

# Introduction of the National Veterinary Services in Taiwan

The Bureau of Animal and Plant Health Inspection and Quarantine  
(BAPHIQ) , April 11 2017

# Outline

1. Veterinary Services Background
2. Challenges Faced by the Veterinary Services
3. The OIE PVS Pathway - Opportunities
4. The OIE PVS Pathway – Way Forward

# 1. Veterinary Services Background

# Population of food animals in Taiwan



## Pigs

- 7,846 Farms (5,496,216 head)



## Poultry

- Broilers 3,662 Farms (51,399,478 head)
- Ducks 2,914 Farms (8,715,853 head)
- Geese 548 Farms (549,807 head)



## Eggs

- Chicken 1,753 Farms (38,701,504 head)
- Ducks 405 Farms (1,887,682 head)



## Cattle

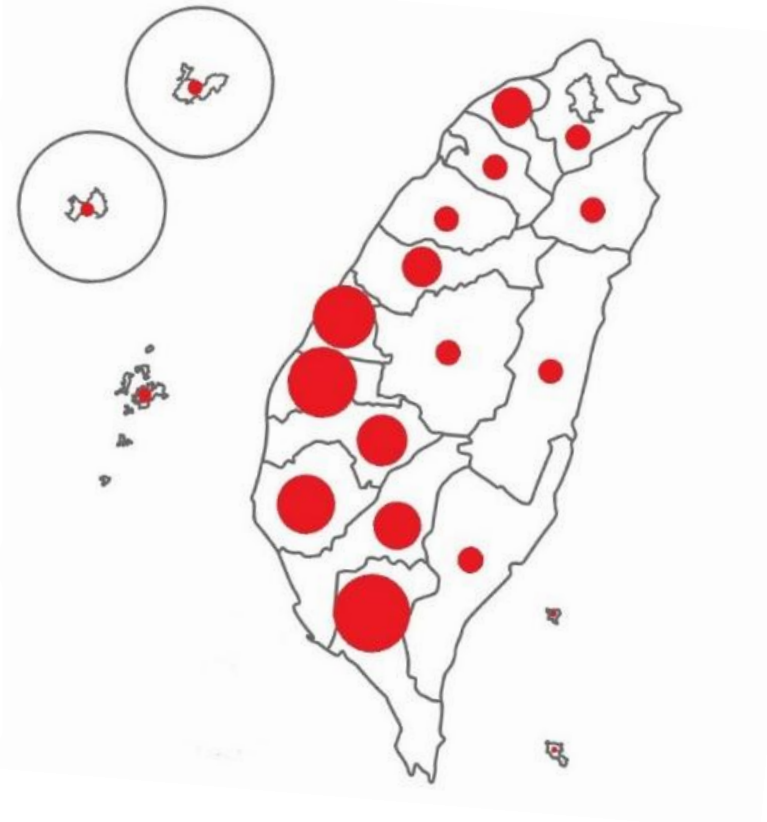
- Beef 600 Farms (28,436 head)
- Dairy 547 Farms (110,607 head)



## Goat

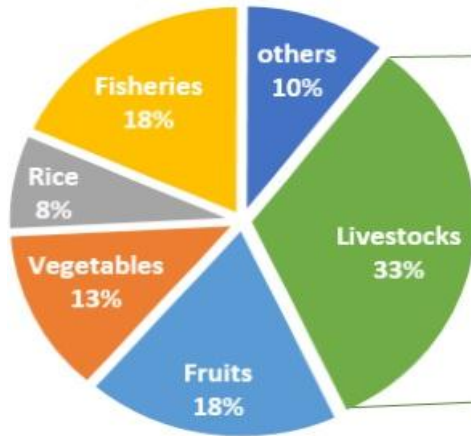
- Lamb 1,663 Farms (96,838 head)
- Dairy 273 Farms (50,239 head)

2016 Q3 statistics of major livestock population in Taiwan.

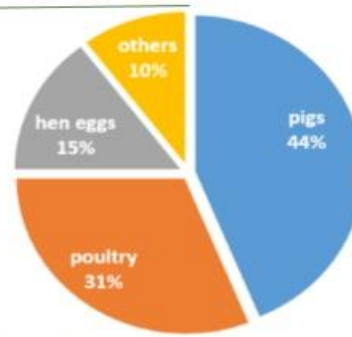


The distribution of livestock farms in Taiwan.

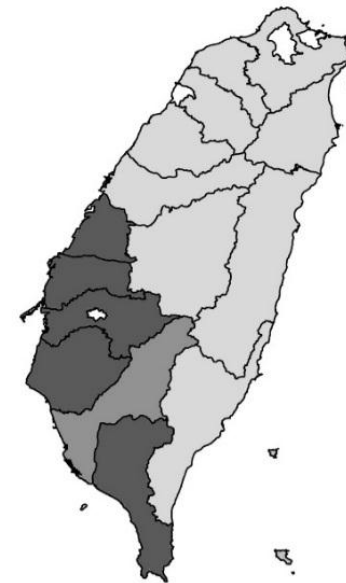
# Production of food animals in Taiwan



Total agriculture output  
16.28 billion USD  
(2015)



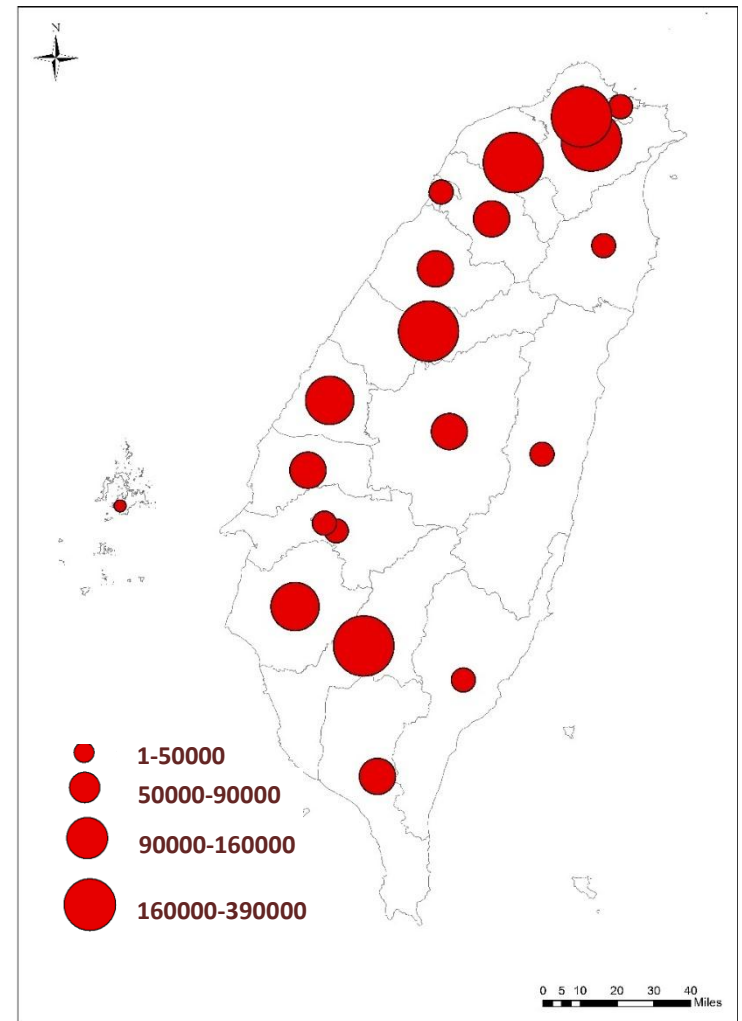
Total livestock output  
5.3 billion USD  
(2015)



