



# 区域化和GIS结合带来的新机遇

## The Integration of Regionalization and GIS Bring New Opportunities

——对跨境动物疫情管理的思考  
——Reflections on Cross Border Animal Epidemic Management

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01

## 中国面临跨境动物疫病传入的严峻挑战

China faces severe challenges from the introduced  
cross border animal diseases



## 中国面临跨境动物疫病传入的严峻挑战

China faces severe challenges from the introduced cross border animal diseases



- ◆ 在世界范围内，中国及邻国的疫病流行形势最为复杂、防控压力最为巨大。
- ◆ The epidemic situation in China and neighboring countries is the most complex and the pressure of prevention and control is the enormous over the world.
- ◆ 疫情禁令加剧走私，使得疫情管理完全不受控，动物疫病传播的风险极大。
- ◆ The outbreak of the ban aggravated smuggling, making epidemic management uncontrolled, and the risk of animal disease transmission is enormous.



中国面临跨境动物疫病传入的严峻挑战

China faces severe challenges from the introduced cross border animal diseases

## 云南边境非法入境偶蹄动物问题 解决方案

云南检验检疫局  
2014年9月

中英对照

每年经云南边境走私入境活牛达到150万头之多。  
The initial conclusion is that the number of live cattle smuggled through the border of Yunnan reaches 1 million 500 thousand per year.



WORLD ORGANISATION FOR ANIMAL HEALTH  
Protecting animals, preserving our future

Movement pathways and market chains of large ruminants in the Greater Mekong Sub-region

FUNDED BY THE GOVERNMENT OF PR CHINA AND AUSTRALIAN STANDZ INITIATIVE

Polly Smith, Nancy Bourgeois Lüthi, Li Huachun, Kyaw Naing Oo, Aloun Phonvisay, Sith Premasathira, Ronello Abila, Phillip Widders, Karan Kukreja and Corissa Miller



2015年通过云南边境的勐龙、勐腊、瑞丽等地区走私的活牛至少达到70万头以上。At least 700,000 live cattle were smuggled through the Menglong, Mengla and Ruili areas along the Yunnan border in 2015.

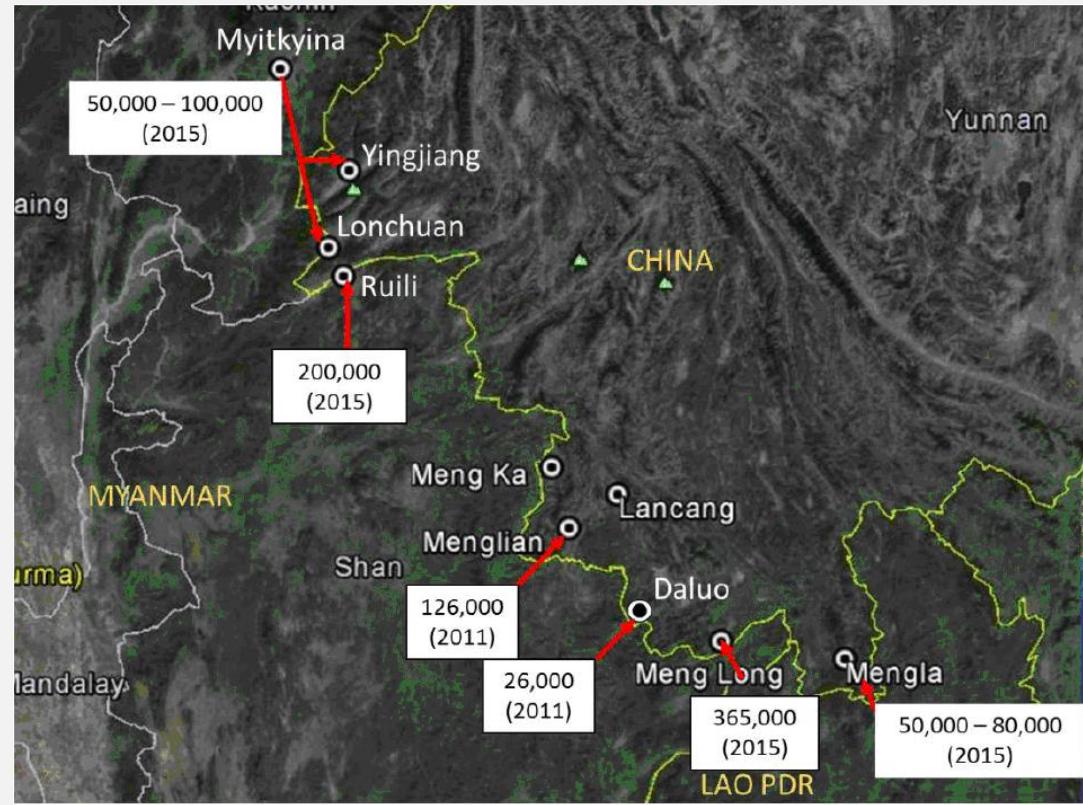


## 中国面临跨境动物疫病传入的严峻挑战

China faces severe challenges from the introduced cross border animal diseases

在暴利驱使下，走私行为形成了一个巨大的经济链条

Driven by high profit, smuggling created a huge money chain





## 中国面临跨境动物疫病传入的严峻挑战

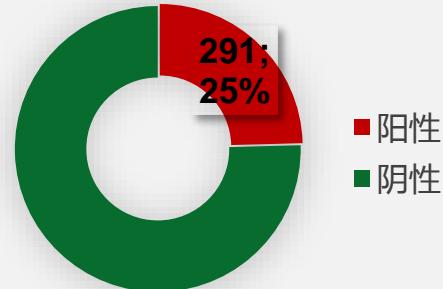
China faces severe challenges from the introduced cross border animal diseases

