

The background of the slide is an aerial photograph of a lush green wetland landscape. A winding river flows through the center, surrounded by dense forests and open grassy areas. The text is overlaid on this image.

# PWS Pilot Development in China

Freshwater Programme, WWF China

June 8th 2012  
Beijing

# Outline

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1. Background and site selection in China
  2. Capacity Building on PES
  3. PWS sites development
  4. Partnership Building for scaling-up
  5. Opportunities and next step
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# 1. Background and PWS site selection in China

Related Global Programme	Goal/Objective Number	Planned Contribution	Year
The Yangtze Basin Ecoregion Action Programme (contributing to the 2050 biodiversity mega-Goal, 2020 species Goal and freshwater Goal)	Objective 2.2: By 2015, water ecosystems in priority places like HAWs, Estuary, Chishui, Han, Jialing and Min rivers are protected and improved to sustainably provide ecosystems services	<p>Payment for Ecosystem/Watershed Services (PES/PWS) will be piloted to explore effective conservation measures with sustainable financing.</p> <p>Yangtze Big Win: 1-2 market-oriented pes pilots are established in the Yangtze by 2017 to influence policy to provide sustainable economic investment for watershed conservation in China.</p>	2017

# 1. Background and PWS site selection in China

- Cooperation between WWF NL and WWF China on PES began in 2010 with technical support of Julio. Donor contract was signed in Jan 2011, and WL works as PES focal point of WWF CPO.
- 2 possible sites Chengdu and Shanghai were selected from 5 possible sites in March 2011.
- Chengdu moved forward and successfully engaged a private hydropower station to establish Guanliao pilot in Ebian County of Sichuan in July 2011.
- Currently, Shanghai blocked on further identification of direct hydrological linkage between upstream and downstream groups.
- ADB is interested in PPP on watershed management, and offered a funding support on EPWS site development in Chishui Watershed in Sep 2011



## **2. Capacity Building on PES**

### **- Trainings and Workshops in FY12**

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**7 workshops and training on PES has been conducted and more than 150 staffs and partners in China were trained by now.**



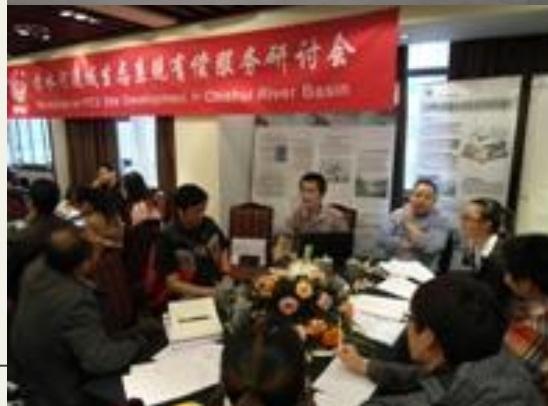
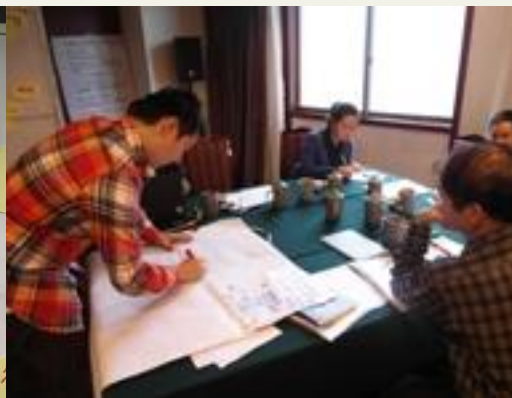
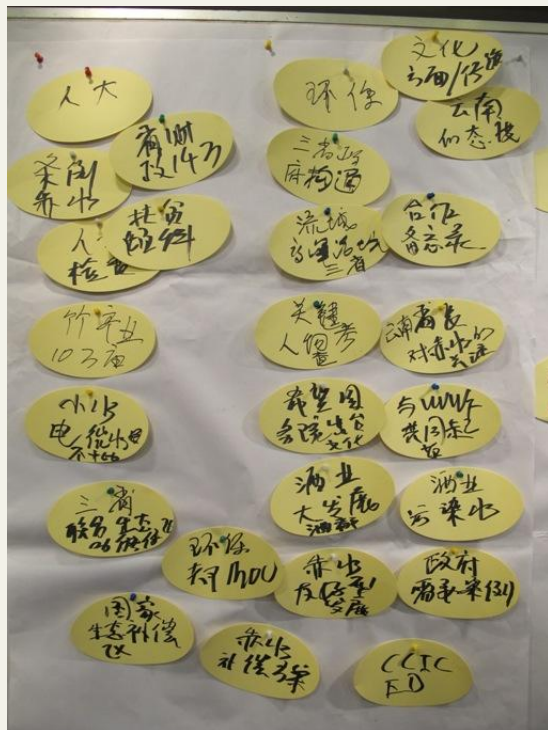


