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China's Developing Eco-Compensation Policy Framework

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Key Focus of the Chinese Govt

- **President Hu Jintao:** Establish a sound system of paid resource use and “ecological compensation mechanisms”.
- **Primier Wen Jiabao:** “Users should protect, destroyers should restore, beneficiaries should pay, and polluters should be charged fees”.
- **11th Five-Year Plan:** Ecological compensation mechanisms should be established on the principle of developers protect and beneficiaries compensate.
- **National Development and Reform Commission** just finished a first draft of national regulations for “Eco-compensation”.



What is “Eco-compensation”?

- Institutional arrangements which include fiscal, taxation, marketing and other means, to protect ecosystems and promote harmony between man and nature based on the benefits and costs of managing and protecting ecosystem services.
- Includes:
 - Ecological service or function-based compensation, covering service protection and restoration costs.
 - Ecological damage-based compensation, compensating for the damages to ecosystems by development and natural resource use.



Four Key Targets

- ✓ **Western China:** An important “ecological barrier”, essential headwaters area for China, and also one of China’s poorer regions.
- ✓ **Key Ecological Zones:** e.g. Nature Reserves, restricted construction zones.
- ✓ **Watershed Services:** Resolving water quality and water use management issues between upper and lower reaches.
- ✓ **Natural Resource Use:** Forest, grasslands, wetlands and Mineral Resources.



Fiscal Mechanisms

- **FISCAL TRANSFER PAYMENTS**
 - Main form of Eco-compensation
 - Includes both Horizontal (between different regions) and Vertical (from upper to lower levels of government).
- **SPECIAL FUNDS**
 - State Forestry Administration and Local Forestry Departments: “Ecological Forest” subsidy funds.
 - Ministry of Agriculture: Subsidies from treasury bonds for rural biogas development.
 - Ministry of Water Resources: Small-scale irrigation and soil conservation subsidies.