### □ 云南边境走私动物疫情调查 ( 2014-2015 )

Epidemic investigation of smuggled animals in Yunnan frontier ( 2014-2015 )

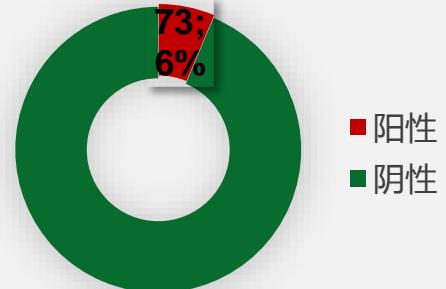
#### 口蹄疫非结构蛋白抗体

NSP



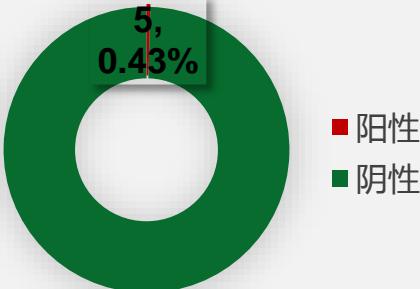
#### 小反刍兽疫抗体

PPR



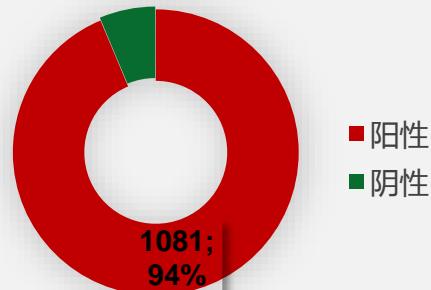
#### 牛布病抗体

Bovine Brucellosis



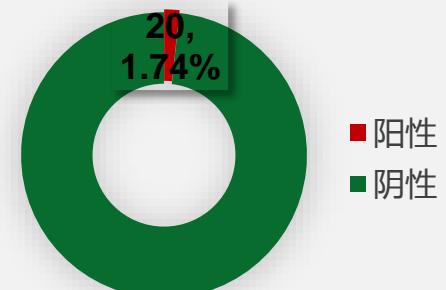
#### 蓝舌病抗体

BT



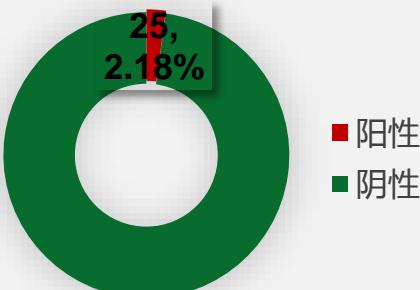
#### 牛传染性胸膜肺炎抗体

CBPP



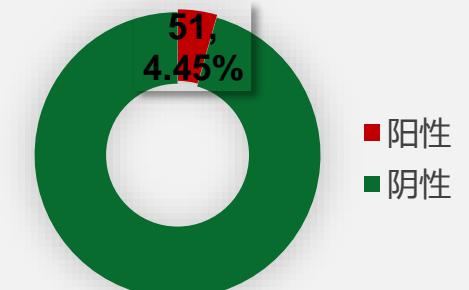
#### 牛结核病抗体

TB



#### 牛副结核抗体

JD





## 中国面临跨境动物疫病传入的严峻挑战

China faces severe challenges from the introduced cross border animal diseases



其他边境走私行为

塞拜疆 哈萨克斯坦

Other border smuggling





02

## 解决方案的提出与准备

Proposal and preparation of Solutions



#### 利弊因素 Advantages and Disadvantages

##### 有利因素 Positive factors

- ✓ OIE近年来极力倡导并已出台相应的指导原则
- ✓ OIE has strongly advocated and promulgated the corresponding guiding principles in recent years
- ✓ 中国已认可了哈萨克斯坦等多个国家部分地区的口蹄疫无疫地位，积累了丰富的经验
- ✓ China has approved the FMD free status of some countries and regions, such as Kazakhstan, and has accumulated rich experience
- ✓ 相关利益群体希望实现贸易的合法化，愿意投入相关人力物力
- ✓ Relevant stakeholders hope to achieve legalized trade, who is willing to invest in relevant manpower and material resources

##### 不利因素 Negative factors

- 中国大部分邻国受国情影响没有开展无疫区建设，无OIE认可结果可以参考
- Most neighboring countries have not carried out the construction of epidemic-free zone limited by national conditions, and there is no OIE approval results for reference
- 没有无疫区建设的具体标准，在无疫区选址、建设、管理方面缺乏响应的工具和经验
- It seems that no specific standard for the construction of epidemic-free zone; and they lack of responsive tools and experience in site selection, construction and implement of epidemic-free zone



#### 利弊因素 Advantages and Disadvantages

#### 综合判断 Comprehensive judgment

- 各方目标相同，存在实现共赢的基础
- All sides have the same target, there is a basis for achieving double-win situation
  
- 应明确跨境动物疫病管理的顶层设计，需出台具体的操作标准
- The top-level design of cross-border animal epidemic management should be clear and specific , operational standards should be issued
  
- 要寻找科学可靠的工具和方法支持无疫区建设。
- Scientific and reliable tools and methods should be found out to support the construction of non-epidemic zone



