

# Mainstreaming Eco-compensation into Sustainable Development Agenda: the Asian Development Bank Vision

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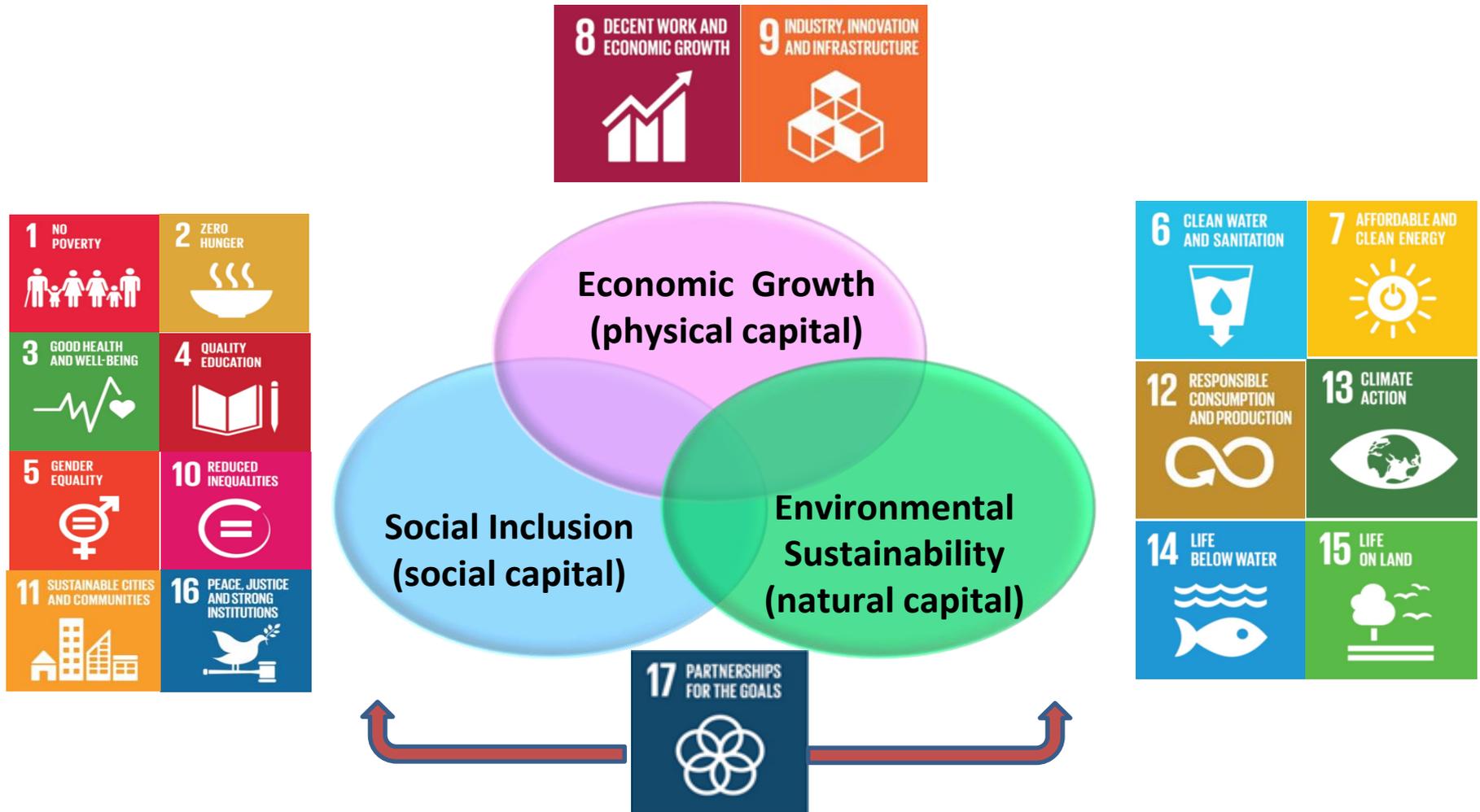


# Outline

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- I. Context of Sustainable Development Goals and “Green Mountains–Gold Mountains”
- II. Progress and Key Challenges
- III. Eco-compensation for Yangtze River Watershed Service Protection
- IV. Vision for the Future

# SDGs: Tackling Environmental Challenges



ADB, IED 2017. Topical Paper Knowledge, Finance, and the Quality of Growth.

# SDGs for Investing in Natural Capital

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- ▣ Examining opportunities for investing in natural capital (business case) [SDG 15.9]
- ▣ Mainstreaming use of economic valuation of natural capital to better capture return on investments [SDG 15.9]
- ▣ Mobilizing public and private finance for natural capital investments [SDGs 15 a,b, 17.3, 17.17]

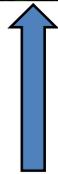
# Key Elements for “Green Mountain to Gold Mountain”

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- ▣ Setting up the ecological redline – roadmap for protecting “green mountain”
- ▣ Pricing ecosystem services and eco-products
- ▣ Promoting eco-compensation: cost-benefit sharing among stakeholders on ecosystem services protection
- ▣ Public-private partnership financing mechanism for natural capital investment

# Good Progress on NDRC-ADB Cooperation on Eco-compensation

## Conferences



An innovative financing mechanism for environment and natural resources management in the PRC



## Publications and Policy Support

Payments for Ecological Services and Eco-Compensation  
Practices and Innovations in the People's Republic of China



Eco-Compensation for Watershed Services in the People's Republic of China



An Eco-Compensation Policy Framework for the People's Republic of China  
Challenges and Opportunities