Animal	Number of slaughtered or production in Taiwan in 2016
Pig	8,135,226
Cattle	34,074
Goat	39,813
Chicken	299,394,931
Duck	36,084,180
Goose	1,555,731
Egg	7,398,899,066

# Population of dogs and cats in Taiwan

City	Domestic dogs	Domestic cats	Total
New Taipei City	269,100	118,485	387,585
Taipei City	148,096	91,093	239,189
Taoyuan City	176,672	44,063	220,735
Taichung City	183,592	66,849	250,441
Tainan City	136,151	32,287	168,438
Kaohsiung City	222,177	59,096	281,273
Keelung City	27,833	7,455	35,288
Hsinchu City	39,243	10,026	49,269
Chiayi City	20,895	4,428	25,323
Hsinchu County	46,403	11,766	58,169
Miaoli County	47,727	16,043	63,770
Changhua County	91,692	23,855	115,547
Nantou County	45,467	14,067	59,534
Yunlin County	59,560	12,402	71,962
Chiayi County	37,852	7,797	45,649
Pingtung County	66,672	22,290	88,962
Yilan County	34,766	7,442	42,208
Hualien County	35,741	10,977	46,718
Taitung County	24,599	7,518	32,117
Total	1,714,238	567,939	2,282,177



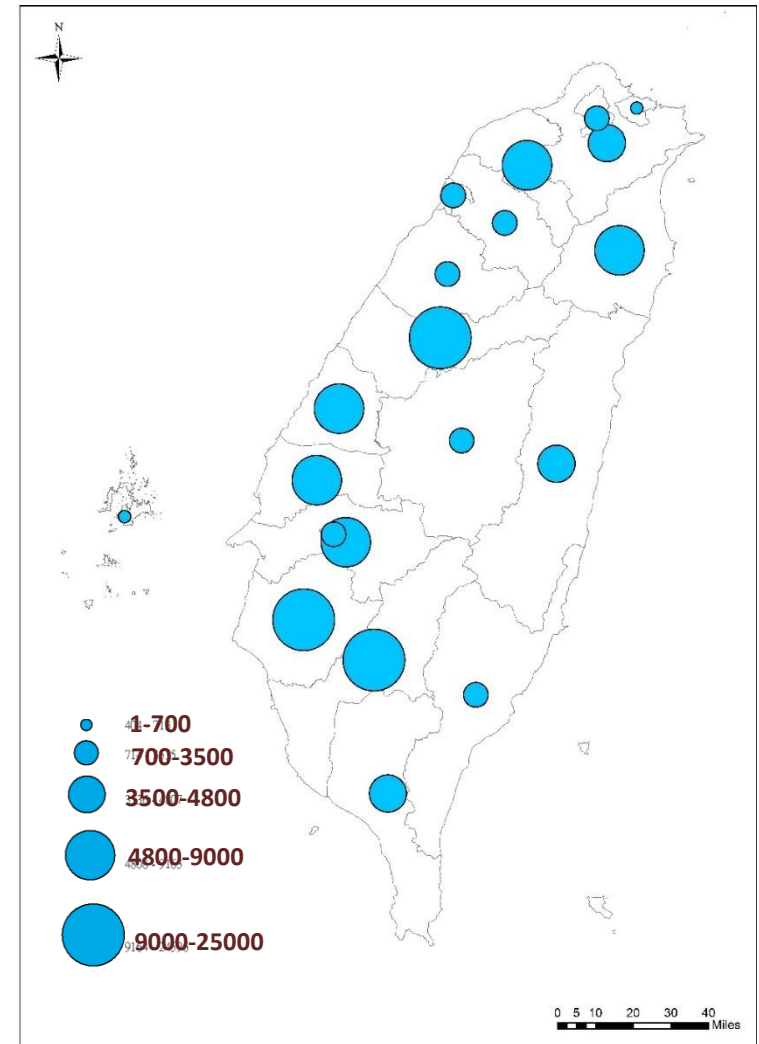
Population of domestic dogs and cats in Taiwan (2015)

The distribution of domestic dogs and cats in Taiwan (2015)

