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# **POLICIES ON AGRICULTURAL WATER PRICE IN CHINA**

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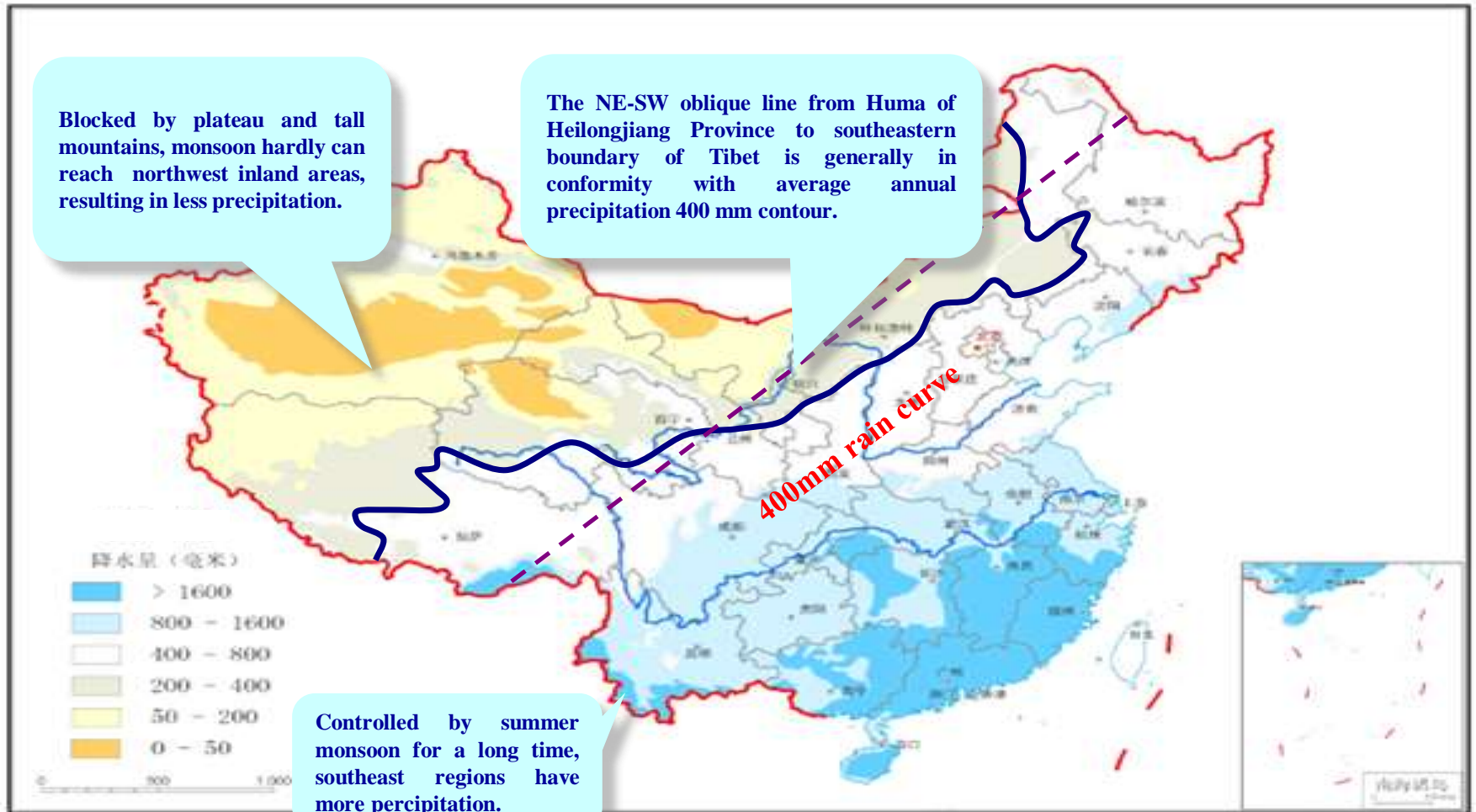
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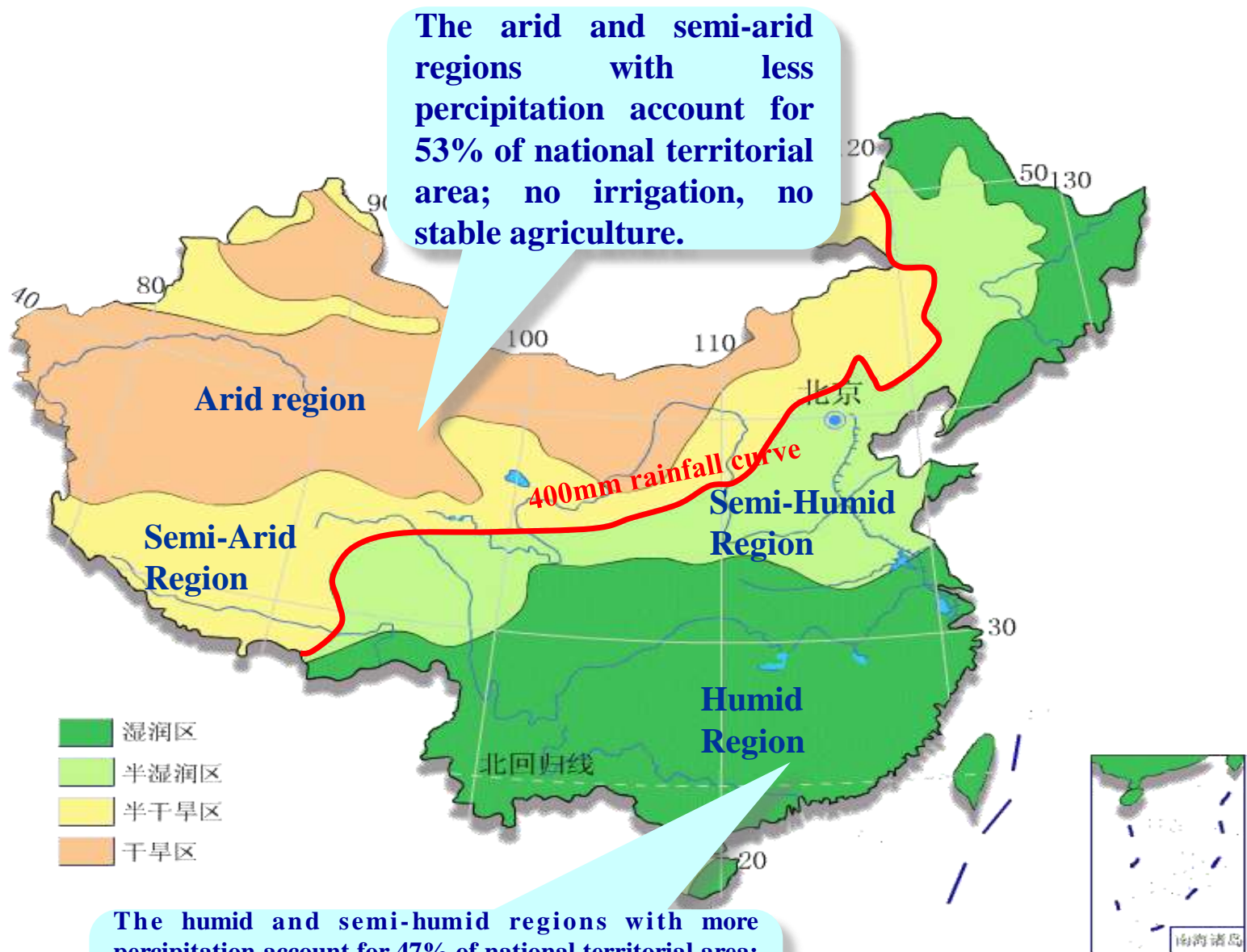
- I. Reform Process of Agricultural Water Price in China**
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# **I. Reform Process of Agricultural Water Price in China**

