



World Organisation  
for Animal Health  
Founded as OIE

**中华人民共和国农业农村部**

Ministry of Agriculture and Rural Affairs of the People's Republic of China

**East Asia CVO/Contact Persons meeting on PPR & LSD**

# Updates on PPR activities

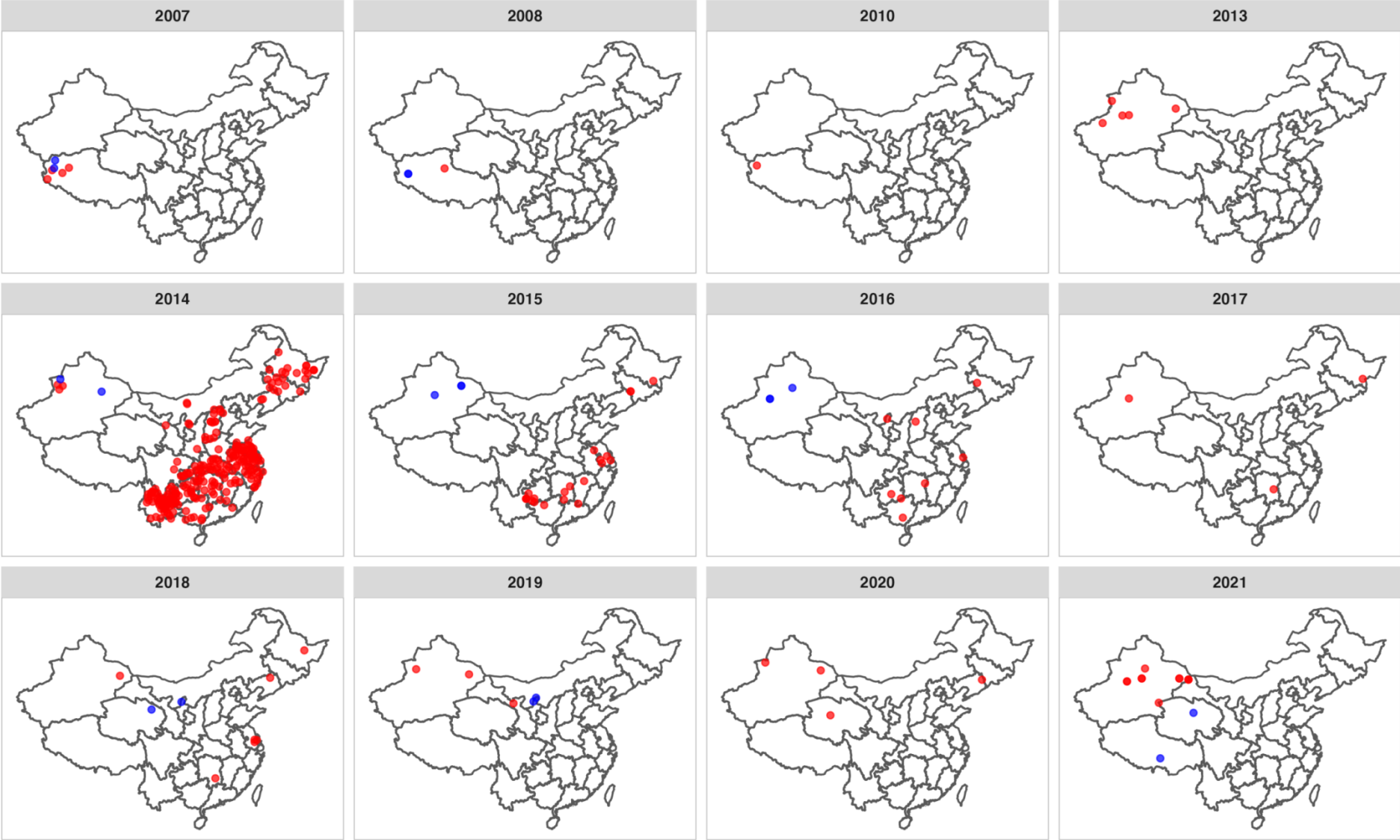
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24 July, 2023