# Population of stray dogs in Taiwan

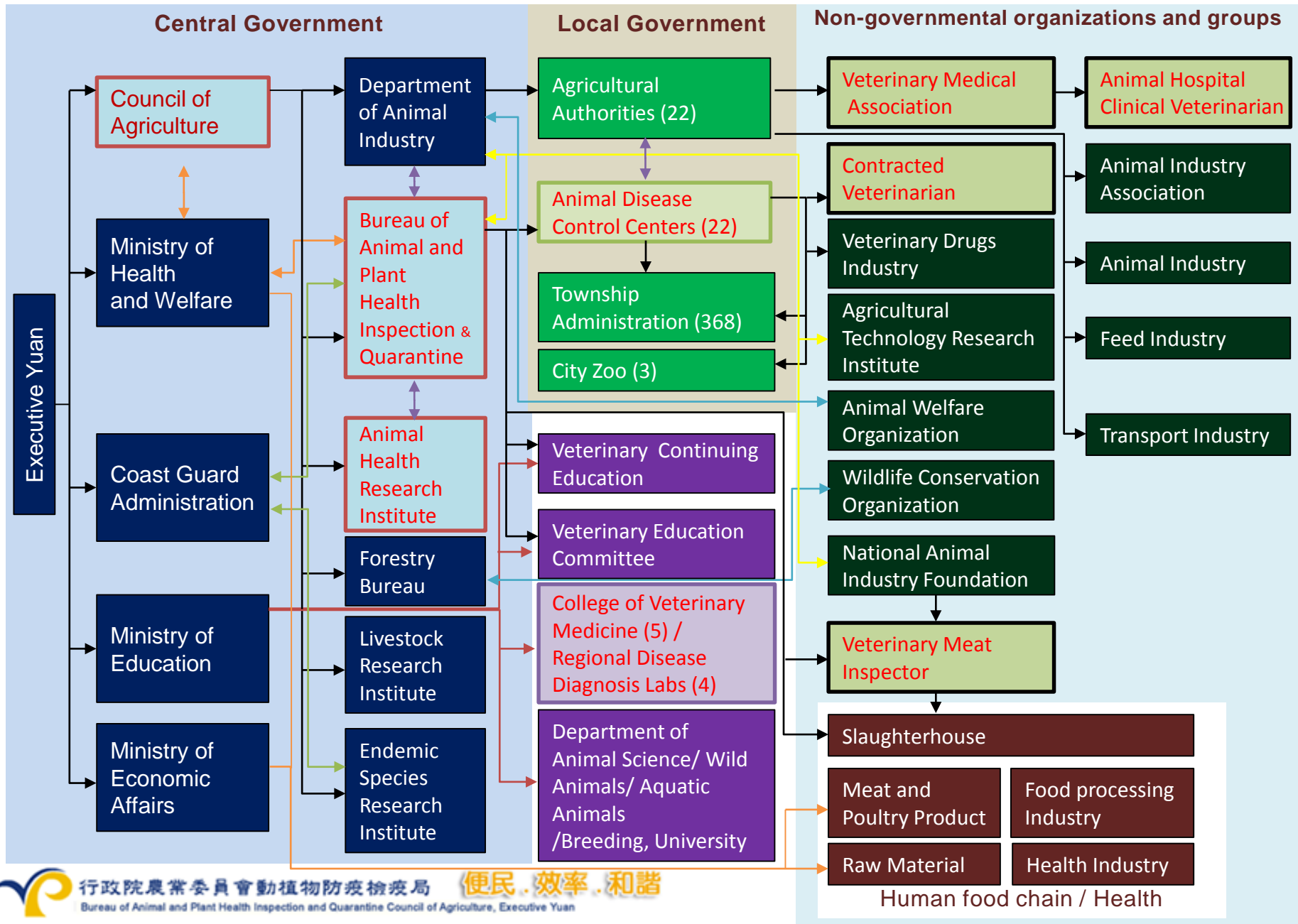
City	Number of stray dog
New Taipei City	4,295
Taipei City	2,931
Taoyuan City	8,960
Taichung City	15,028
Tainan City	24,596
Kaohsiung City	15,220
Keelung City	404
Hsinchu City	1,862
Chiayi City	3,535
Hsinchu County	2,318
Miaoli County	2,435
Changhua County	7,100
Nantou County	2,819
Yunlin County	9,163
Chiayi County	6,811
Pingtung County	4,625
Yilan County	6,626
Hualien County	4,807
Taitung County	3,229
Total	126,764

Population of stray dogs in Taiwan (2015)



The distribution of stray dogs and cats in Taiwan (2015)

# The framework of veterinary services and animal health system in Taiwan



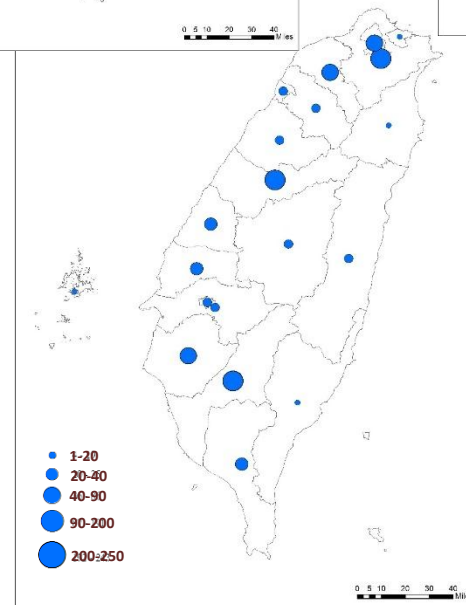
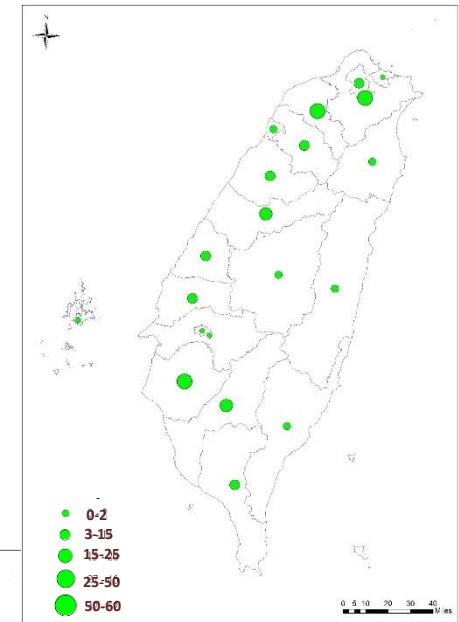
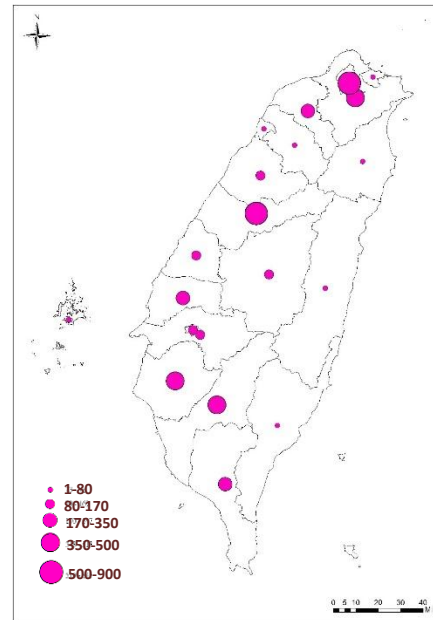


# Legislative framework

<b>Animal Health</b> <ul style="list-style-type: none"> <li>• Statute for Prevention and Control of Infectious Animal Disease</li> <li>• Animal Industry Act</li> </ul>	<b>COA</b>
<b>Safety of Veterinary Medicines and Animal Feed</b> <ul style="list-style-type: none"> <li>• Veterinary Drugs Control Act</li> <li>• Feed control act</li> </ul>	<b>COA</b>
<b>Veterinary Affairs</b> <ul style="list-style-type: none"> <li>• Veterinarian Act</li> </ul>	<b>COA</b>
<b>Animal Welfare</b> <ul style="list-style-type: none"> <li>• Animal Protection Act</li> <li>• Wildlife Conservation Act</li> </ul>	<b>COA</b>
<b>Zoonoses</b> <ul style="list-style-type: none"> <li>• Communicable Disease Control Act</li> <li>• Statute for Prevention and Control of Infectious Animal Disease</li> </ul>	<b>MOHW COA</b>
<b>Food Hygiene</b> <ul style="list-style-type: none"> <li>• Act Governing Food Safety and Sanitation</li> <li>• Animal Industry Act</li> </ul>	<b>MOHW COA</b>

