

# The Plant Variety Protection and its Impact in China

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# CONTENTS

**1 Plant Variety Protection in Agriculture in China**

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**2 The Impact of Plant Variety Protection on  
Agriculture Development in China**

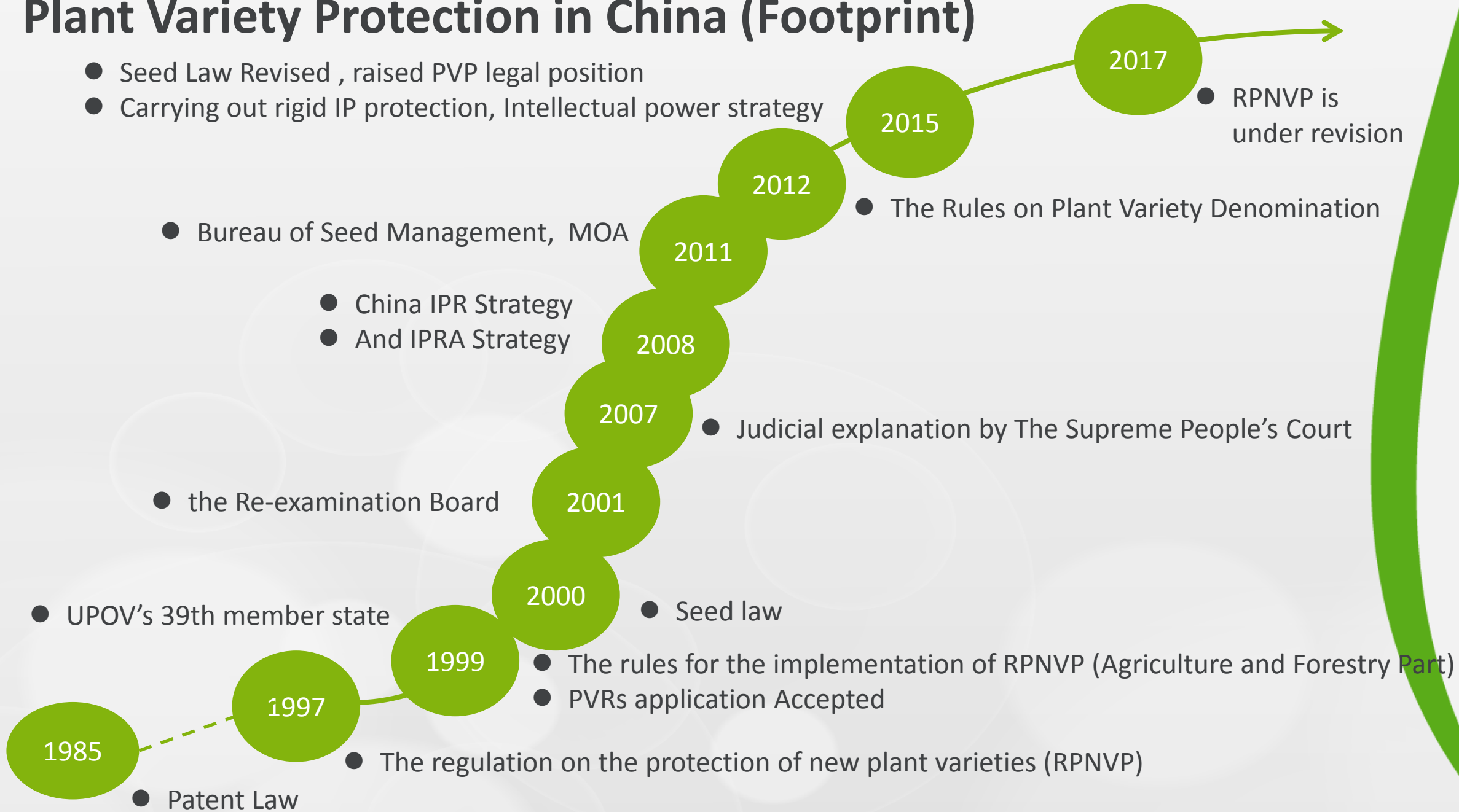
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**3 Overseas Implementation of PVRs: Should be A  
win-win Game**

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# **1.** Plant Variety Protection in Agriculture in China

# Plant Variety Protection in China (Footprint)



- Seed Law Revised , raised PVP legal position
- Carrying out rigid IP protection, Intellectual power strategy

● Bureau of Seed Management, MOA

- China IPR Strategy
- And IPRA Strategy

● UPOV's 39th member state

● the Re-examination Board

● Seed law

● The regulation on the protection of new plant varieties (RPNVP)

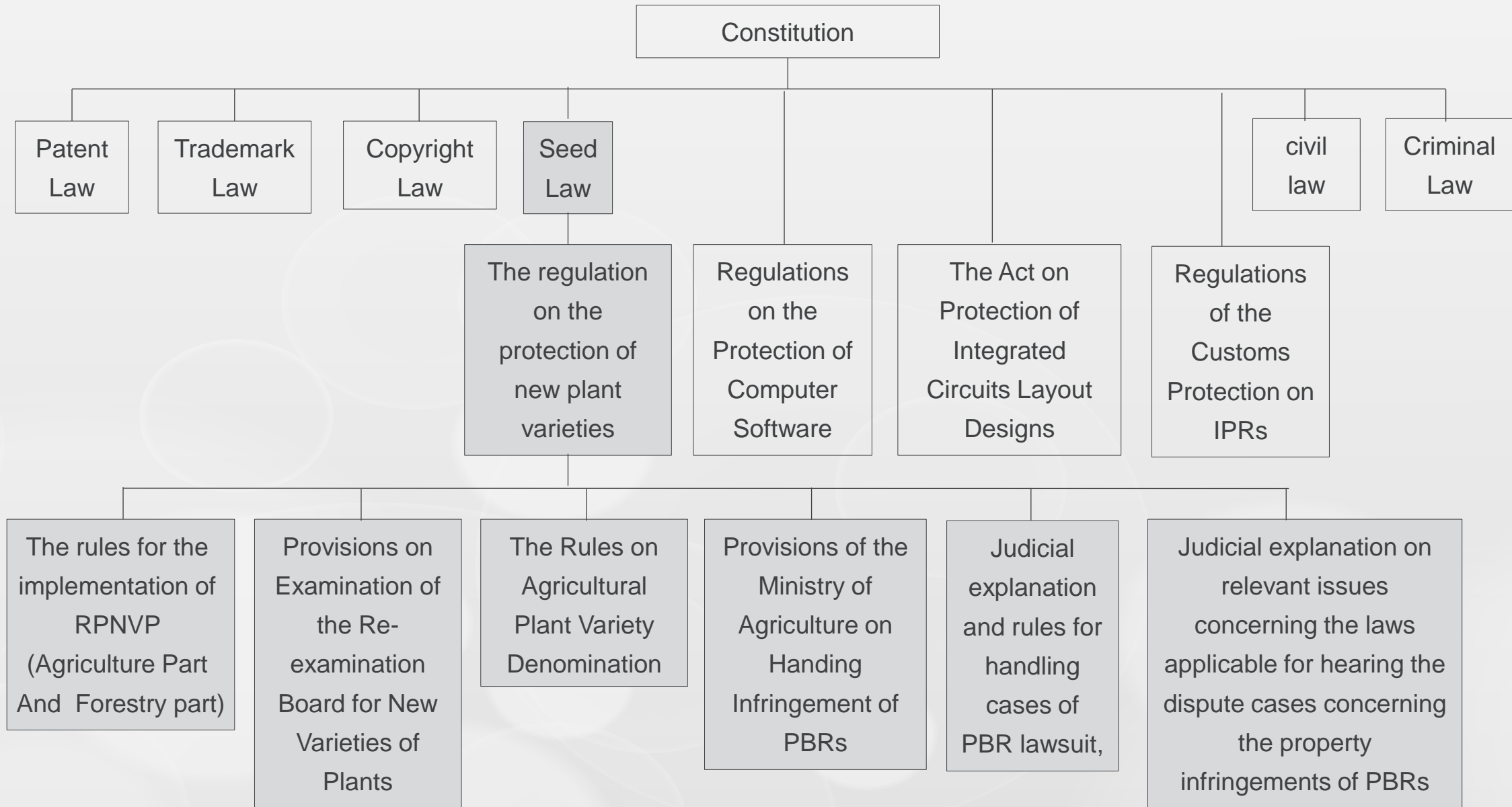
- The rules for the implementation of RPNVP (Agriculture and Forestry Part)
- PVRs application Accepted

