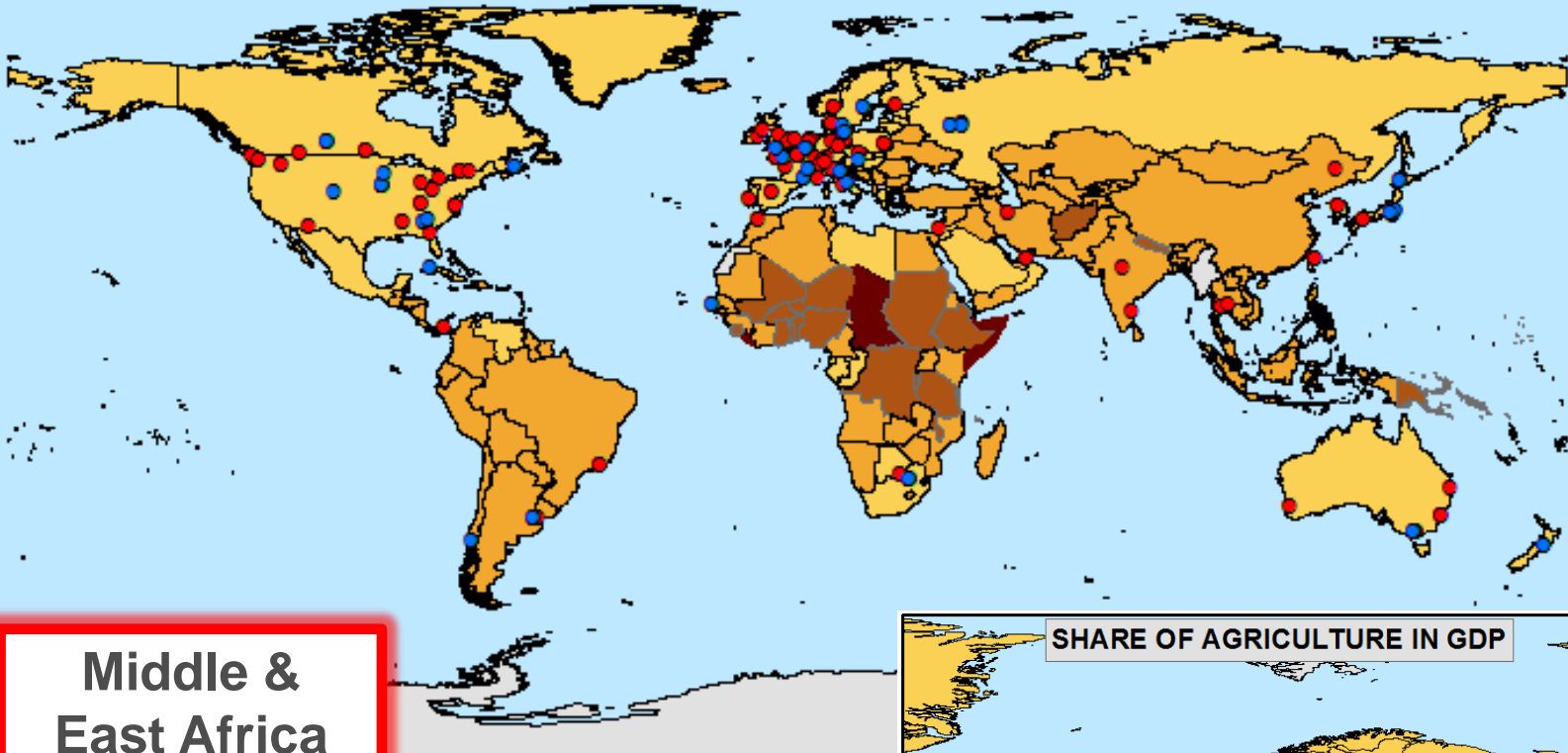


# IDENTIFYING NEEDS

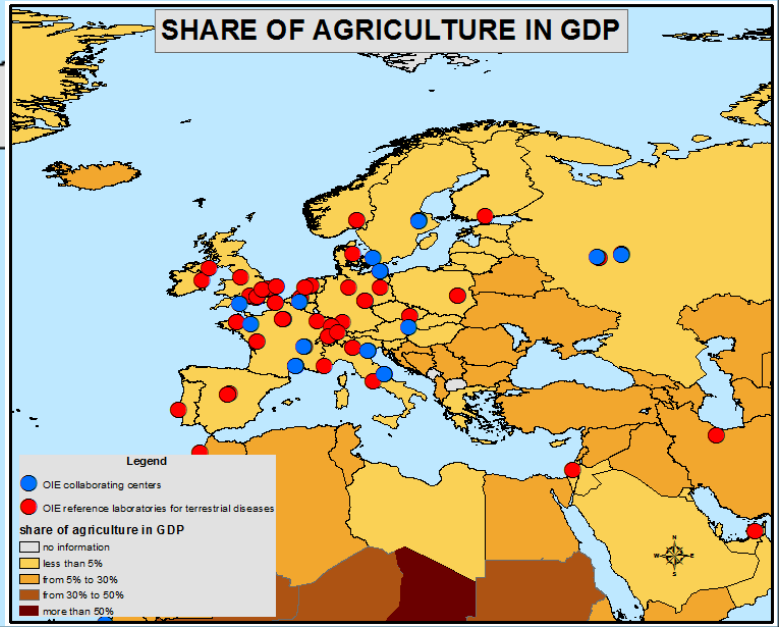
Lina AWADA  
March 2011

# I) LIVESTOCK

# SHARE OF AGRICULTURE IN GDP



**Middle & East Africa**



**Legend**

- OIE collaborating centers
- OIE reference laboratories for terrestrial diseases