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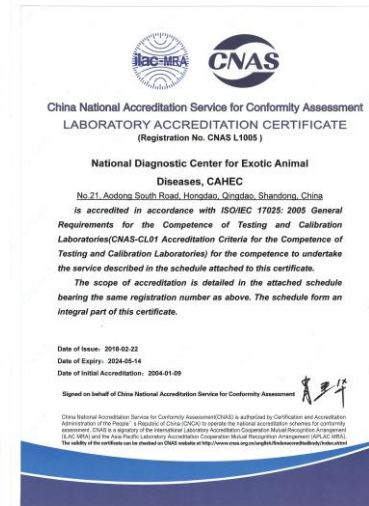
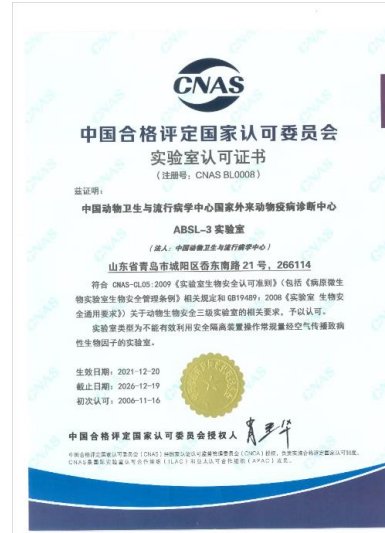
# Overview of PPR Epidemiological Situation in China



# DIAGNOSTICS

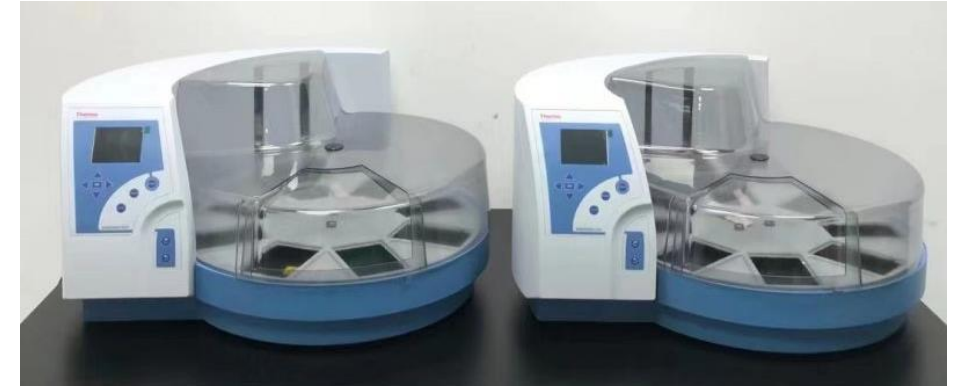
# National Diagnostic Laboratory for PPR in CAHEC

- ABSL-3 certificated
- ISO 17025 certificated
- Test assays developed
  - Virus isolation
  - Real-time RT-PCR
  - RT-PCR
  - RPA/LAMP/RAA
  - CRISP-Cas12a
  - First-generation sequencing
  - Next-generation sequencing
  - Third-generation sequencing
  - Antibody ELISA
  - Virus neutralization assay
  - Penside tests



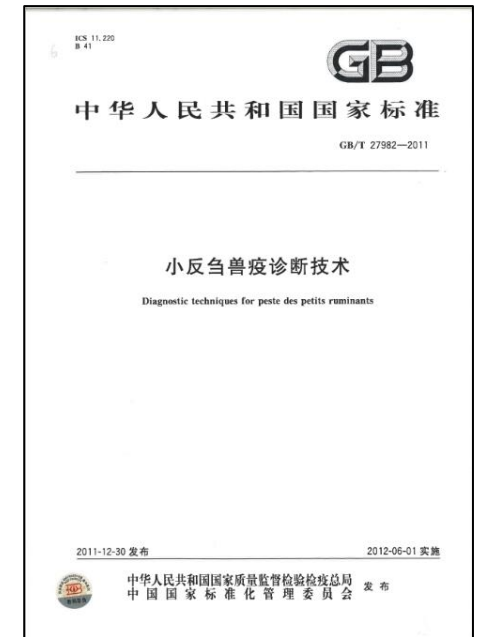
# Diagnostic Capacity

- High throughput diagnostic platform
  - Automatic tissue homogenizers
  - Automatic viral RNA extraction instruments
  - Real-time PCR thermocyclers (96-well plate/384-well plate)
- Real-time RT-PCR for 3000 swab samples per day
- ELISA for 3000 sera samples per day



# National Standard for PPR diagnosis

- National standard: Diagnostic techniques for peste des petits ruminants (GBT27982-2011)
  - Clinical symptoms
  - Post-mortem inspection
  - Virus isolation
  - RT-PCR
  - Real-time RT-PCR
  - ELISA
- Some of the methods developed in our lab have been adopted by WOAHP manual.