Regional Eco-compensation Knowledge Hub Establishment



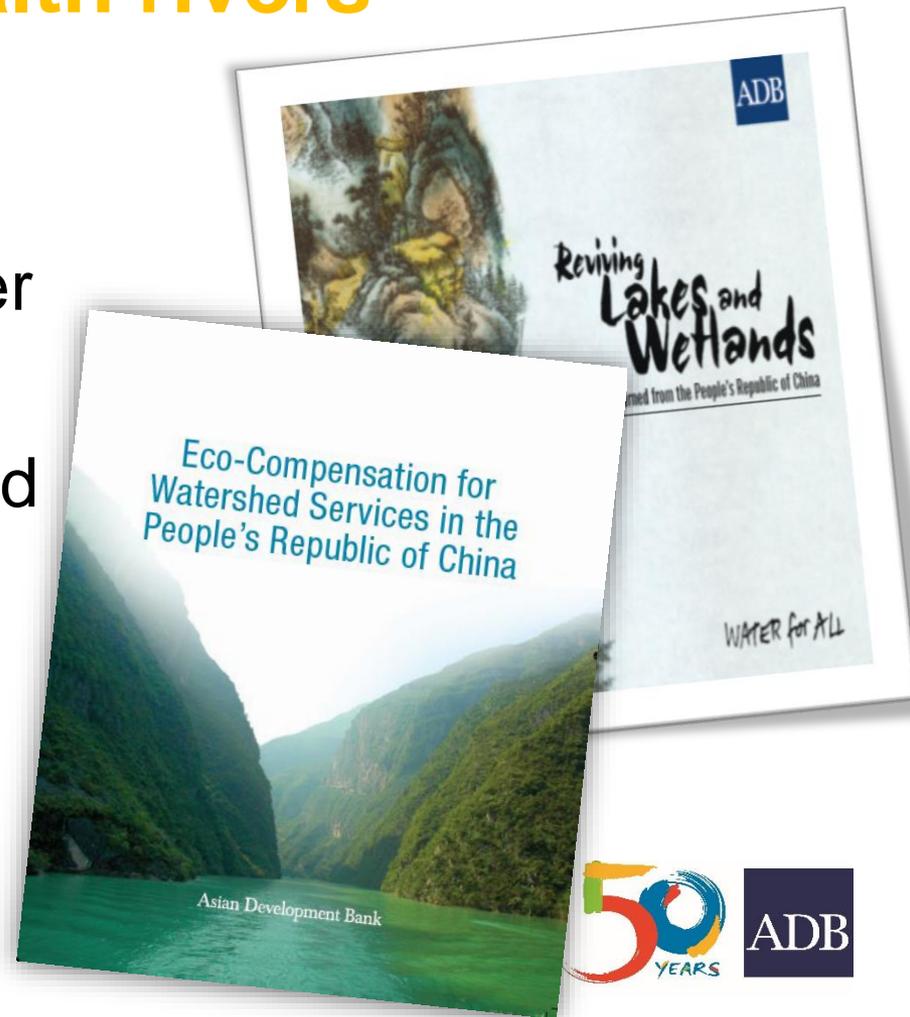
Eco-compensation in Lending and TA projects



# ADB Knowledge Product's Findings:

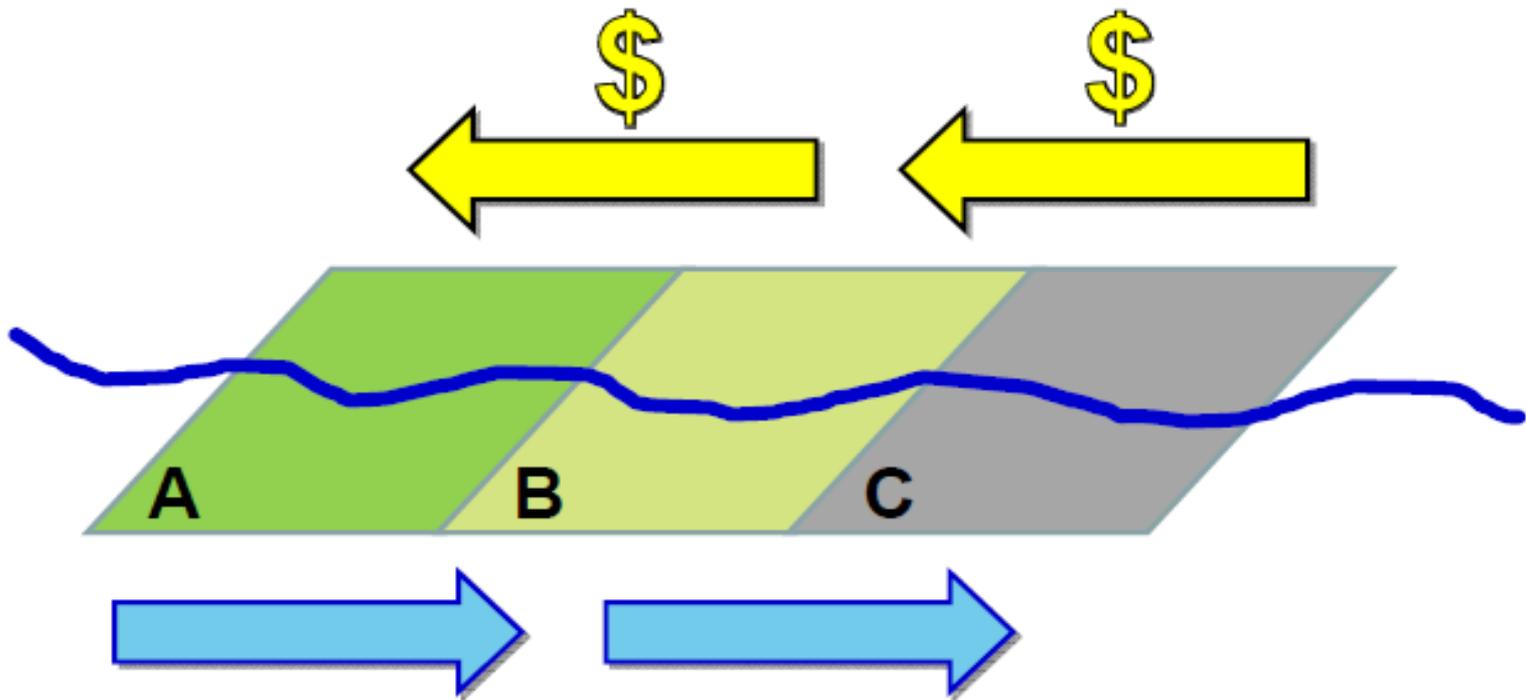
## PES is an essential success factor for reviving health rivers

- ▣ **Institution:** effective management structure
- ▣ **Economic:** integrated water and land use planning
- ▣ **Social:** alternative livelihood to support local community
- ▣ **Environmental:** payments for ecosystem services to reflect environmental “externality”