## 解决方案的提出与准备

### Proposal and preparation of Solutions



过去三年的准备工作 Preparations in the past three years

## 完成顶层设计

Complete the top-level design



## 制定明确标准

Formulate confirmed criteria

## 确定管理工具

Identify management tools



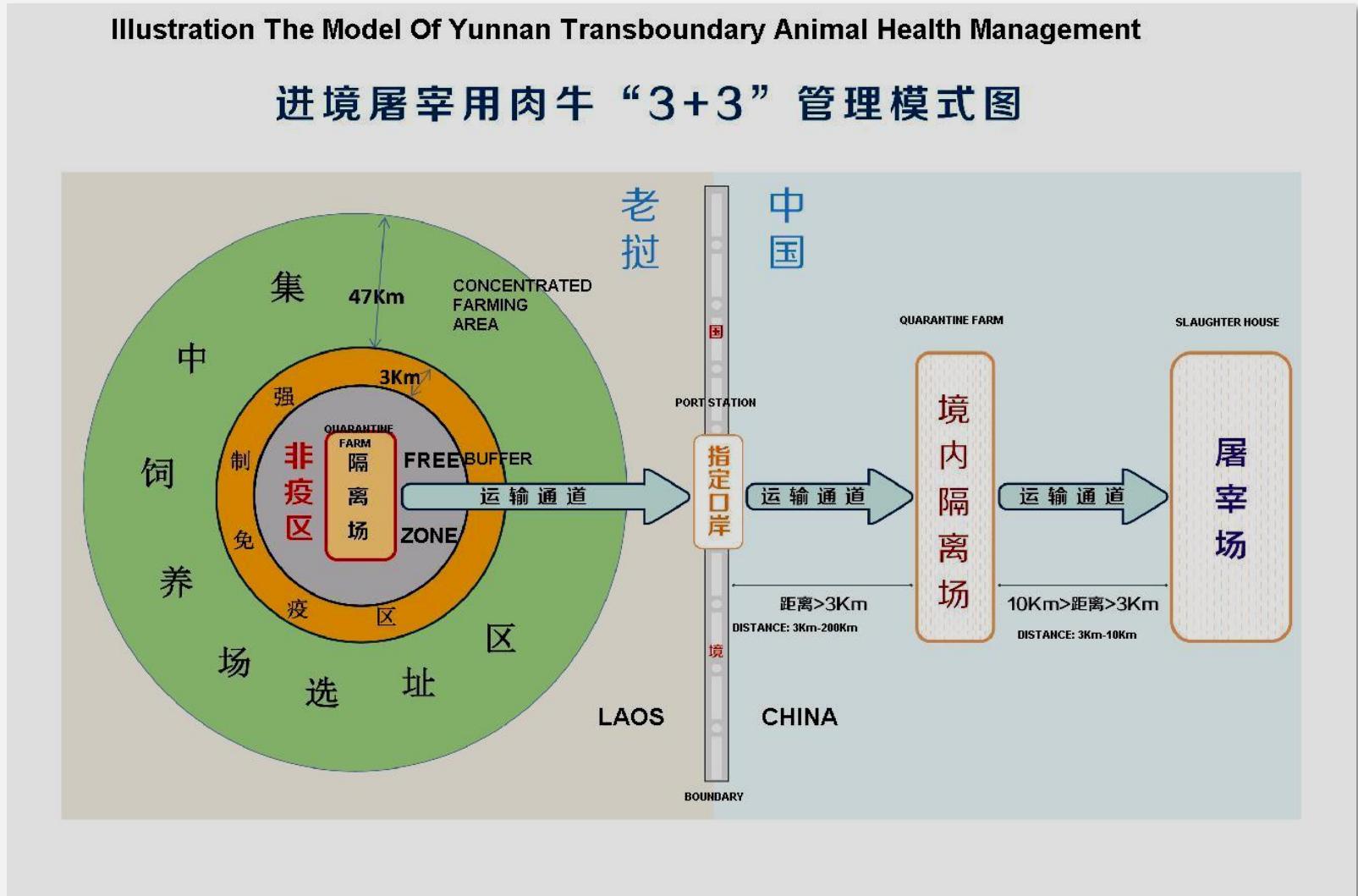
解决方案的提出与准备

Proposal and preparation of Solutions



完成顶层设计

Complete the top-level design





## 解决方案的提出与准备

## Proposal and preparation of Solutions



制定明确标准

Formulate confirmed criteria

**SN**

中华人民共和国出入境检验检疫行业标准

SN/T 4999—2017

境外口蹄疫免疫无疫区建设要求

Requirements for establishing the overseas foot and mouth disease free zone where vaccination is practised

2017 - 12 - 08 发布      2018 - 07 - 01 实施

中华人民共和国国家质量监督检验检疫总局  
发布

前 言

SN/T 4999—2017

外口蹄疫免疫无疫区建设要求

起草。  
监督管理委员会提出并归口。  
入境检验检疫局、中华人民共和国北京出入境检验检疫局、  
田刚、刘环、王春雨、徐维加、李凌枫。

是必不可少的。凡是注日期的引用文件，仅所注日期的版本适用于本文其最新版本（包括所有的修改单）适用于本文件。

标准手册

法典（Terrestrial Animal Health Code）  
试验和疫苗标准手册（Manual of Diagnostic Tests and Vaccines for animals）  
组织（World Organisation for Animal Health）  
口蹄疫（Foot-and-mouth disease）  
口蹄疫病毒（Foot-and-mouth disease virus）