## Chishui PES Workshop on 30th Nov 2011





# PES Policy Strategy Workshop





## 3. PWS Sites Development

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# Shanghai site development trip in March 2011

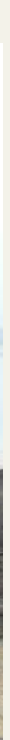


## Sichuan Site Development Trip in July 2011



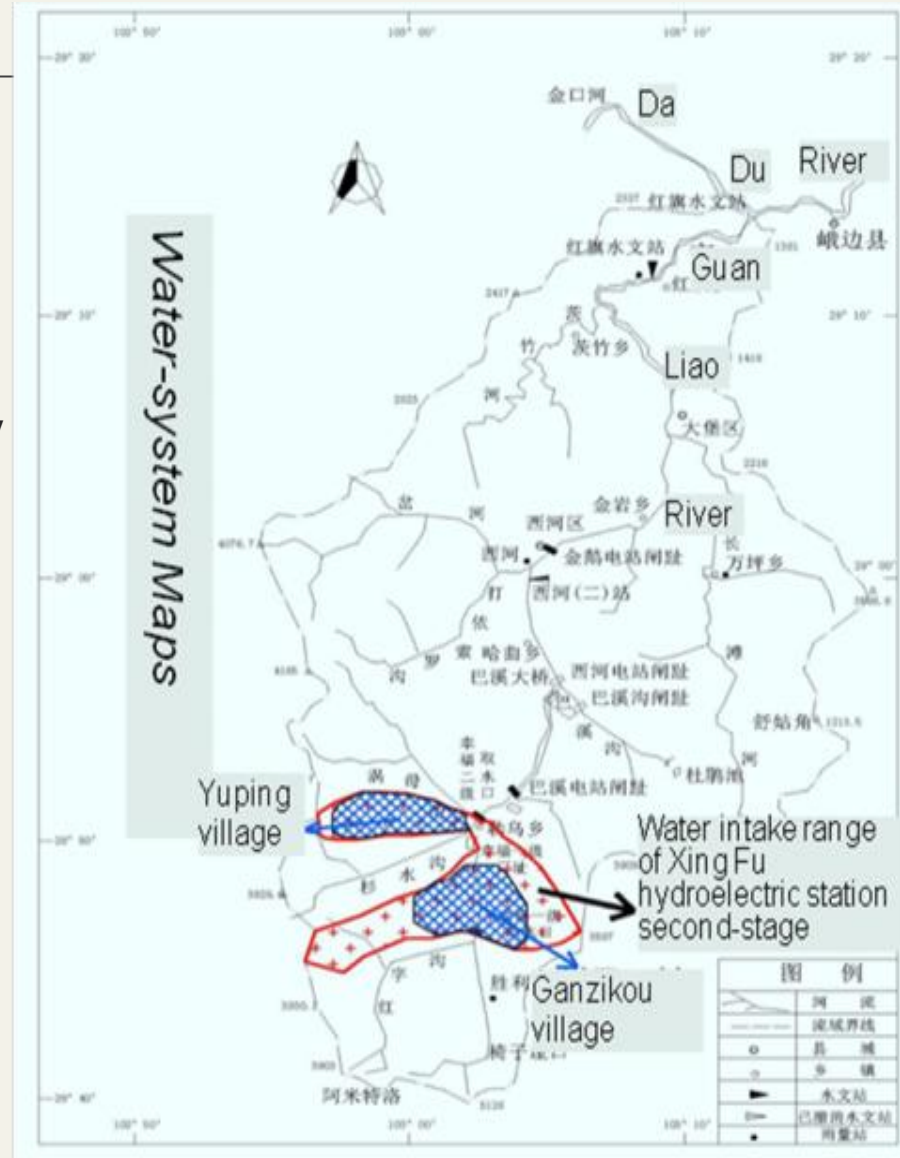


## Chishui Site Development Trip in Dec 2011



## 3.1. Guanliao Watershed

- **Important Gaint Panda Habitat**  
Neighbor of Heizhugou Nature Reserve
- **Hydrological, Social and Economy conditions**
  - **Hydrology:** Water resources in Guanliao river is used for hydropower generation. 12 middle/small hydropower stations within 70KM
  - **Social culture conditions:** 100% Yi ethnic minority communities
  - **Economic conditions:** Below poverty level, Annual income: 2,000 RMB/person (322 USD)