# (i) Trans-boundary Issue:

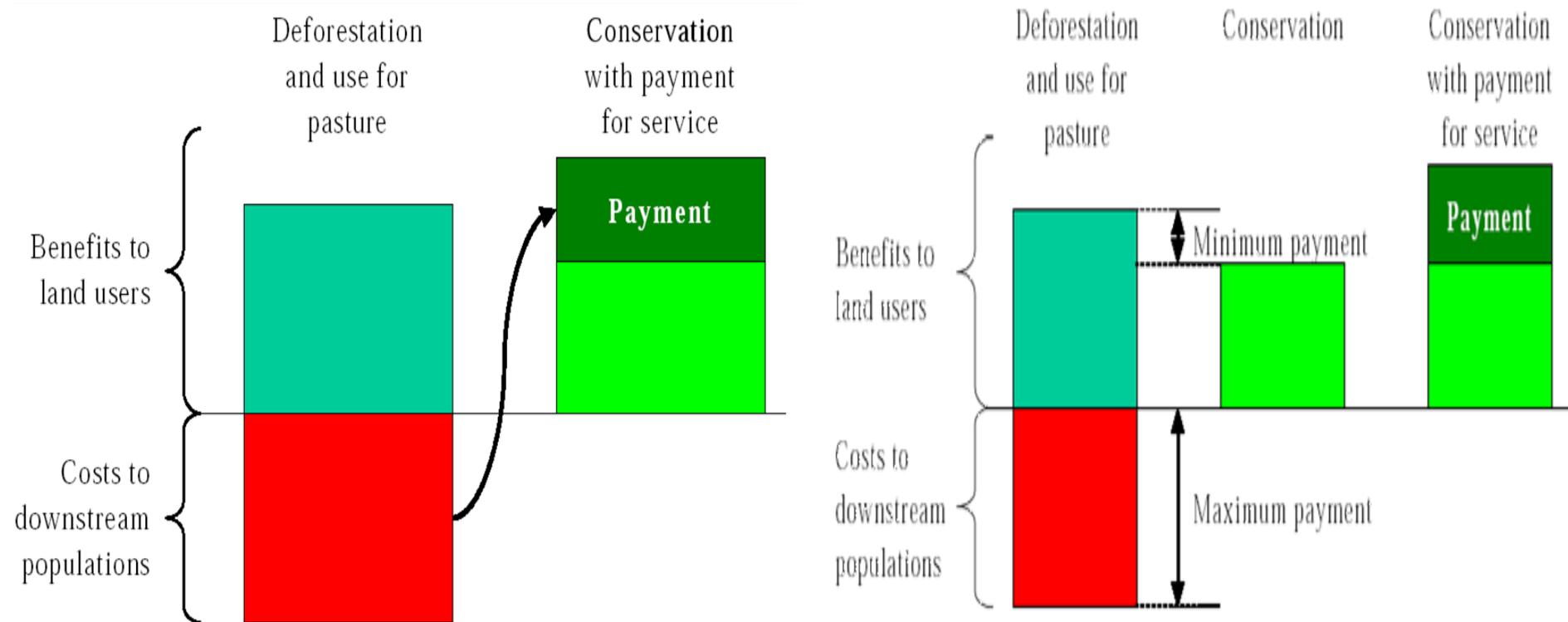
## Cost-benefit Sharing Mechanism Between Upstream and Downstream



**Watershed Services**

# (ii) Payments Offered to Sellers

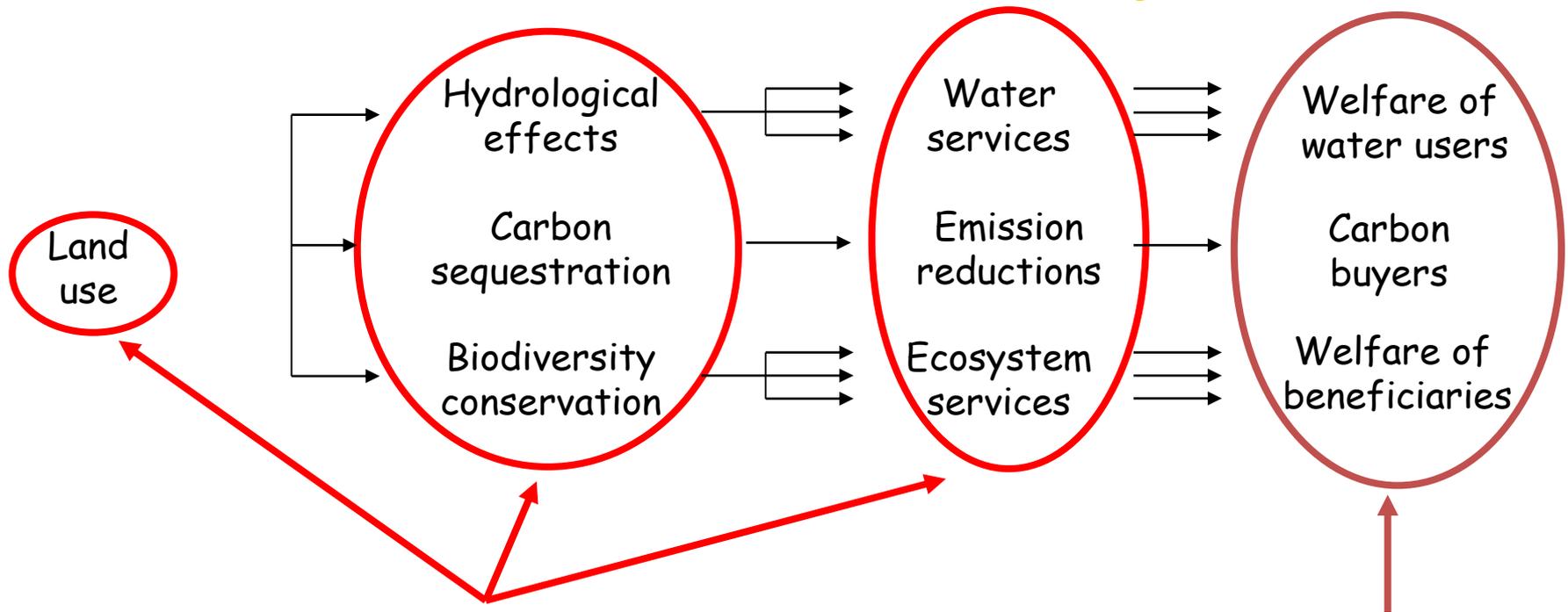
## Must Exceed Additional Benefits Received from Alternative Land Use