# Veterinary human resources

City	Veterinarian	Veterinary assistant	Animal hospital
New Taipei City	518	55	243
Taipei City	845	22	191
Taoyuan City	347	62	139
Taichung City	641	33	232
Tainan City	399	58	178
Kaohsiung City	462	46	237
Keelung City	49	0	19
Hsinchu City	74	7	31
Chiayi City	99	2	35
Hsinchu County	78	21	23
Miaoli County	108	22	30
Changhua County	169	25	59
Nantou County	89	14	26
Yunlin County	205	26	72
Chiayi County	159	12	55
Pingtung County	310	19	86
Yilan County	60	9	15
Hualien County	59	12	26
Taitung County	48	6	12
Kinmen County	31	4	4
Penghu County	23	0	4
Lienchiang County	0	0	0
Total	4773	455	1717



# Veterinary human resources

**No. of registered veterinarians: 4,773**

1. Full time government veterinarians

-Central Authority (BAPHIQ): **276**

-Local Authorities (22 LDCCs + Township): **733**

-Laboratory staff (AHRI): **58 (1.2%)**

} **21.1%**

2. Work for meat inspection: **253 (5.3%)**

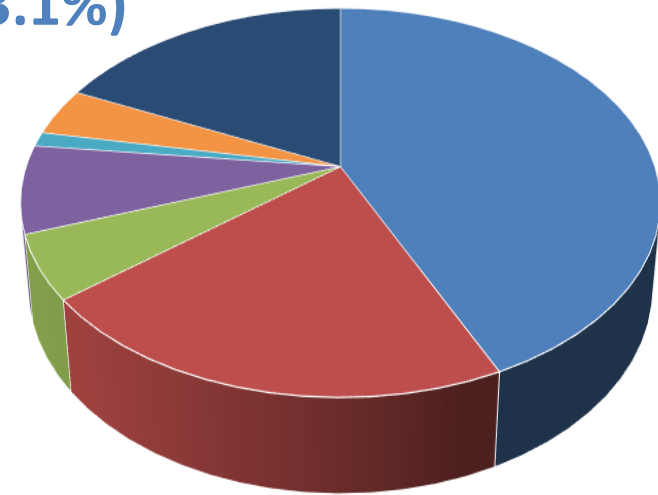
3. Other fields veterinarians

-Small animal clinical diagnosis: **2,056 (43.1%)**

-Economic animal clinics: **350 (7.3%)**

-Wildlife animals, farmers associations,  
animal drugs: **190 (4%)**

-Other (retired, unemployed): **857 (18%)**



Distribution of veterinary human resources  
April, 2017

# Financial management information

Total annual government budget of the national veterinary services is \$ 94,269,000 US dollars.

- Central veterinary services is \$ 57,035,000 US dollars.
- Local veterinary services is \$ 37,234,000 US dollars.



# Veterinary Services of BAPHIQ

- Veterinary administration
- Animal disease prevention and control
- Veterinary drug administration
- Border animal and animal products quarantine
- Meat hygiene and inspection



# The Bureau of Animal and Plant Health Inspection and Quarantine (BAPHIQ)



Bureau is divided into two main pillars, namely Veterinary Medicine and Plant Protection.