Potential buyer – Xingfu II  
Hydropower Station



2011/6/11 12:31

Power generation factory of Xingfu II



2011/5/19 10:24

Reservoir of Xingfu II



## Potential Sellers – two upstream communities, GanZiKou and Yuping Village



2011/5/19 10:24



# Main Hydrological Problem

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**Upstream: Soil erosion**

**Downstream: Sediment deposition**





Landuse of upstream communities



2011/11/17 11:07





Firewood of villagers



## Yi people in Guanliao Watershed



# Interview farmers







**Introduce PWS project to local government sector and corporate in the meeting room of E'bian county government, in July 2011.**

- Capacity
- Willingness
- Support of local government

**were confirmed by key players after meeting**





-Joint landuse survey with manager of hydropower station and officer of nature reserve

- Community workshop and assessment

-Hydrological analysis



Ebian Field work were conducted in 2012. Upstream-down stream MOU have be discussed and will be signed in next month





An indicative CBA has been done and based on that a MoU was signed in 1<sup>st</sup> June 2012 in Chengdu, Sichuan

#### Media Report:

- Sichuan selected for the first ecological compensation project  
<[http://wwf.mediaroi.com.cn/clip\\_detail.php?ID=40789](http://wwf.mediaroi.com.cn/clip_detail.php?ID=40789)>
- Downstream companies pay for reduction of soil and water loss in the upstream areas 搜狐 [www.sohu.com](http://www.sohu.com) (06/02/2012)
- Upstream areas plant trees to protect the soil and water, downstream areas pay for the services 新浪网 [www.sina.com.cn](http://www.sina.com.cn) (06/02/2012)
- Sichuan selected for the first ecological compensation project  
搜狐 [www.sohu.com](http://www.sohu.com) (06/01/2012)
- WWF official: ecological compensation project may help effectively solve river protection problem in China
- 中国新闻图片网 [www.cnsphoto.com](http://www.cnsphoto.com) (06/01/2012)
- WWF selects Ebian county for its ecological compensation project  
中国网 [www.china.com.cn](http://www.china.com.cn) (06/01/2012)
- Ebian selected for the first ecological compensation project in  
四川在线 [www.scol.com.cn](http://www.scol.com.cn) (06/04/2012)



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## 3.2 The 2nd site - Wuma Watershed in Chishui River basin

- 436.5 KM long, The total area of the basin is 20,440 KM<sup>2</sup>.
- The **ONLY** free flowing river basin without dam
- The **ONLY** National Fish Reserve for habitat of rare fish species in upreach of Yangtze
- Virgin forests in Karst landform in sub-tropic areas
- “Chinese Liquor Capital” – Renhuai
- Identified as priority conservation area of WWF CPO

Location of Chiishui within Yangtz River Basin



# Problems

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## Water risk to distillery industry:

1. Water Pollution
2. Water Quantity

## Communities

1. Poor livelihood (High population density in upstream: 341 people/ Km<sup>2</sup> with annual income 1,351RMB ( 218 USD) / person )
2. Stony desertification and soil erosion caused by unsustainable agriculture
3. Non-point pollution caused by cultivation
4. Lack of sewage and rubbish treatment