**share of agriculture in GDP**

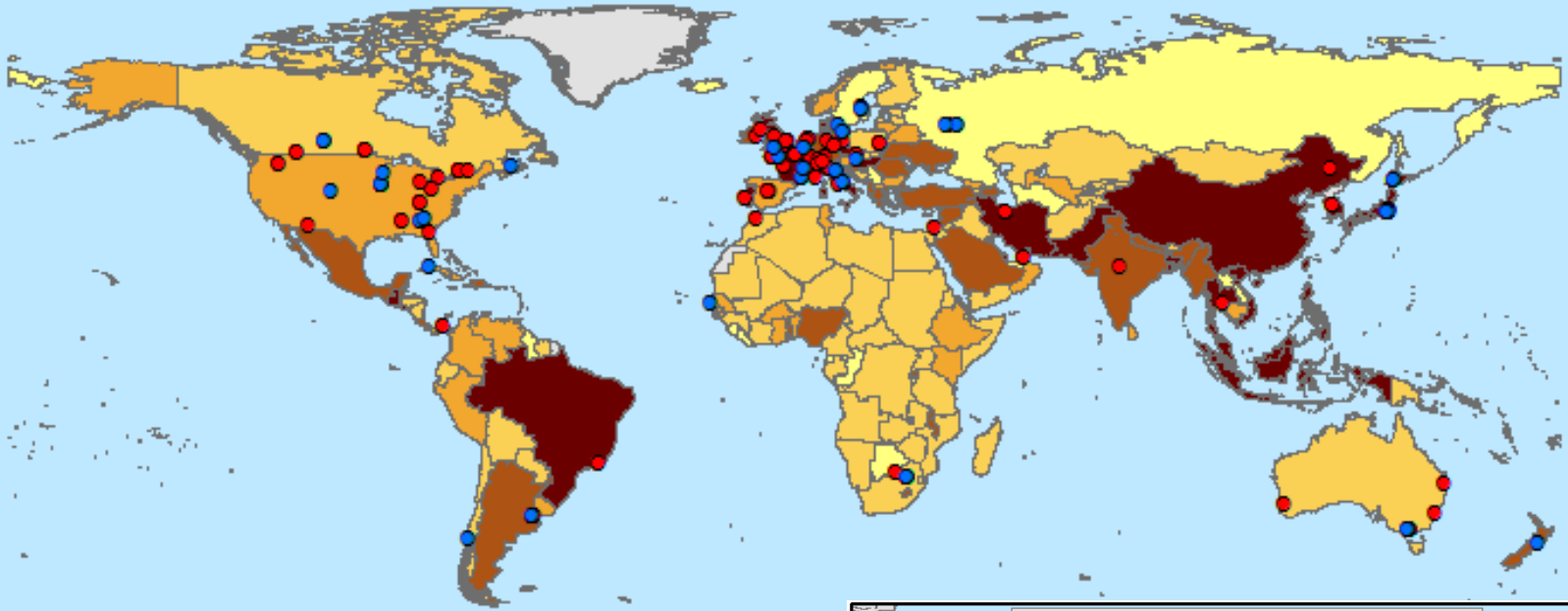
- no information
- less than 5%
- from 5% to 30%
- from 30% to 50%
- more than 50%

Source : CIA  
WORLD  
FACTBOOK 2009

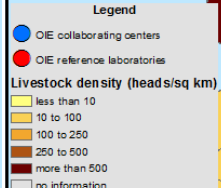
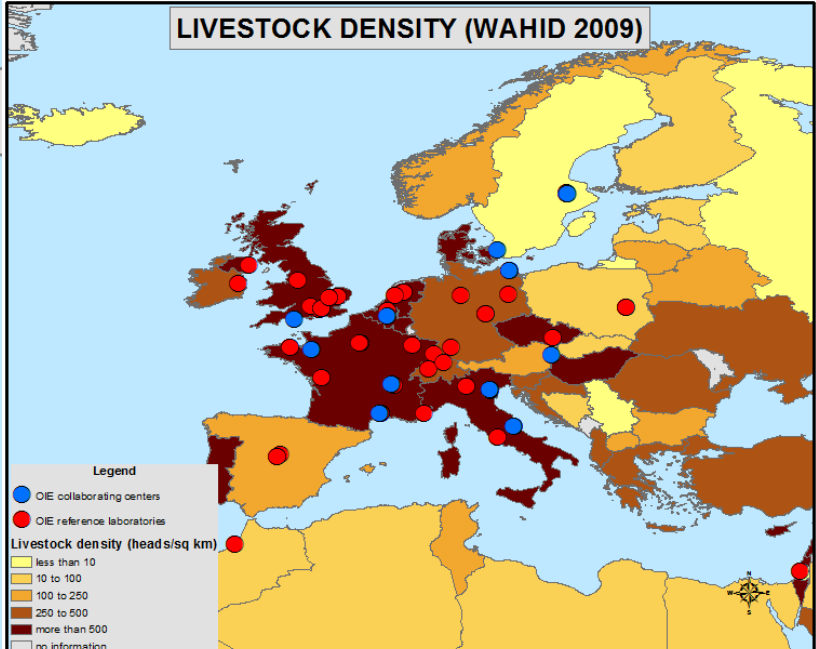
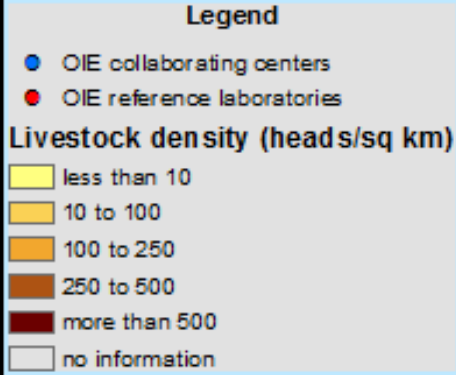
# LIVESTOCK DENSITY

- ***livestock*** means any domestic or domesticated animal including bovine, ovine, porcine, caprine, equine, poultry and bees raised for food or in the production of food. The products of hunting or fishing of wild animals shall not be considered part of this definition.  
(CODEX ALIMENTARIUS)
- WAHID 2009 Data
- Livestock density = Units/sq km