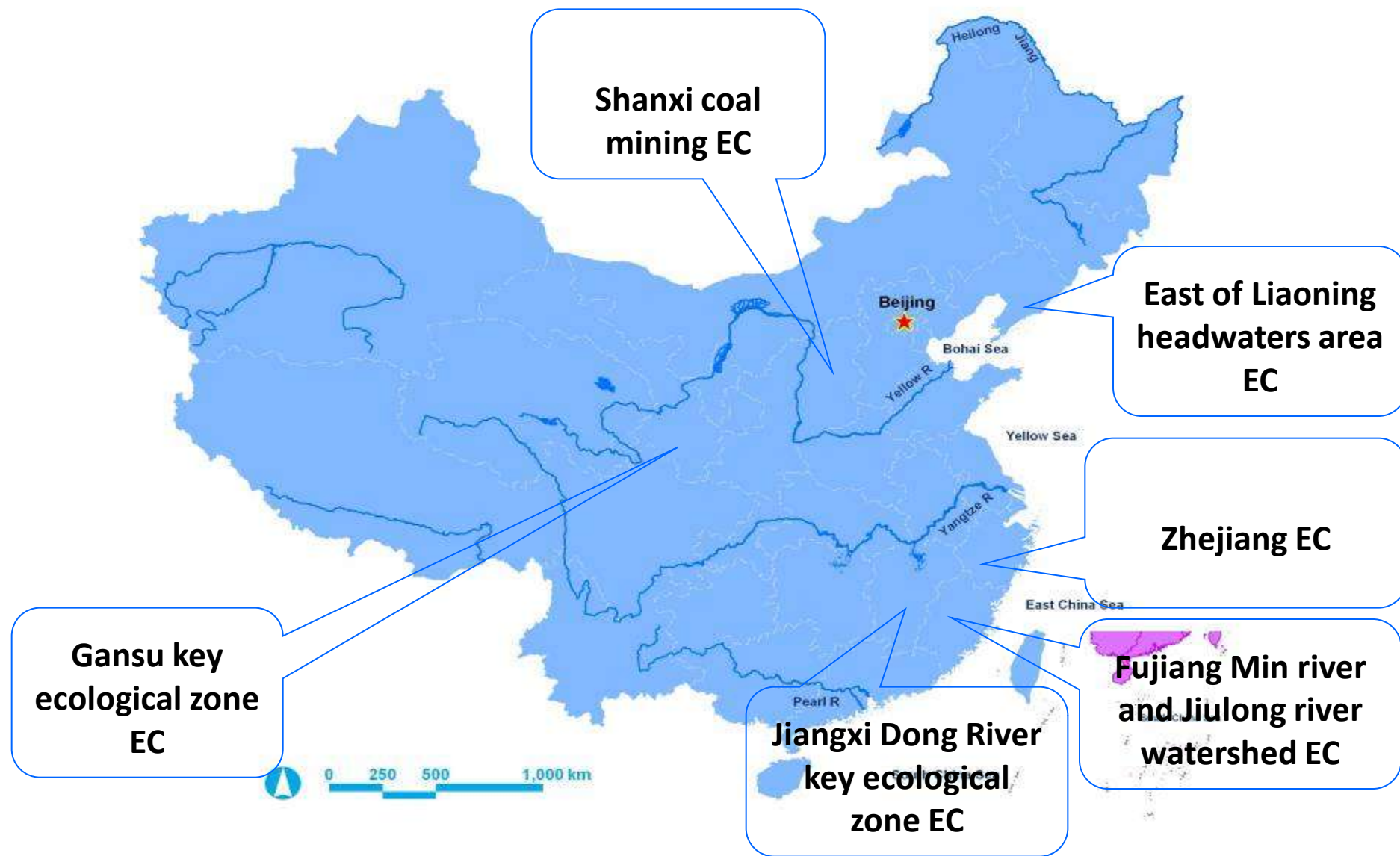


On-going Pilot Work

2007	- Shanxi Province pilot for “Environmental Recovery Compensation” for exploitation of coal resources.
	- Ministry of Environmental Protection (MEP) issued guidelines on EC pilot work, targeting 1) national reserves, 2) key ecological zones, 3) mineral resources exploitation areas and 4) watersheds.
2008	- MEP selected the first group of EC pilot provinces, including Gansu, Liaoning, Zhejiang, Jiangxi and Fujian.
2009	- Ministry of Land and Resources issues mining geological environment protection requirements, stipulating that a deposit must be paid by the developer to ensure mitigation and post-operation environmental restoration.
	- State Council states that newly established nature reserves should launch eco-compensation research.



First Central Govt EC Pilot Areas





Benefits Sharing in EC

- **Central Government Programs**

- **Developing regional financial transfer systems: Richer regions that are beneficiaries of ecosystem services pay poorer regions that are key areas of biodiversity.**
- **Benefits-sharing mechanisms are also important considerations in programs targeting community stewards of ecosystem services (Forest Ecosystem Compensation Fund, Grain for Green).**

- **Local Government Programs**

- **Cost and Benefit-sharing between upper and lower watershed governments.**



Local Experiments

- Many local experiments (e.g. Fujian, Jiangsu, Hebei, Henan, Liaoning, Zhejiang, Guizhou).
- Range of financing mechanisms (e.g. surcharges added to water use fees, earmarked special funds, etc).
- Range of payment mechanisms (e.g. financial transfers to share costs, water pollution emissions trading, direct payments to local communities/households).
- Key focus on watershed ecosystem services.



Local Experiments: Fujian

- **Min river and Jiulong river protection special fund**
- **Encourage EC agreement between lower and upper river reach**
- **Special funds: pollution treatment,**
- **Execution Program for the forest EC from lower reach to upper reach**
 - **Sanming city pay 0.02 ¥ /t water for the reservoir ecological protection.**
 - **Cities use 35% of the water resource fee for the ecological forest**



Local Experiments: Jiangsu

- Taihu lake Basin(5 cities) have implemented EC
- Upper reach compensate lower reach when water quality is inferior to the control target and whereas lower reach compensate upper reach
- For the water that flows into Taihu lake where there is no subject of lower reach, the compensation is collected to the provincial finance
- EC based on the total amount of pollutants and water quality
- Standard: COD 15 thousand ¥ /t, $\text{NH}_3\text{-N}$ 100 thousand ¥ /t, total phosphorus 100 thousand ¥ /t



Local Experiments: Hebei

- 2008, Ziya river watershed EC
- 2009, all river in Hebei province
- EC based on the water quality
- The compensation is collected to the provincial finance
- Standard: COD and $\text{NH}_3\text{-N}$ in the river monitoring section:
 - 200 thousand ¥ /t punishment when water quality exceeding no more than 0.5 times of the control line
 - 1 million ¥ /t punishment when water quality exceeding 0.5 ~ 1.0 times of the control line
 - 2 million ¥ /t punishment when water quality exceeding 1.0 ~ 2.0 times of the control line
 - 3 million ¥ /t punishment when water quality exceeding more than 2.0 times of the control line



Local Experiments: Henan

- **Shaying river watershed EC based on double mechanism of punishment and award**
- **Haihe river watershed EC**
- **EC based on the water quality**
- **The compensation is collected to the provincial finance**



Local Experiments: Liaoning

- **Eastern water conservation forest EC**
- **Liaohe river watershed EC**
- **EC based on the water quality**
- **The compensation is collected to the provincial finance**



