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### Mainstreaming Eco-Compensation into Development : A Retrospective and Prospective Look from ADB

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- A. Context the Evolution of the Eco-Compensation Agenda in PRC
- **B.** ADB's Assistance to PRC Over the Years
- C. Rural Vitalization and Environmental Protection takes Center Stage
- **D. YREB Framework and Eco-Compensation Operationalization**
- E. Next Steps and PRC's Role



# The Catalysts – Floods and Drought

- Historic dry-out of the Yellow River in 1997. Failed to reach the ocean for unprecedented 267 days.
- Major floods in 1998 along Yangtze River Basin, and the Songhua and Nen Rivers in the Northeast.
- Floods claimed ~3,000–4,000 lives. Caused > US\$12 billion in damages and lost production, including the loss of ~ 5 million ha of crops.



 Deforestation and forest degradation in upper watershed areas identified as having exacerbated floods.



# Eco-compensation: Rise & Impact

- These events led to the launch of the Conversion of Cropland to Forests Program (CCFP).
- Spurred national, sub-national experiments in "eco-compensation"
- Catalyzed the rise of "Ecological Civilization."
- Now the main vehicle for conservation finance in the PRC, and for ongoing experimentation and innovation in such:
  - Continuing CCFP & Ecological Public Benefit Forest Funding
  - Three Rivers Source Protection Program
  - Xin'an River Eco-compensation
  - Support of key ecological function zones
- Has spurred a growing focus on mainstreaming sustainability, and developing indicators and standards into economic planning (e.g. YREB)



# Eco-compensation: Rise & Impact

- China's economic rise is historically unprecedented.
- Its consequent environmental challenges have thus been more extreme and dynamic than those faced by the developed world.
- Eco-compensation has thus had to embody several management directions, including:
  - Basic management reforms (strengthening monitoring and enforcement, clarifying rights and responsibilities).
  - Adoption of more innovative, incentive-based approaches due to necessity, and to improve effectiveness and efficiency.
  - Approaches to broaden stakeholder consultation and participation
- Eco-compensation thus represents an extremely ambitious undertaking with potentially huge payoffs.



# Current Status and ADB Collaboration

- Developing performance indicators for key ecological function zones - government's focus on deemphasizing GDP-only evaluation
- Knowledge creation and sharing to strengthen ecocompensation regulatory and program design and to share the PRC's experience
  - Seven joint ADB-NDRC hosted international conferences and workshops by end of 2018.
  - Several eco-compensation KPS.
  - Knowledge Hub, study tours.
- Exploring approaches to catalyze business-sector contribution to eco-compensation finance.
- Technical support to better integrate rural livelihood improvement and poverty alleviation into eco-compensation





#### Environment Protection and Rural Vitalization Take Center Stage

- 1. Lending and non-lending support for agriculture and natural resources has increased over the years
- 2. Focus on water resources, biodiversity, ecosystem management, and sustainable agriculture with the elevation of 'Ecological Civilization' as a national priority
- Notable Illustrations include the Sanjiang Plain Wetlands Project (2005-2013) and the Anhui Chao Lake Environmental Rehabilitation Project (2012-)
- 4. 'Rural Vitalization Strategy' is now the foundation to improve productivity, rural incomes, and environmental protection





## In 2020 and 2030, 560 million and 400 million people will still live in rural areas



In 2020, China's total population is estimated at 1.42 billion and 1.45 billion in 2030. In 2020, the rural resident population is 560 million, and 2030 is 435 million. Note: China Population Development Plan (2016-2030)





#### **Urban/Rural Gap in Environmental Infrastructure**



Note: the 13<sup>th</sup> FYP on China Agricultural Environmental Management







### **C. Framework for ADB's Assistance in** Rural Vitalization

## Framework or MOU for assisting rural vitalization 2019-2022

Geographical areas	Extended Beijing-Hebei-Tianjin areas; Yangtze river economic belt; and South-north water transfer routes
Indicative budget	\$6.0 billion
Priority areas for Rural Vitalization	<ol> <li>Rural environmental infrastructure</li> <li>ICT application in agricultural modernization</li> <li>Natural capital investment</li> <li>Rural basic services (finance, education and health)</li> <li>Institutional strengthening, policy reform &amp; finance</li> </ol>
Preferred interventions	Catalytic, innovative, and adoption of high-level technologies



#### Protecting and Investing in Natural Capital





#### Issues:

- Significant declines in natural capital
- Threats to livelihoods, food and water security
- Increasing climate and disasterrisks
- Lack of prioritization and investments to address natural capital declines.