文件。

ease, FMD  
性、高度接触性传染病，主要侵害偶蹄动物，在牛、羊、猪等动物中传播部位和乳房皮肤上发生水泡和溃烂。FMD是OIE《法典》规定采取控制

ree zone where vaccination is practised  
没有发生口蹄疫，对该区域及其周围一定范围内的动物采取免疫，对上方有效控制。

I

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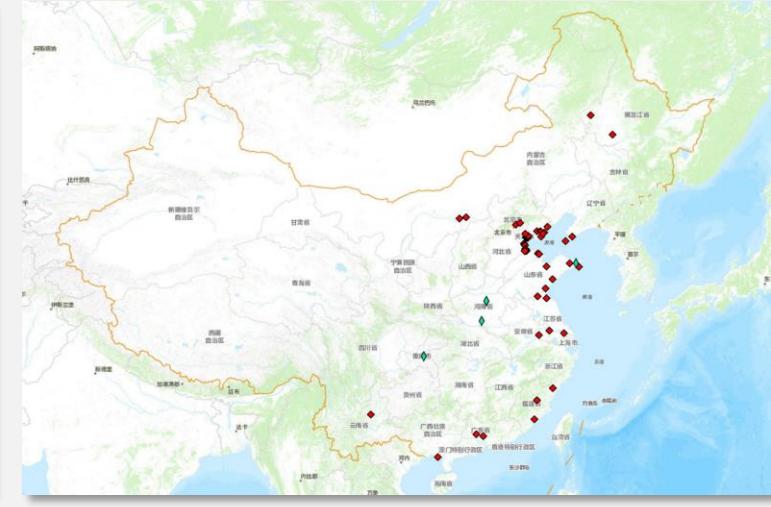
## 解决方案的提出与准备

### Proposal and preparation of Solutions



## 确定管理工具 Identify management tools

The top half shows a man giving a presentation titled "OIE - GIS training course" to a group of people in a conference room. The bottom half shows a screenshot of a web-based management system for animal husbandry. The interface includes a header with "入门陆生动物管理系统" and "深圳海关", followed by sections for "企业注册" (15 companies), "产地检疫协议" (36 agreements), "出入口记录" (2,000 entries), and "GIS信息管理". Below this is a map of Shenzhen and surrounding areas with red dots indicating specific locations.