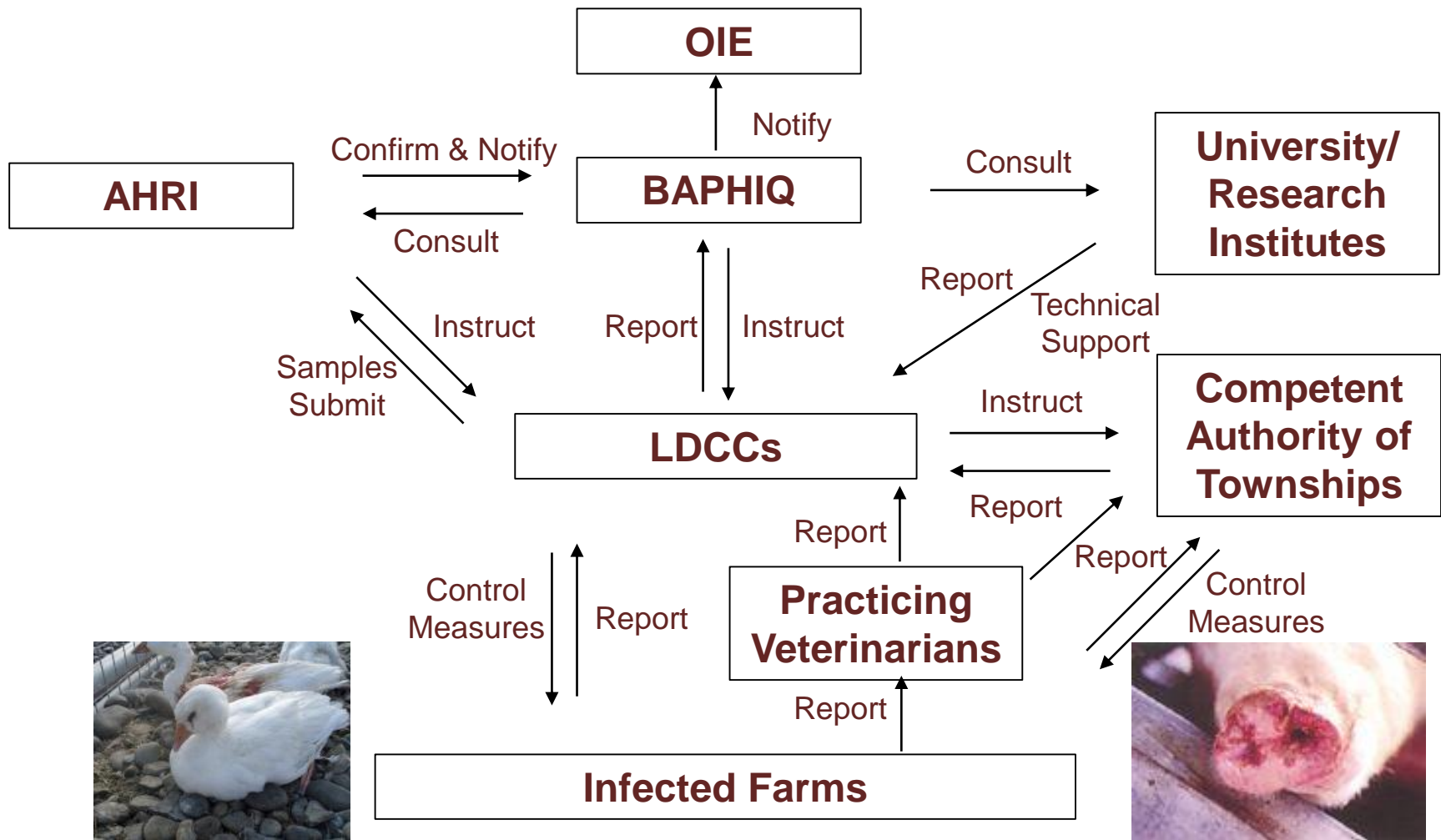
BAPHIQ Logo

# Location of BAPHIQ Branch Offices and Inspection Stations



4 Branch Offices  
and  
17 Inspection  
Stations

# Animal disease prevention and control

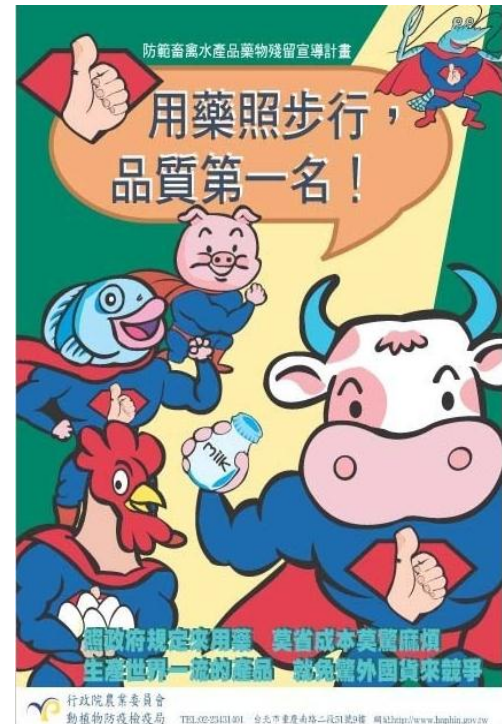
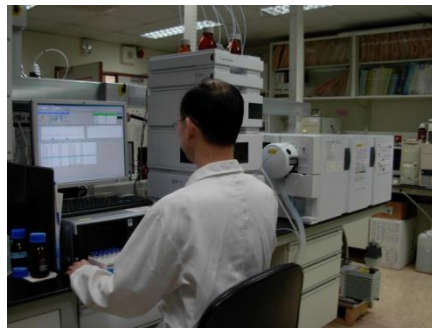


The organizational chart of the official veterinary services and the chain of command



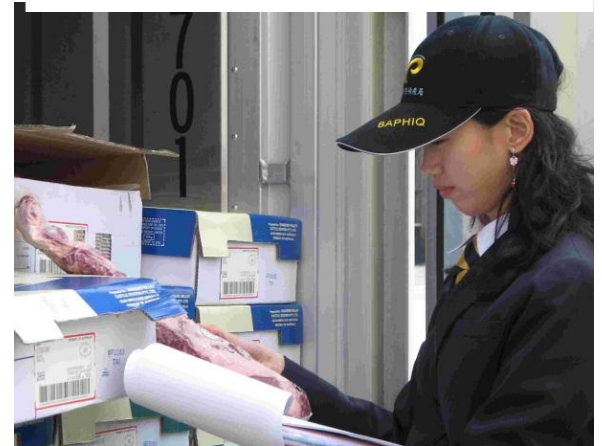
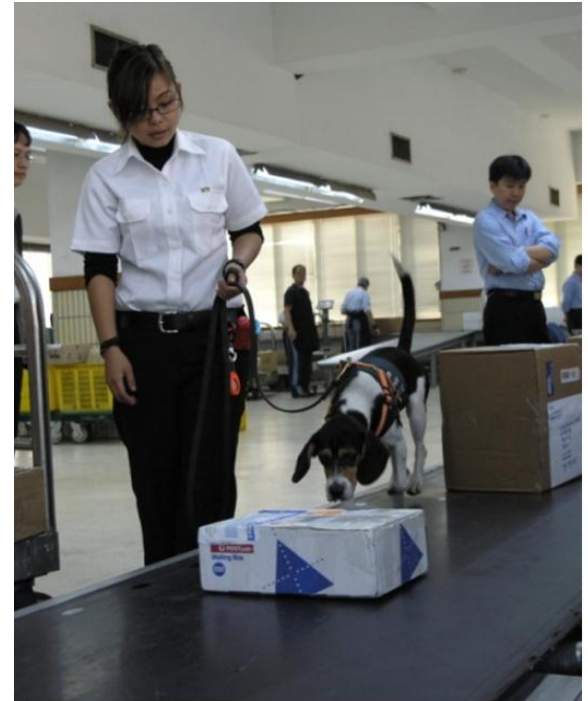
# Veterinary drug administration

- Testing, registration and permit issuance of veterinary drugs and biologics.
- Management on sales and application of veterinary drugs and biologics.
- Residue monitoring program.



# Border animals and animal products quarantine

- Border inspection for import and export of animals and animal products including parcels
- Border inspection for International passengers
- International trade affairs on animal and animal products