● Judicial explanation by The Supreme People's Court

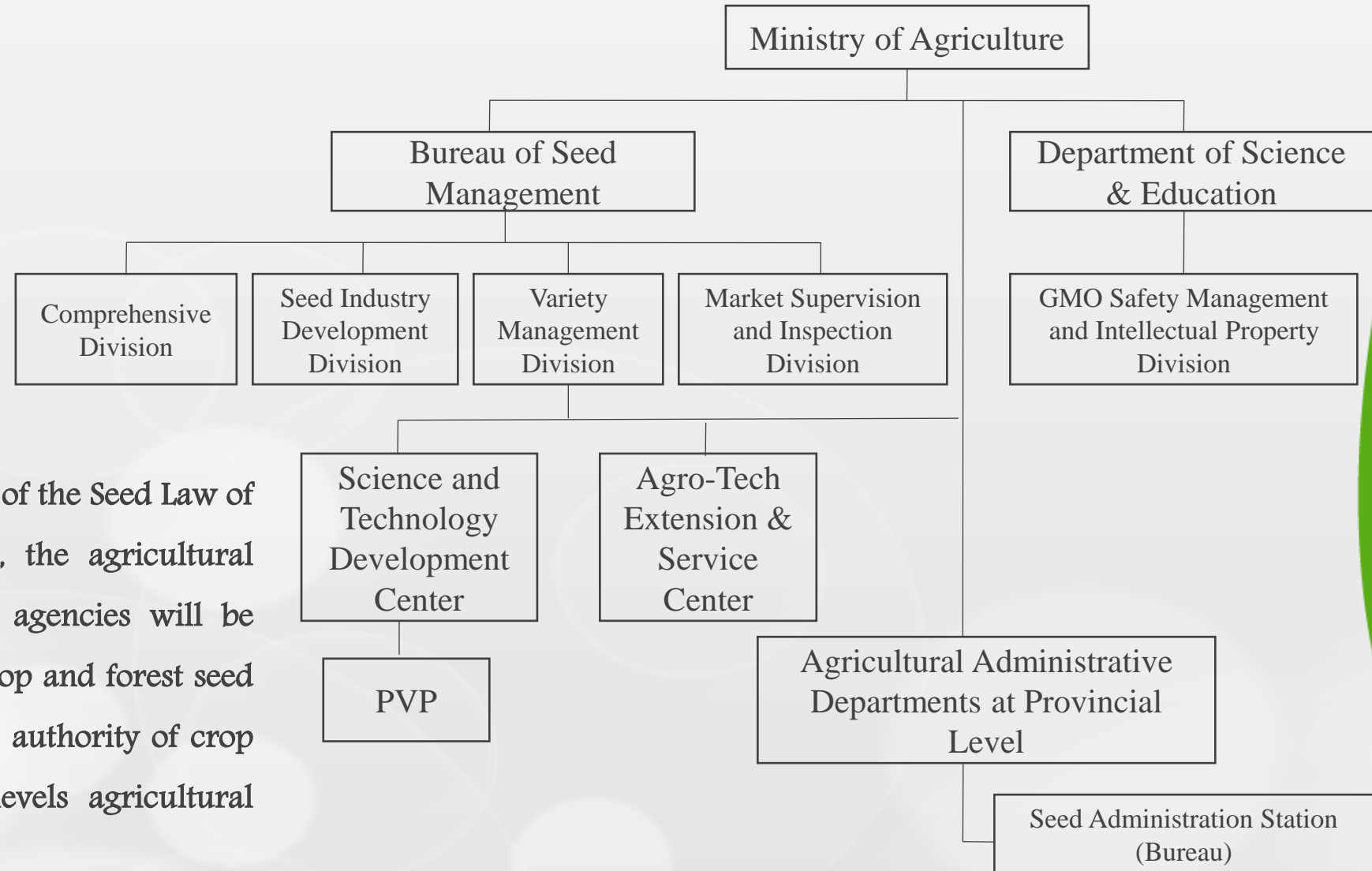
● The Rules on Plant Variety Denomination

● RPNVP is under revision

# Plant Variety Protection in China (Institutional Framework)

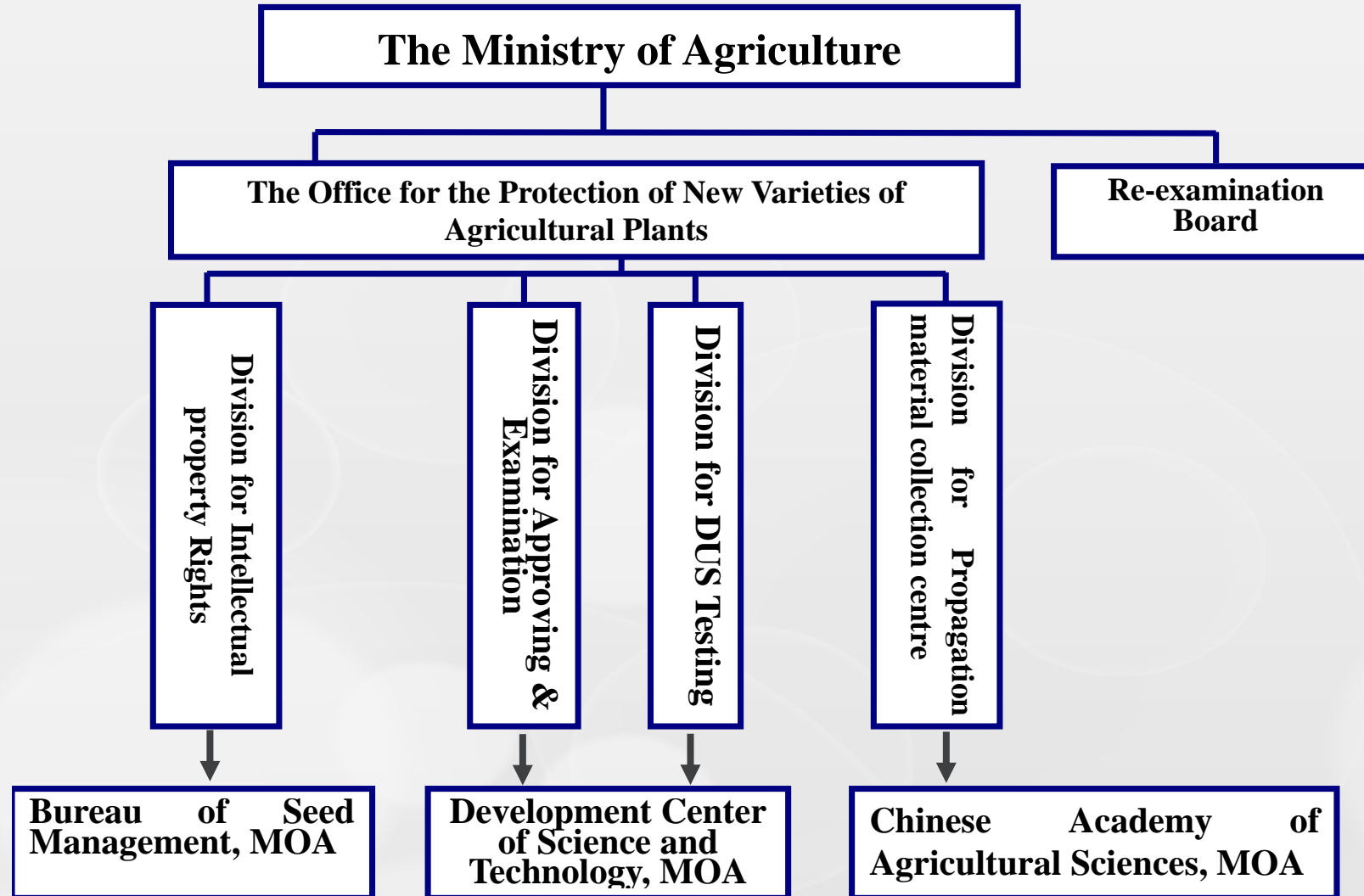


# Plant Variety Protection in China(Administration Agencies)



According to the regulations of the Seed Law of People's Republic of China, the agricultural and forestry administrative agencies will be responsible for governing crop and forest seed respectively. The responsible authority of crop seed is established at all levels agricultural authority.