## Designated as international reference laboratories

- WOAHP reference laboratory for Peste des petits ruminants (2004)
- FAO reference center for Peste des petits ruminants (2021)
- Secretary of the WOAHP reference laboratory network (launched 2020)



**WOAH**  
Reference Laboratory  
Network for PPR



# **SURVEILLANCE**

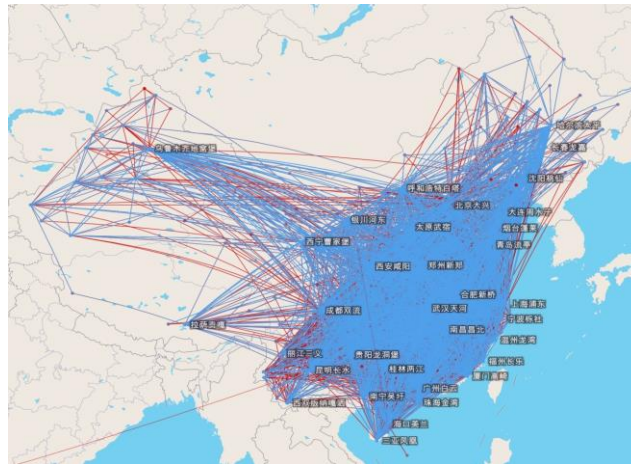
# The National Surveillance Project has been Implemented Effectively

- Target: Goat, sheep, wild small ruminants
- Active surveillance: 15000 sera samples, 15000 swab samples each year
- Passive surveillance



# Promptly Utilized Low-cost Commercial Transport

- Well-developed commercial transport networks
- Allow couriered packages to be delivered to our laboratory within 24 hours at low cost