# Location of international airports and seaports



# Meat hygiene and inspection

## ➤ BAPHIQ & NAIF

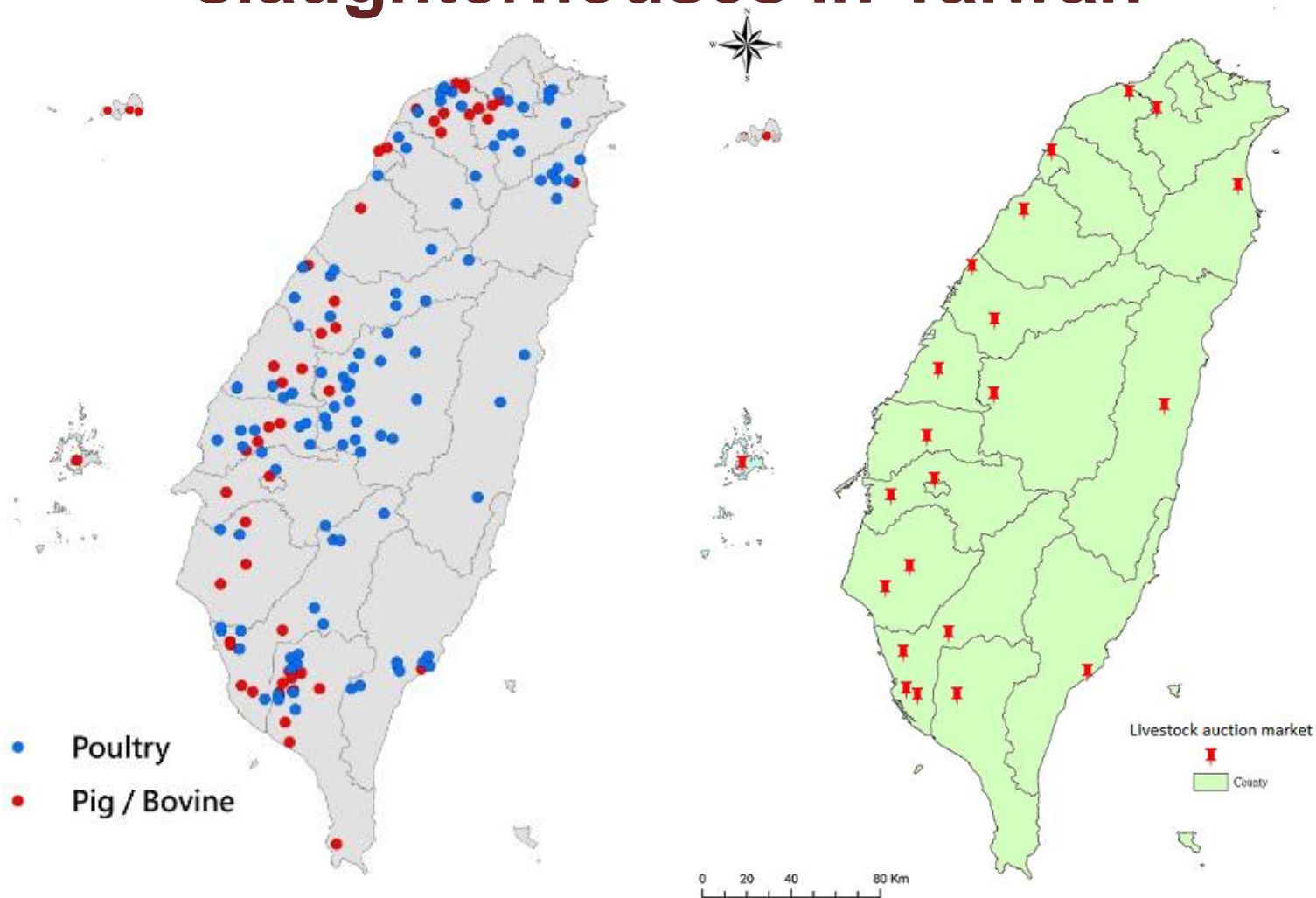
### ➤ 169 slaughterhouses

➤ 58 for livestock, 109 for poultry, 2 for both

➤ 253 Veterinarian Meat Inspector and 332 Inspection Assistants



# Location of livestock auction markets and slaughterhouses in Taiwan

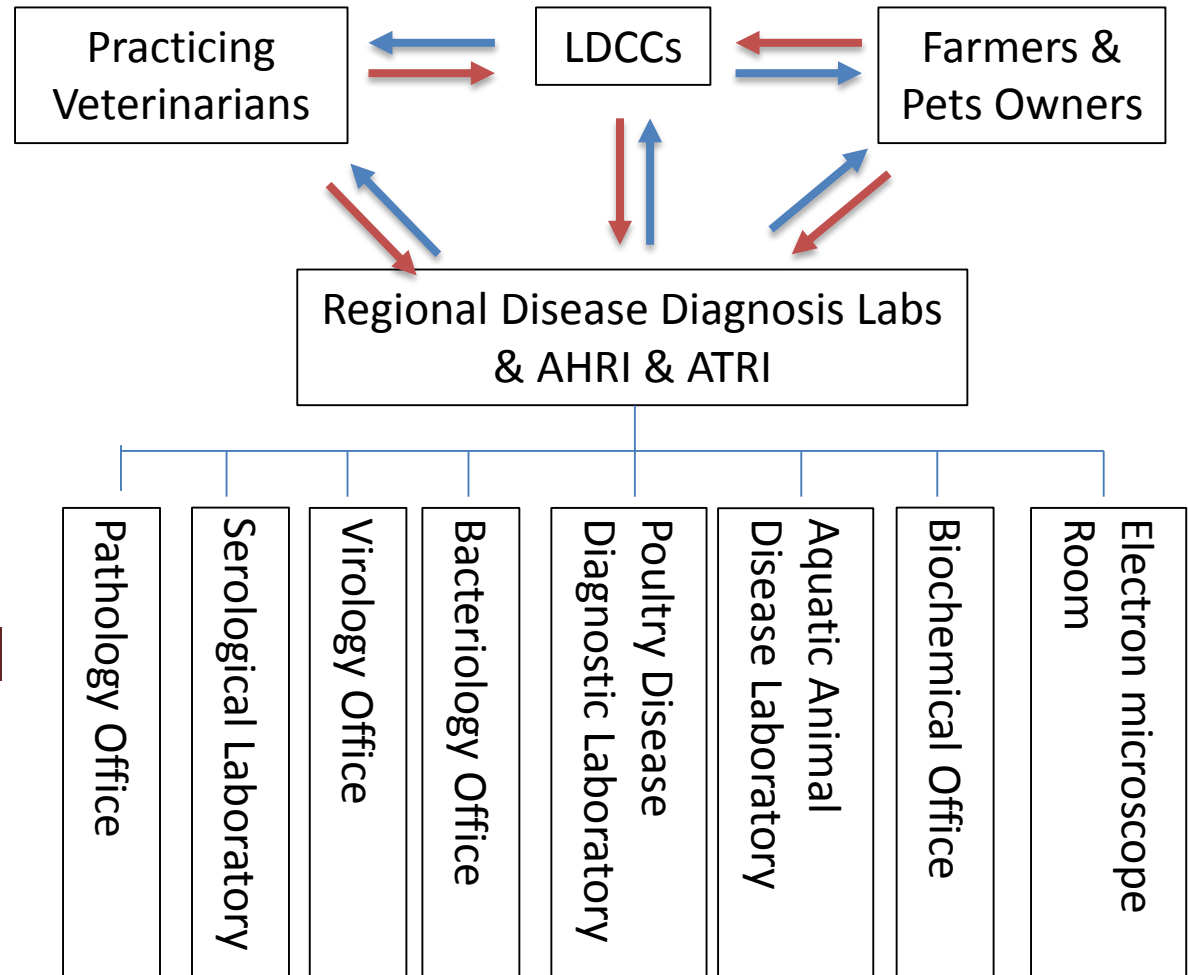


169 Slaughterhouses

23 Livestock auction markets

# Veterinary services of Laboratory

- AHRI
- ATRI
- 4 Regional Disease Diagnosis Labs
- 22 Local Animal Disease Control Centers (LDCCS)



 Report feedback  
 Samples submit

# Private veterinary service (Veterinary statutory body)

- There are two tiers of veterinary professional groups, national and local (city or county) associations.
- Taiwan Veterinary Medical Association is a national association composed of local associations.
- There are 22 local associations in Taiwan.
- A veterinarian shall be a member of the local veterinarian association, who will be allowed in practice.