# Plant Variety Protection in China(PVP Offices in MOA)



# Plant Variety Protection in China(Technical Support system)

The DUS test system consists of 1 centers and 27 DUS test branches

Approved  
186 TGs

Completed 16  
DNA fingerprint  
identification  
standards

The PVP  
examination mode  
of “ETC”  
Introduced

Establish a  
fingerprint  
collection  
process

Online PVP  
application

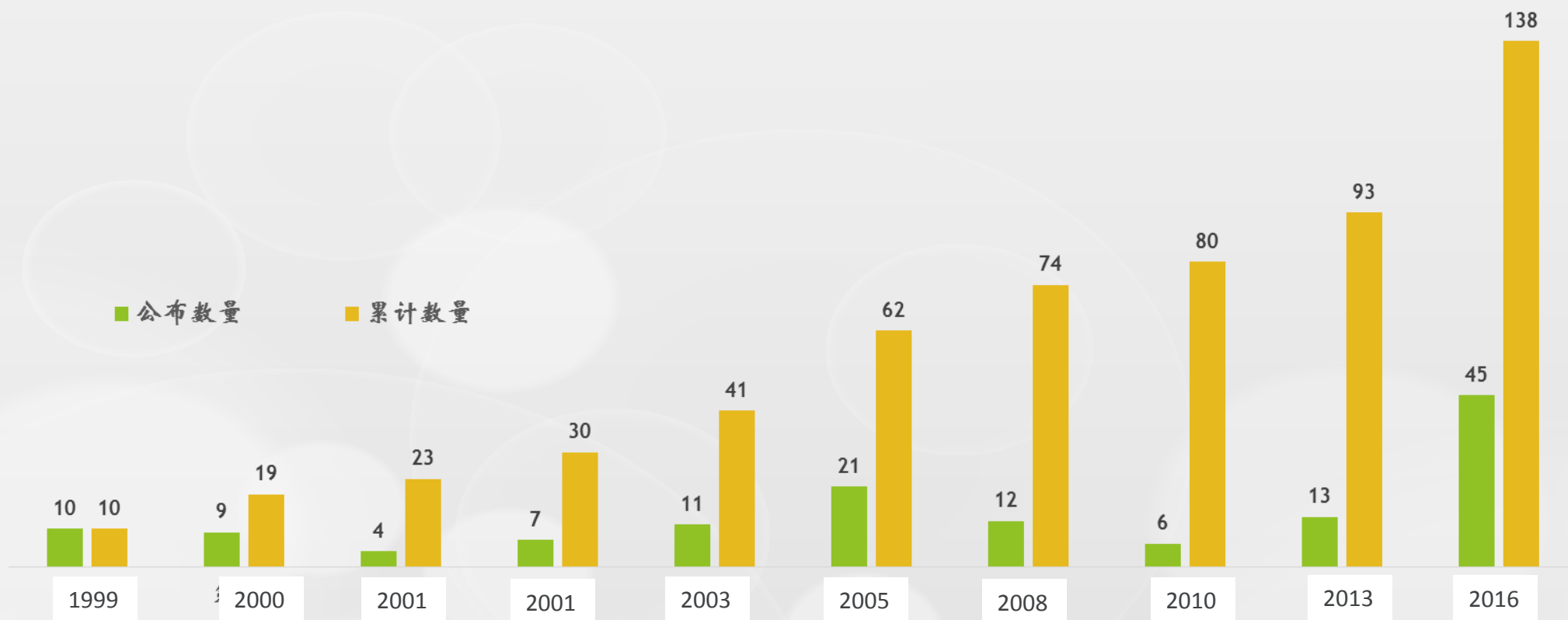


测试中心/分中心

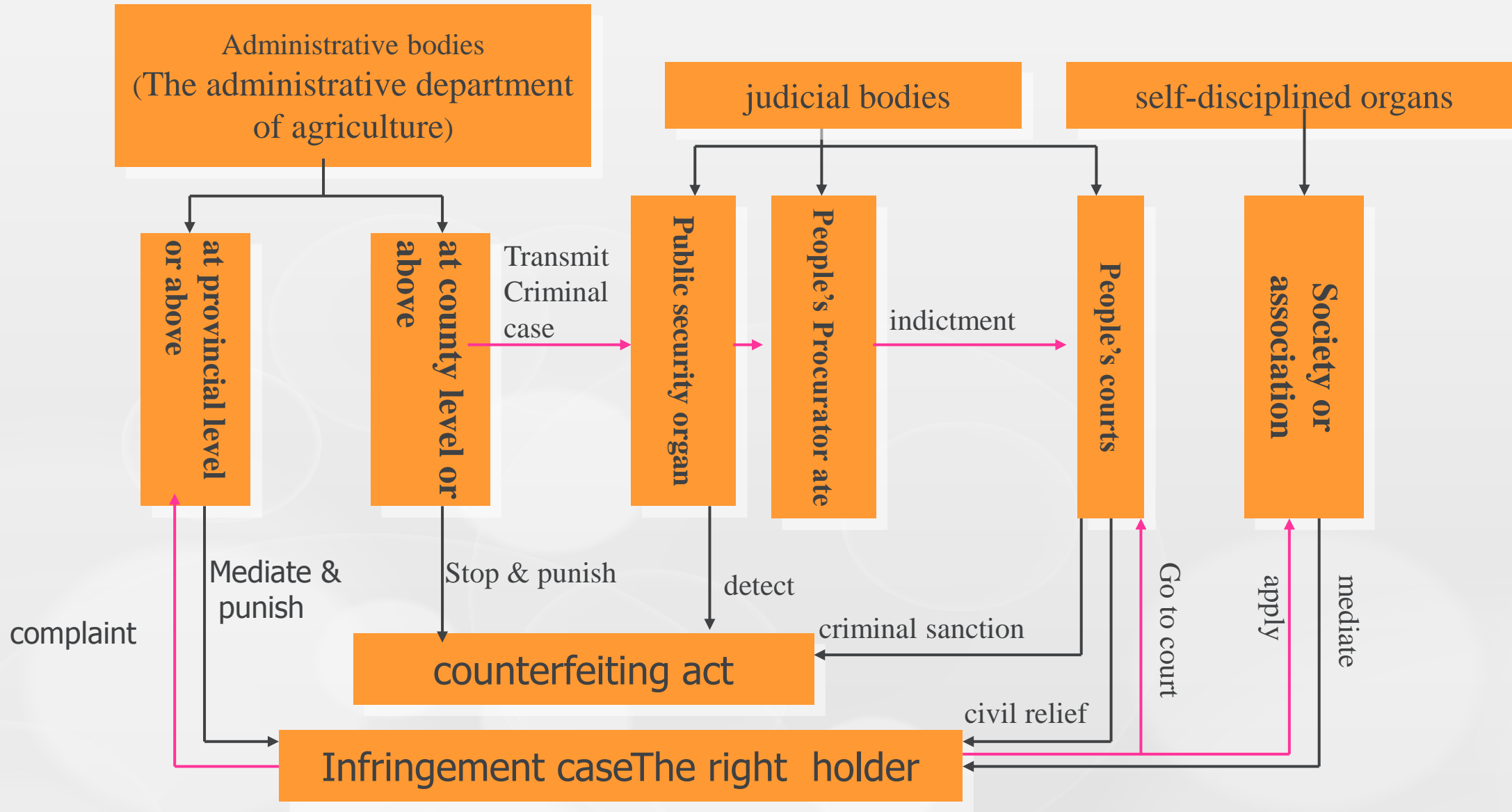


# Plant Variety Protection in China (Protect list)

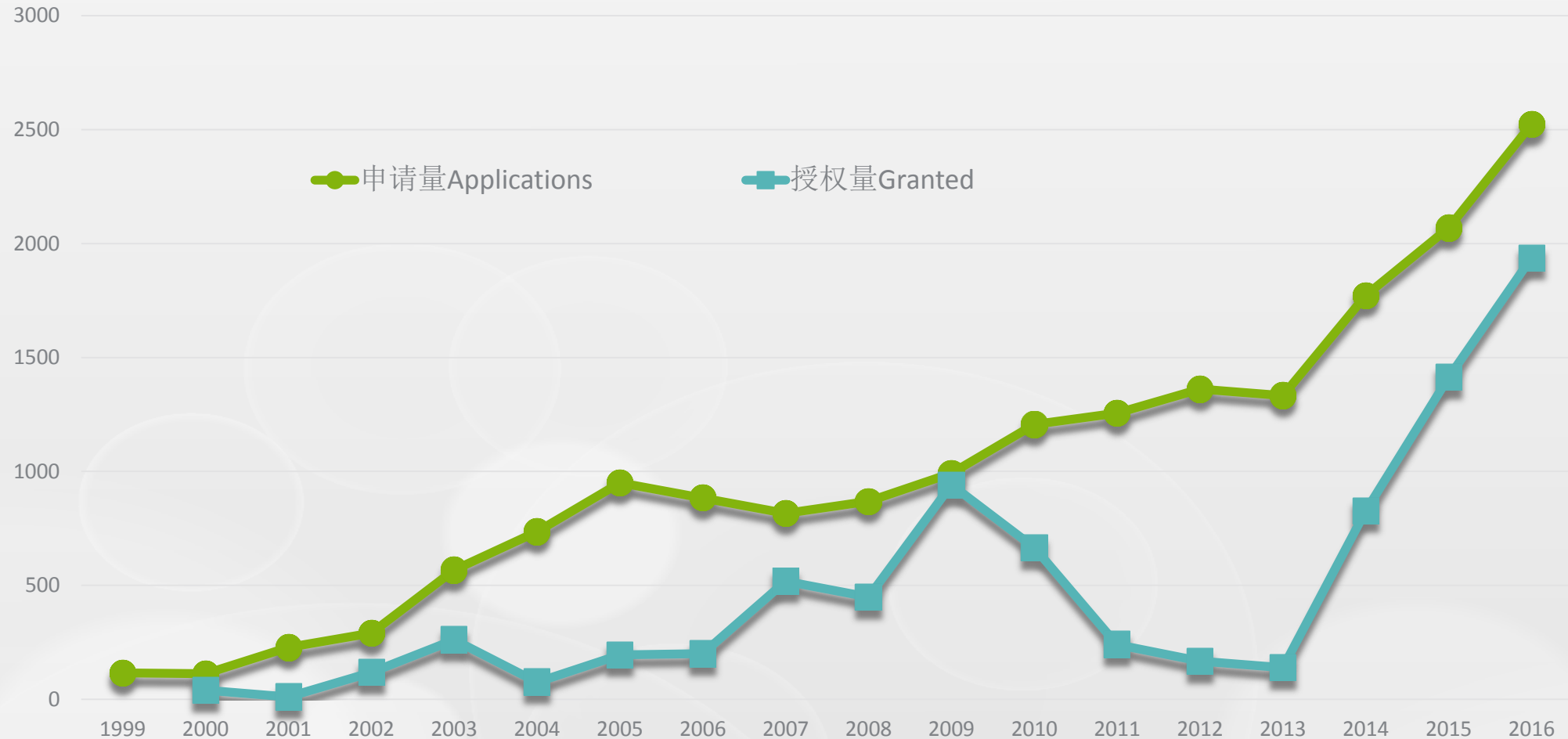
Up to now, the MOA has released 10 batched protection lists of protected agriculture plants including 138 genera or species.