Source: Pagiola, S., World Bank, 2002

# (iii) Valuation Problem:

## Scientific Uncertainty



**Bio-physical relationships**

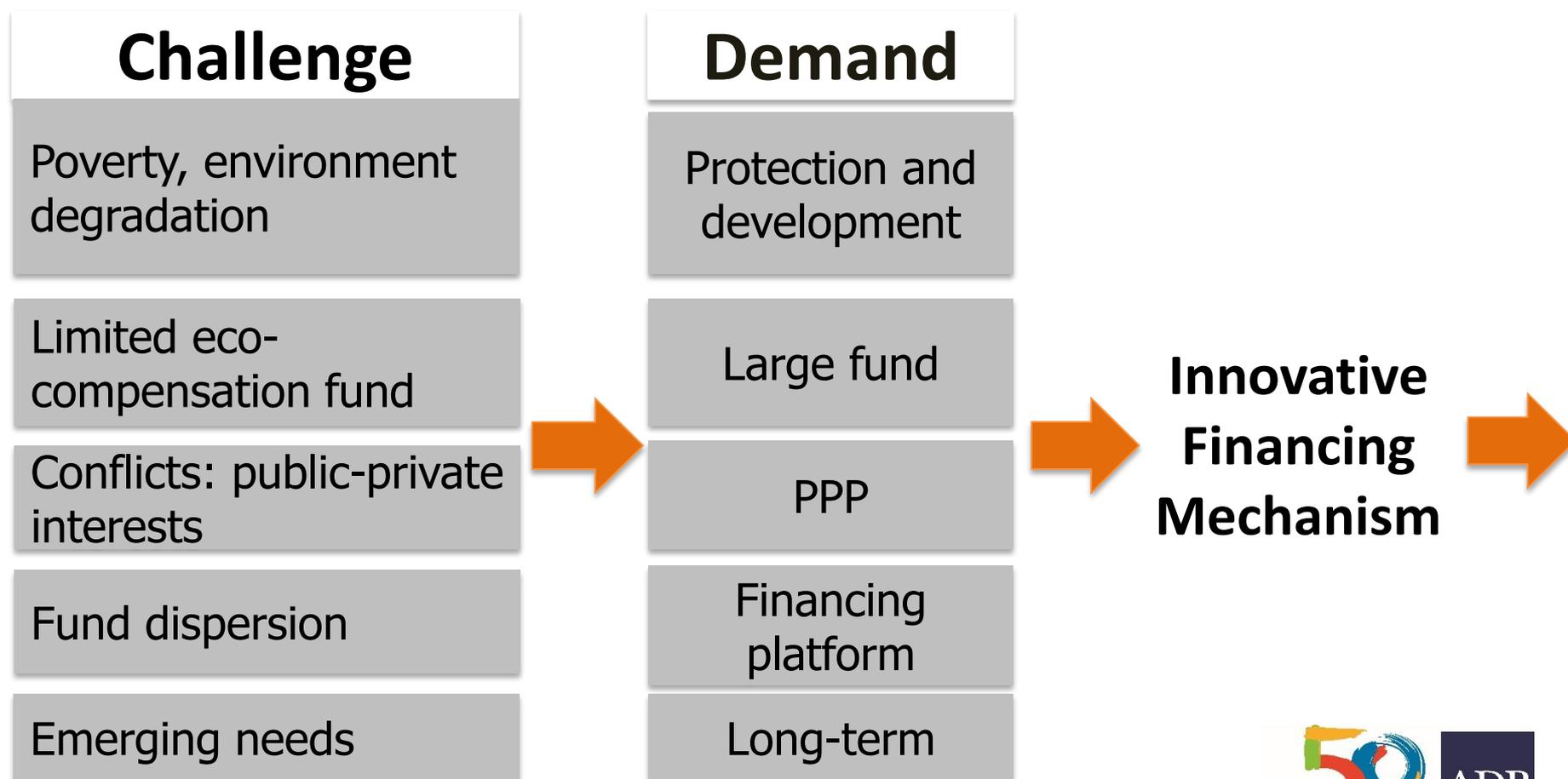
**Valuation Begins here!**

Independent expert panel consisting of scientists and economists should be formed for PES design



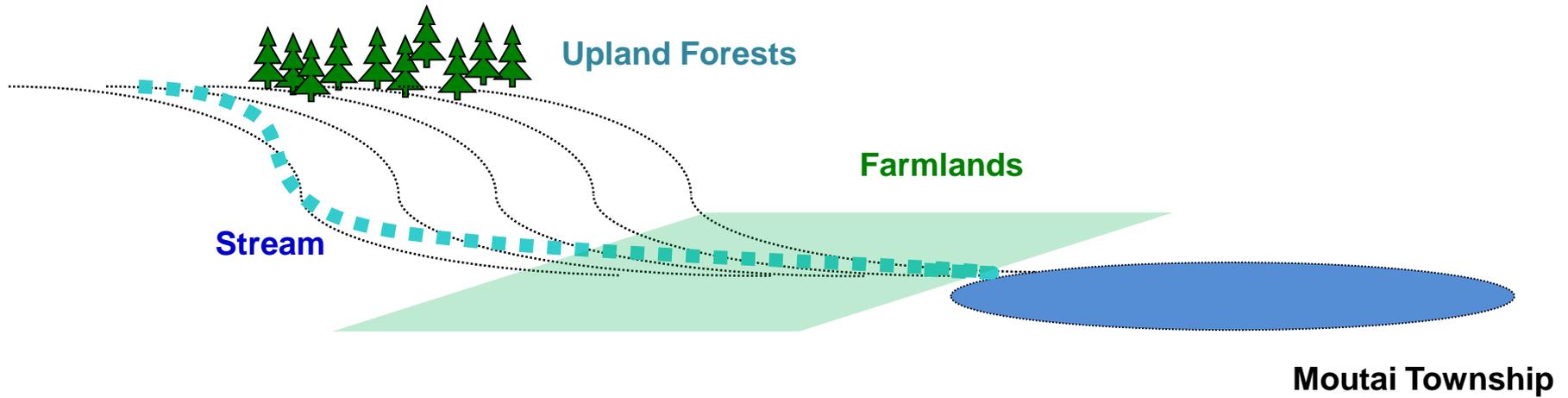
# (iv) Poverty-Environment:

## Limited Eco-compensation Fund



# (v) Pricing Reform

## Essential To Ensure Private Sector Participation



**Payments for Chishui watershed management are currently conducted as follows:**

Moutai Liquor Company ♦ provincial government ♦ Chishui

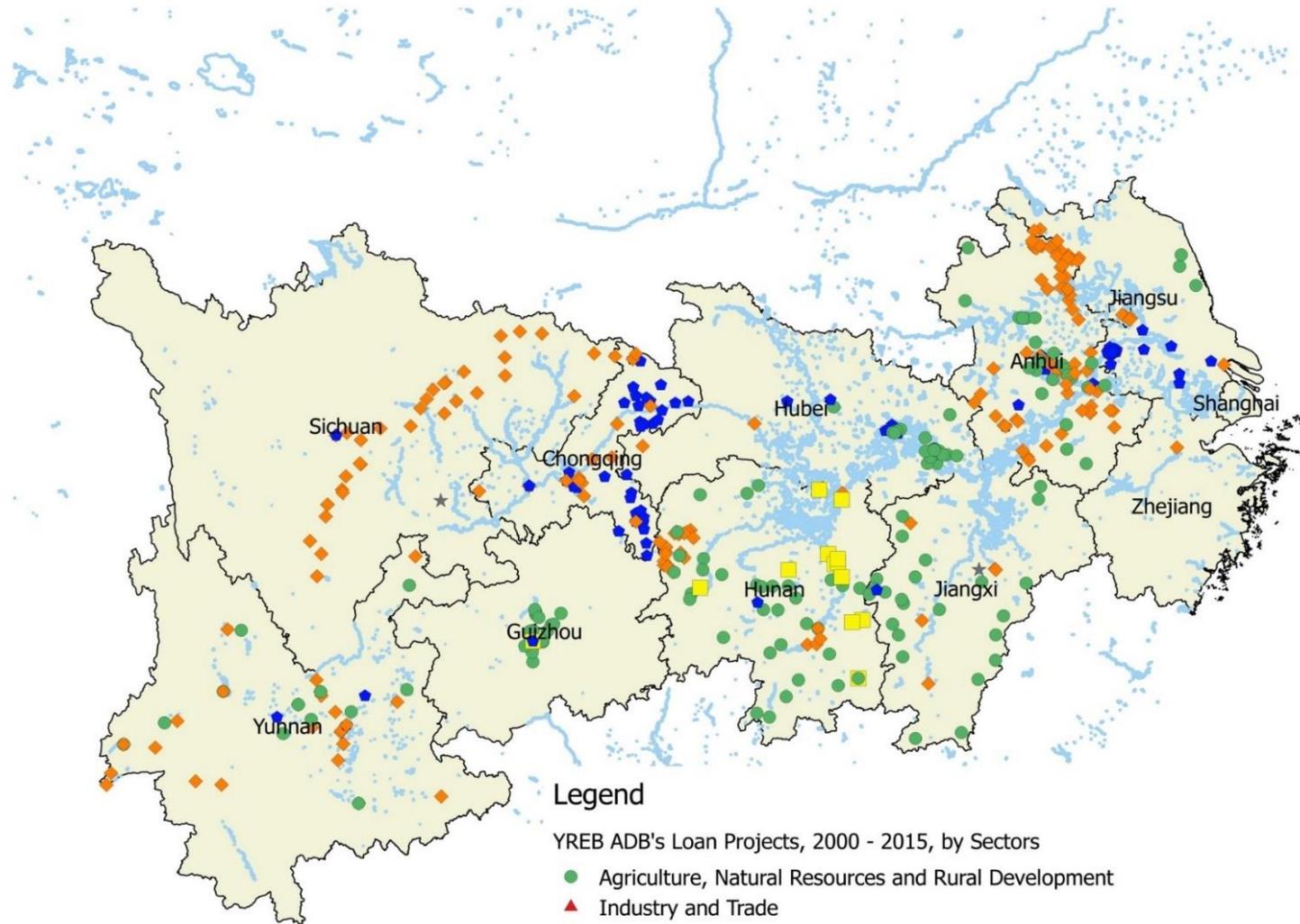
***Could this be changed to***

**Joint PPP Mechanism ♦ Chishui ?**

# ADB Programmatic Approach for YREB (2017-2020)

<b>Geographical areas</b>	Seven provinces and one municipality in the middle and upper reaches
<b>Indicative budget</b>	\$2.0 billion
<b>Priority areas of the Yangtze River Economic Belt Development Plan</b>	<ol style="list-style-type: none"><li>1. ecosystem restoration, sustainable forest management, environmental protection and integrated water resource management</li><li>2. green and inclusive urban and industrial transformation</li><li>3. low-carbon integrated multimodal transport corridors</li><li>4. institutional strengthening, policy reform and finance</li></ol>
<b>Preferred interventions</b>	catalytic, innovative, and adoption of high-level technologies

# ADB Assistance along the Yangtze River Basin (2000–2015)



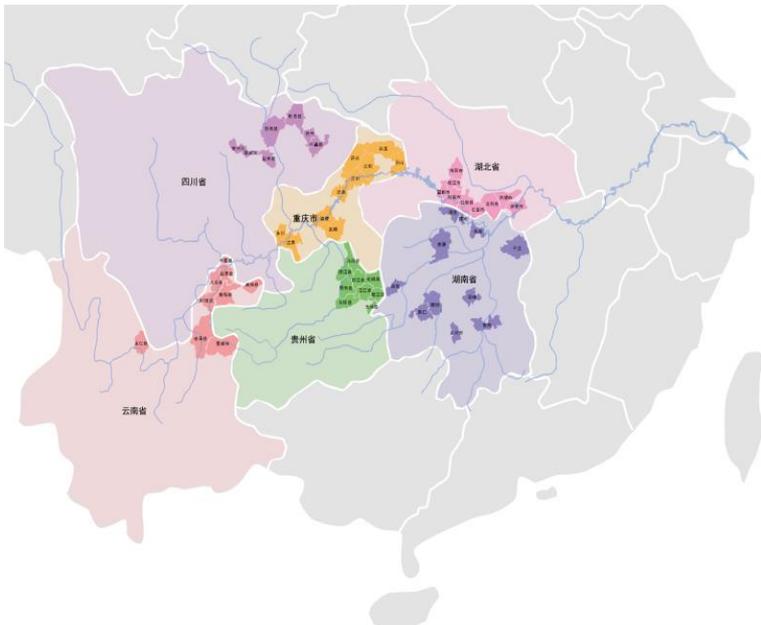
## Legend

YREB ADB's Loan Projects, 2000 - 2015, by Sectors

- Agriculture, Natural Resources and Rural Development
- ▲ Industry and Trade
- Education
- ★ Energy
- ◆ Transport and ICT
- Urban Infrastructure and Services

# (i) Yangtze River Green Ecological Corridor Project (\$300M, 2018)

- ▣ River basin approach for ecological protection and watershed restoration
- ▣ Addressing soil erosion, nonpoint source pollution, agriculture waste management, water resource management
- ▣ Eco-compensation for nonpoint source pollution reduction
- ▣ Improved agriculture systems for rural livelihoods and food safety



## *Institutional strengthening*

- Watershed-level farmer organization and local authorities
- Interagency cooperation along the Yangtze
- Key agencies: State Office of Agriculture Comprehensive Development, NDRC Rural Economic Division, and the Yangtze River Commission