03

工作进展

Work progress

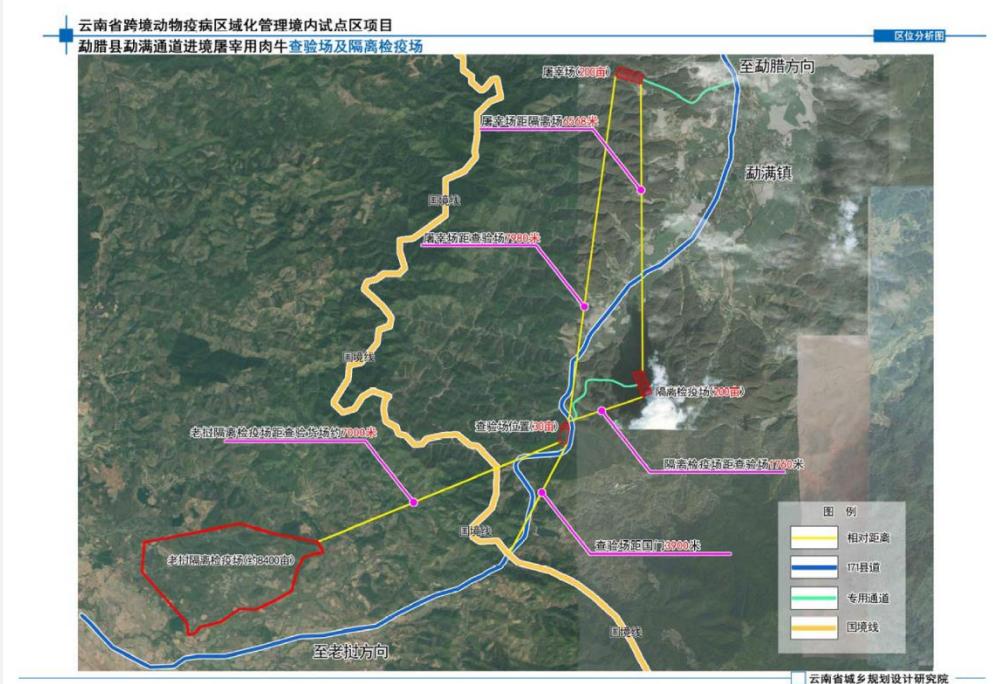


## 工作进展 Work progress



基本完成 Basically completed

### 老挝屠宰牛项目 Slaughter cattle project in Laos

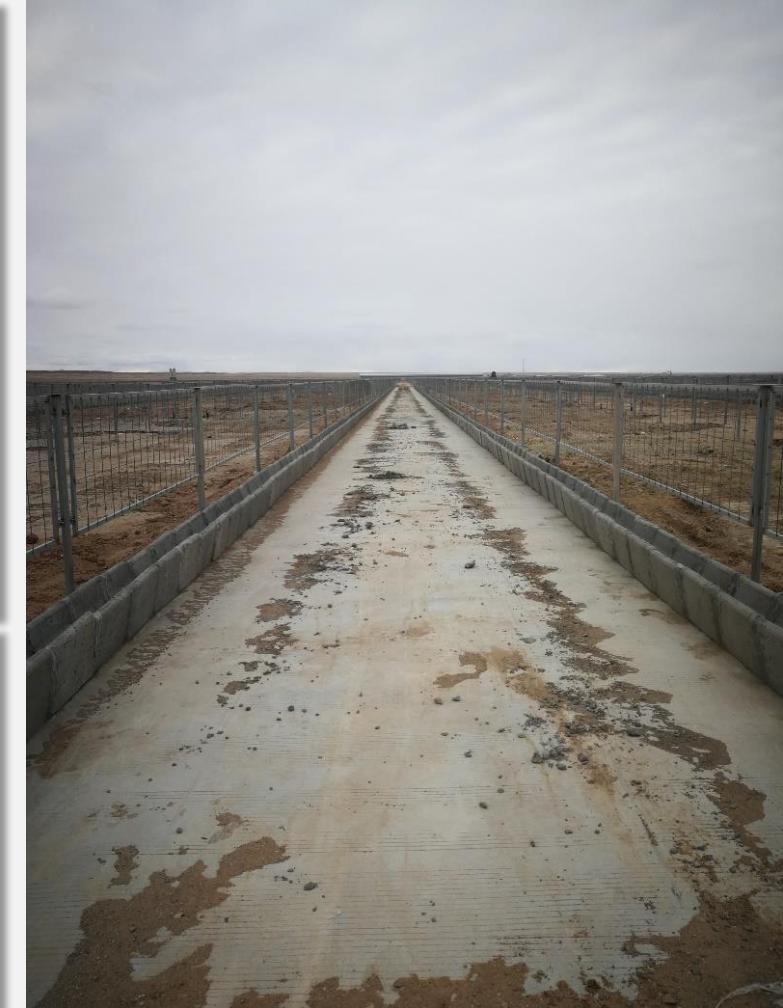




## 工作进展 Work progress

基本完成 Basically completed

蒙古国屠宰羊项目  
Slaughter sheep project  
in Mongolia





## 工作进展 Work progress

■ 正在进行中 In progress

缅甸屠宰牛项目  
Slaughter cattle project  
in Burma





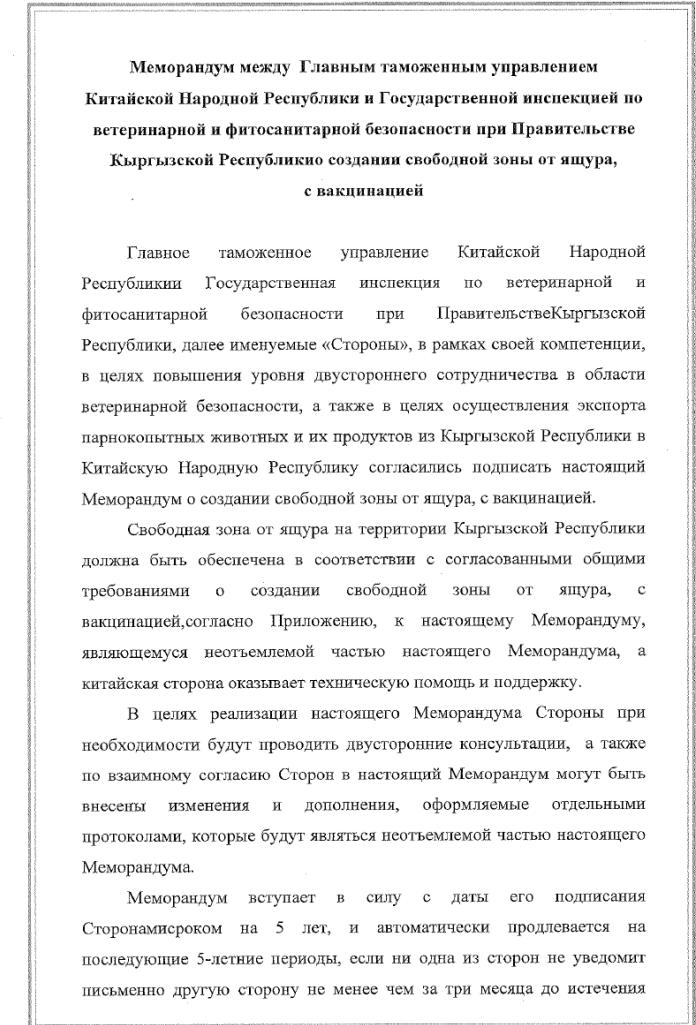
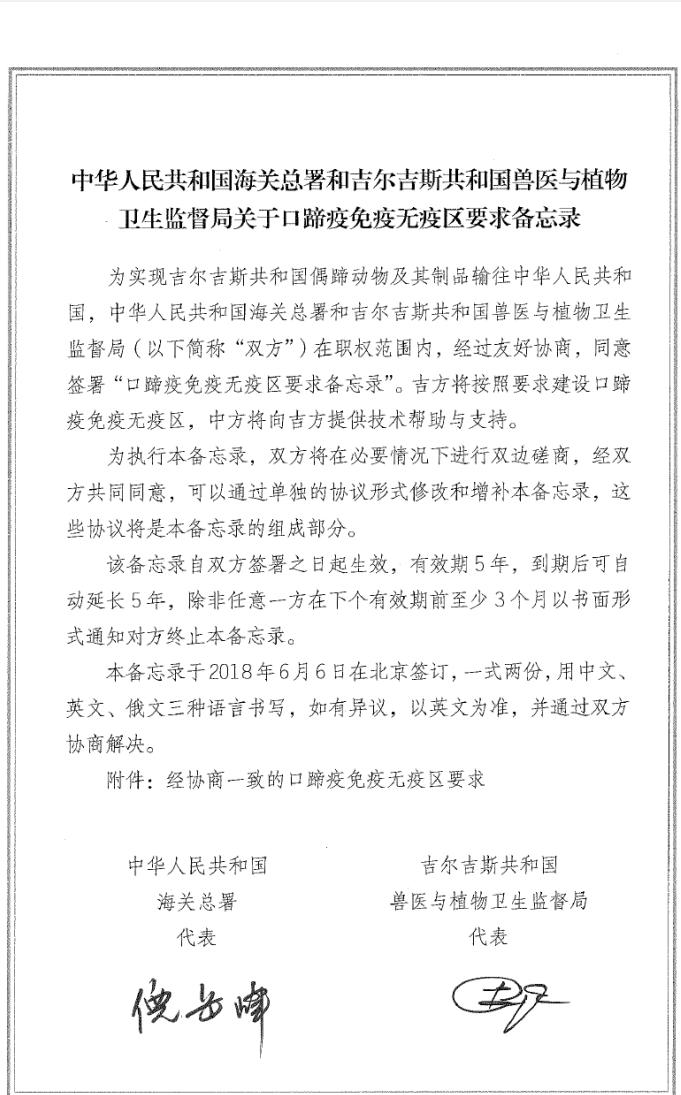
## 工作进展 Work progress