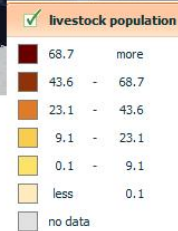
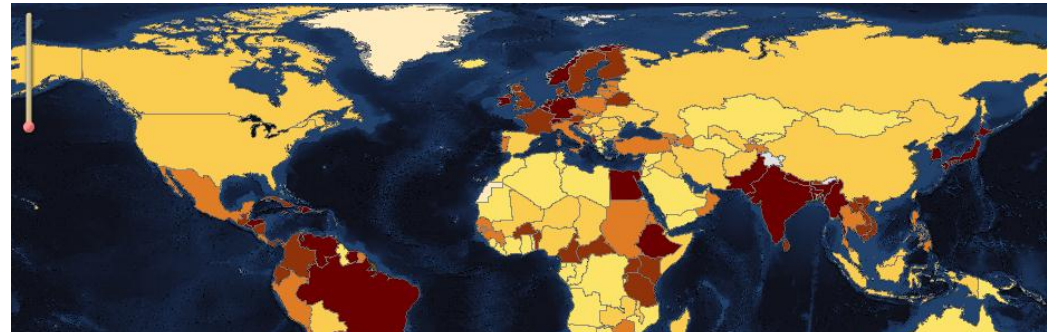
# LIVESTOCK DENSITY (WAHID 2009)



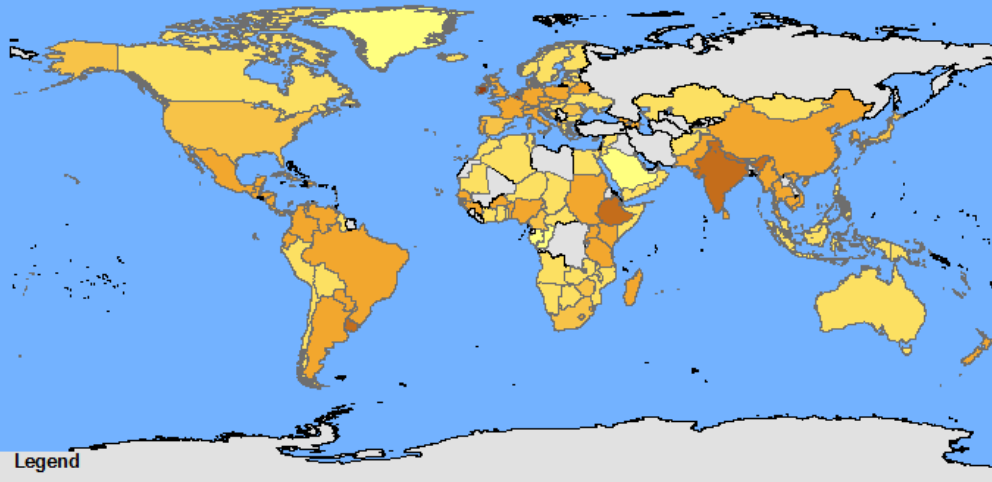
Europe, South Asia & Brazil



# DIFFERENCES OIE vs FAO

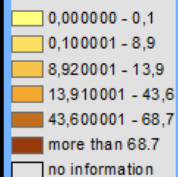


Cattle density (WAHID 2009)



Legend

## CATTLE



Ex : cattle density

# DIFFERENCES OIE vs FAO

- **Definition of livestock density**

**OIE** : heads / sq km VS **FAO** : density agric land = heads / sq km of the agricultural area

- **Data acquisition and input**

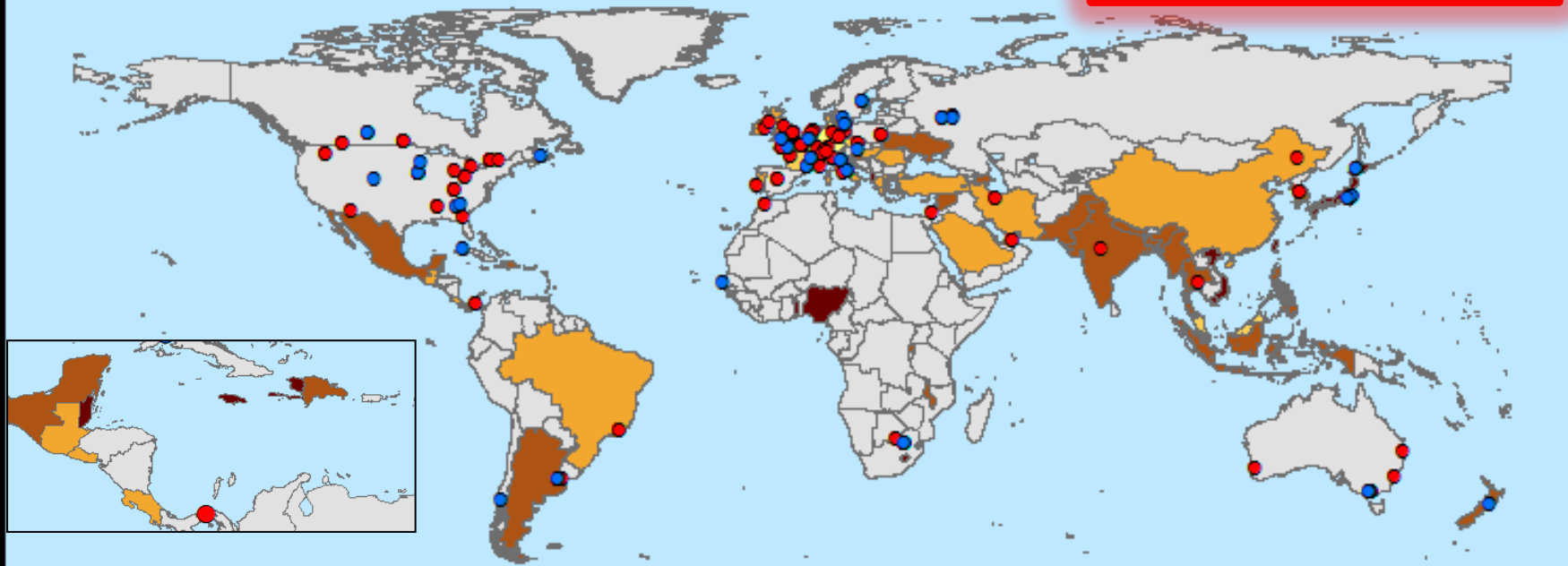
**OIE** : national livestock statistics (2009) VS **FAO** : national livestock statistics + OIE + websites of national and international agricultural and statistical institutes (previous years)