### **6 Provinces:**

Hubei, Hunan, Chongqing,  
Sichuan, Yunnan, and Guizhou



# (ii) Chongqing Longxi River Rehabilitation (three Gorges Catchment, \$150M, 2018)

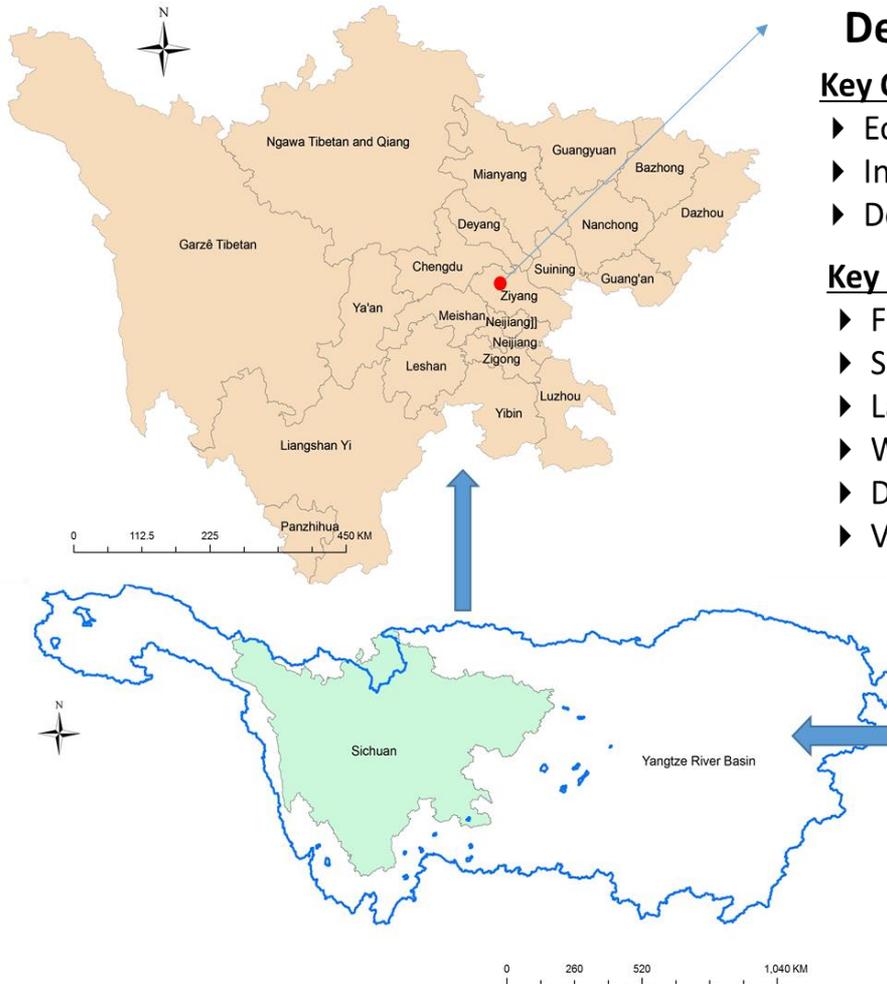


**Chongqing City's:**  
(a) Changshou District  
(b) Dianjiang County  
(c) Liangping County



- 1. Integrated flood management**
  - levees and weirs
  - bank protection
  - “Sponge City” construction
- 2. Water quality improvement**
  - wastewater collection and treatment
  - solid waste management
  - riparian buffer zones,
  - ecological management and wetlands protection
- 3. Capacity development**
  - river basin modelling
  - water monitoring and data
  - flood forecasting and early warning
  - community-based flood and environmental management

# (iii) Sichuan/Chongqing Green Transformation and Development Project (\$400M, 2018/2019)



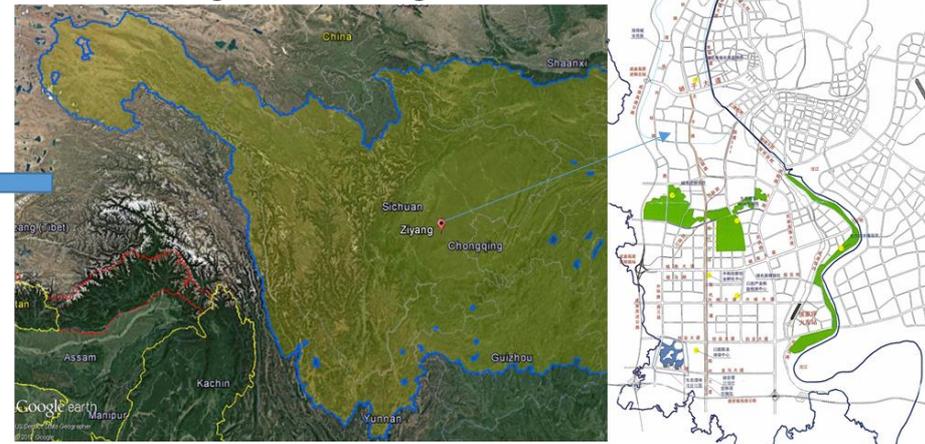
## Sichuan/Chongqing Green Transformation and Development Project

### Key Outputs:

- ▶ Ecological Systems and Environmental Infrastructure enhanced
- ▶ Industrial Economic Sector Opportunities Diversified
- ▶ Development Planning and Management Capacity Strengthened

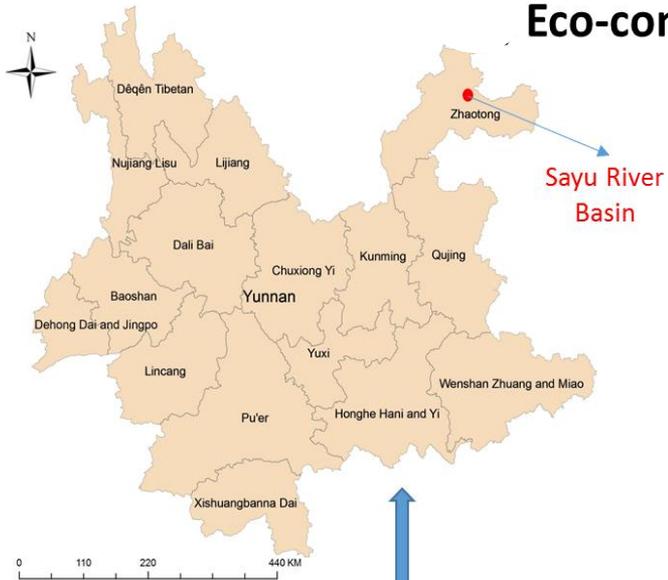
### Key Activities:

- ▶ Flood control,
- ▶ Sponge city,
- ▶ Landfill transformation,
- ▶ Wetland development,
- ▶ Dental care sector support,
- ▶ Vocational training, urban management and monitoring system