#### ADB's Environment Thematic Group Approach:

- Building the business case for investments, through knowledge and capacity of DMCs
- Preparing green investment components of projects
- Green finance options
- Partnerships with key knowledge institutions to bring global good practices



### **C. Framework for ADB's Assistance in** Rural Vitalization

#### Geographic focus: BTH, YREB and South-North transfer routes

In line with China's regional strategy, priority should be given to the improvement of rural and agricultural environment along the Beijing Tianjin Hebei region, the Yangtze River Economic Belt and the South to North Water Transfer Project.



South to North Water Transfer Project

ADB

Beijing-Tianjin-Hebei Region

### Silk Road Ecological Protection Project – Leveraging Technology (i)

Exploring synergies to expand the project's geographic footprint and leverage community engagement



Collaborate with the Rural Taobao in setting up ecommerce marketing outlets for featured farm produce and rural tourist attractions

- Collaboration with the ecological poverty reduction activities being undertaken by Ant Financial Services Group and the Ant Forest App on its Alipay platform
  - Technologies for forest mapping, surveys, and remotesensing/satellite imagery in monitoring of watershed and wetland restoration





- Digital transformation trends involving smart recycling bin systems, smart fleet, and logistics solutions offer opportunities to transform rural waste management.
- Potential Synergies with 'Xianyu', Alibaba's digital online flea market for trading second hand goods





### YREB Framework Approach

Building on past experiences and guided by the YREB Development Plan priorities:

- Transition from stand-alone interventions to a strategic programmatic approach
- Enhanced coordination of projects across sectors and administrative boundaries
- Institutionalizing mechanisms of learning
- Replicating lessons to maximize synergies
- Enhance co-benefits and sustainability



## YREB Framework Approach

Yangtze River Economic Belt Framework		
Initial period	2018-2020	apt and a part of the
Geographical areas	Projects in 7 provinces and 1 municipality in the middle and upper reaches	dan beren son andere son son stander
Indicative budget	Approximately \$2 billion	
Priority areas of the YREB development plan	<ol> <li>Ecosystem restoration, environmental protection, and management of water resources</li> <li>Green and inclusive industrial development</li> <li>Integrated multimodal transport corridor</li> <li>Institutional strengthening and policy reform</li> </ol>	
Interventions	Catalytic, innovative, adoption of high level technologies, creating and sharing knowledge sharing	
Financing modalities	Combination of different modalities depending on the nature of projects and borrowers' needs	



# YREB Lending Program (forward-looking)



Institutional Strengthening and Policy Reform





### **YREB Non-lending Value Addition**







First PPP Fund for watershed protection in PRC





### **CCICED Special Policy Study**

- Policy Recommendations to be submitted to the State Council:
  - Legal and institutional reform
  - Sustainable financing mechanism
  - Sustainable livelihoods
  - Whole-of-ecosystem approach ('Mountains to Ocean')
- Strategic policy support to the \$2b YREB program which include key eco-compensation elements





PRC's first trans-provincial eco-compensation program

- > Xin'an River eco-compensation program includes
  - investments by the national government and an innovative incentive-based payment mechanism between the two provinces.

➤ Starting in 2015,

- if the water quality index measured at the provincial border exceeds the benchmark, Zhejiang pays Anhui CNY100 million (\$16.13 million) to defray management costs.
- If it does not exceed the agreed level, Anhui pays Zhejiang CNY100 million to defray added filtration costs.
- Neither province pays if no change occurs.





#### Xin'an River Green Fund

- Establishment of a special green fund for economic development through green, climate resilient, and integrated urban and rural development
- To attract and encourage the development of new ecologically-friendly businesses and service industries.
- Sub-watershed eco-compensation
- Private sector involvement
- Focus on non-point source pollution control through low carbon farming practices, eco-labeling
- Integrated watershed management





China's investments are quite significant in the global picture.



## Next Steps - China's World Role

• China's fast growth in ecological programs provides a wealth of experience which, if better documented, understood and narrated, would be extremely valuable to the international community.







## Thank you.