- **Available data for livestock density**

**FAO** : cattle + buffaloes + camels + sheep + goats + poultry + pigs + equidae  
VS **OIE** : **same** + cervidae + rabbits + bees

# LIVESTOCK EXPORTS (FAO STAT 2008)

South Asia & Middle Africa

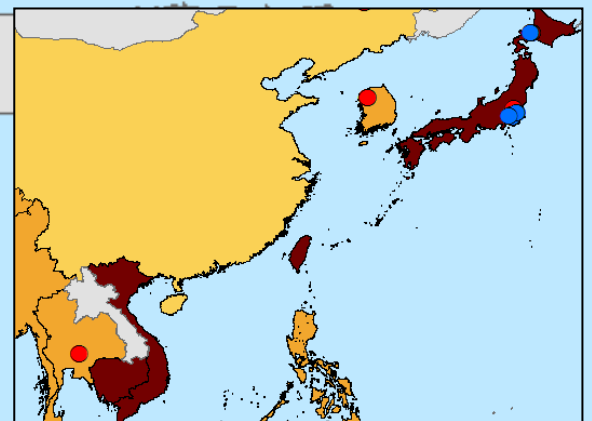
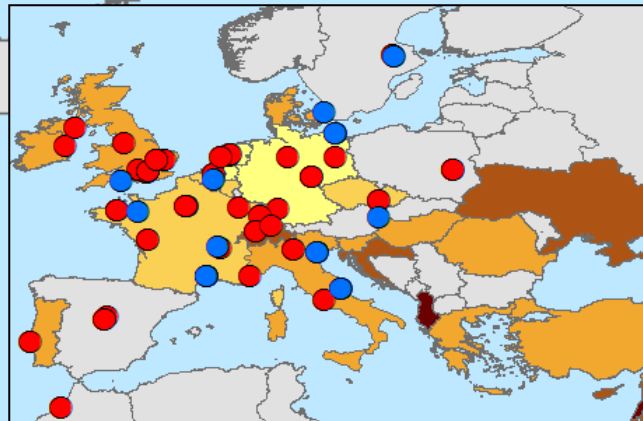


## Legend

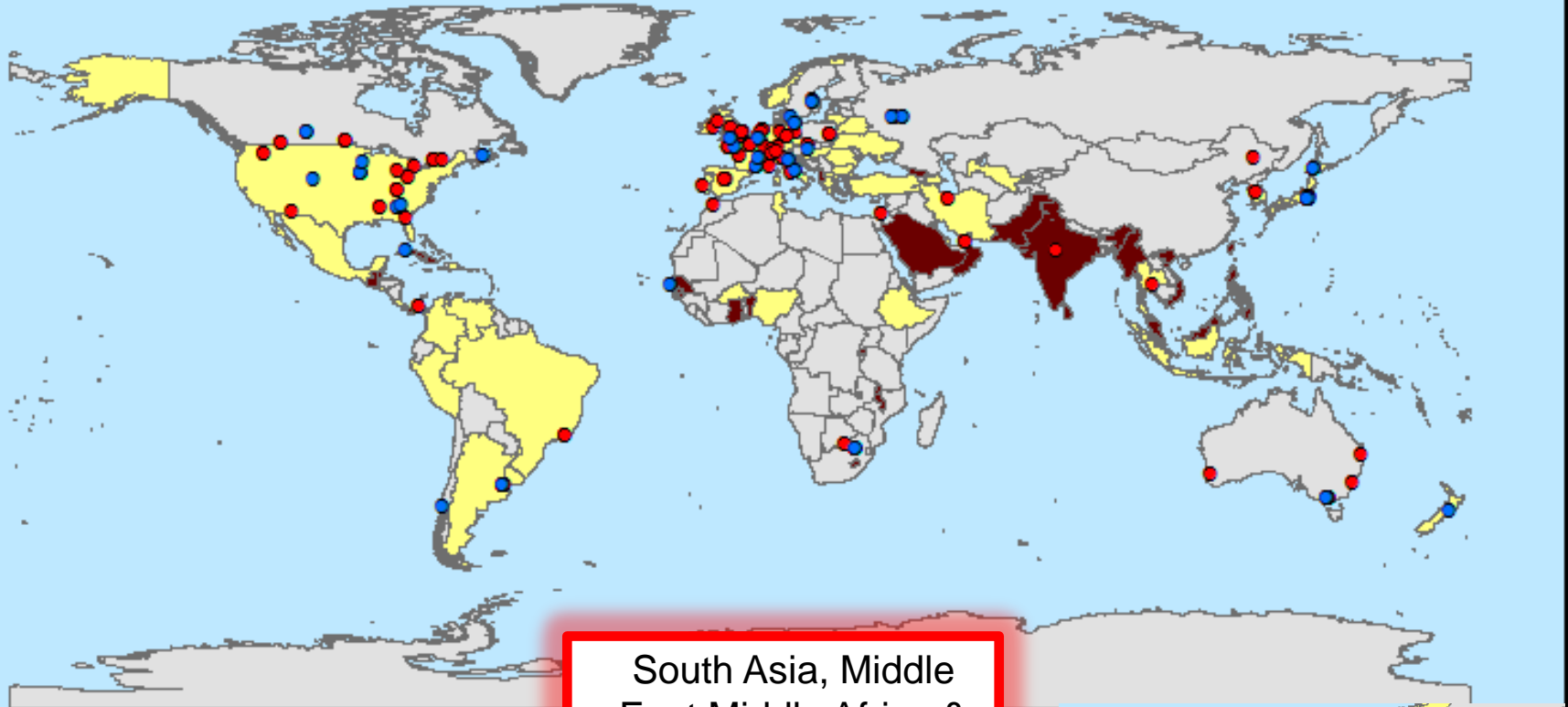
- OIE collaborating centers
- OIE reference laboratories

## livestock exports (heads/year)

- less than 1 000
- 1 000 to 1 000 000
- 1 000 000 to 50 000 000
- 50 000 000 to 100 000 000
- more than 100 000 000
- livestock density < 250 heads / sq km