# Plant Variety Protection in China(PBR Enforcement System)



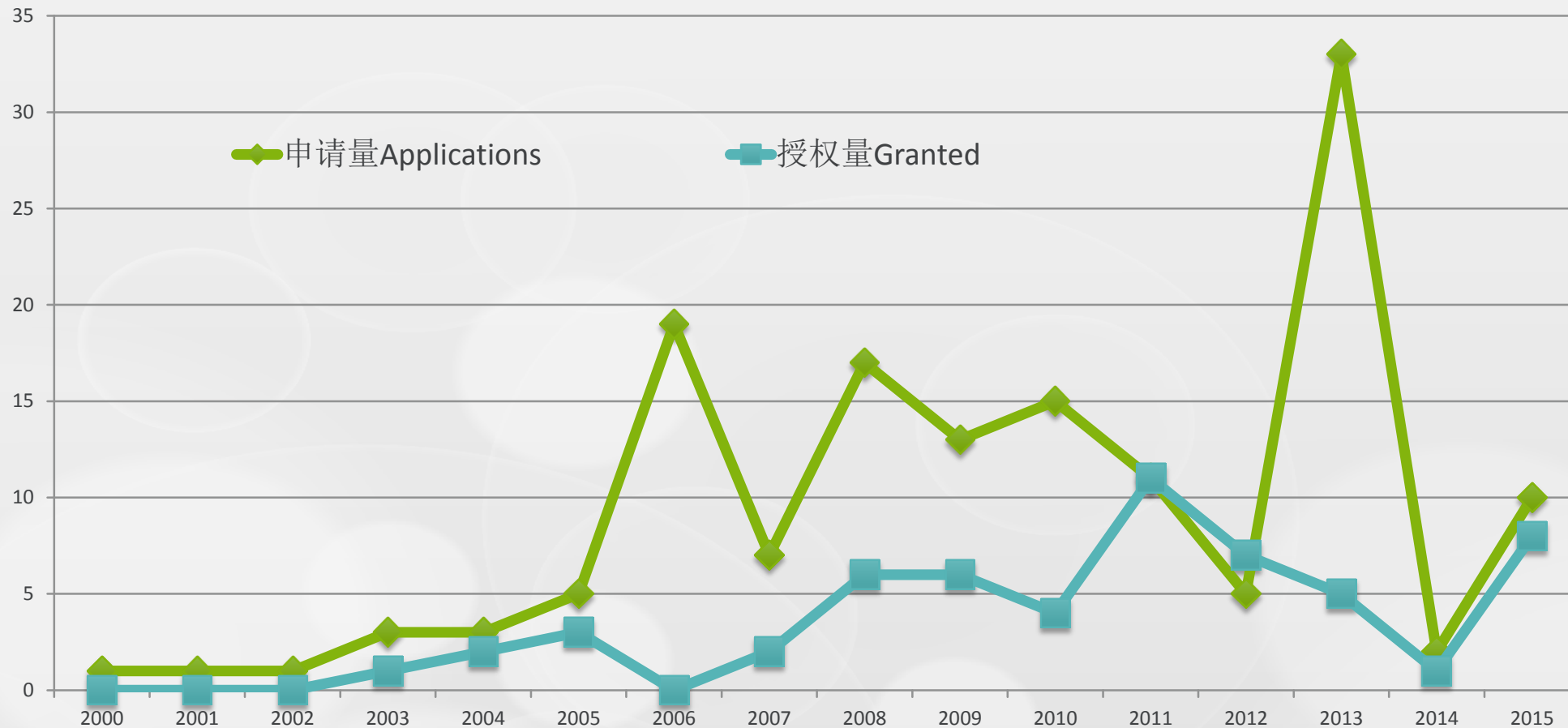
# Plant Variety Protection in China (Key Statistic Data)



The total amount of PVP applications ran up to 18075 by the end of 2016, the total amount of authorization is 8195. Annual amount of PVP applications is in the 2<sup>nd</sup> place of the UPOV members for three years.

# Plant Variety Protection in China (Key Statistic Data)

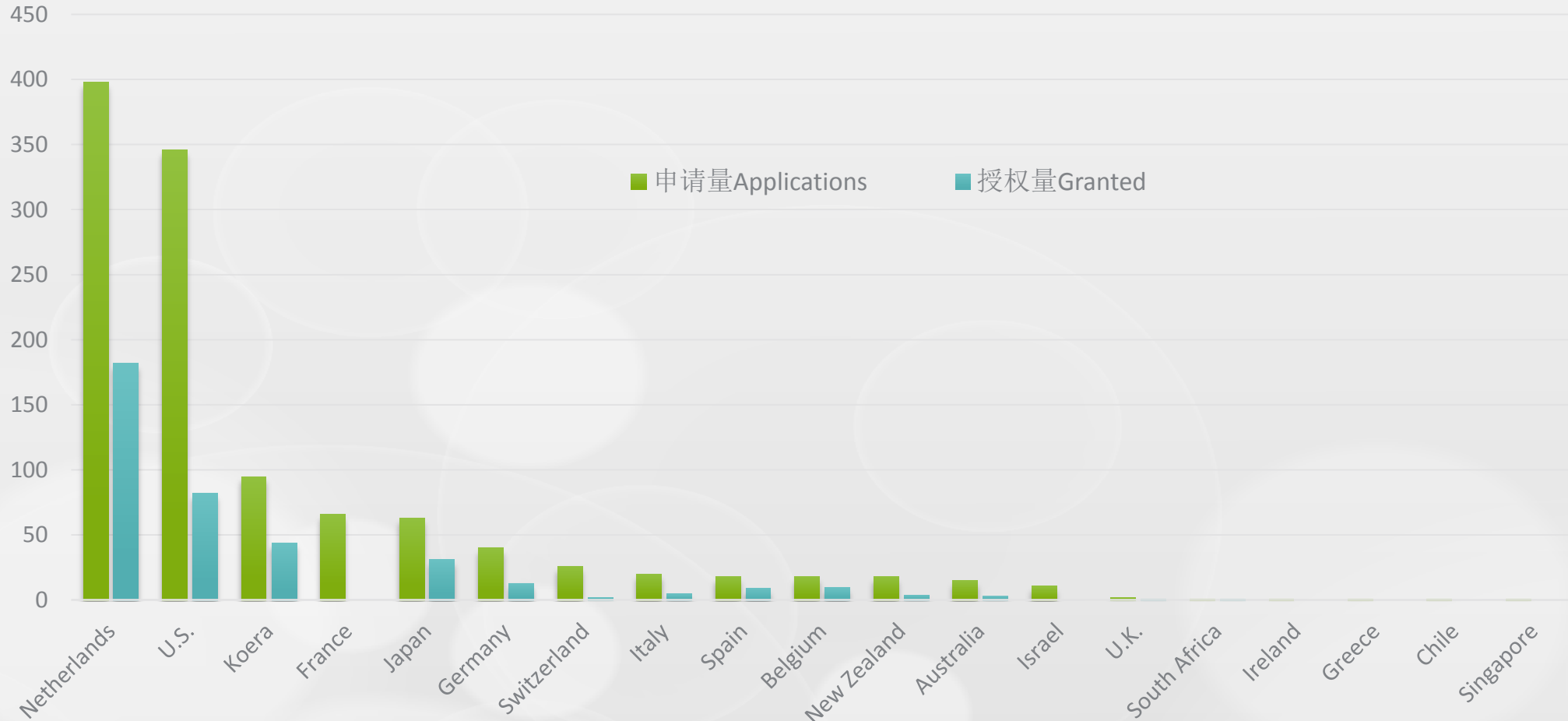
By the end of 2015, China had applied for 146 PVP abroad, and the amount of authorization is 56.