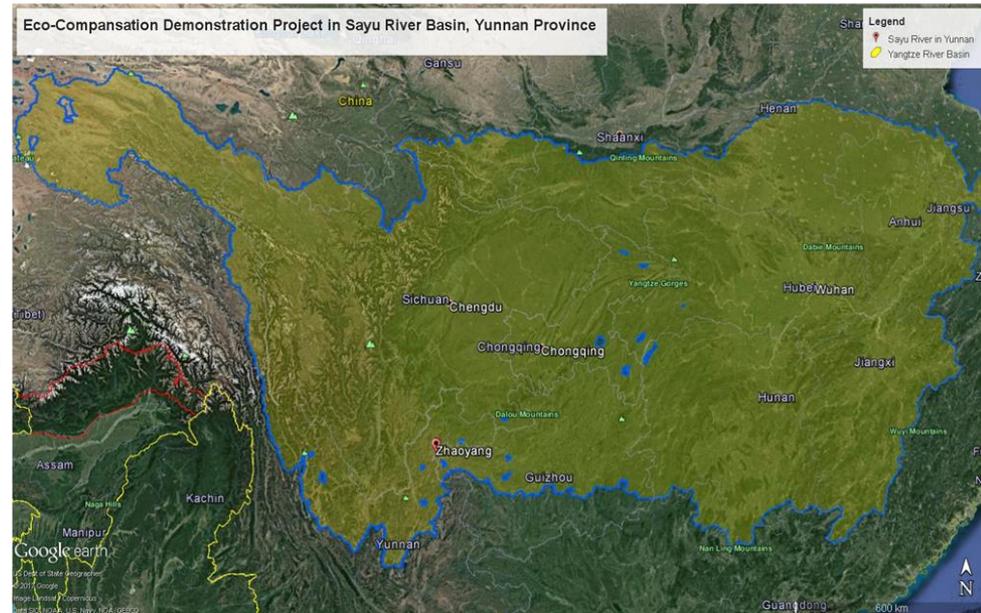
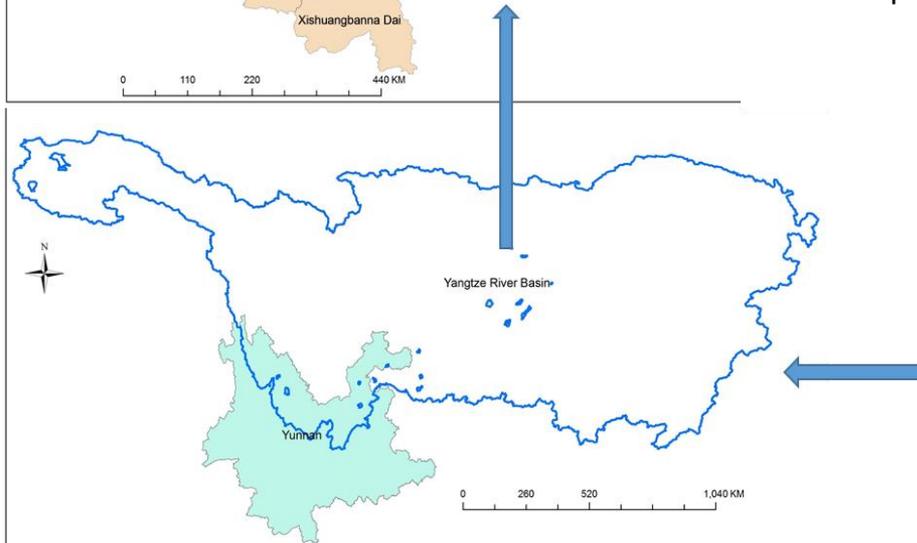
# (iv) Eco-compensation Demonstration Project for Sayu River Basin, Yunnan (\$100M, 2019)

## Eco-compensation Demonstration Project for Sayu River Basin, Yunnan in the Upstream of the Yangtze River

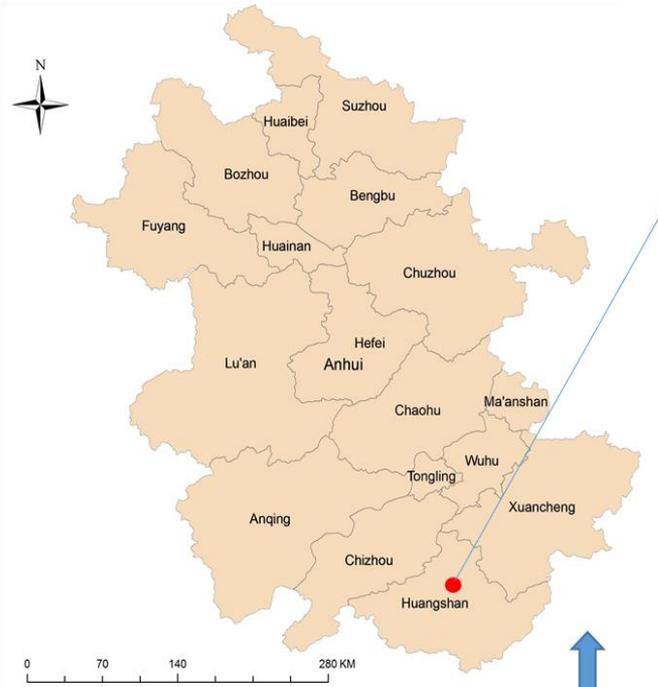


### Key Features:

- ▶ Building the eco-protection compensation mechanism for Sayu River Basin, Yunnan,
- ▶ Ecosystem-clean small basin construction pilot project,
- ▶ Highland specialized agriculture pilot zone, and
- ▶ Project of enhancing the public awareness of eco-compensation protection.



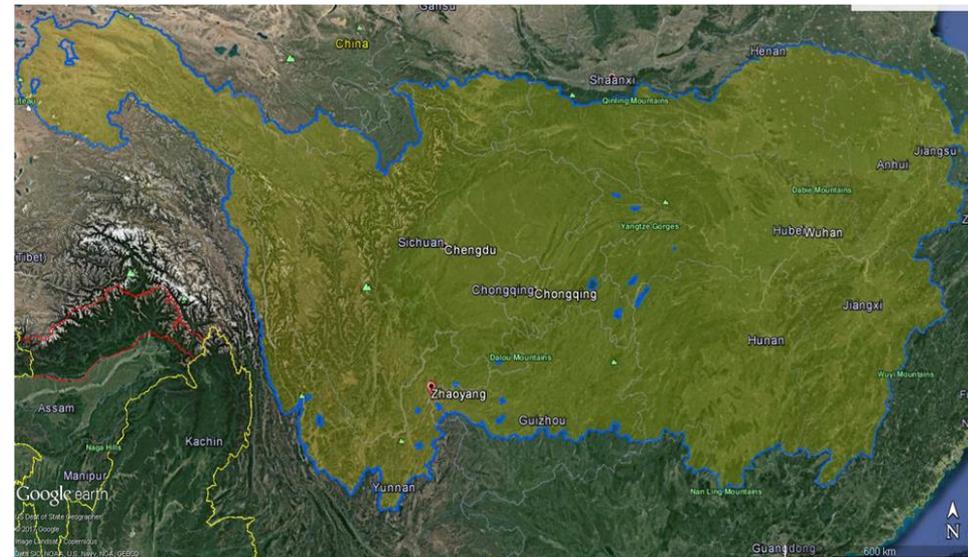
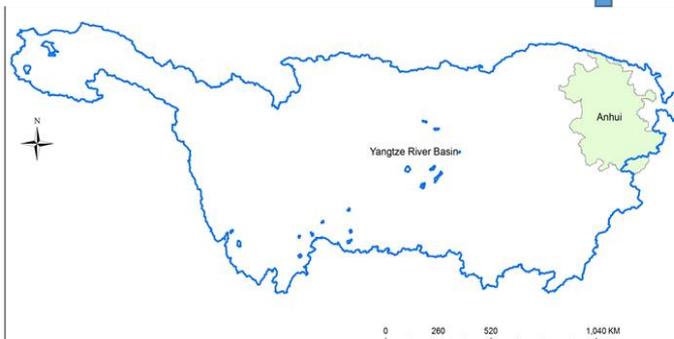
# (v) Ecological Protection and Green Development Project for Xin'an River Basin (\$100M, 2019)