**中華民國獸醫師公會全國聯合會**  
Taiwan Veterinary Medical Association

# Overview of veterinary education of Taiwan

- 5 veterinary schools
  - ~ 250 Bachelor graduates/year
  - ~ <100 MS graduate/year
  - ~ <10 PhD graduate/year
  - Confer DVM degree  
Doctor of Veterinary Medicine
  - Recognized by Hong Kong & Malaysia Government (NTU & NCHU)





# Veterinary colleges

## Schools

### • Organization

National Taiwan University (NTU) since 1928

• School of Veterinary Medicine(2008): 5-year undergraduate

National Chung-Hsing University (NCHU) since 1919

• College of Veterinary Medicine(1999) : 5-year undergraduate

National Chia-Yi University (NCYU) Since 1919

• College of Veterinary Medicine (2016) : 5-year undergraduate

National Ping-Tung University of Science and Technology (NPUST) since 1924

• College of Veterinary Medicine (2011): 5-year undergraduate

Asia University since 2005

• Department of Veterinary Medicine (2016): 4-year post-graduate

Data from Dr. Chou Chi-Chung

# Continuing Education

- Veterinary Act was amended (2015.12.30)
  - veterinarian shall engage in continuing education and renew his or her practice license every six years
- Veterinary Education Committee was set up by BAPHIQ
  - Member:
    - representatives from veterinary education establishment, veterinary organization, veterinary research institution, Taipei City Zoo, local animal disease control center, BAPHIQ etc.
  - Mission:
    - Consultation for promotion of Veterinary education and continuing education



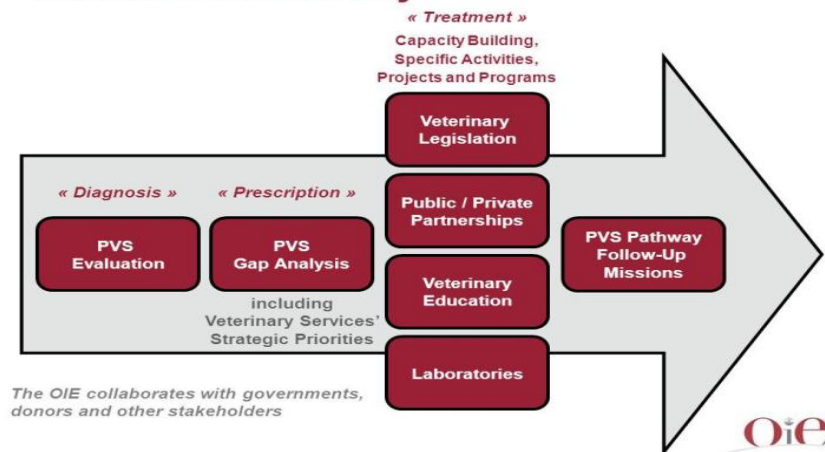
## 2.Challenges Faced by the Veterinary Services

- Increase the human and financial resources of local government.
- Strengthen veterinary education, both initial and continuing education in the large animal clinical technique (some advanced competencies).
- Strengthen veterinary entomological studies and systemic surveillance on arthropod vectors.
- Strengthen animal identification and traceability.

# 3.The OIE PVS Pathway - Opportunities

- Determine the human, physical and financial resources of our country.
- Identify gaps and weaknesses in our ability to comply with OIE international standards.
- Determine and confirm country priorities.
- Help improve animal health and welfare and human health.