# NATIONAL LABORATORIES' CAPACITIES (WAHID)



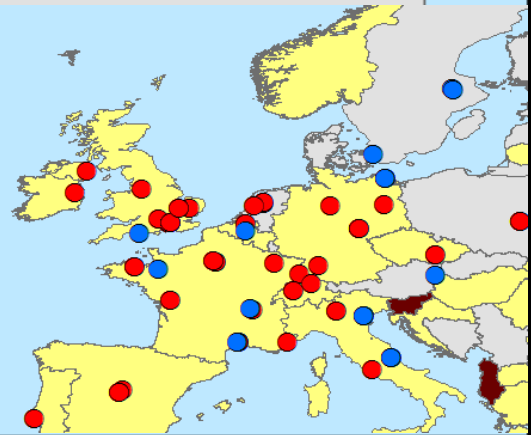
South Asia, Middle East  
Middle Africa &  
Central America

## Legend

- OIE collaborating centers
- OIE reference laboratories

### Number of livestock's diseases that can be tested in national laboratories

- less than 15
- more than 15
- livestock density < 100 heads / sq km or missing information



# PRIORITY COUNTRIES FOR CAPACITY BUILDING

- ▶ **Biological criteria**

livestock density > 100 heads / sq km

& Number of livestock diseases that can be tested in national laboratories < 25

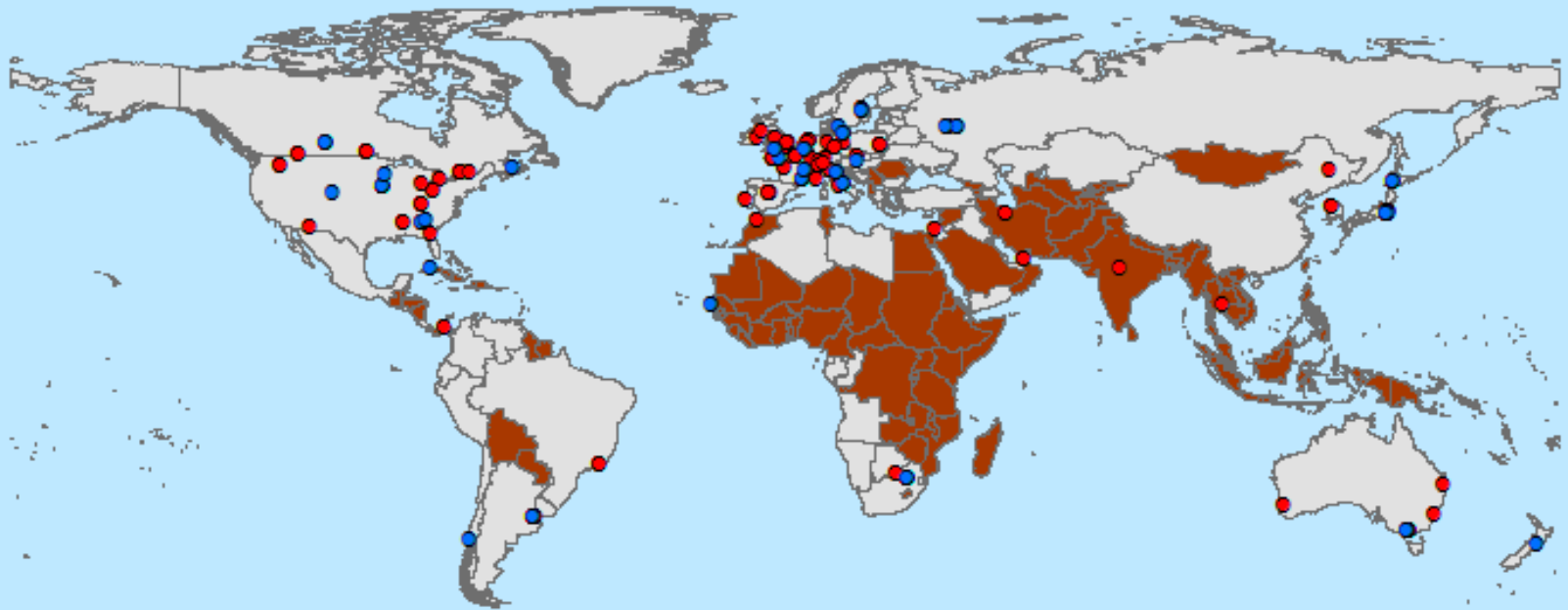
OR

- ▶ **Economical criteria**

Share of the agriculture in the GDP > 10%

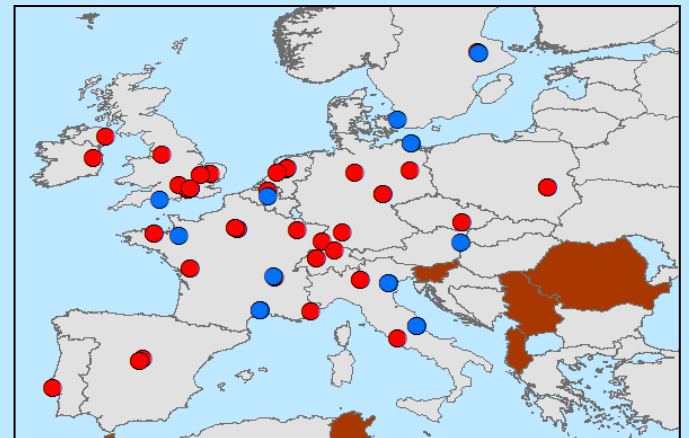
& Live animals export < 1 000 000 heads / year