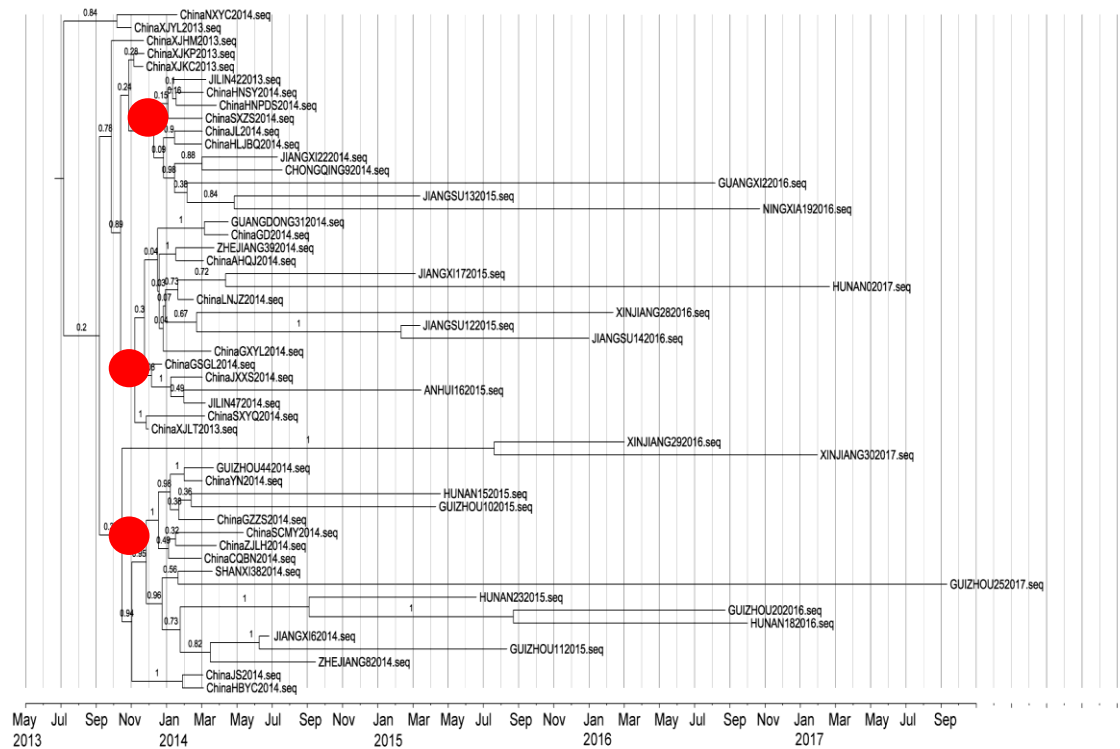
# Training

- China Field Epidemiology Training Program for Veterinarians
  - Co-organized by MARA and FAO
  - Launched in 2010
  - Trained more than 300 veterinarians
- Training on PPR epidemiology and diagnostics



# Integrate molecular epidemiology to support surveillance

- Molecular epidemiology using N gene or F gene partial sequences
- Molecular epidemiology of PPRV using genome sequences



Dominant variants

# PREVENTION AND CONTROL



# Vaccination

- National Compulsory Immunization Project of PPR has been implemented since 2014
- Post-vaccination monitoring plan
- Mass vaccination on PPR has been achieved in China
  - Vaccine strain: Nigeria 75/1
  - Number of animals vaccinated each year: >294 million
  - ~ 100 percent vaccination coverage
- Flock immunity: ~93%
- No outbreak of PPR in 2022

## 农业农村部关于印发《国家动物疫病强制免疫指导意见（2022—2025年）》的通知

发布时间：2022年01月07日

字体：[大 中 小]

各省、自治区、直辖市及计划单列市农业农村(农牧)、畜牧兽医(局、委)、新疆生产建设兵团农业农村局,部属有关事业单位:为切实做好全国动物疫病强制免疫工作,根据《中华人民共和国动物防疫法》规定,结合当前动物防疫实际,我部制定了《国家动物疫病强制免疫指导意见(2022—2025年)》。现印发你们,请遵照执行。

农业农村部  
2022年1月4日

### 国家动物疫病强制免疫指导意见(2022—2025年)

#### 一、总体要求

(一)指导思想。按照保供固安全、振兴畅循环的工作定位,立足维护养殖业发展安全、公共卫生安全和生物安全大局,坚持防疫优先,扎实开展动物疫病强制免疫,切实筑牢动物防疫屏障。

(二)基本原则。坚持人病兽防、关口前移,预防为主、应免尽免,落实完善免疫效果评价制度,强化疫苗质量管理和使用效果跟踪监测,保证“真苗、真打、真有效”。

(三)目标要求。强制免疫动物疫病的群体免疫密度应常年保持在90%以上,应免畜禽免疫密度应达到100%,高致病性禽流感、口蹄疫和小反刍兽疫免疫抗体合格率常年保持在70%以上。

#### 二、病种和范围

高致病性禽流感:对所有鸡、鸭、鹅、鹌鹑等人工饲养的禽类,根据当地实际情况,在科学评估的基础上选择适宜疫苗,进行H5亚型和(或)H7亚型高致病性禽流感免疫。对供研究和疫苗生产用的家禽、进口国(地区)明确要求不得实施高致病性禽流感免疫的出口家

# LEGAL FRAMEWORK

# Law on Animal Epidemic Prevention

- Revised in 2021
- PPR is classified into *a notifiable category I animal disease*



中华人民共和国农业农村部公告 第573号

发布时间：2022年06月29日 字体：大 中 小

根据《中华人民共和国动物防疫法》有关规定，我部对原《一、二、三类动物疫病病种名录》进行了修订，现予发布，自发布之日起施行。2008年发布的中华人民共和国农业部公告第1125号、2011年发布的中华人民共和国农业部公告第1663号、2013年发布的中华人民共和国农业部公告第1950号同时废止。

