearl River Delta(PRD), one of the top economic pioneering regions of China
- Accounts for **60% GDP** of Guangdong Province
- Coverage of Nanning **biodiversity priority areas** and ecological security key regions



# Challenges to DJ Watershed

## Status quo

Water quality of DJ river is generally good.

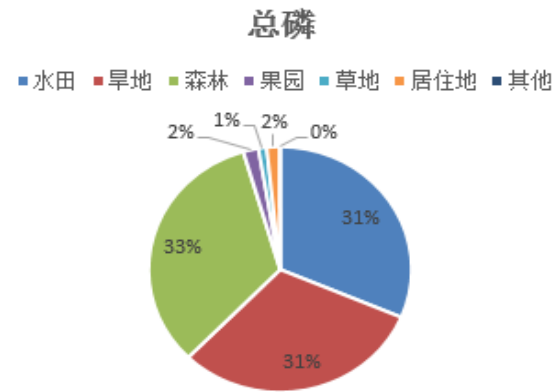


Source: Guangdong and Jiangxi Provincial Department of Water Resources, 2014

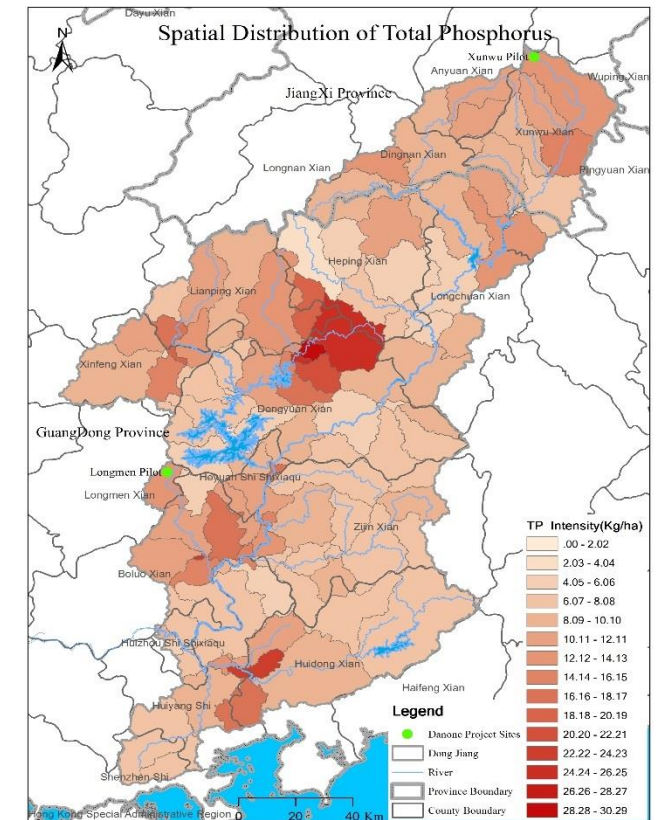


## Challenges

Agricultural diffuse pollution has loomed over DJ Watershed.



Diffuse pollution from agriculture source makes up **78%** of watershed Total Phosphorus (TP) pollution.



# Goal and Objectives

**Goal:** Providing an innovative solution to improve water quality of DJ watershed by science-based approach to establish a watershed protection plan and partnership approach to build up a sustainable funding mechanism.

## Environmental Goal

Implementing Agricultural Best Management Practice on **1‰ key lands** (4,000 ha land including 3,850 ha farmland, 150 ha orchard) as **pilots** to demonstrate agricultural non-point source pollution control. which could reduce the **0.6~0.9‰ of total phosphorus load** of the **whole DJ watershed** in 10 years.

## Economic Goal

DJ Water Fund is supposed to reach **RMB 30 million in five years** and impact RMB 50 million investment. The total fund scale will be about 200 million in 10 years, and to have 10 core partners on board.

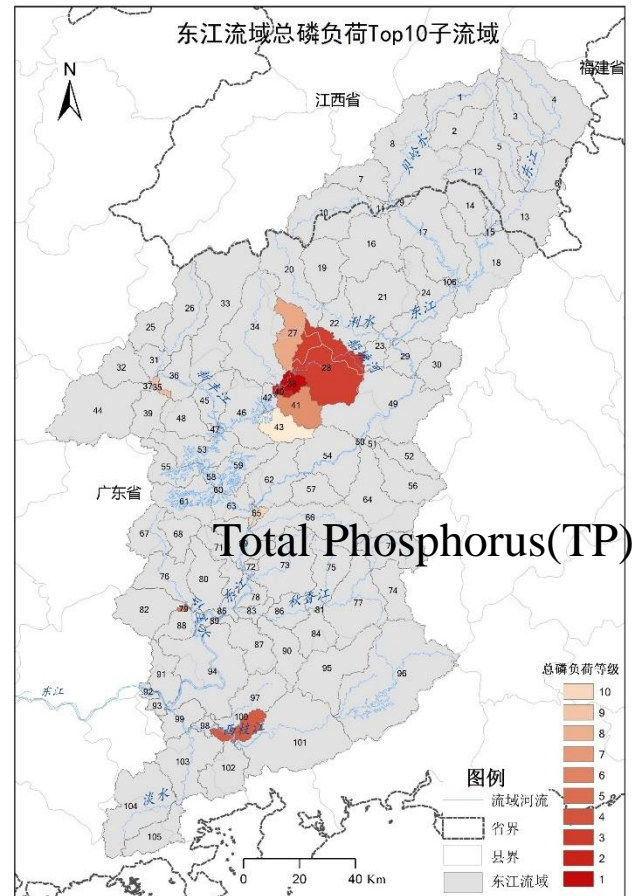
## Social Goal

At least **2,000 farmers** are supposed to be directly involved in Water Fund pilot projects, in which **10%+ of the poverty** ones will have significantly improvement in income.



# Water Fund Projects

## TOP10 TP intensity hotspots



4% of DJ watershed  
TP loading contribution 11%

**Investment  
Projects**  
(Cash Returns)

**Protection  
Projects**  
(Envi. Returns)

**Agriculture BMPs**

4R Farming Management

Pest Management

Protective Cultivation

**Source Reduction**

Water Quality Monitoring

Reduction Monitoring



**Ecological BMPs**

Natural Education

Eco-tourism

**Pathway Control**

Vegetation Buffer

Ecological ditches

Wetland Protection



# Timeline