Data from UPOV HP

# Plant Variety Protection in China (Key Statistic Data)

By the end of 2016, there are 1141 PVP applications from 19 countries, including Holland, the United States, South Korea and so on, accounting for 6.30% of the total amount of applications in China. The number of authorization for foreign countries is 387.



# 2.

## The Impact of Plant Variety Protection in China

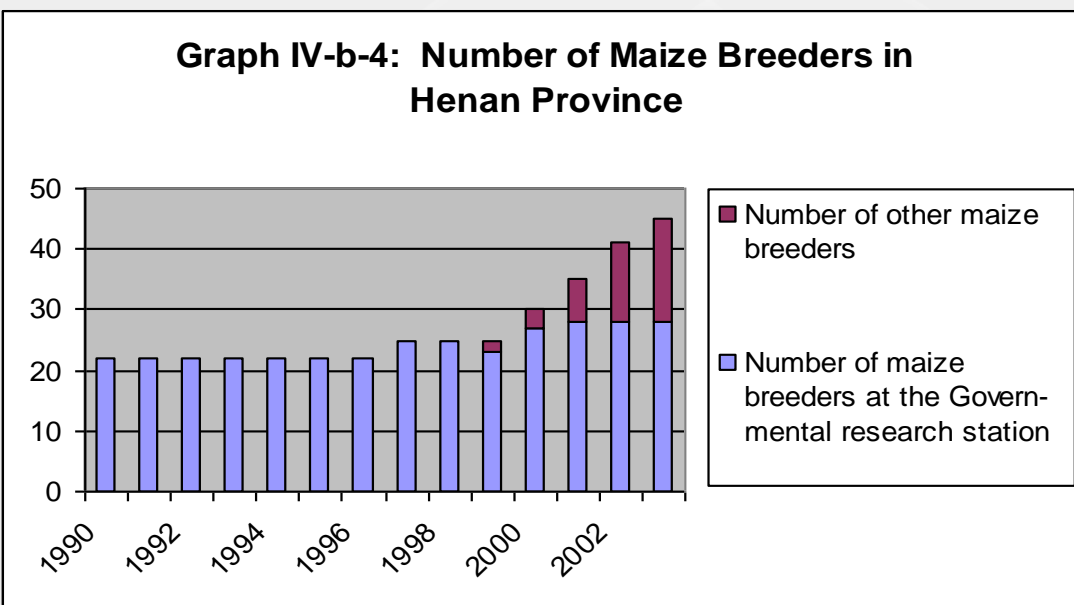
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# The Impact of PVP in China

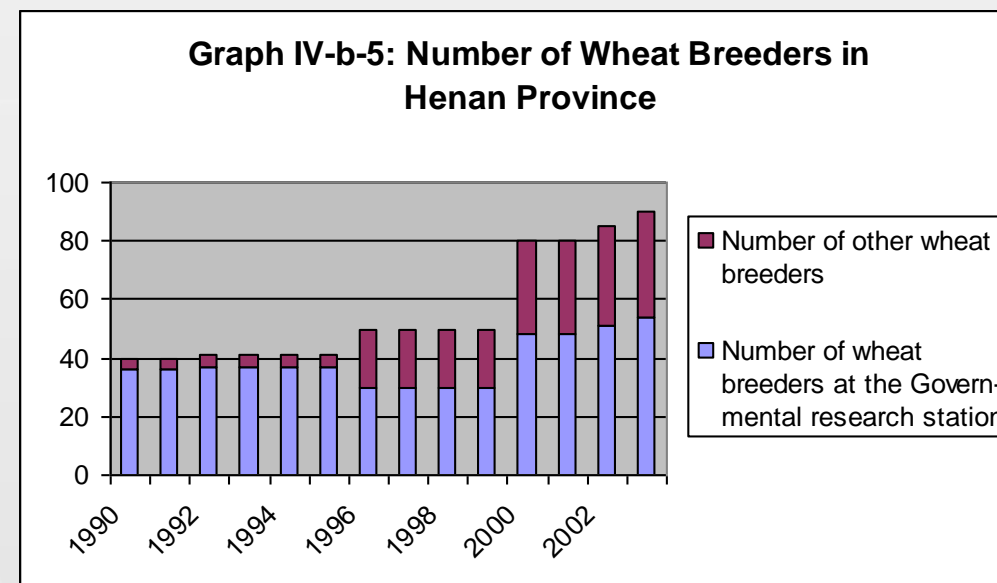
## Increase in the number of Varieties

A case study conducted in Henan Province (Central China) showed a clear increase in the numbers of maize and wheat breeders after 1999, the year of the introduction of PVP in China