正在进行中 In progress

### 吉尔吉斯斯坦口蹄疫 无疫区建设合作项目

Kyrgyzstan FMD free zone  
construction cooperation project



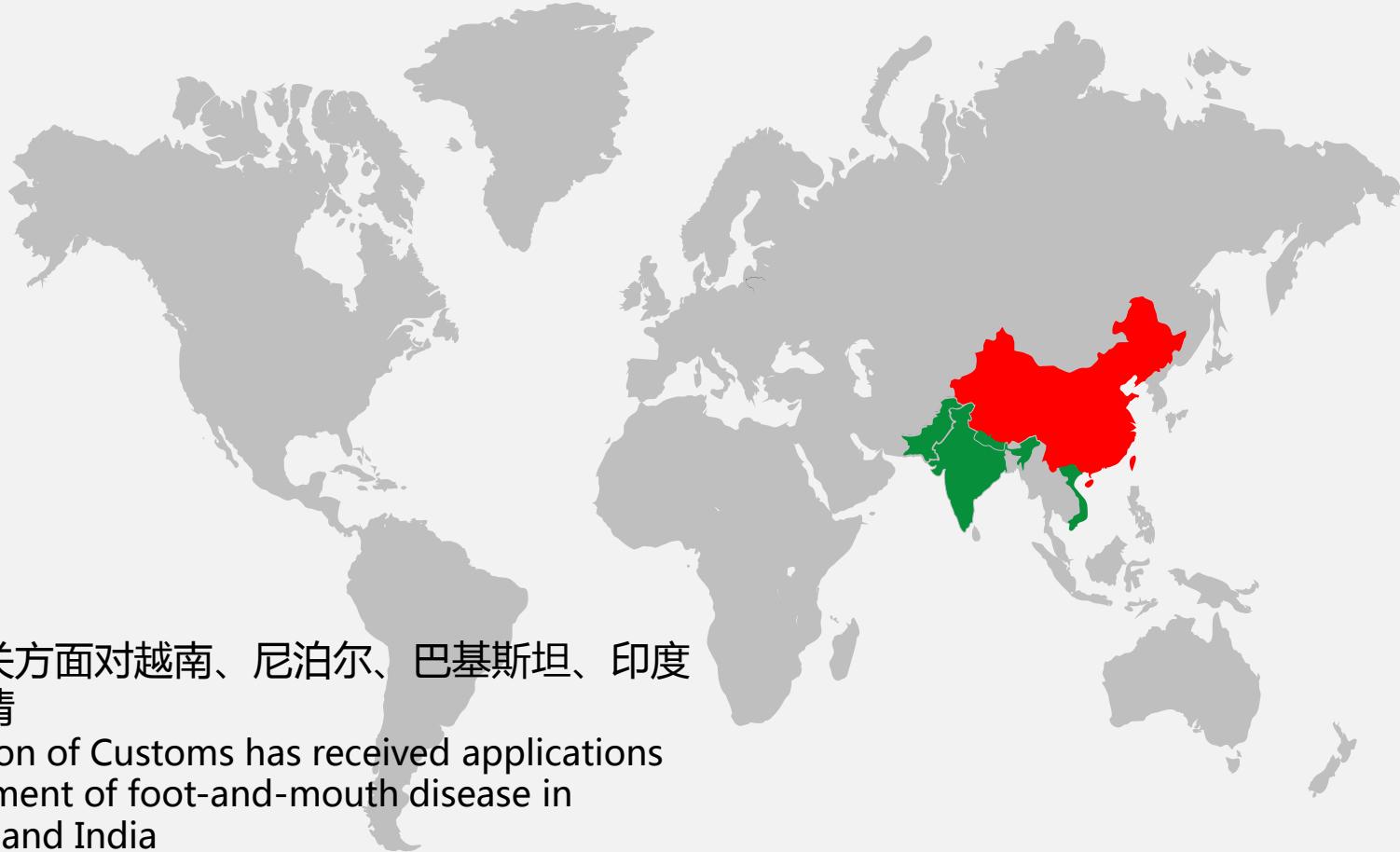


## 工作进展 Work progress



已有初步意向 Initial cooperation intentions

### 口蹄疫区域化 Regionalized management of FMD



海关总署目前已收到有关方面对越南、尼泊尔、巴基斯坦、印度  
口蹄疫区域化管理的申请

The General Administration of Customs has received applications  
for regionalized management of foot-and-mouth disease in  
Vietnam, Nepal, Pakistan and India