# (I) The vital importance of agricultural irrigation in China is determined by special geographical climate conditions.

Affected by land-sea contrast and topography, China is of obvious monsoon climate.





**China is a country requiring implementation of full-scale irrigation. Irrigation is the permanent theme of water conservancy development in China.**





**Between 598 B.C and 591 B.C, the first storage work for irrigation, Quebei, was constructed in China.**

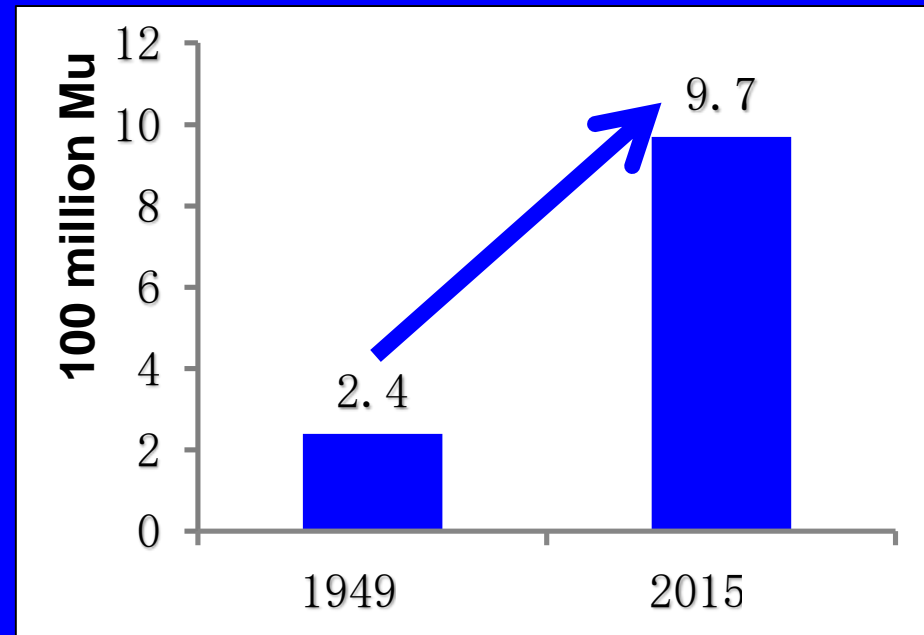


**In 256 B.C., the earliest diversion water project without dam for irrigation, the Dujiangyan Irrigation System, was constructed in China, which has been operated for 2272 years so far.**

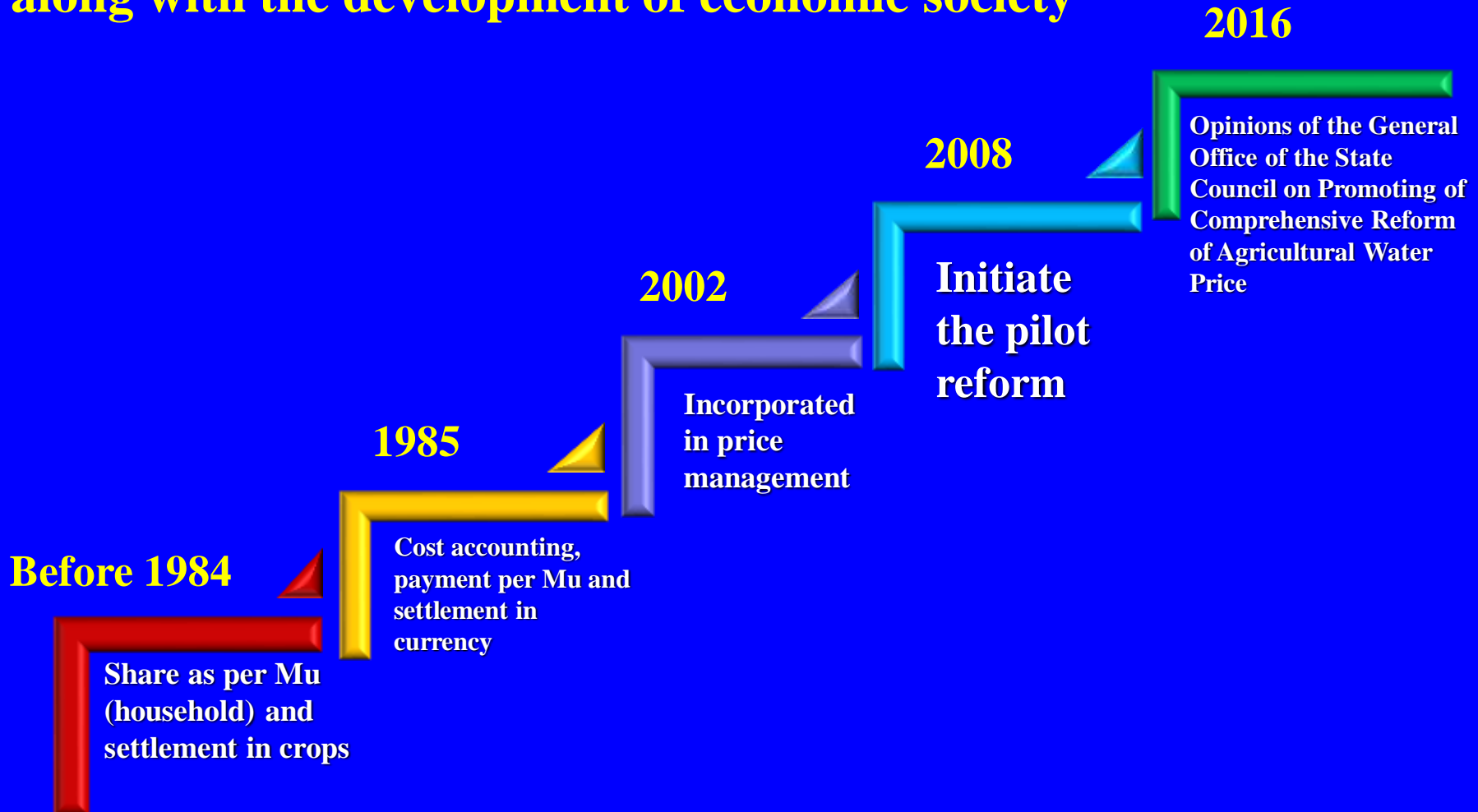




**For over 60 years, the effective irrigation area in China increased from 0.24 billion Mu in 1949 to 0.97 billion Mu, among which the area of water-saving irrigation project reached 0.44 billion Mu.**