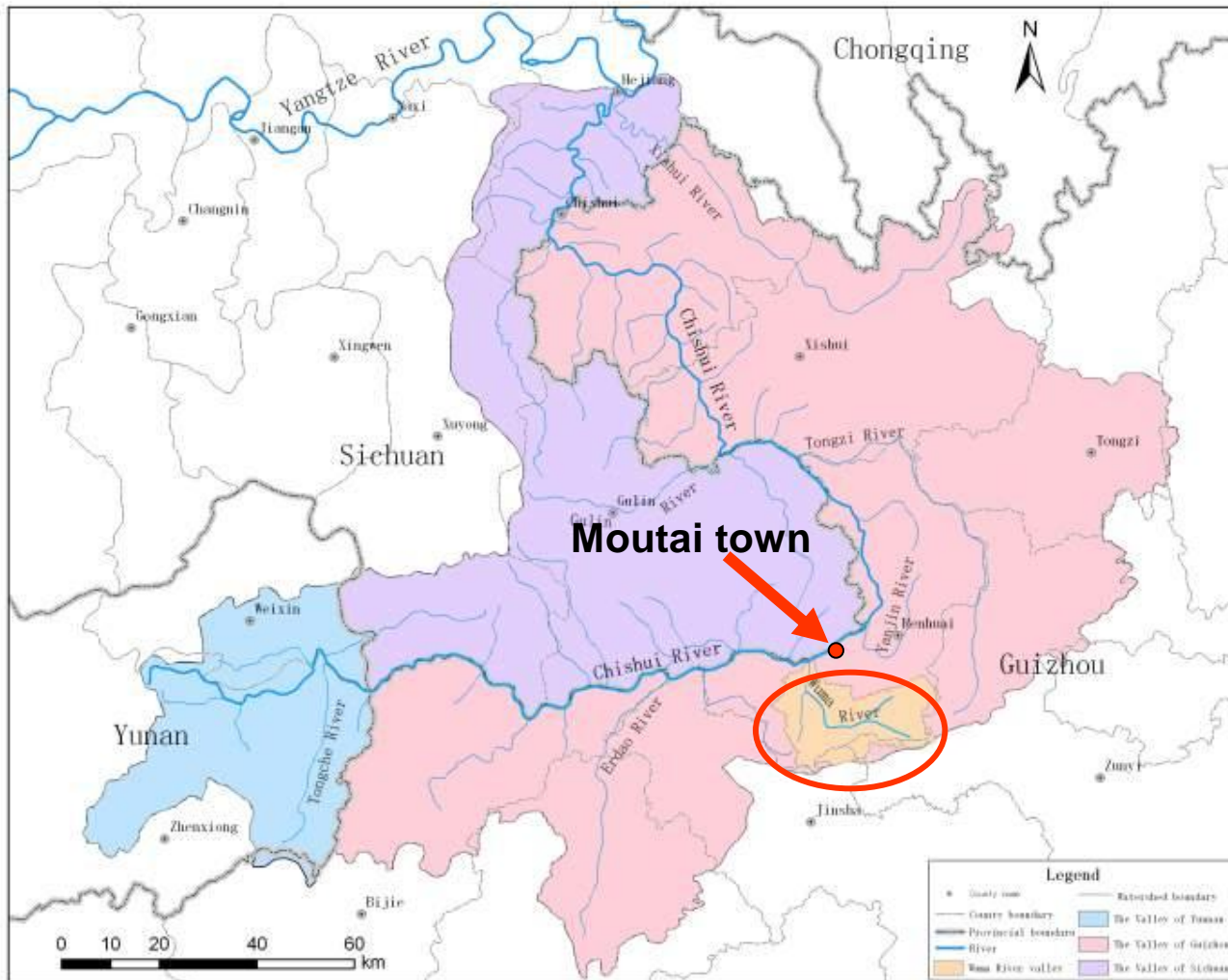




## Wuma town and Wuma river



## Wuma Watershed



The Wuma watershed

- 45 km

- 52,514 ha

- sub-watershed of middle Chishui

- Located in Renhuai and 13km away from Moutai town





### **Possible buyer: The Moutai Distillery Co. Ltd**

- **Production Amount: 26,284 ton in 2010**
- **Provided 18% profit and tax of liquor industry to state government in China 2010**
- **95% tax contributor of liquor industry in Guizhou province and most important contributor to the financial wellbeing of Renhua city**
- **Current price at 260 USD / bottle**
- **The highest price stock in China**
- **Limited Production Amount**
- **Can not be re-located or duplicated because of ecological conditions in the production area**