**Graph IV-b-4: Number of Maize Breeders in Henan Province**

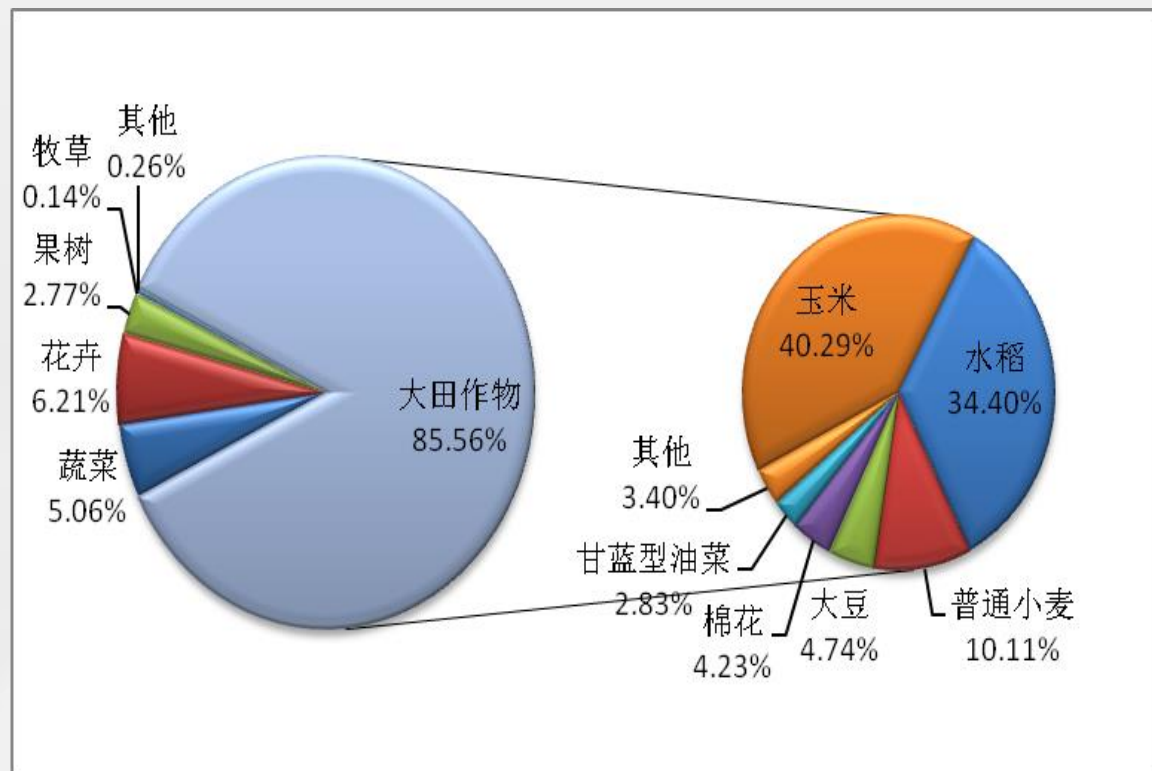


**Graph IV-b-5: Number of Wheat Breeders in Henan Province**

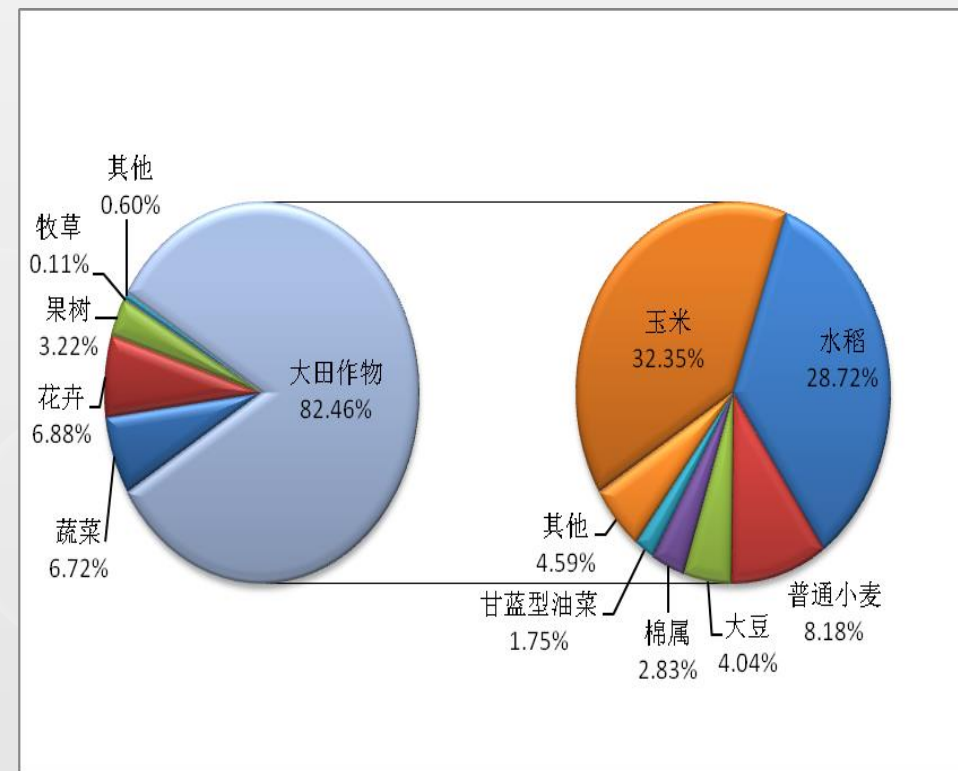


# The Impact of PVP in China

## Promote the diversification of varieties



Application (1999-2010)



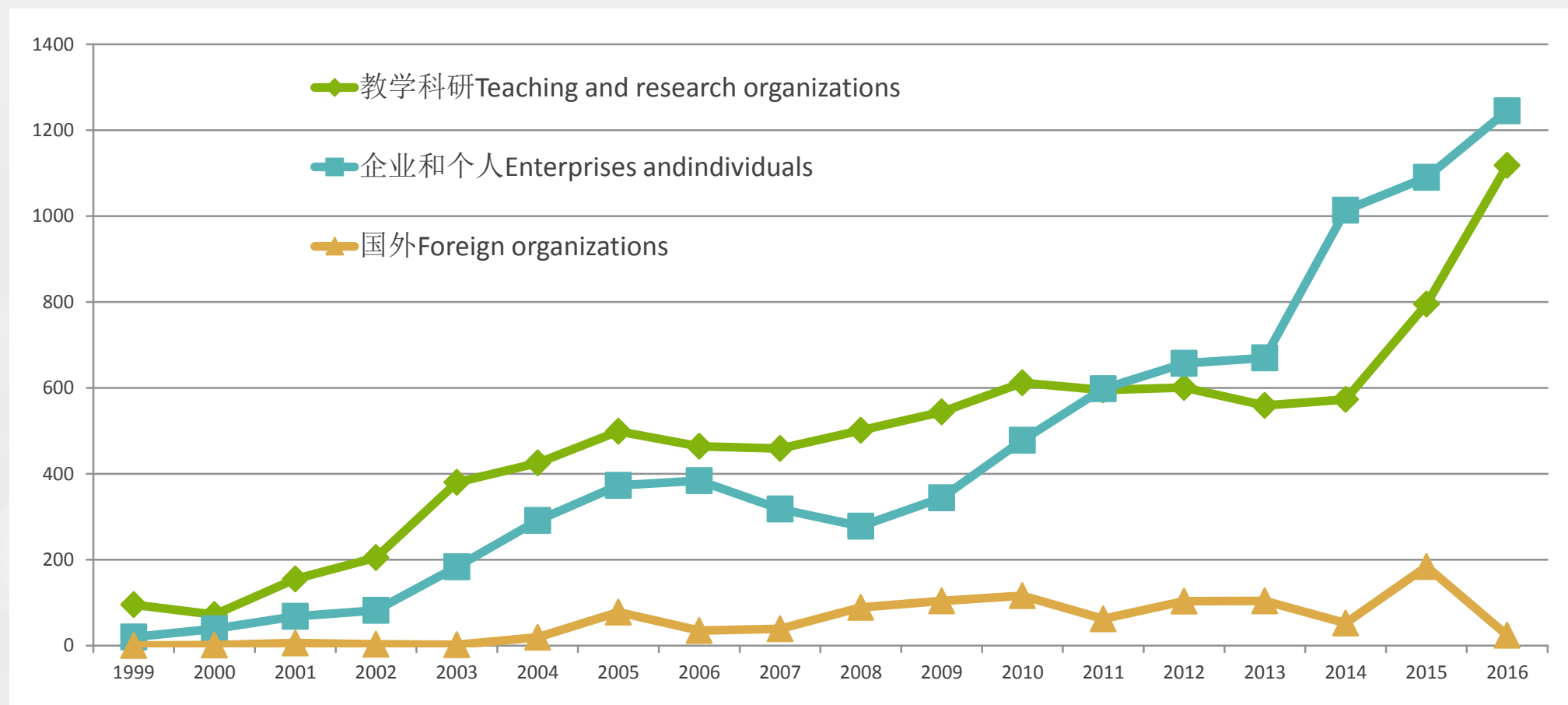
Application (1999-2016)



# The Impact of PVP in China

## Stimulate social capital investment

The number of PVP applications by domestic enterprises and individuals began to exceed domestic teaching and research organizations' since 2011. Domestic enterprises have become the main force in the development and application of new varieties of plants.