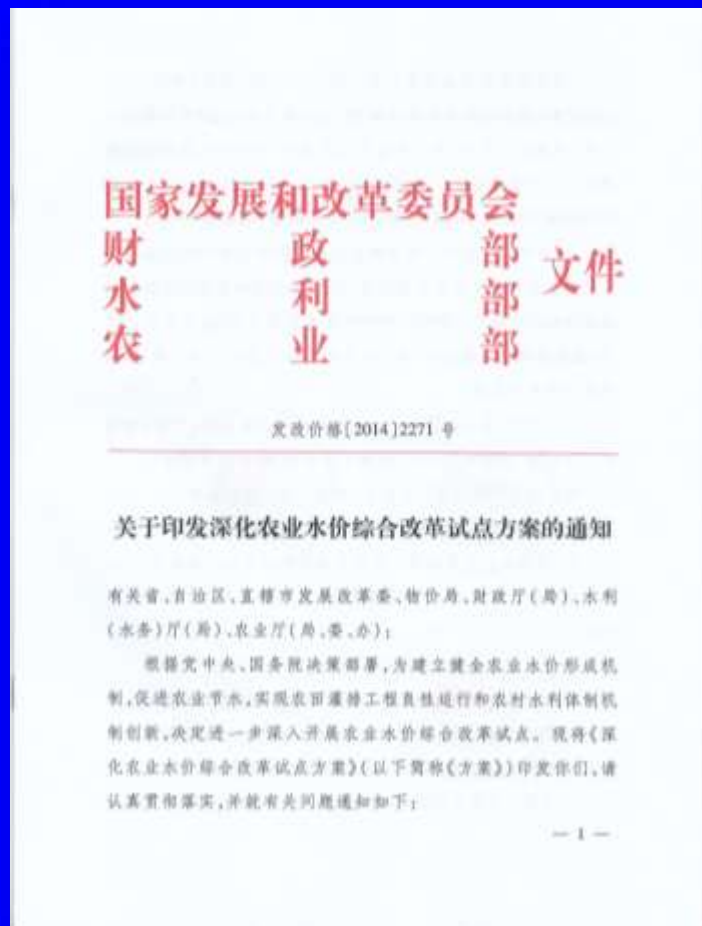


**(II) Long history of beneficial farmers' participation in management engineering and sharing of irrigation cost and constant adjustment & improvement of water price policy along with the development of economic society**

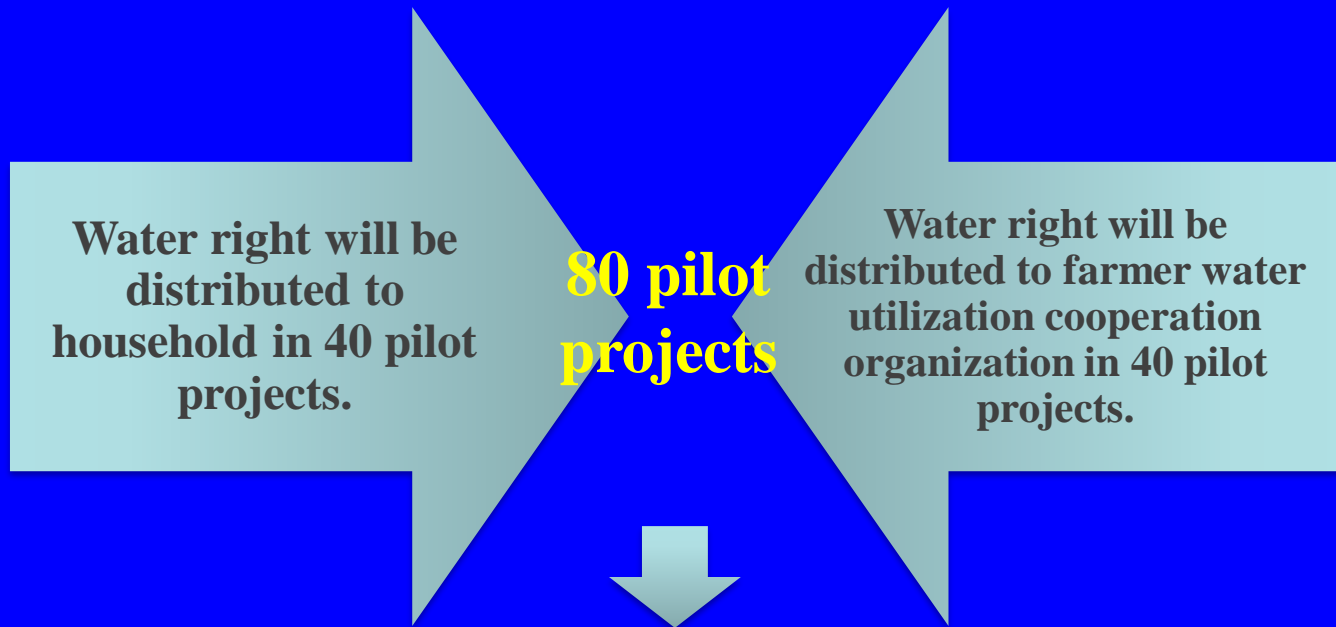


## **II. Methods and Achievements of Comprehensive Pilot Reform of Agricultural Water Price**

Through years of practice and research, systematic methods are fostered and abundant experiences are accumulated, supporting the government in drafting of *Opinions of the General Office of the State Council on Promoting of Comprehensive Reform of Agricultural Water Price*.