## Xienong Village (Potential Seller) and Wuma River



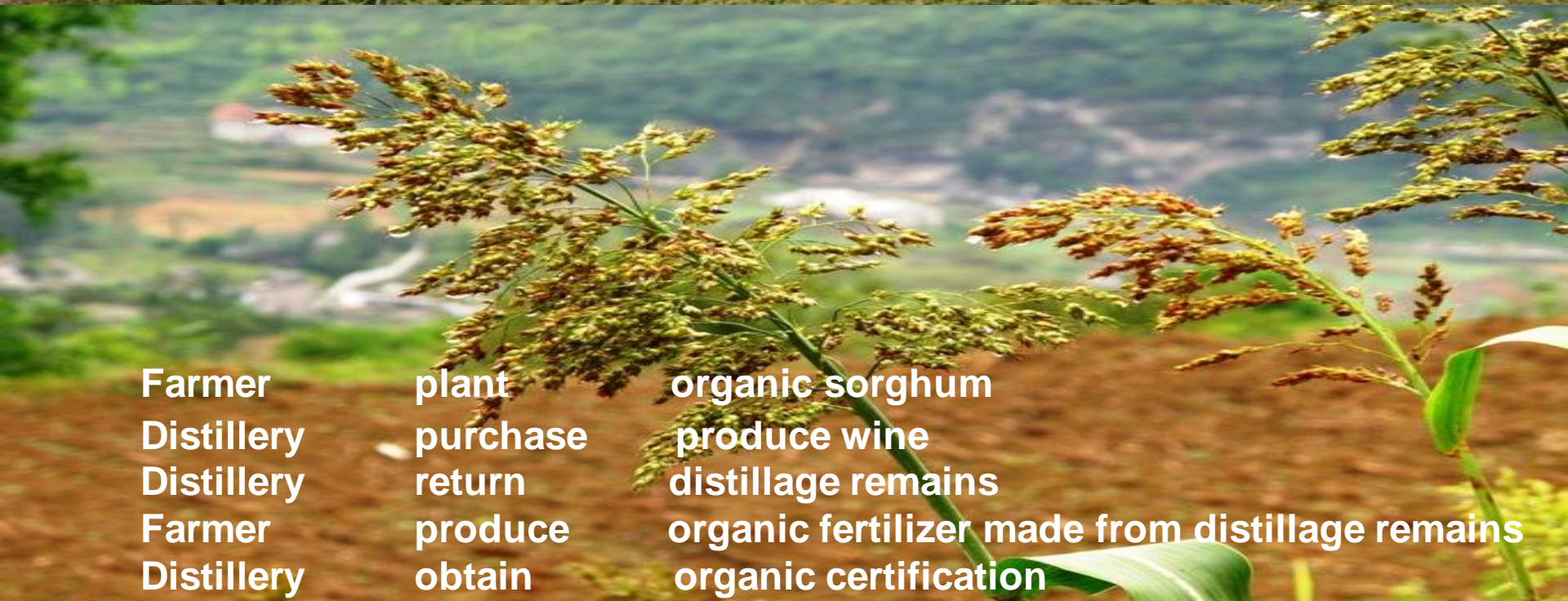


## Land use of Xienong village





## Sorghum plant in Chishui supported by Moutai



Farmer	plant	organic sorghum
Distillery	purchase	produce wine
Distillery	return	distillage remains
Farmer	produce	organic fertilizer made from distillage remains
Distillery	obtain	organic certification



## A quick stakeholder survey (private and public sectors)

### ➤ The distilleries in middle reach of Chishui River

- Worried about the continued deterioration of water quality and reducing of water quantity will affect the long-term development of liquor industries;
- Discussion and understanding on green economy
- Willingness and capacity to pay for ecosystem service, but need to have the right reason and a sustainable solution.