# PRIORITY COUNTRIES FOR CAPACITY BUILDING

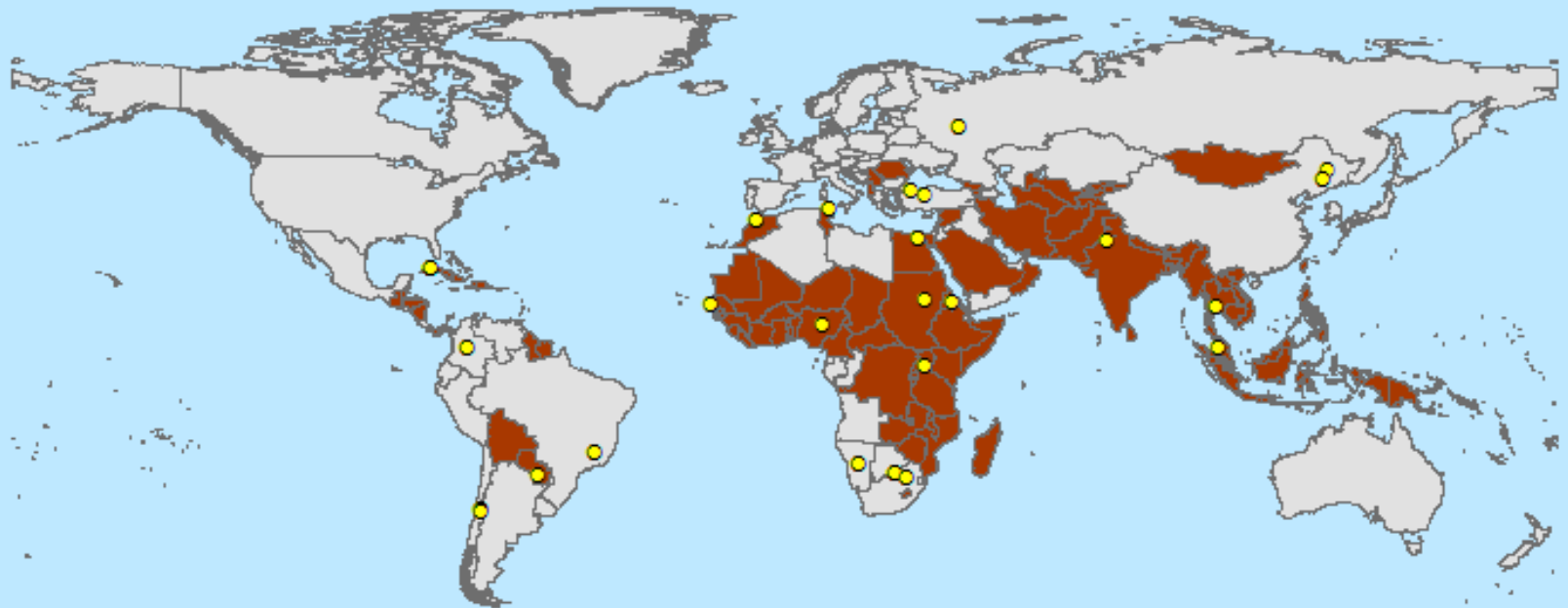


## Legend

- OIE collaborating centers
- OIE reference laboratories
- priority countries for capacity building



# PRIORITY COUNTRIES FOR CAPACITY BUILDING



## Legend

- Candidates for twinning
- priority countries for capacity building



## II) AQUATIC DISEASES

# PRODUCTION

- **Aquaculture production**

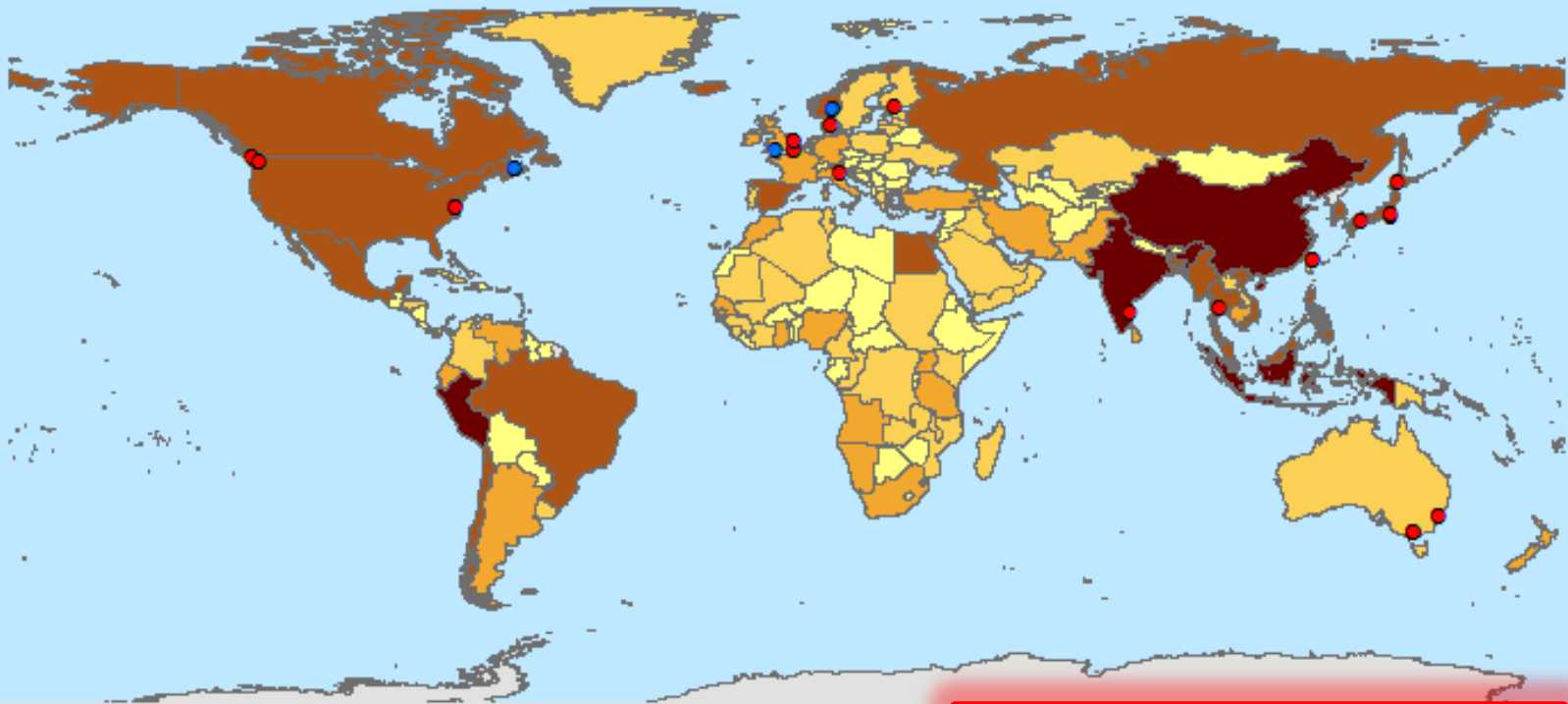
- 1) **Asia 88,8 %, ↑**
- 2) Europe 4,5 %, ↓
- 3) Latin America 3,3 %, ↑
- 4) Africa 1,8 %, ↑
- 5) North America 1,2%, ↓
- 6) Oceania 0,3 %, →