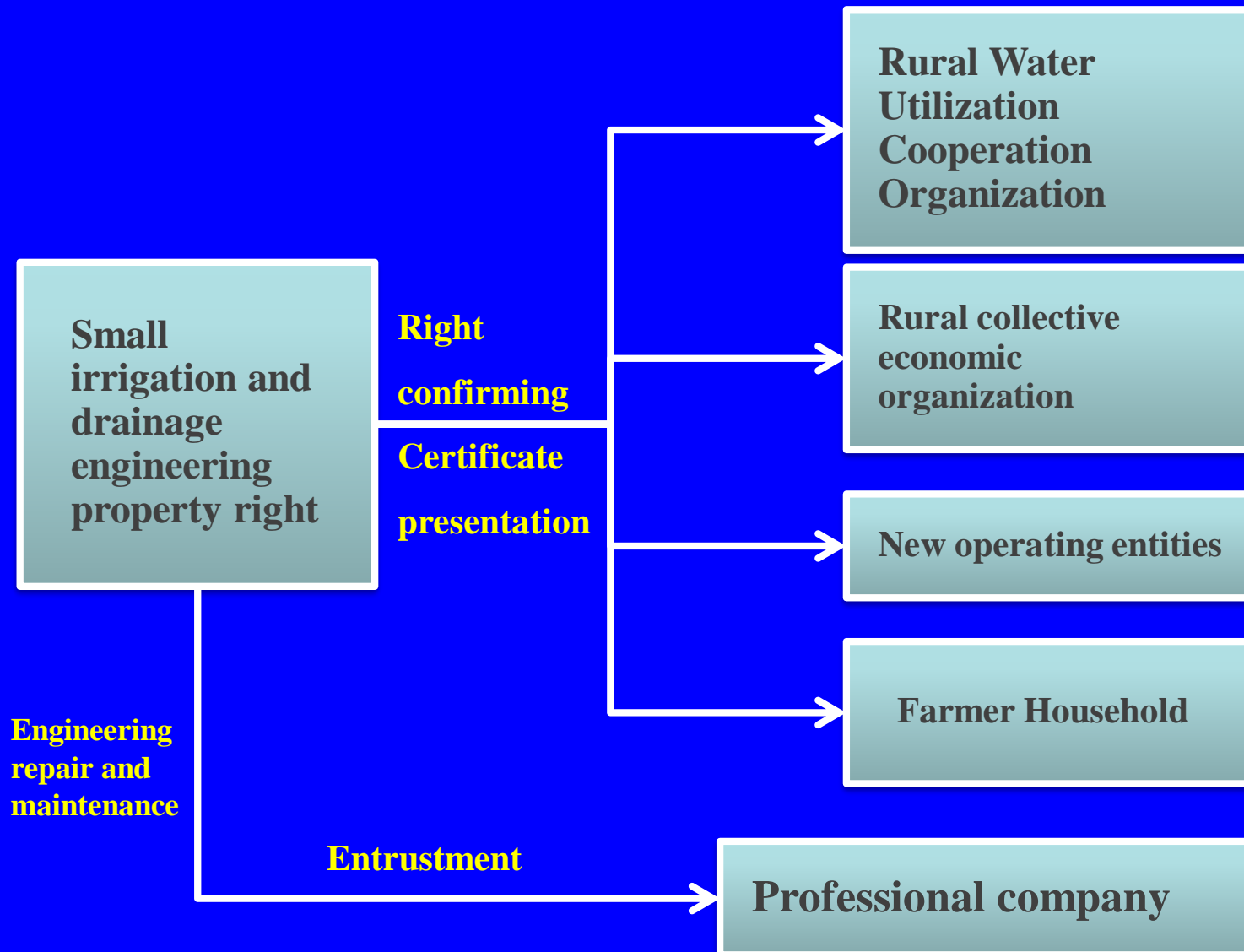
## □ Clarify the agricultural water right



- Water right transaction is conducted between farmers in some pilot projects;
- The water saved by water consumers shall be repurchased with extra expense by irrigation district management unit in some pilot projects.