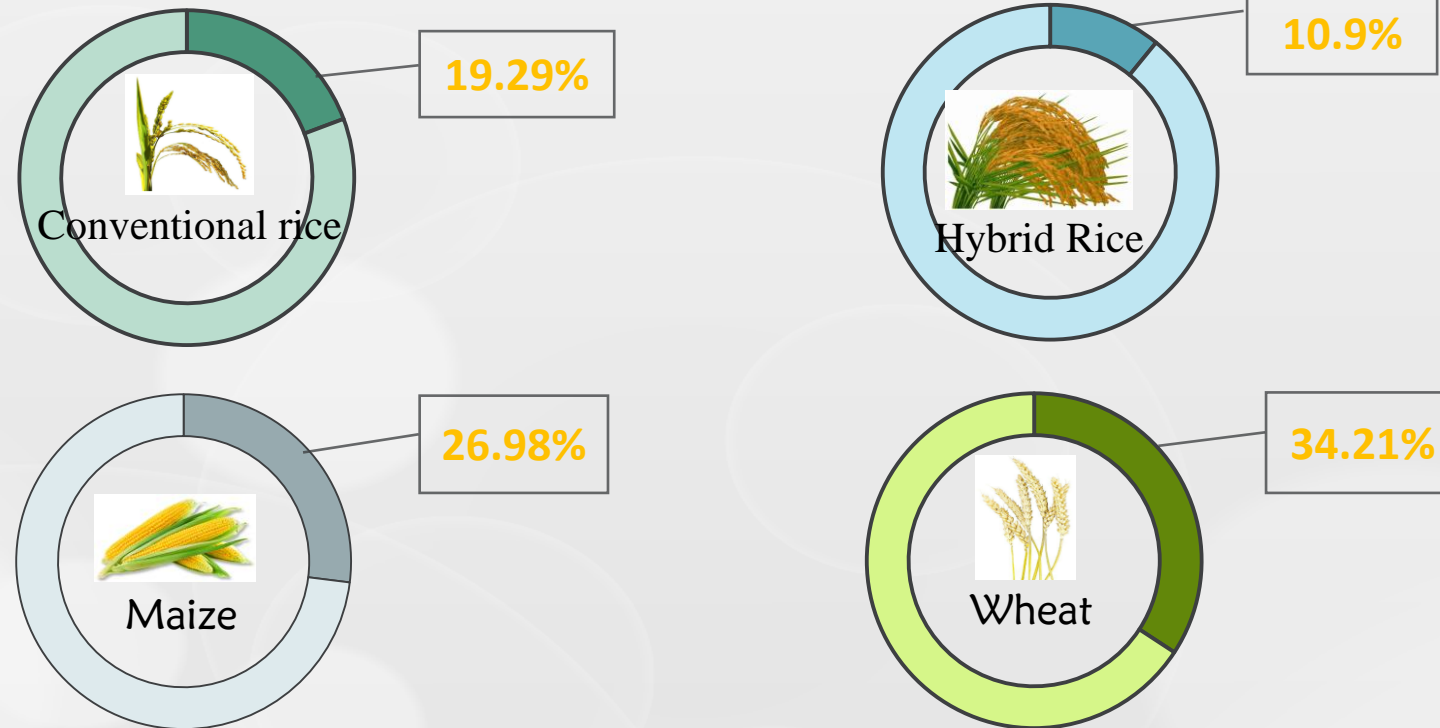


Data from PVP office of MOA

# The Impact of PVP in China

## Ensure food security

**The Percentage of the planting area of TOP10 PVP varieties to total planting area of the crop**

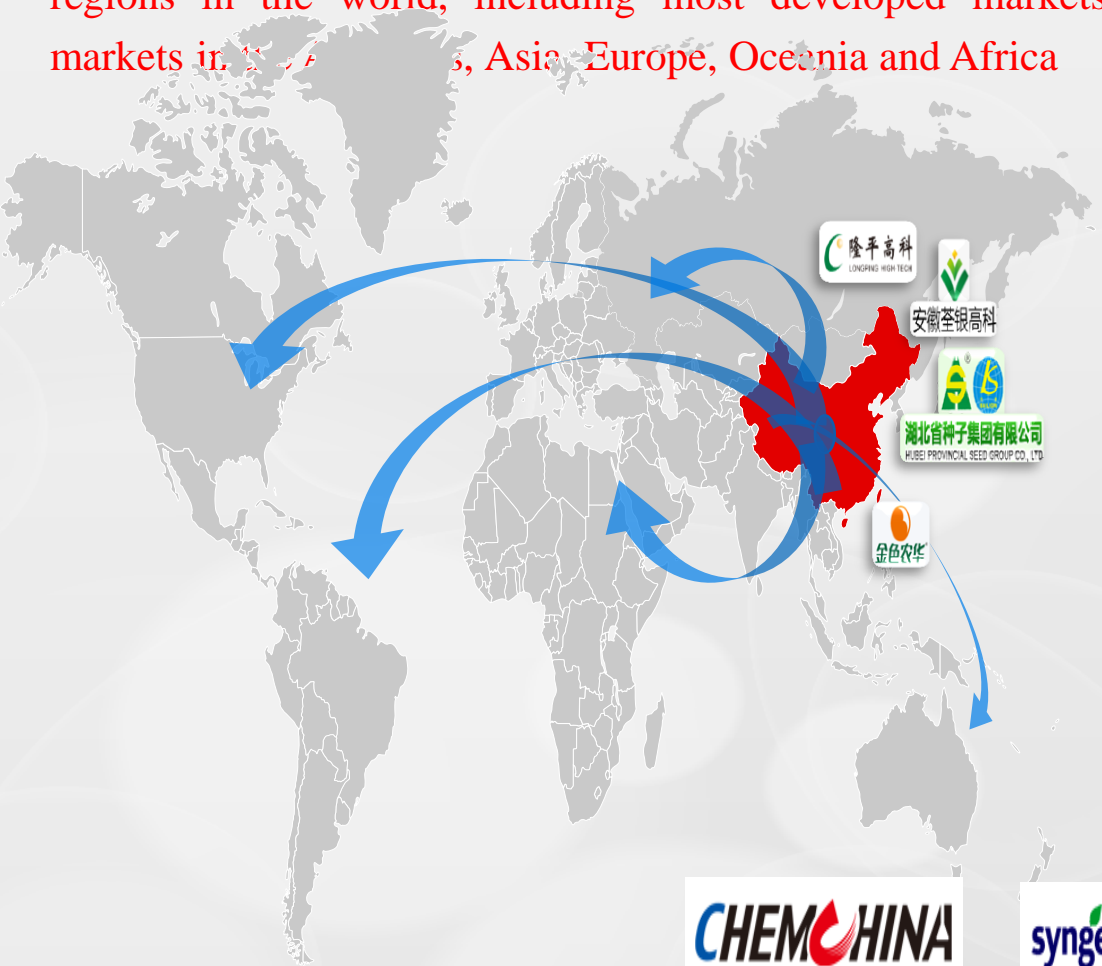


**The varieties of PVP play an important role in the main crop production of China**

# The Impact of PVP in China

## Promote international trade in seeds

China has established seed trade relations with more than 150 countries and regions in the world, including most developed markets and emerging markets in North America, Asia, Europe, Oceania and Africa



Chinese seed exports amounted in 1992 is about \$17 million, and in 2017 is \$88 million when export volume excluding the price factor. The annual average growth rate of seed export volume is 6.43% between 1999 and 2015.



Export volume of seed trade in real terms(1992-2015)

# The Impact of PVP in China

## Increase in productivity and farmer's income



The quantity of maize PVP applications is basically consistent with the trend of maize production

Data from PVP office of MOA

# The Impact of PVP in China

## Conclusion

- **Consumers:** To improve the well-being of life because of new varieties available for consumption, in major staple crops and horticultural crops, including traditional flowers, in particular, introduction of new foreign varieties.
- **Farmers:** Increase the productivity and income by introduction of both domestic and foreign new varieties;
- **Seed industry and agriculture:** Stimulate commercial breeding activities and Enhance international competitiveness;
- **Society and country:** Ensure food security and save public expenditure because of social capital investment in plant breeding.

# Overseas Implementation of PVRs

## What's necessary?

- ❑ **PVRs Import side:** Seeds play a central role in agriculture production. A dynamic and viable breeding innovation and seed extension system is crucial to continue the process of crop improvement, and maintain agriculture sustainable development. However, although past accomplishments in seed industry, there are significant differences in develop level among economies. International PVRs and seeds trade has been a major engine driving the agriculture growth and created tangible benefit for both farmers and consumers.
- ❑ **PVRs Export side:** Maximization of research investment interests, Effective means of overseas development, Zero resource and environmental burden compared with commodity trade.

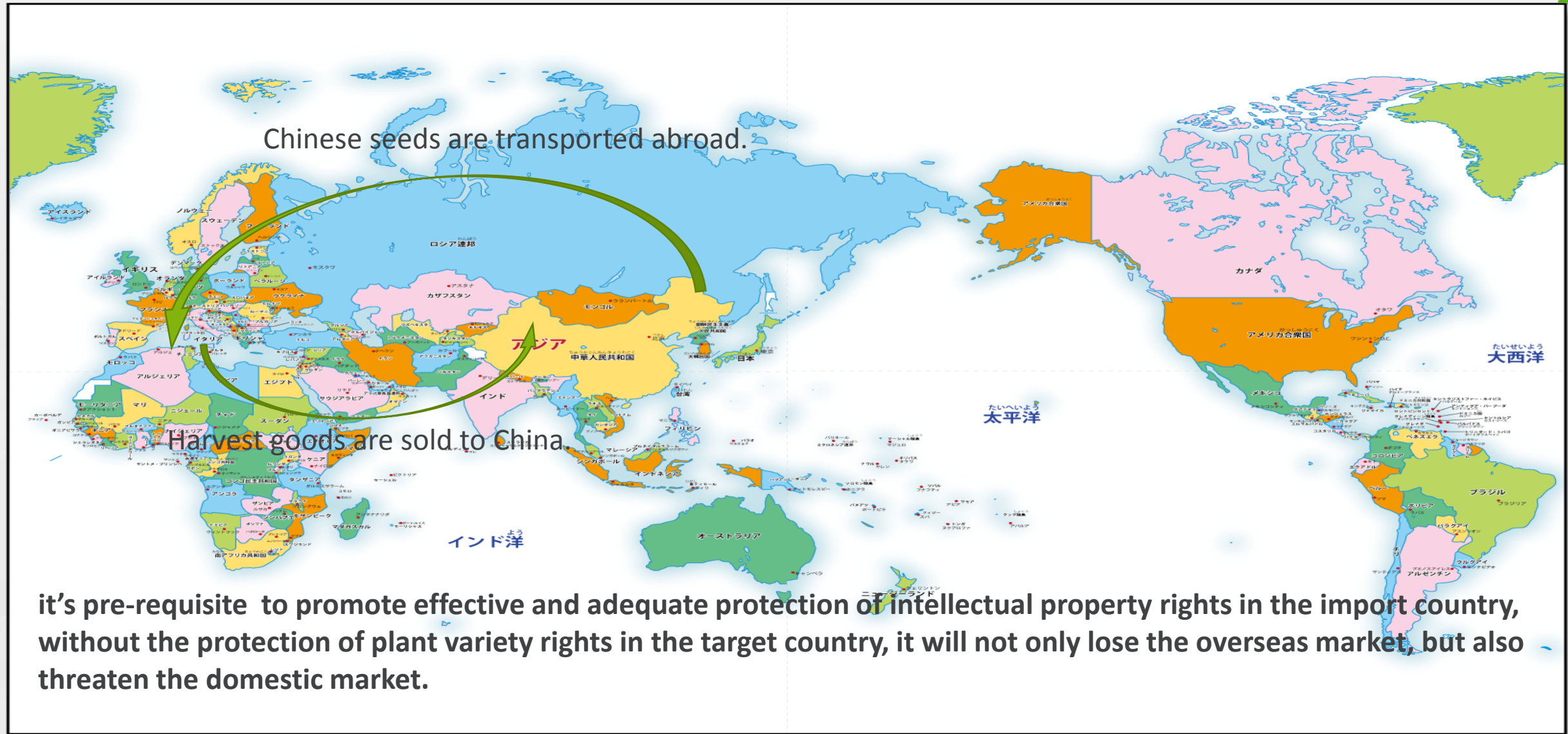
# Overseas Implementation of PVRs

## What's the main obstacles

Chinese seeds are transported abroad.