- **Top 10 countries for capture production**

- 1) **Asia : 33,2 M T – 6 countries**
- 2) **Latin America : 7,4 M T – 1 country**
- 3) **North America : 4,3 M T – 1 country**
- 4) Europe : 3,4 M T – 1 country
- 5) Africa : 0
- 6) Oceania : 0

*Source : The state of World fisheries and aquaculture – FAO 2010*

# ANNUAL TOTAL FISH PRODUCTION (FAO 2008)



## Legend

- OIE collaborating centers for aquatic diseases
- OIE reference laboratories for aquatic diseases

### Annual total fish production (aquaculture and fisheries) (tonnes)

- less than 50 000
- 50 000 to 250 000
- 250 000 to 1 000 000
- 1 000 000 to 5 000 000
- more than 5 000 000
- no information

North America,  
South America,  
South Asia, Russia

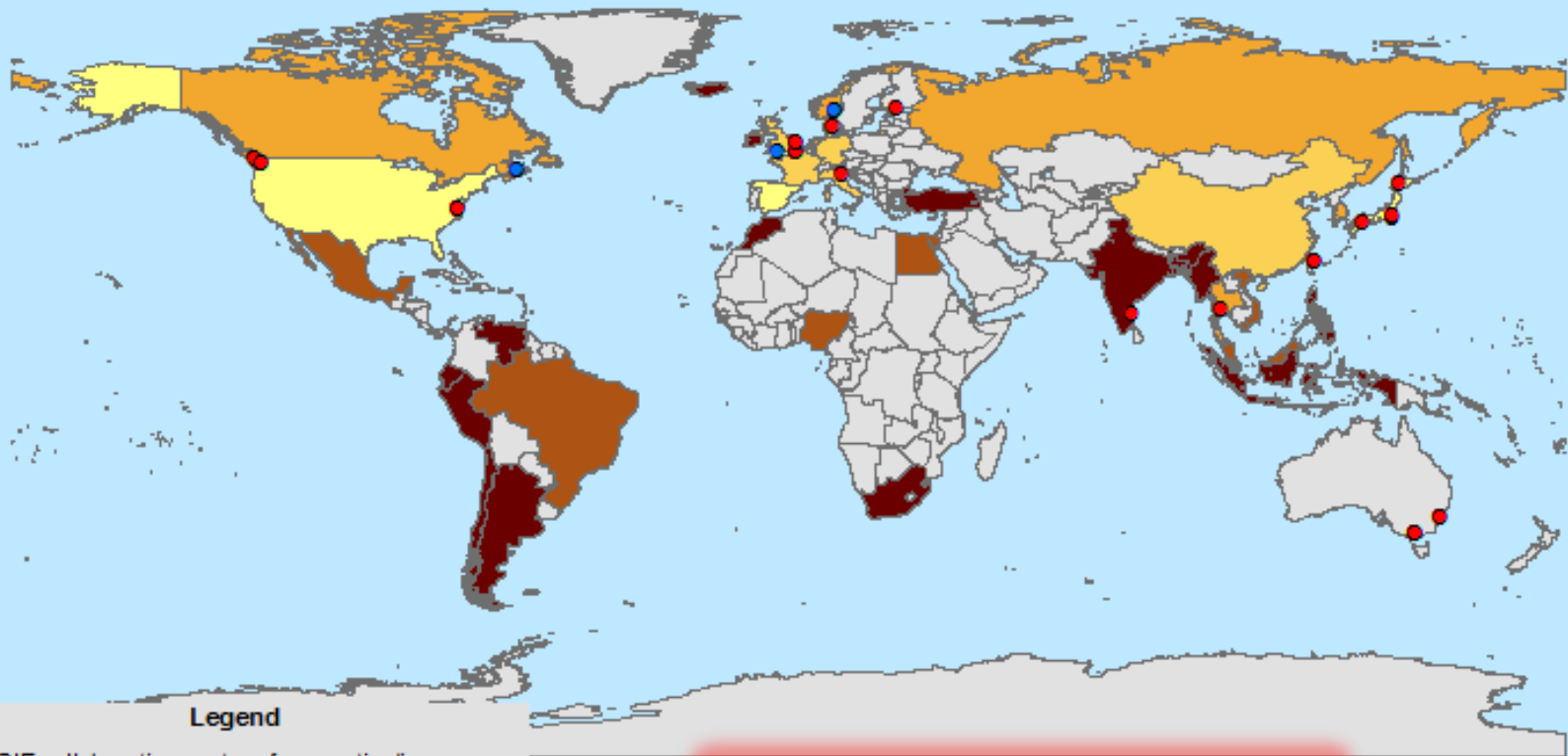
# AQUATIC DISEASES

- **World fisher and fish farmers by continent**

- 1) Asia 85,5 %
- 2) Africa 9,3 %
- 3) Latin America 2,8 %
- 4) Europe 1,4 %
- 5) North America 0,7%
- 6) Oceania 0,1 %