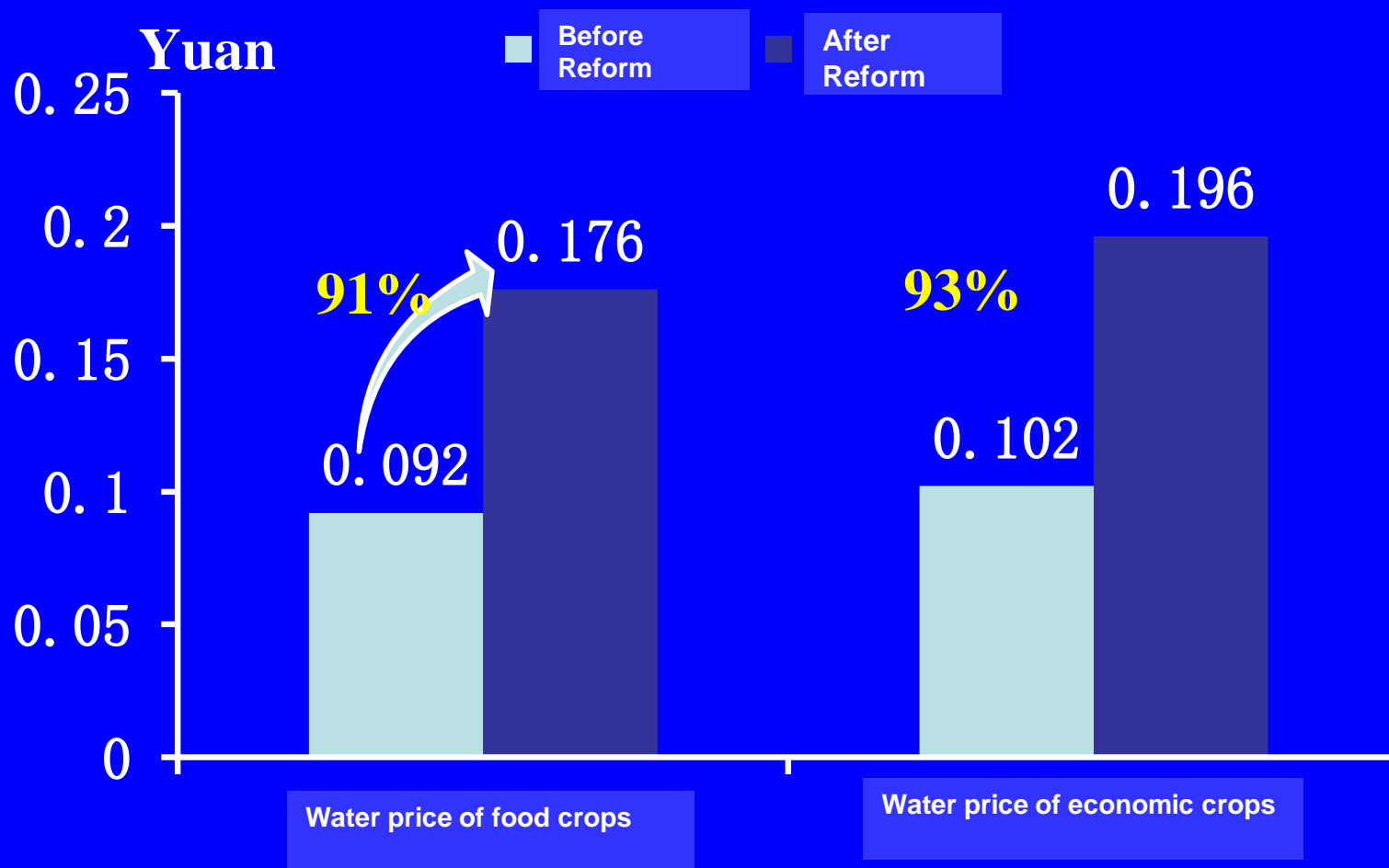


## □ Reform of project property right

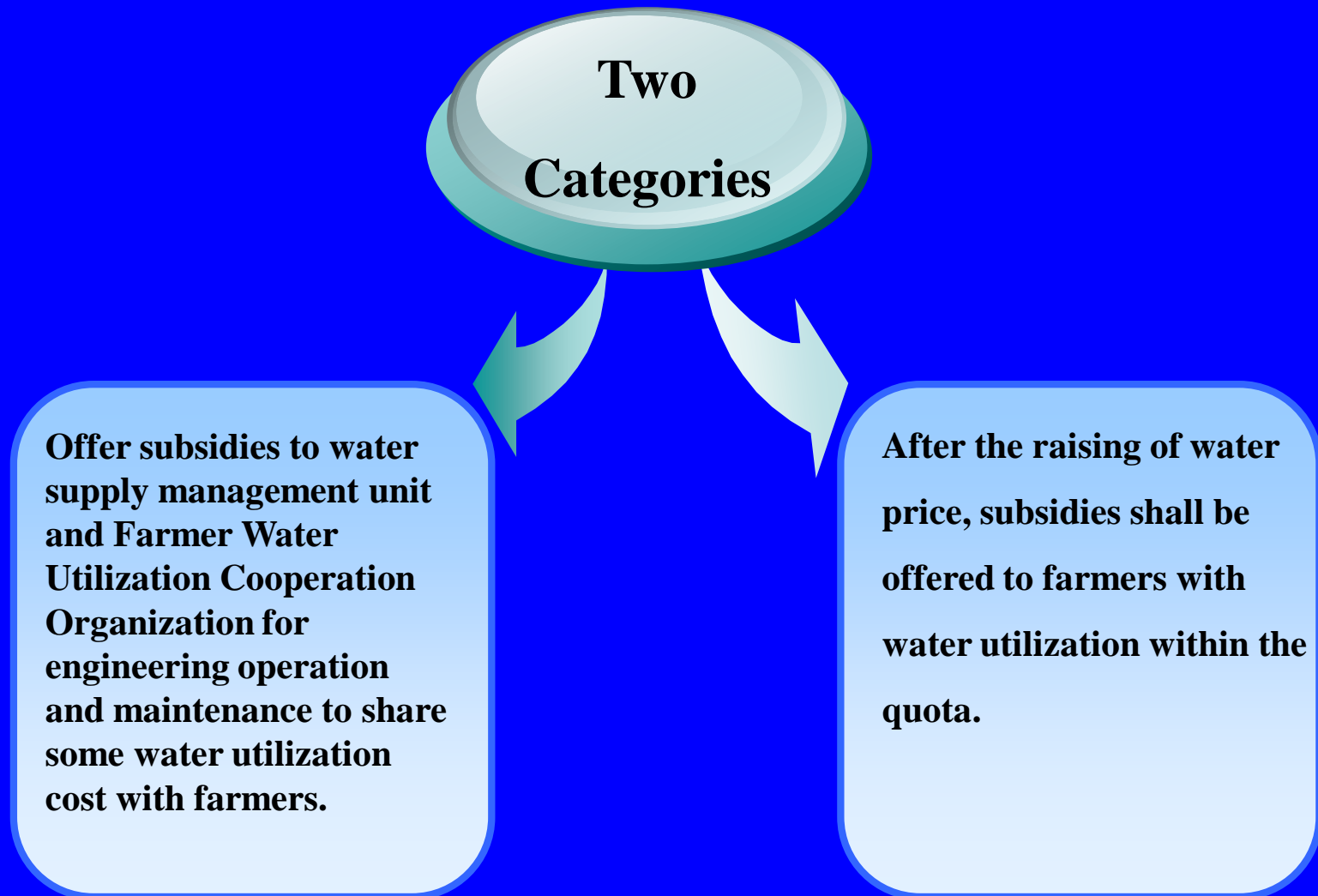


## □ Perfect the formation mechanism of water price

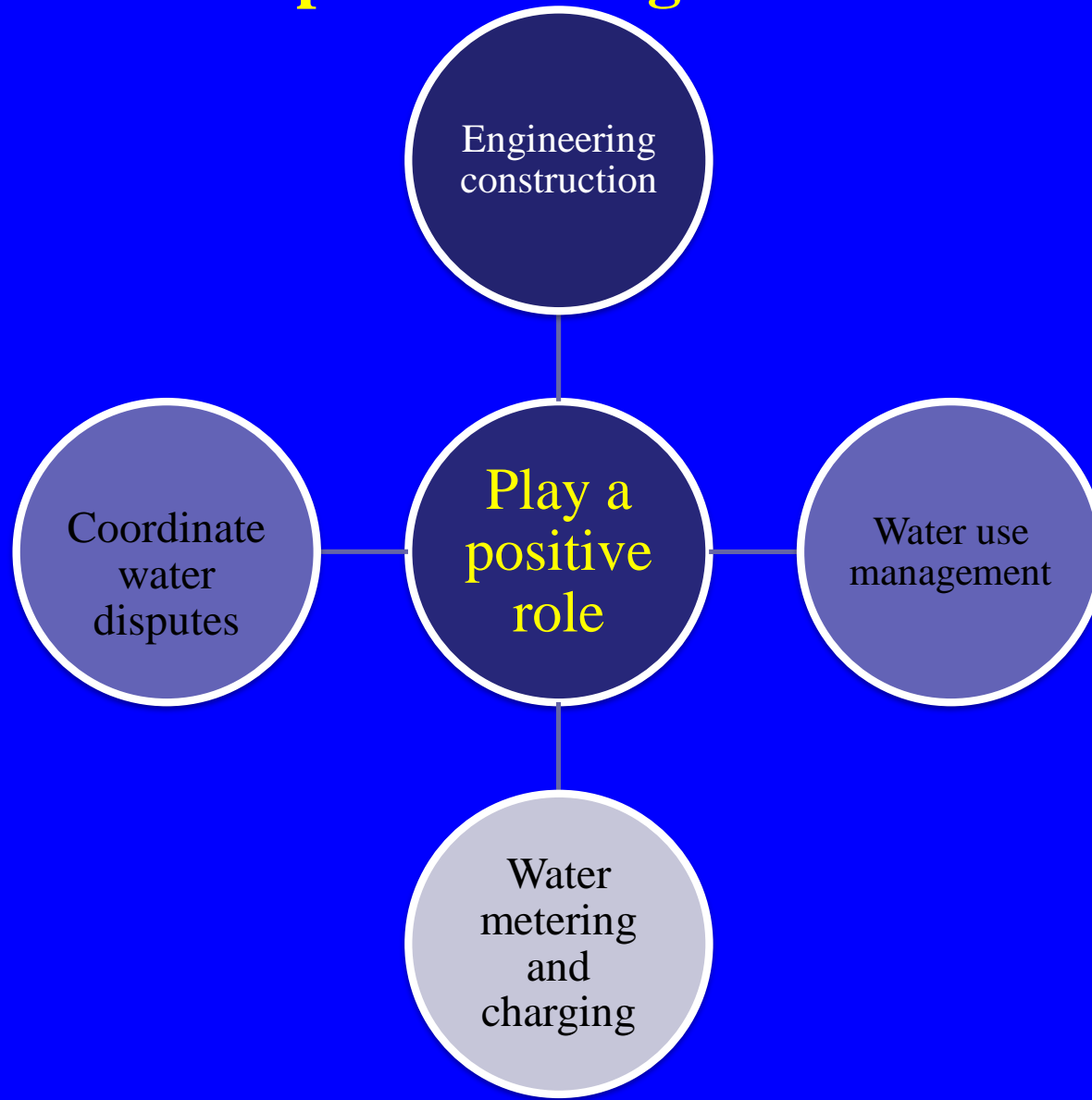
The agricultural water price shall generally reach the cost level of engineering operation and maintenance.