The OIE PVS Pathway



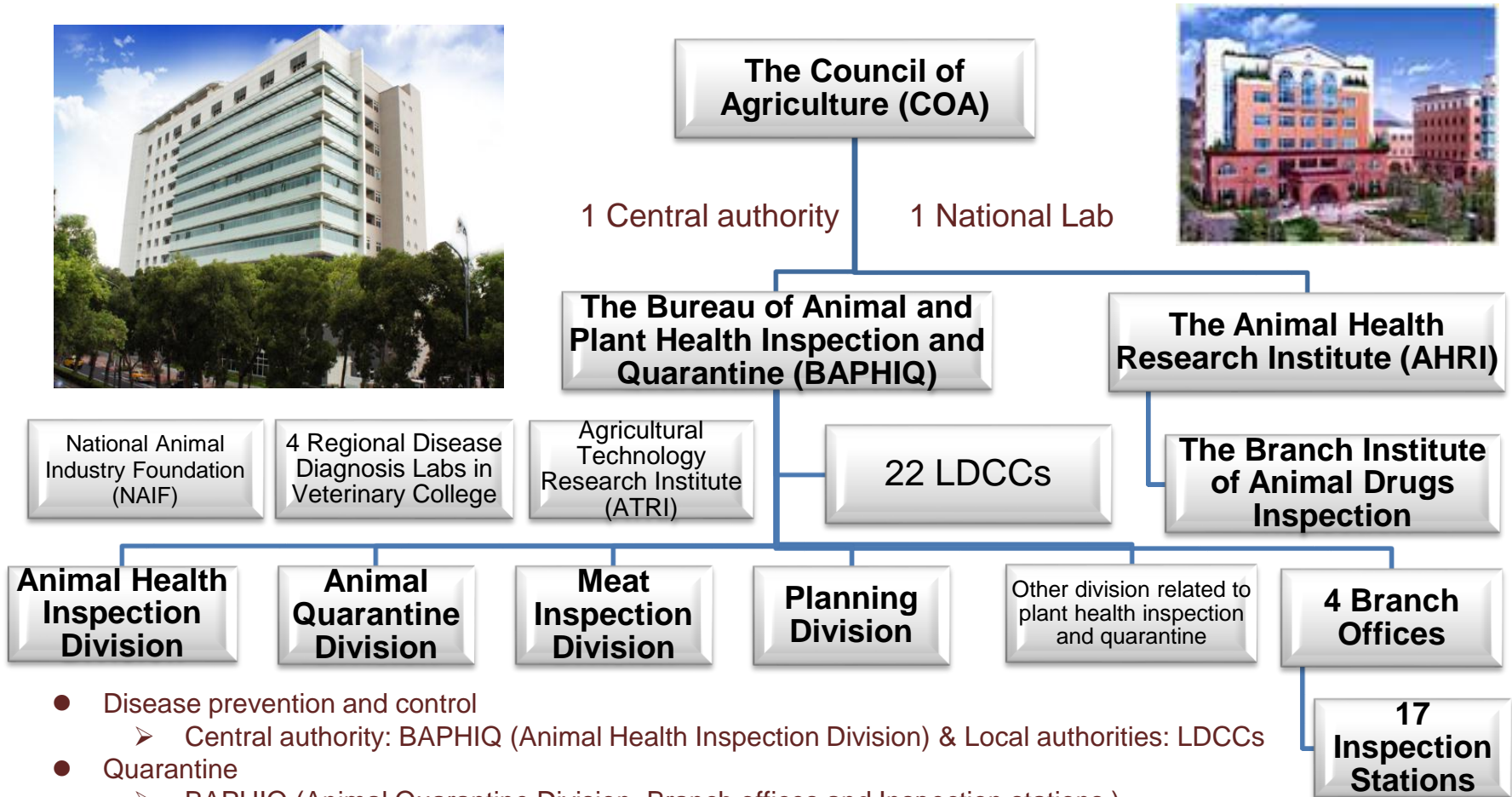
# 4.The OIE PVS Pathway – Way Forward

- National program support to promote country self PVS evaluation and PVS gap analysis in 2017-2020.
- To reform veterinary education to 6 years.
  - Upgrade income of economical animal veterinarians.
- Amend the Veterinarian Act.

# Thank for your listening



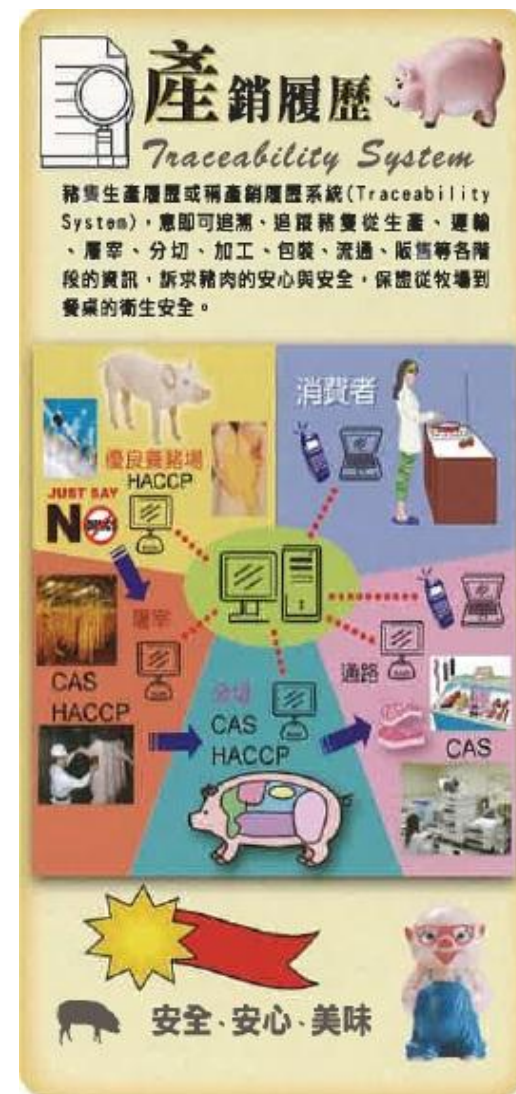
# Organisation (Central authority)



- Disease prevention and control
  - Central authority: BAPHIQ (Animal Health Inspection Division) & Local authorities: LDCCs
- Quarantine
  - BAPHIQ (Animal Quarantine Division, Branch offices and Inspection stations )
- Meat hygiene and inspection: BAPHIQ(Meat Inspection Division) & NAIF
- Disease diagnosis:
  - AHRI 、 ATRI & 4 Regional Disease Diagnosis Labs

# National Animal Industry Foundation(NAIF)

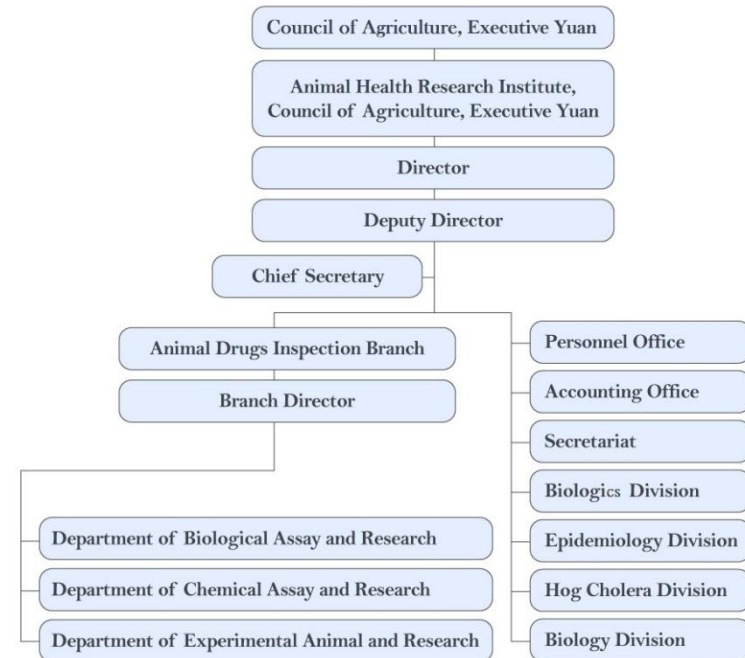
- Drafting and submitting measure to the central government by coordinating animal industry groups and farmers when production and marketing of animal products are out of balance.
- Providing essential supply and demand information about feed and veterinary pharmaceuticals.
- Conducting collective marketing in order to stabilize prices of major livestock products.





# Animal Health Research Institute(AHRI)

- Carry out researches on animal diseases of major concerned by animal industry.
- Function as a national laboratory of animal disease diagnosis.
- Conduct disease monitoring and surveillance scheme to develop national animal disease control measures.
- Perform statutory assays of animal drugs, the domestic or import.
- Provide technical consultation and extension services on veterinary sciences to practitioners and public veterinarians.



# Agricultural Technology Research Institute(ATRI)

- ▶To commercialize and industrialize agriculture research results.
- ▶To provide assistance to private sectors in strengthening competitiveness and promoting international markets .
- ▶To work collaboratively with academia, other research institutes and private sectors to develop innovative and useful technologies for commercial production.