Local Experiment: Zhejiang

- **Financial transfer payments for ecological protection**
- **Total funds merged into provincial budget**
- **EC based on the water quality(100 thousands premium for 1percent improvement and 100 thousands punishment for 1percent degradation)**



Local Experiments: Guizhou

- **Qingshuijiang river watershed EC**
- **EC based on the water treatment cost**
- **The compensation is collected to the provincial finance**



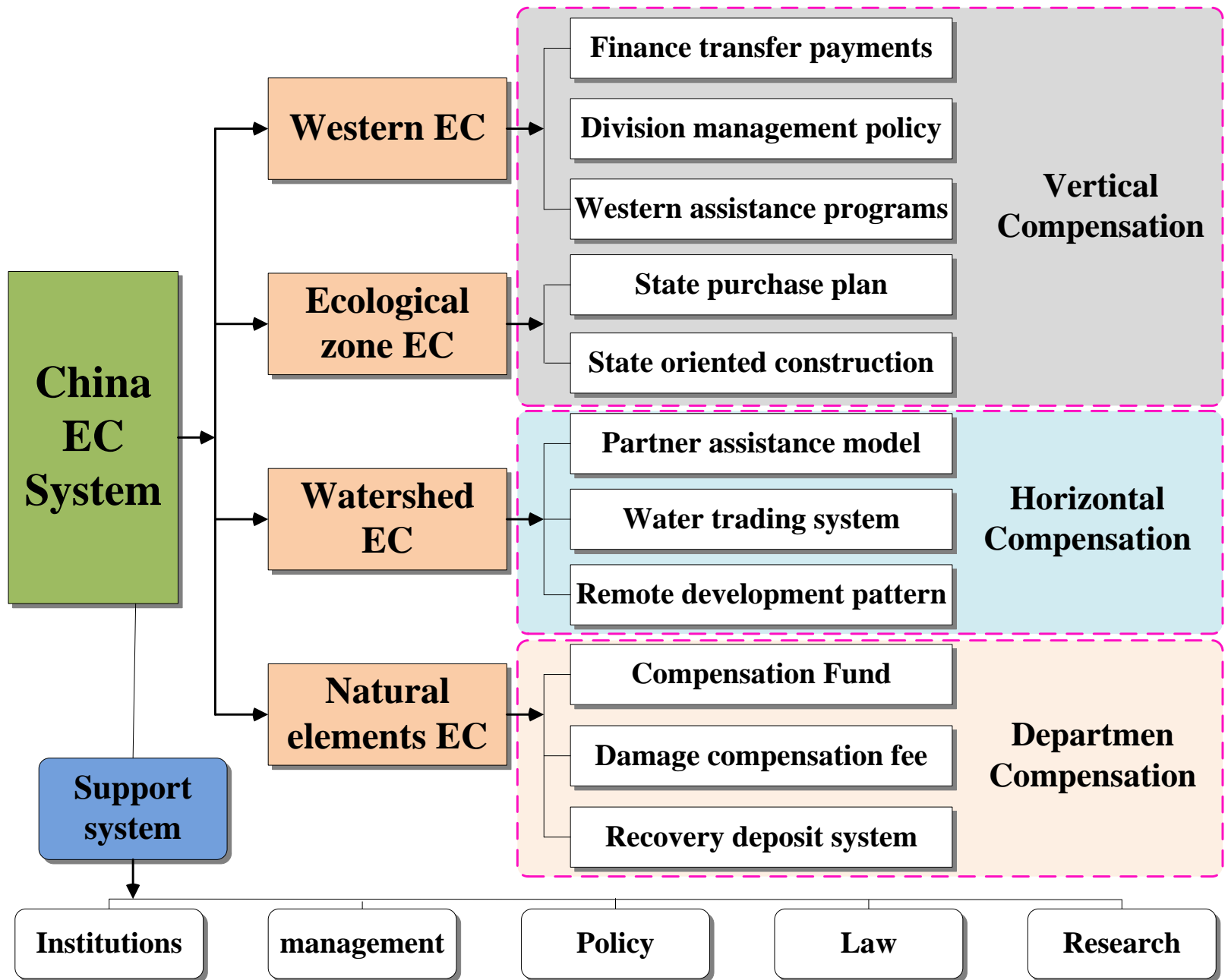
Results to Date

- **Water quality Significantly improved**
- **Local government (province, city and county) are stimulated to pursuit water quality target to minimize their cost**
- **The compensation is used on ecological construction and environmental infrastructure.**



Next Steps

- **Study on the EC Legislation**
- **Ecological Compensation Ordinance**
- **Ecological compensation regulations**
- **Technical guidelines for ecological compensation by MEP**
- **Developing Frameworks for a national system.**



Framework of Ecological Compensation Policy for China

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