## ❑ Carry out precise subsidies and water-saving incentives in multiple forms



# □ Regulate the construction of Farmer Water Utilization Cooperation Organization



## ❑ Construction of channel system of final stage and metering facilities

4800KM of newly constructed and reformed channel system of final stage

Installation of 23000 metering facilities

Metering to household in 45 pilot projects

Metering to Farmer Water Utilization Cooperation Organization in 35 pilot projects

Metering of ground water irrigation to all households



## **□ Significant benefits from water-saving**

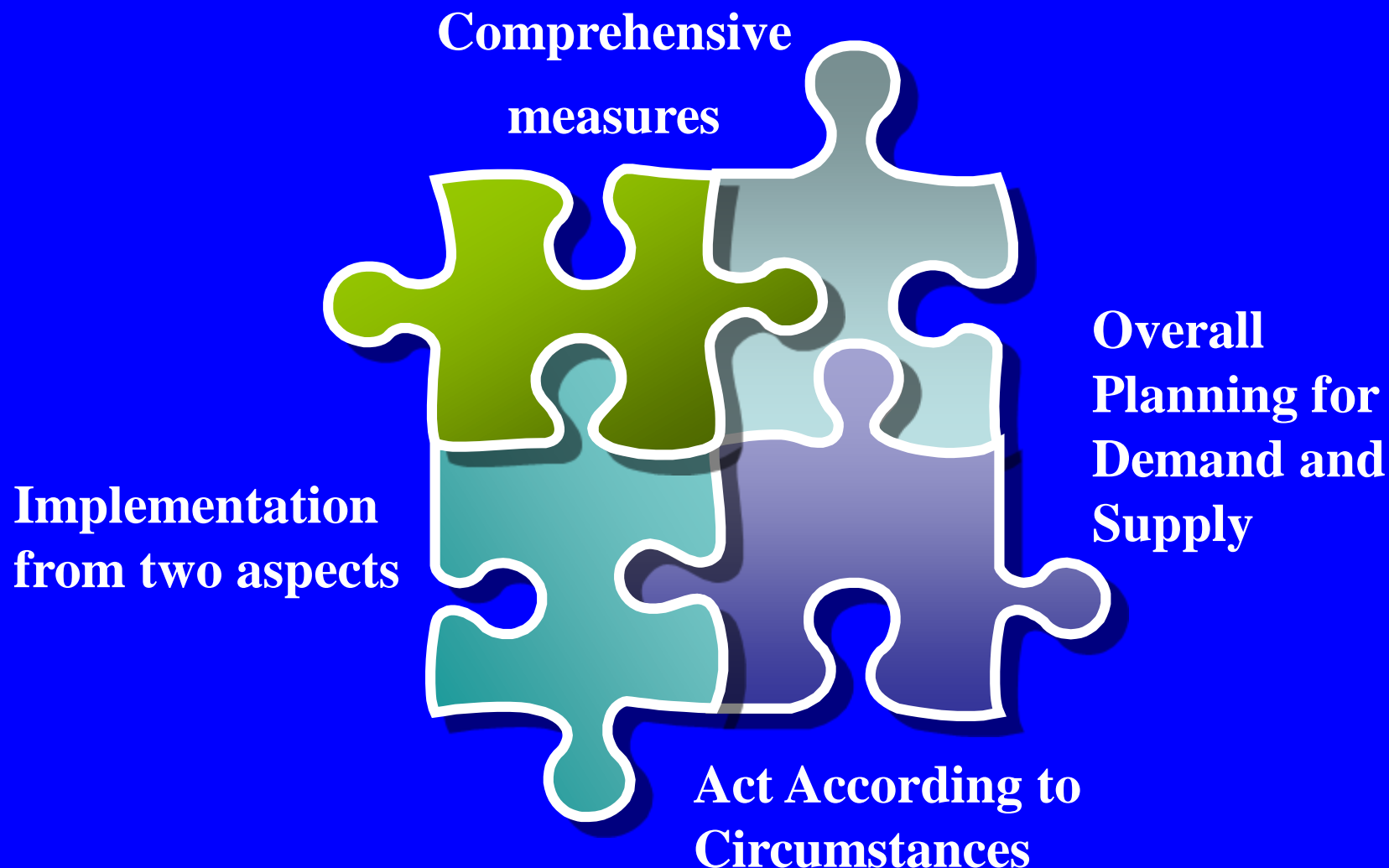
**The average water saving per Mu is 110m<sup>3</sup>; the irrigation cycle is averagely shortened by 20%; the agricultural production capacity is averagely increased by 15% and the average annual income per Mu is about 50-200 Yuan.**

## □ **Form a batch of typical examples of reform**

- **Mode of negotiated pricing:** Dangyang of Hubei, Luliang of Yunnan;
- **Mode of financial subsidies for backbone projects and feedback of terminal water expense to farmers:** Changsha of Hunan;
- **Mode of open operation and precise awards & subsidies:** Suyu of Jiangsu, Xianyou of Sichuan;
- **Mode of introduction of social capital:** Shangyi of Hebei, Yuanmou of Yunnan.
- **Mode of circulation of water right:** Minqin of Gansu, Binchuan of Yunnan.
- **Mode of regional promotion:** Liangzhou and Gaotai of Gansu.