## Xin'an River Basin, Huangshan City, Yangtze river

### Key Features:

- ▶ Building The eco-environment treatment,
- ▶ Eco-village and town construction,
- ▶ Green eco-industry development,
- ▶ Eco-poverty alleviation,
- ▶ Ecological system and capacity building for Xin'an River Basin, Huangshan City, Anhui Province



# Possible Lending Opportunity for Chishui Watershed Protection

## Policy Actions

### Policy Area 1

Provincial policy matrix to achieve ecological civilization, including ecological red-line, water tariff reform, and etc.

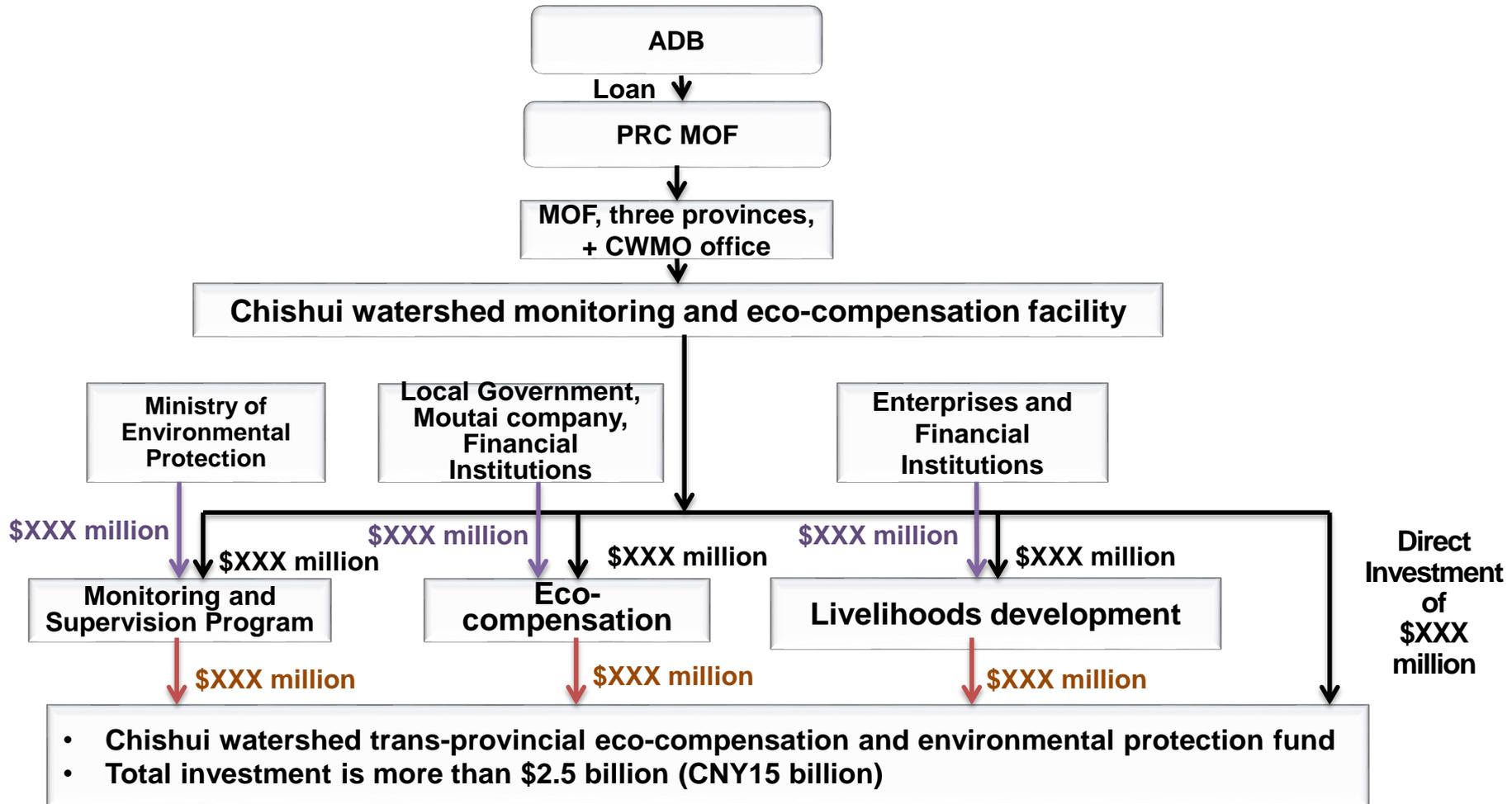
### Policy Area 2

Trans-provincial eco-compensation mechanism or facility

### Policy Area 3

Monitoring & Evaluation Mechanism: supported by the Chishui Watershed Environmental Management Office

# Chishui Eco-compensation Facility



**Chishui watershed environmental protection – Trans-provincial eco-compensation and environmental protection facility**

# Chishui Eco-compensation Facility

**Nature**

Public-Private Partnership (PPP) Fund

**Goal**

Sustainable watershed protection and development

**Water  
quality and  
flow**

**Watershed  
ecosystem**

**Livelihoods**

First PPP Fund for watershed protection in the People's Republic of China

# Vision for the Future

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- ▣ Develop a practical guide for “green mountains to gold mountains” theory
- ▣ Strengthen the monitoring and evaluation system
- ▣ Guide coordinated investments in natural capital
- ▣ Promote south-south knowledge sharing, particularly with the BRI countries

# Yangtze River



**Thank you!!!**