Source : *The state of World fisheries and aquaculture* – FAO 2010

# FISH EXPORT (FAO 2008)



South America,  
South Asia, some  
African countries

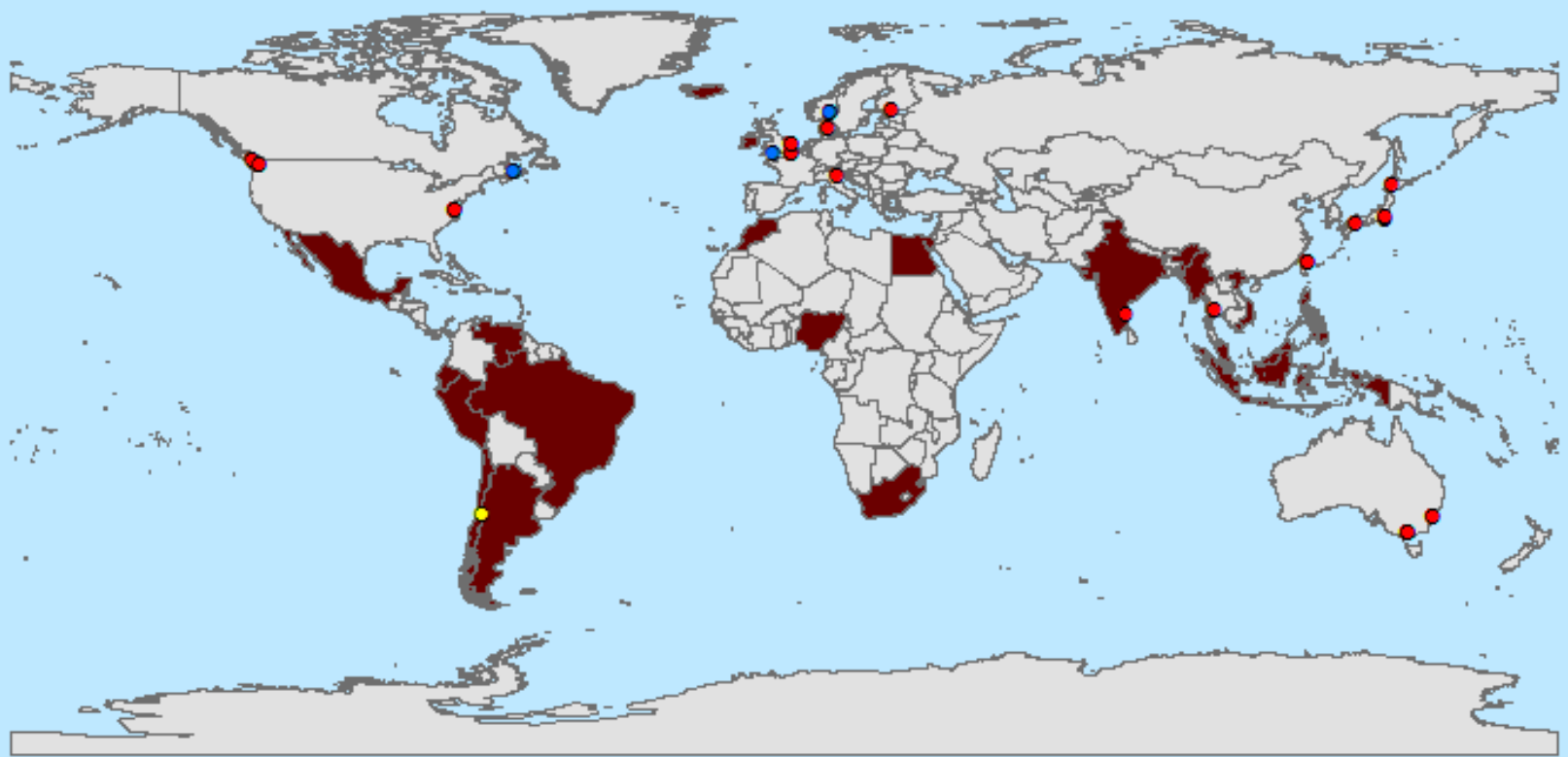
- Legend**
- OIE collaborating centers for aquatic diseases
  - OIE reference laboratories for aquatic diseases
- Annual fish export (tonnes)**
- less than 300 000
  - 300 000 to 1 000 000
  - 1 000 000 to 3 000 000
  - 3 000 000 to 7 000 000
  - more than 7 000 000
  - fish production < 250 000 tonnes or no information

# PRIORITY COUNTRIES FOR CAPACITY BUILDING

## CRITERIA :

- **Annual fish production** > 250 000 tonnes
- **& fish export** < 1 000 000 tonnes
- **& Number of aquatic diseases that can be tested in national laboratories** < 5

# PRIORITY COUNTRIES FOR CAPACITY BUILDING



## Legend

- candidates for twinning
- OIE collaborating centers for aquatic diseases
- OIE reference laboratories for aquatic diseases
- priority countries for capacity building (aquatic diseases)**
- priority countries for capacity building
- other countries

Latin America, some African countries, some countries in South-East Asia

## III) BEE DISEASES

# BEE DISEASES

## Problems with the introduction of exotic bee species

Tremendous increase in the spread of bee diseases and predators around the world during the last three decades.

But : North America , Europe, Asia and South America have laboratories well equipped

## Regions remaining without introduces honeybee diseases

very few regions, mainly in developing countries : **highly beneficial !**

- Ability to market their disease free stocks
- possibilities for organic honey and beeswax production cheaper and easier

**Caribbean**

**Sub-Saharan Africa**

# BEE DISEASES

- Honey trade
- **international standards** : free from chemical, antibiotic and other residues  
→ opens opportunities in the **poorest countries** (products residue-free)

only 5 African nations and 4 Asian countries able to conform with EC import requirements → **denied access to EC markets for most African countries**

## Need for capacity building in developing countries :

- 1) Few developing countries have laboratory resources → honey and beeswax **traded informally** and never reach official trade statistics !
- 2) Only a handful of laboratories world-wide capable of identifying honeybee viruses

# CONCLUSION

- **LIVESTOCK DISEASES :**

- Africa
- South Asia

→ Some twinning programs in regions in need but still need more!

- **BEE DISEASES :**

Developing countries, especially African countries

- **AQUATIC DISEASES :**

- South America
- Some African countries
- South Asia

}  
Very few twinning  
programs !

# References

- Franceschini, G., Robinson, T., Morteo, K., & Dentale, D. (2009). The Global Livestock Impact Mapping System (GLIMS) as a tool for animal health applications. *Veterinaria Italiana*, 45 (4), 491-499.
- The state of World fisheries and aquaculture – FAO 2010
- Bees and their role in forest livelihoods A guide to the services provided by bees and the sustainable harvesting, processing and marketing of their products By Nicola Bradbear – FAO 2009
- Discussion with the OIE Aquatic commission
- Discussion with Marie-Pierre Chauzat

**THANK YOU FOR YOUR ATTENTION!**