### **III. Comprehensive Reform Policies for Agricultural Water Price**

## **(I) Reform Ideas**



## **(II) Reform Targets**

**Construct a sound formation mechanism of agricultural water price in 10 years, which can reasonably reflect water supply cost, benefit water saving and innovation of system & mechanism concerning farmland water conservancy and adapt to investment and financing system;**

**The agriculture water price generally reaches the cost level of operation and maintenance;**

**The control and quota management of total agricultural water consumption shall be implemented universally;**

**Basic establishment of sustainable precise subsidies and water-saving incentives;**

**Advanced agricultural water-saving technologies and methods shall be applied universally;**

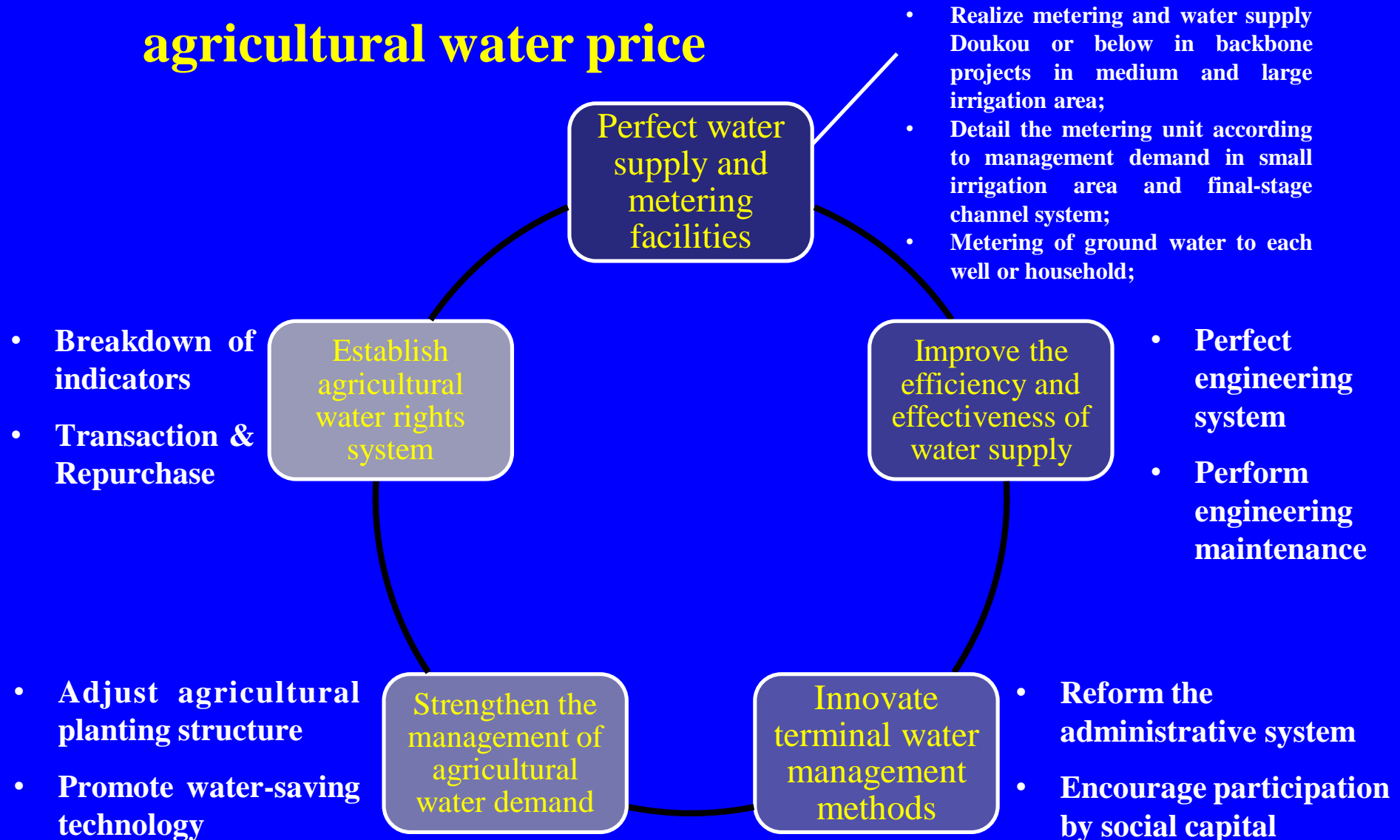
**Realize optimization and adjustment of agricultural planting structure;**

**Stimulate the transformation of agricultural water utilization mode from extensive type to intensive type;**



# (III) Reform Tasks

## ❑ Consolidate the basis for reform of agricultural water price



# ❑ Establish and perfect formation mechanism of agricultural water price

## Grading agricultural water price

- Government pricing for backbone projects while negotiated pricing for other projects;
- Principally speaking, the water supply price shall reach or gradually reach to the cost level of operation and maintenance; for regions with water scarcity and high withstanding by users, the agricultural water price can be lifted to the full cost level.

## Explore ways to implement classified water price

- Price for economic crops and aquaculture with high water consumption or higher added value shall be higher than price of other types.
- The cost of ground water in overexploited area is higher than local surface water.

## Gradually promote multi-level water price

- Gradually implement progressive surcharges system beyond the quota.
- Implement two-part water price or wet and dry season water price;

# □ Establish precise subsidies and water-saving incentive mechanism

## Establish precise subsidy mechanism for agricultural water

- Establish precise subsidies mechanism for agricultural water considering the water-saving effect, range of price adjustment and financial power;
- Subsidy standard shall be determined by the difference between consumption within quota and cost of operation and maintenance, particularly subsidize grain farmers with water consumption within the quota;。

## Establish water-saving incentive mechanism

- According to water saving amount, reward scaled operators, farmer water utilization cooperation organization and farmer households who take measures to save water and adjust plantation structures, so as to improve awareness and motivation of users for positive water saving.

## Multi-channel fund raising for precise subsidy and water-saving incentive

- Plan the finance to arrange relevant funds and capitals.

## (IV) Progresses in various regions

### Hebei

General Office of Hebei provincial government printed and distributed *Implementation Opinions on Promoting of Comprehensive Reform of Agricultural Water Price*

### Yunnan

General Office of Yunnan provincial government printed and distributed *Circular concerning Speeding Up the Promotion of Irrigation and Water Conservancy Reform Pilot Experience*

### Gansu

Compiles the implementation scheme for comprehensive reform of agricultural water price; five counties, namely Jinta County, Ganzhou District, Yongchang County, Yuzhong County and Jingyuan County, are selected to promote pilot experience.