## 工作进展 Work progress

- 已有初步意向 Initial cooperation intentions

高致病性禽流感生物安全隔离区划  
Compartmentalization model for HPAI



中国已与俄罗斯在今年9月初签署了关于高致病性禽流感生物安全隔离区划的合作备忘录，并正在与欧盟委员会就开展高致病性禽流感生物安全隔离区划合作开展深入交流

China and Russia signed a memorandum of cooperation on compartmentalization of HPAI in early September this year, and are conducting in-depth exchanges with the European Commission on compartmentalization of HPAI

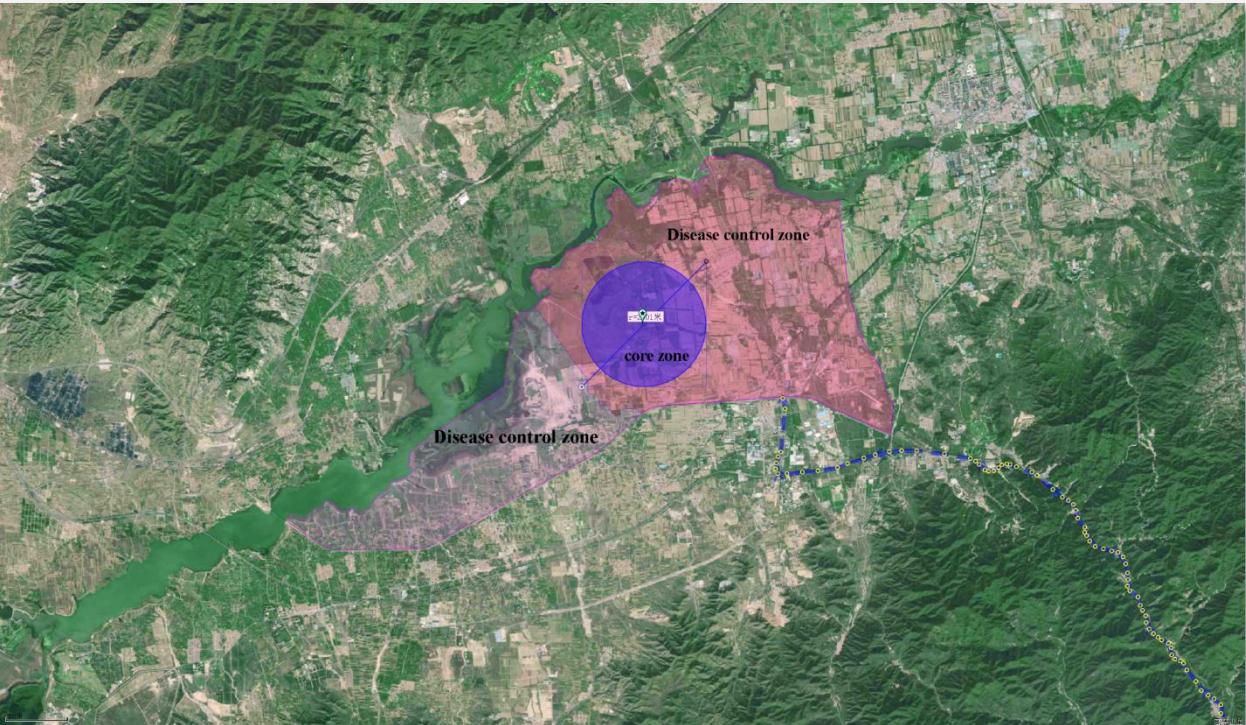


## 工作进展 Work progress



GIS在进出境动物检疫中的应用 Application of GIS in entry and exit animal quarantine