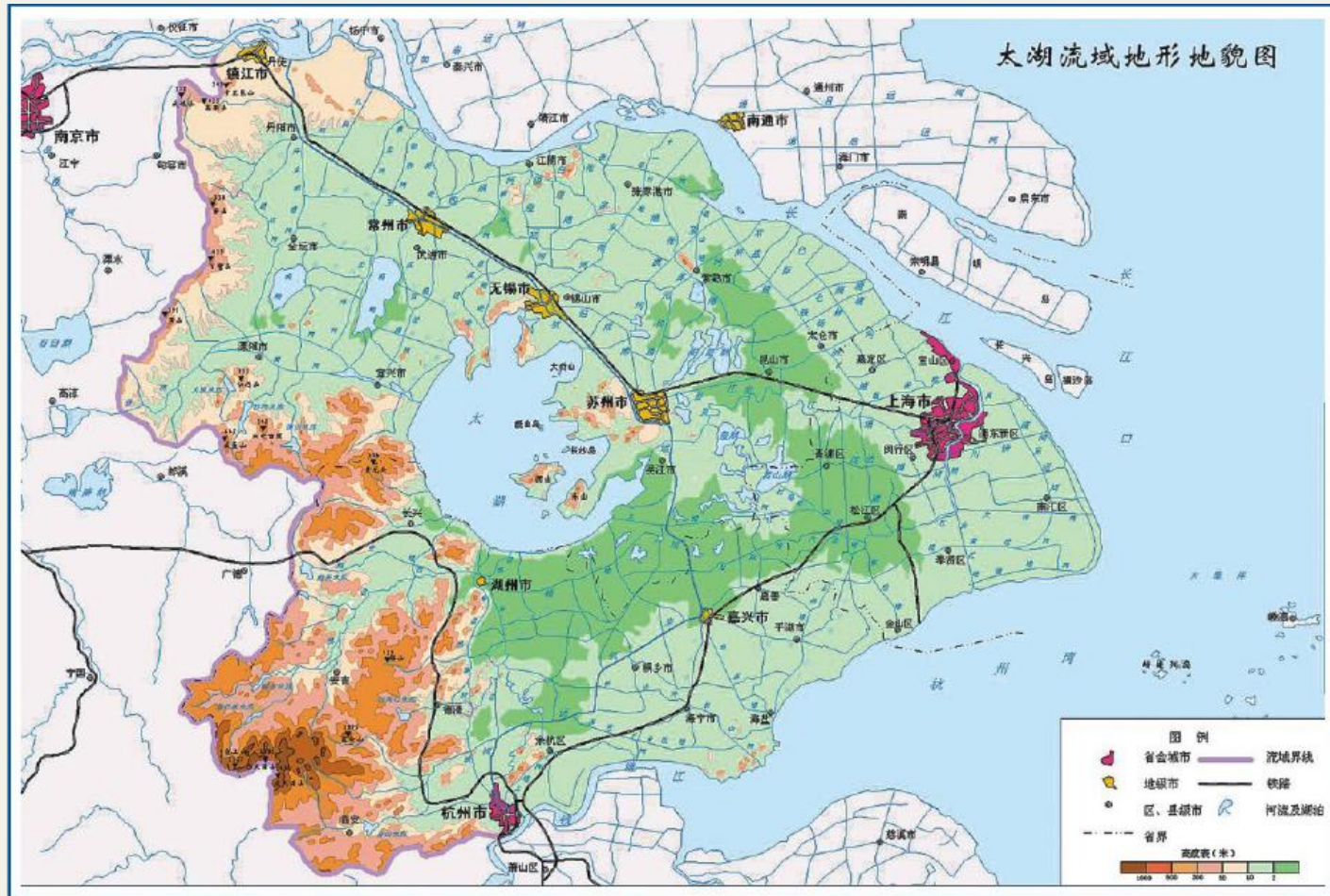


Interview with representatives from distilleries

### ➤ The local government

- Eager to solve conflict between poor community and profitable enterprises which can strongly contribute to local economic development
- .Willingness and capacity to try new approaches on watershed management, such as PWS
- Good working relationship with WWF