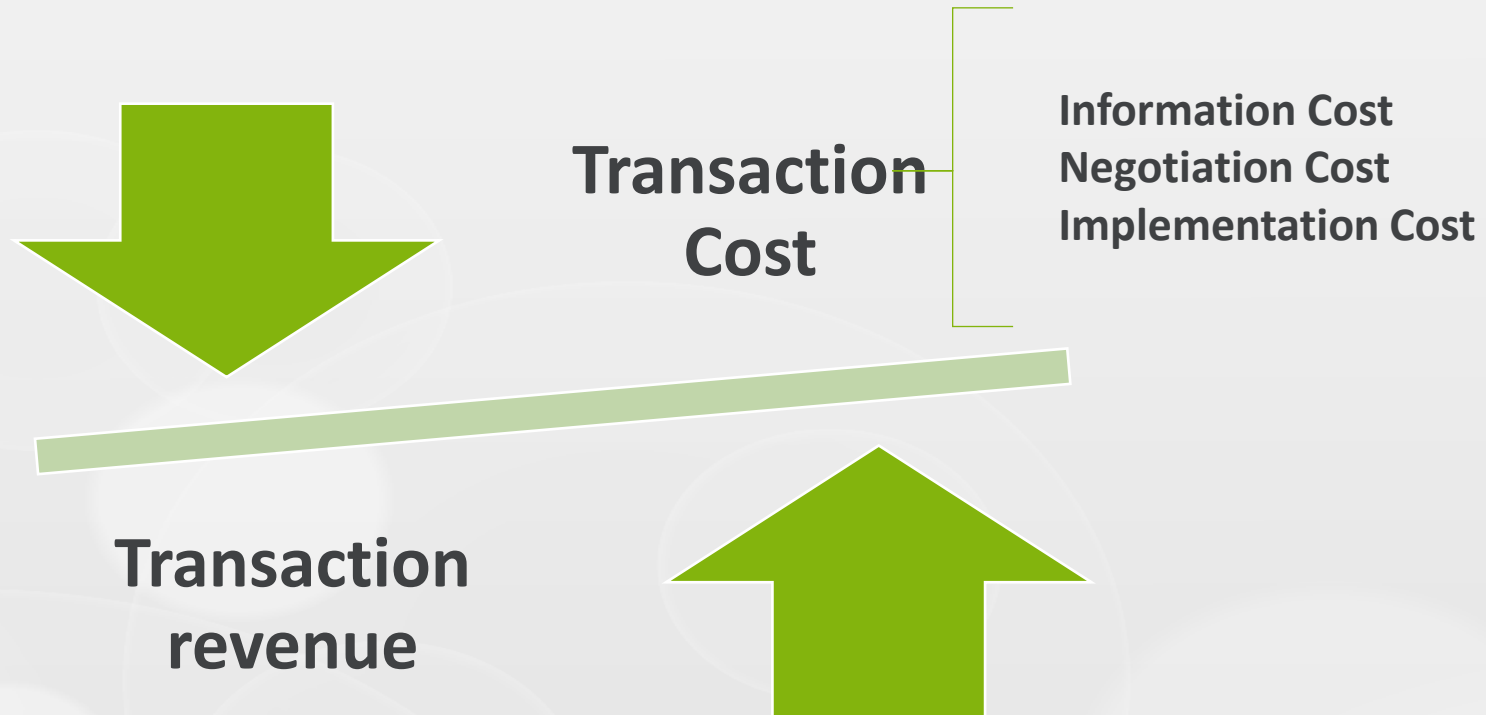
Harvest goods are sold to China.

it's pre-requisite to promote effective and adequate protection of intellectual property rights in the import country, without the protection of plant variety rights in the target country, it will not only lose the overseas market, but also threaten the domestic market.



# Overseas Implementation of PVRs

## What's the main obstacles



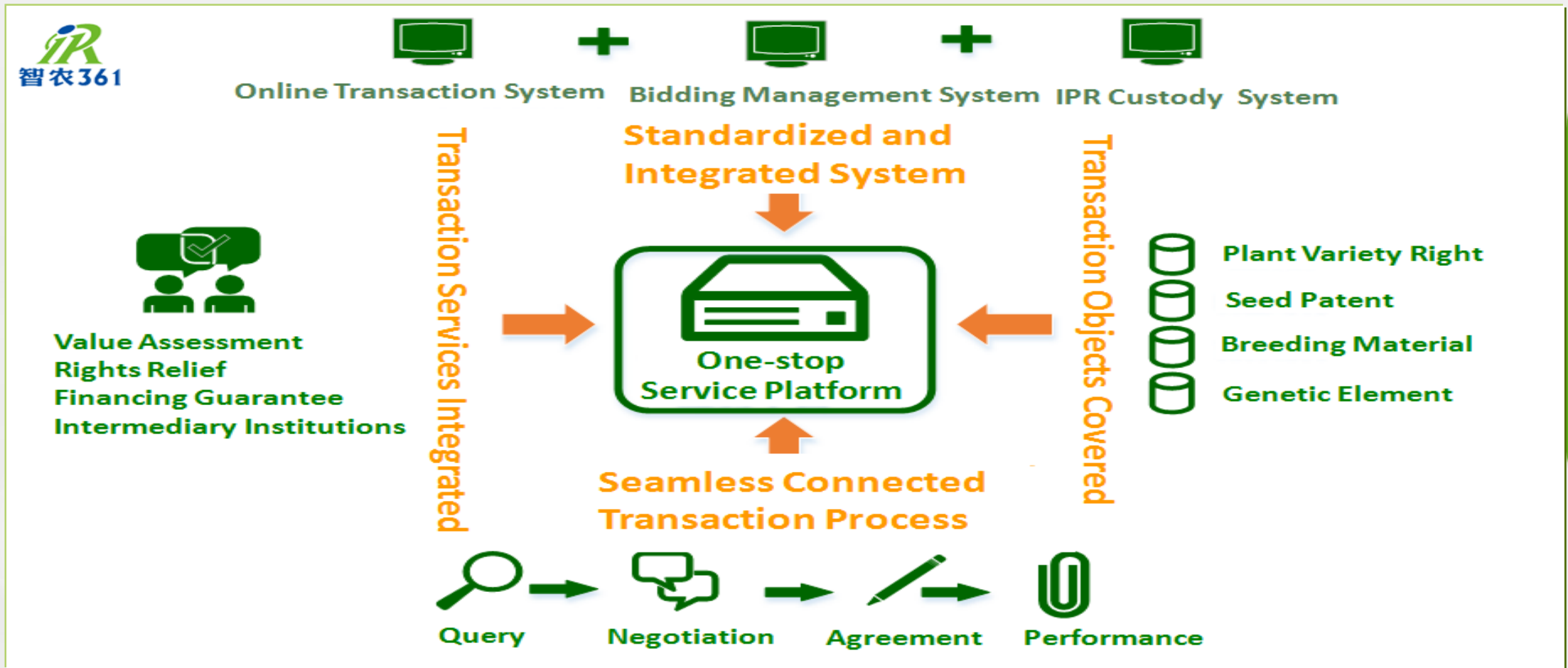
When transaction cost offset all transaction revenue, there will not be incentive for technical transferors to take part into the transaction



# Overseas Implementation of PVRs

## Our attempt and efforts

One-stop service platform for exhibition and transaction of plant variety rights



The background features a light gray gradient with several overlapping, semi-transparent white circles of various sizes. On the right side, there are two thick, curved green lines that sweep across the frame. In the top-left corner, a small portion of a green circle is visible.

**Thank you !**