特此公告。

附件：一、二、三类动物疫病病种名录

农业农村部  
2022年6月23日

附件

一、二、三类动物疫病病种名录

一类动物疫病（11种）  
口蹄疫、猪瘟、非洲猪瘟、尼帕病毒性疾病、非洲马瘟、牛海绵状脑病、牛瘟、牛传染性脑膜脑炎、猴痘、小反刍兽疫、高致病性禽流感

二类动物疫病（37种）  
多种动物共患病（7种）：狂犬病、布鲁氏菌病、炭疽、蓝舌病、日本脑炎、棘球蚴病、日本血吸虫病

牛病（3种）：牛结节性皮肤病、牛传染性鼻气管炎（传染性脓疱外阴阴道炎）、牛海绵状脑病

绵羊和山羊病（2种）：绵羊痘和山羊痘、山羊传染性胸膜肺炎

马病（2种）：马传染性贫血、马鼻疽

猪病（3种）：猪瘟、猪繁殖与呼吸综合征、猪流行性腹泻

禽病（3种）：新城疫、鸭瘟、小鹅瘟

# Biosecurity Act

- Biosecurity Act was revised in 2020
- Biosafety requirements for PPR diagnostic laboratories
  - Virus isolation: BSL-3
  - Experimental infection with PPRV: ABSL-3
  - Dealing with PPRV-infected clinical samples: BSL-3



中华人民共和国  
生物安全法

人民代表大会常务委员会

## 动物病原微生物实验活动生物安全要求细则

序号	动物病原微生物名称	危害程度分类	实验活动所需实验室生物安全级别				f 运输包装要求	备注
			a 病原分离培养	b 动物感染实验	c 未经培养的感染性材料实验	d 灭活材料实验		
7	小反刍兽疫病毒	第一类	BSL-3	ABSL-3	BSL-3	BSL-3	UN2900	

# Technical Specifications

## Technical Specifications for Prevention and Control of PPR Emergency Plan for PPR

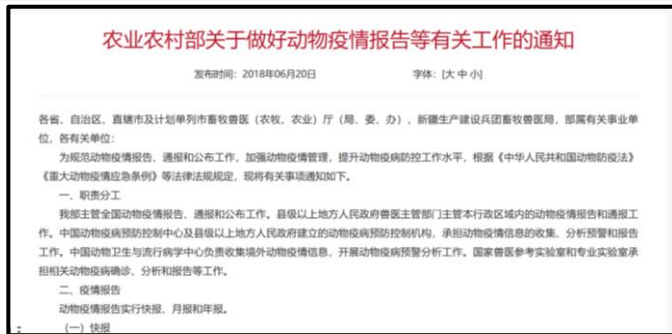


## Technical Specifications for Compartment Free from Specified Animal Disease

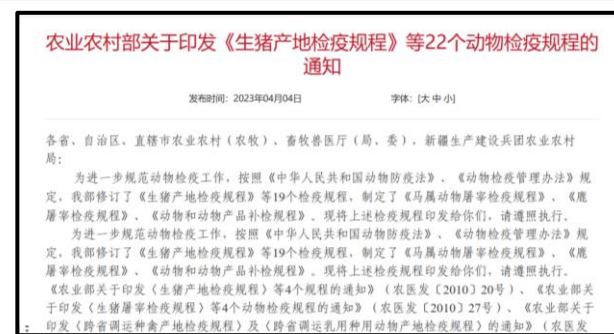
- Standard for Compartment Free from PPR



## Requirements for Animal Diseases Reporting



## Regulations on Inspection at the Place of Origin for Ruminants Regulations on Slaughter Inspection for Sheep or Goats



# STAKEHOLDERS



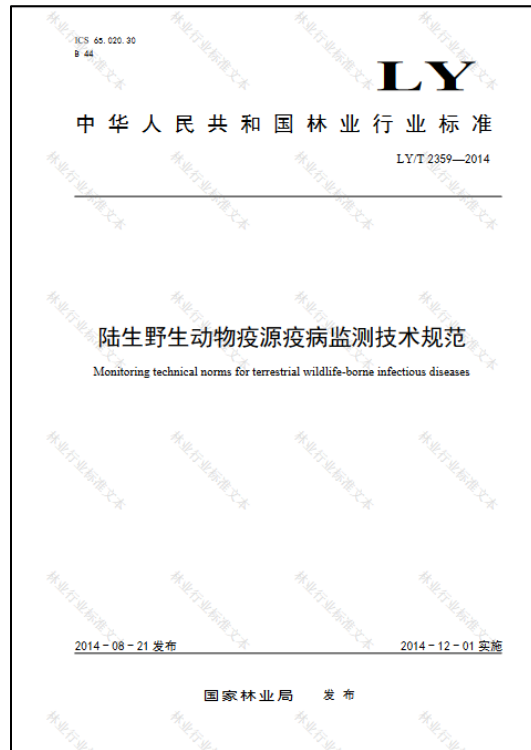
# Relevant Stakeholders Identified along the Value Chain