# 3.3 Tai Lake Pilot



Territory 0.4%

0.4%的国土面积



Population 3.8%

3.8%的人口



11.0%的GDP

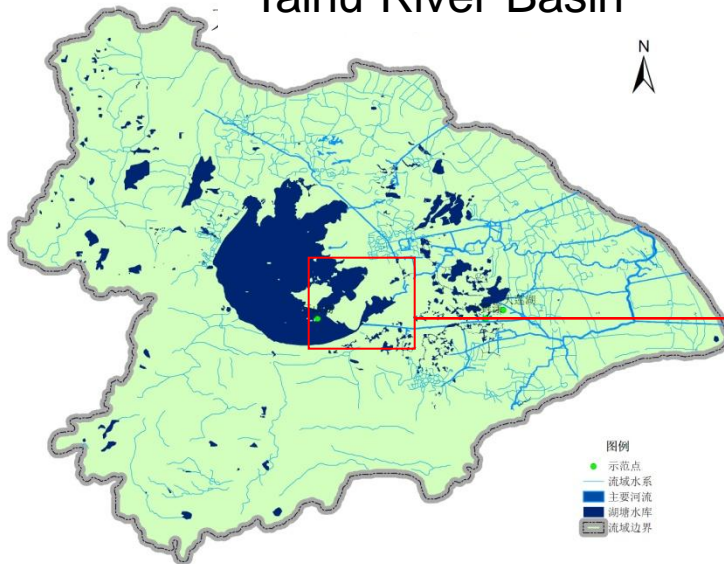
GDP 11.0%



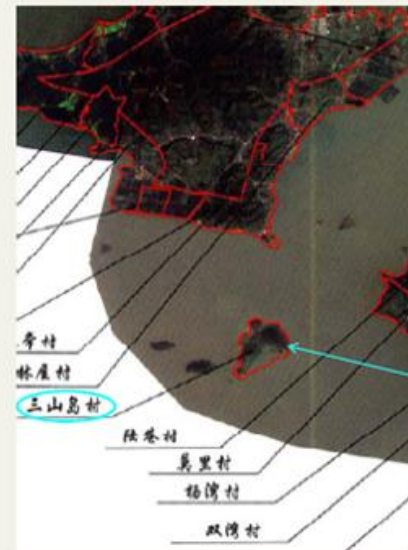


# Reselection of pilot area

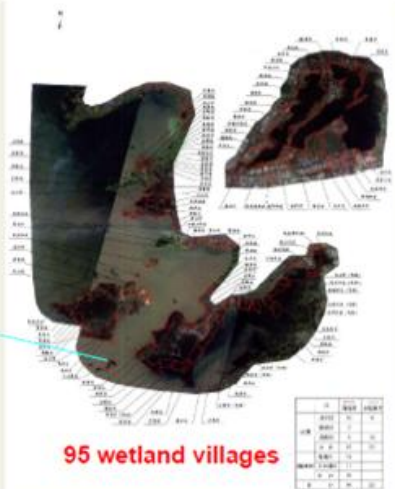
Taihu River Basin



Pilot Project of Community Wetland



Wetland Distribution around Taihu Lake in Suzhou



## Favorable Policies

- Suzhou City, 31.66% of its area is wetlands, which is facing threats.
- Livelihoods: Richest community( annual income more than 100 million RMB) vs. Poor community (annual income not more than 200,000 RMB)
- Established *Eco-compensation Funding* in Suzhou since 2011.(110 million RMB in 2010 and 1.5 billion in 2011 )
- Launch of *Wetland Conservation Regulation of Suzhou*, Jiangsu on 2<sup>nd</sup> Feb, 2012
- Managers, farmers and communities of Farmland in riparian area, drinking water source area, important wetland and identified ecological forest will be paid.
- 1,000,000 RMB for each community in drinking water source area; 500,000 RMB for each community in priority wetland area. Benefited 118 communities in total.





# Targeted leading enterprises

491

global top 500 companies have branch offices in Taihu basin.

332

transnational enterprises had regional headquarters in Taihu basin.

325

transnational enterprises had regional R&D centers in Taihu basin.

70

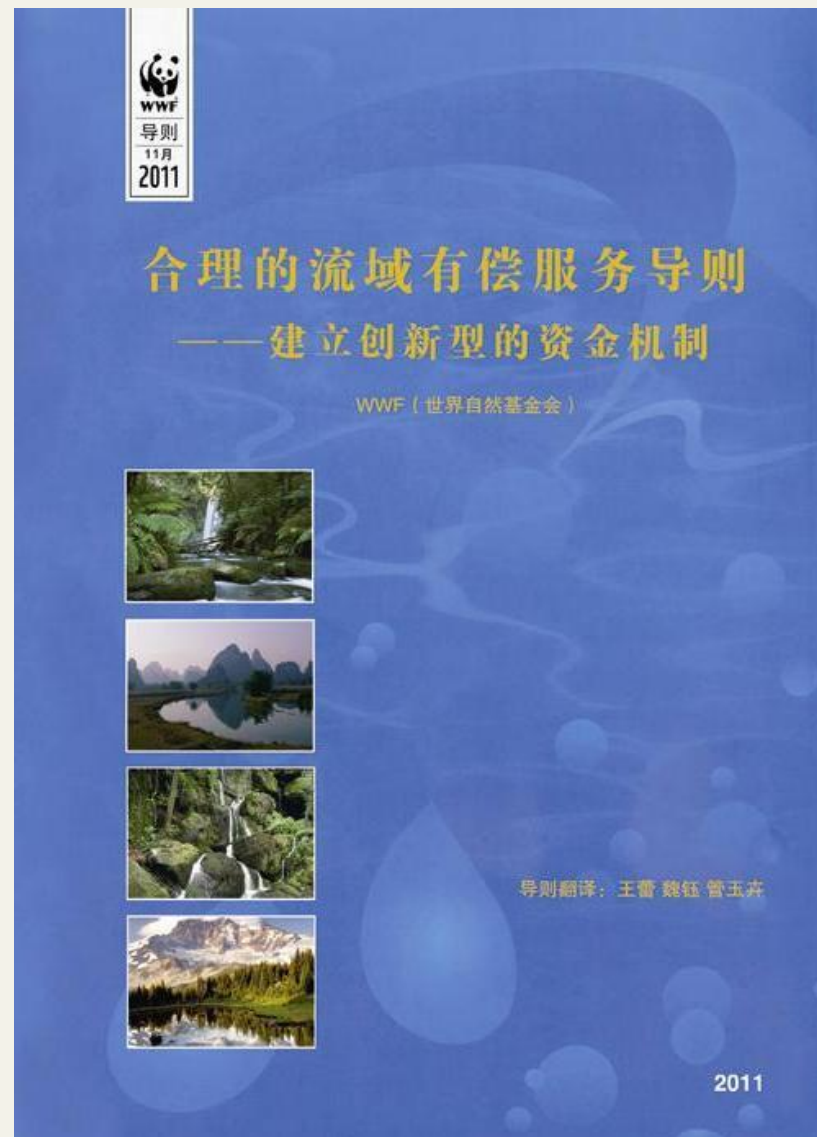
global top 500 companies had regional headquarters in Taihu basin.