### Liaoning

Takes the lead to adjust the agricultural water price of the water conservancy project, increased from 0.05 Yuan/m<sup>3</sup> to 0.1 Yuan/m<sup>3</sup>;

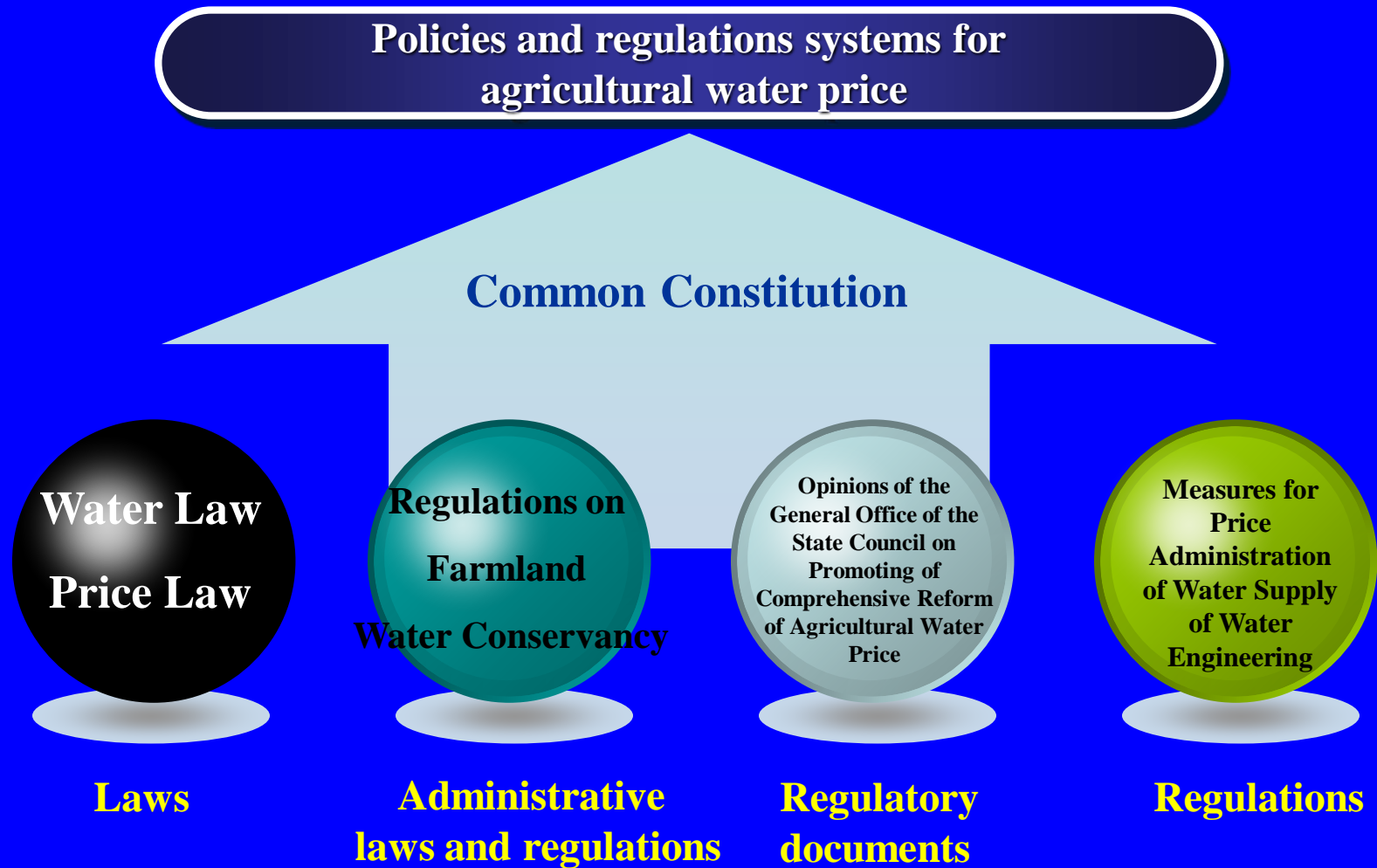
### Others

Other provinces and regions will constitute and promulgate implementation schemes in July of this year.

## **IV. Experience and Learning from Reform of Agricultural Water**



# (I) Perfect policies and regulations systems as the guarantee



## □ Laws

### *Water Laws*

- Metering charge and progressive surcharges system for water consumption beyond quota shall be implemented.
- User with utilization of water supplied by water engineering shall pay water fee to water supplier according to national regulations.
- Water supply price shall be determined based on principles of compensatory cost, fair return, high quality & favorable price and equal bearing.

## *Price Law*

- The fundamental bases for pricing by operators are cost of production and operation and market supply & demand.
- The government guidance price and government pricing shall be established as per social average unit cost and market supply & demand of products or services, national economic and social development requirements and social bearing . Implement reasonable purchase and sale price differentials, wholesale and retail price differentials, regional price differentials and seasonal price differentials.

## ❑ Administrative Laws and Regulations

### *Regulations on Farmland Water Conservancy*

- The government shall establish reasonable bearing mechanism for operation & maintenance funds of water conservancy and irrigation.
- Price of irrigation water shall be determined reasonably; implement paid use and metering charge;
- The price of electricity for agricultural production shall be executed for the power consumption of farmland irrigation and drainage.
- Enterprises and individuals are encouraged to invest on construction of water-saving irrigation facilities; encourage procurement of water-saving irrigation equipment via financial aid;
- The government supports social force to carry out business activities of farmland water conservancy projects via provision of farmland irrigation services and collection of water fee to guarantee their legitimate operating earnings.

## □ Regulatory Documents

*Opinions of the General Office of the State Council on Promoting of Comprehensive Reform of Agricultural Water Price*

## □ Regulations

### *Measures for Price Administration of Water Supply of Water Engineering*

- The agricultural water price shall be verified as per product cost and expense of compensated water, which shall not be included in profits and taxations.
- Government guidance price shall be implemented for water supply price of private water conservancy projects, whose development is encouraged by the government; government pricing shall be implemented for price of water supply of other water conservancy projects;
- Quota management shall be implemented for all water utilization; progressive price shall be implemented for water utilization beyond the water quota.

## **(II) Sound Standard System as the Foundation**

### **❑ Standard: *Accounting Norm and Supervision Methods for Water Supply Price of Water Conservancy Project***

- It stipulates the constitution of water price, production cost, expenses, profits, taxation and methods for checking of water supply amount as well as calculation rules for parameters and coefficient;
  - • It stipulates methods for sharing of cost and expense of agricultural water supply;
- 

### **❑ Standard : maintenance and repairing quota**

- Standard of Budget Quota for Maintenance on Water Conservancy Project
- Budget Quota for Maintenance on Small-Scale Irrigation Works.

## **(II) Standard System**

### **□ Universal template: worksheet template for comprehensive reform pilot project of agricultural water price**

- Clarifies ideas, principles and methods defined for each task;
- Stipulates the plan outline detailing to the third level heading;
- Also applicable to non-pilot areas;



# Complimentary Close

Policies on agricultural water price in China are gradually improved with sound specifications & regulations and various applicable modes. We believe, with efforts for another 10 years, the effect of reform will be more significant, sharable practices and experience will be extracted and formed.





**Thank you**