### 马属动物非疫区建设 Establishment of EDFZ

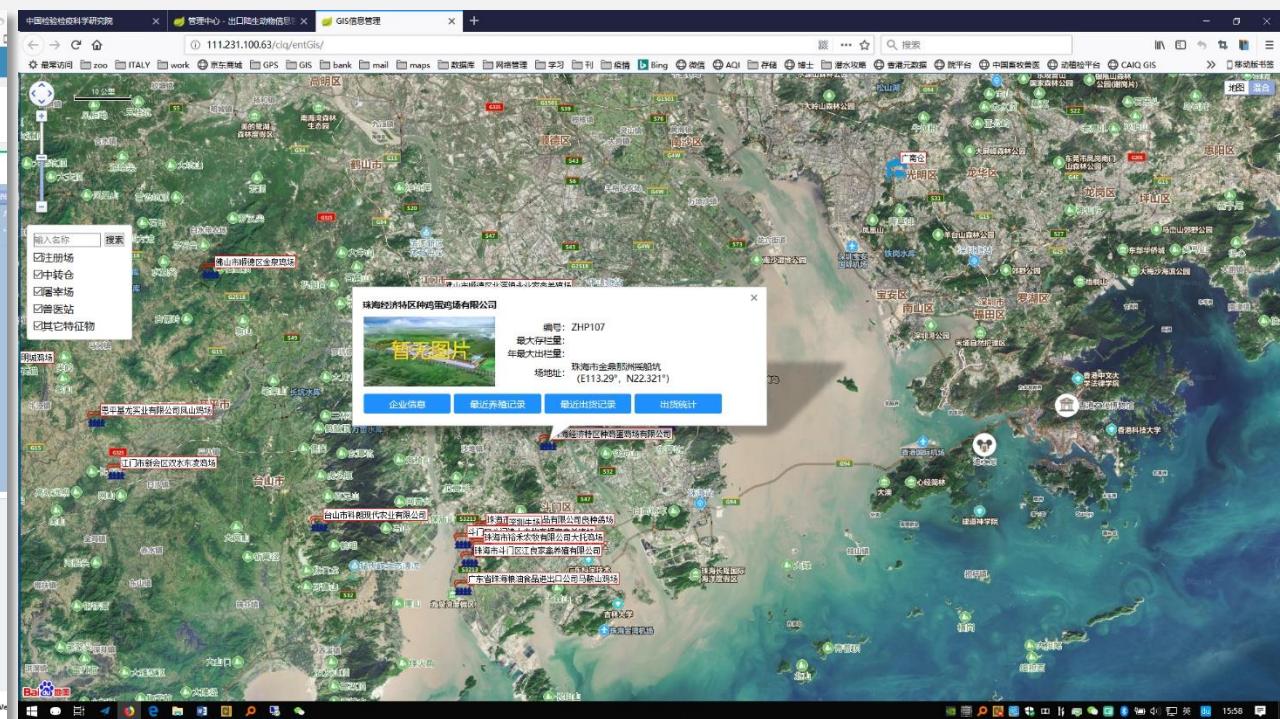
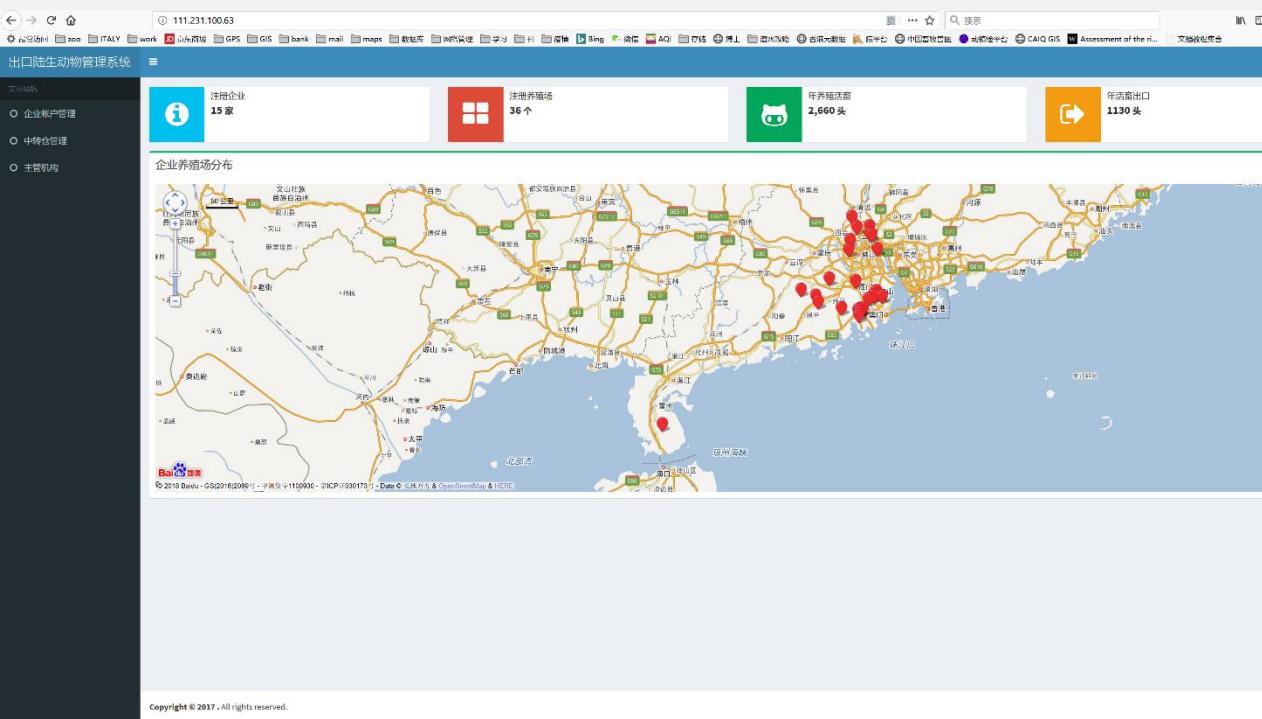




## 工作进展 Work progress

### GIS在进出境动物检疫中的应用 Application of GIS in entry and exit animal quarantine

#### 出口陆生动物信息管理系统 Information Management System for Export Livestock





**04**  
**展望**  
**Forecast**



**安全稳定的动物国际贸易将成为可能**

Safe and stable international animal trade will become possible



**GIS将为区域化推广插上腾飞的翅膀**

GIS does much good for regional promotion



**试点将为整体疫情防控占据战略上的主动**

The pilot will take the initiative in overall prevention and control of the epidemic



谢 谢!  
**THANK YOU!**