# **4. Communication and Partnership**

## **Building for scaling-up**

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## WWF has been recognized as a pioneer on PES mechanism development in China through efforts

## PWS Pilot Development in China

Oct 2011, WWF visited **ADB** headquarter and agreed on future cooperation on PWS in Chishui River

Nov 2011, WWF was invited by **NDRC** to give presentation on Ebian PWS site development on International Conference on Eco-compensation of Lake, Wetland and Eco-compensation Legislation in Jiujiang, Jiangxi and reviewed and provided comments on the draft of National Eco-compensation Regulation during meeting.

Feb 2012, Julio was contracted by **MEP** as Chief International Expert for PWS National Demonstration Development(in Chishui and Bibei River Basin

March 2012, CPO visited **ADB** and consolidated cooperation with ADB on pilot development in Chishui for promoting PWS mechanism in China

April 2012, CPO was invited to provide comments on MEP's proposal for UNDP and GEF; Julio had a field trip in Chishui and Bibei River Basin jointly organized by **MEP and Guizhou&Chongqing local government.**

April 2012, CPO co-sponsored High-Level Water Round Table in Beijing and PES pilot development was introduced to **MWR** etc. from different perspective by Jim G. and Julio during conference.



生态补偿立法与湿地生态补偿国际研讨会全体代表合影  
Group Photo of 3rd International Conference on Eco-compensation: Lakes, Wetlands and Eco-compensation Legislation





## 5. Opportunities and Next Step



# Opportunities

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- **National Level**

- *Payment Regulation on National Priority Ecological Function Areas* 《国家重点生态功能区转移支付办法》 (based on *National Major Function Oriented Zoning*) officially issued on 28<sup>th</sup> July 2011 by Ministry of Finance, which started investment from 2008, have spent 30 billion in 2011/ planed 50 billion for 2012
- *Annual Conference on Eco-compensation* in 2012
- ADB-NDRC Cooperation Platform on *Eco-compensation Legislation drafting process*
- Big investment on eco-compensation/pes related project from UNDP and GEF
- Funding opportunity from ADB for *Private-Public–Partnership on Watershed Management*

- **Regional / River Basin Level**

- *Sustainable Development Plan of Chishui River Basin*, initiated and lead by MEP and focus on eco-compensation, will start from 2012 to 2015.
- *Strong support of local government*, eg. Guizhou Provincial People's Congress, Guizhou DRC and Guizhou EPD, Renhuai EPB on PES field.
- *Distilleries & Moutai's positive attitude* on further cooperation with WWF on PES are face to face confirmed.





# Next step on pilot development

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## 1. E'bian site in Sichuan

- Complete reports on hydrology, community legislation and cost/benefit analysis by June
- Signing MOU between communities and hydropower company (completion of Phase I)
- Practice on landuse changing – starting phase II

## 2. Tai Lake in Jiangsu Feasibility study (clearly identify buyer and seller, project scope)

## 3. Chishui River in Guizhou

- Hydrology and socio-ecology assessment and define scope of pilot community
- Engage Moutai and distillery sector in Chishui (eg. Developing MOU, supporting water risk analysis)
- Community assessment and capacity building
- Study on Karst ecosystem restoration(water quality, quantity, run-off pattern and soil erosion control)
- Continuingly support implementation of Integrated Conservation Plan of Chishui River in Guizhou by Guizhou Provincial Congress and developing of Sustainable Development Plan of Chishui River led by Guizhou DRC



# Thank you

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[www.panda.org](http://www.panda.org)

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