- Farmers
- Dealers
- Drivers
- Slaughterhouse
- Markets
- Fur processors



# Authorities Of Wildlife Administration

- Surveillance on wildlife infectious diseases



## Other high-impact diseases of small ruminants

- Sheep pox and goat pox
- Brucellosis
- Tuberculosis
- Orf





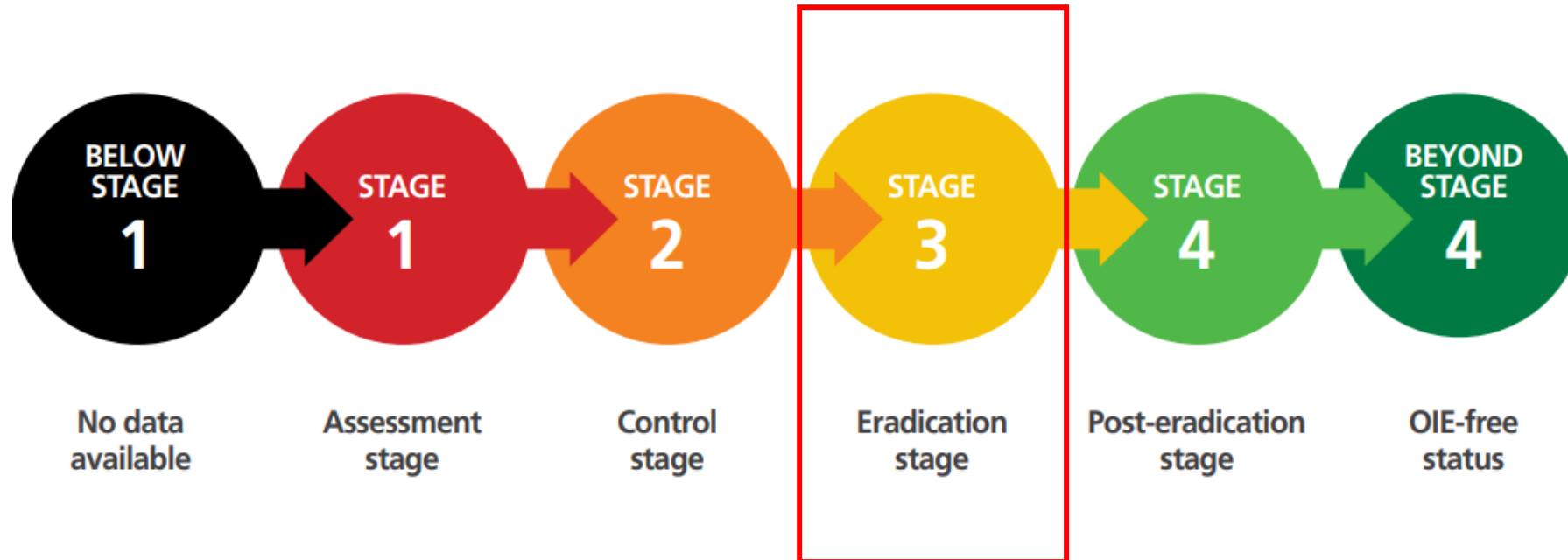
# RESOURCE MOBILIZATION

## Funding for PPR NSP

- Funding: ~ CNY 160 million/year
- Mainly on compulsory immunization for PPR

# SELF EVALUATION

- Following the self evaluation using the revised PMAT
- At stage 3 of the PPR Strategy stepwise approach







Thank you for your attention!



**中国动物卫生与流行病学中心**  
China Animal Health And Epidemiology Center