



Food and Agriculture
Organization of the
United Nations

SUSTAINABLE
DEVELOPMENT
GOALS



VIRTUAL COURSE

26 March to 15 April 2021



Design of an Active Surveillance for Tilapia Lake Virus (TILV) Disease and Its Implementation

TCP/INT/3707: Strengthening biosecurity (policy and farm level) governance to
deal with Tilapia lake virus



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TILAPIA SECTOR PROFILE: VIET NAM

26 March 2021

Status of Tilapia Sector in Viet Nam

Research Institute for Aquaculture No.1, Viet Nam
www.ria1.org

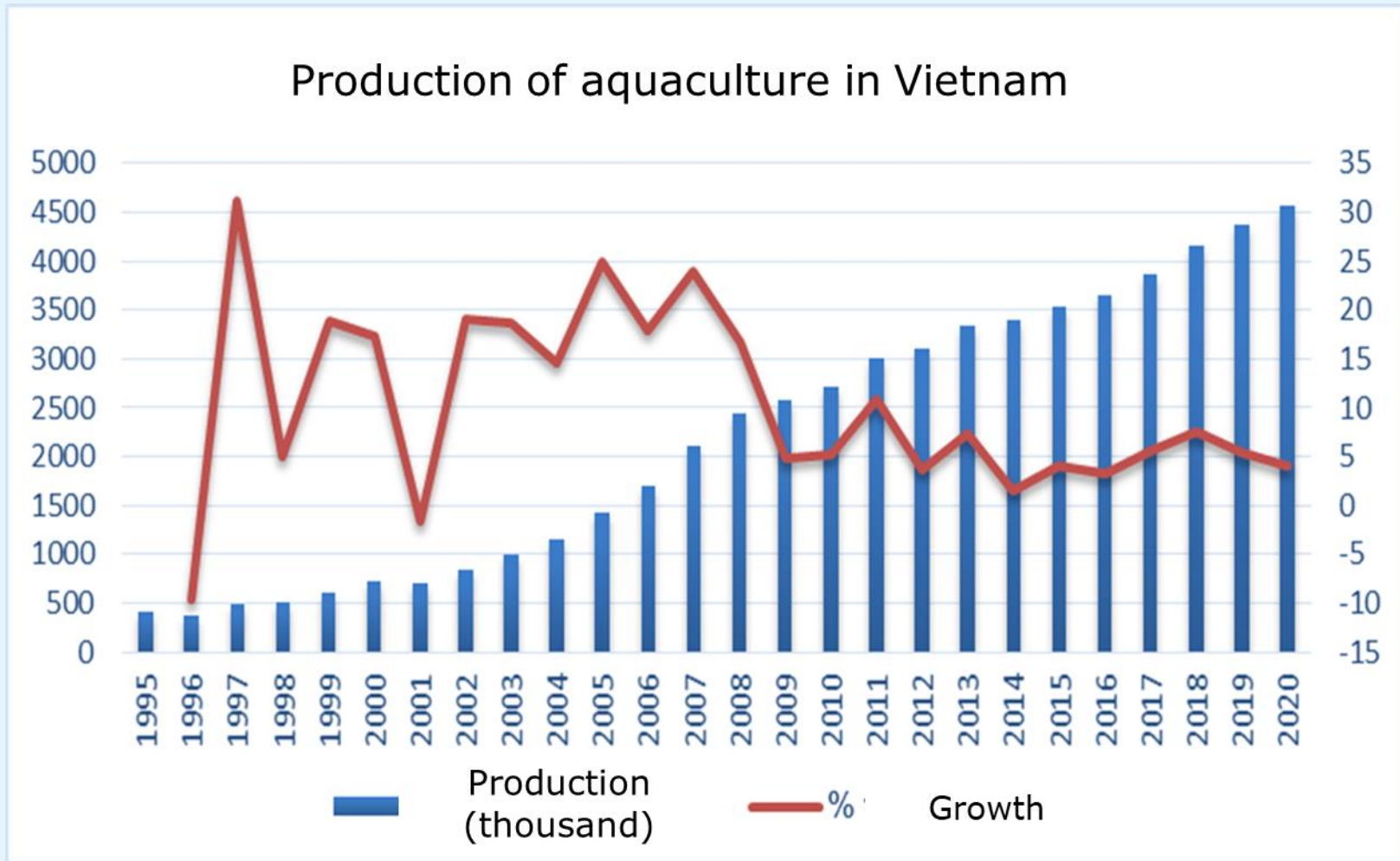
TCP/INT/3707: Strengthening biosecurity (policy and farm level) governance to deal with Tilapia lake virus

STATUS OF TILAPIA SECTOR IN VIETNAM



Research Institute for Aquaculture No.1, Vietnam

Vietnam's Aquaculture



Source: D-fish

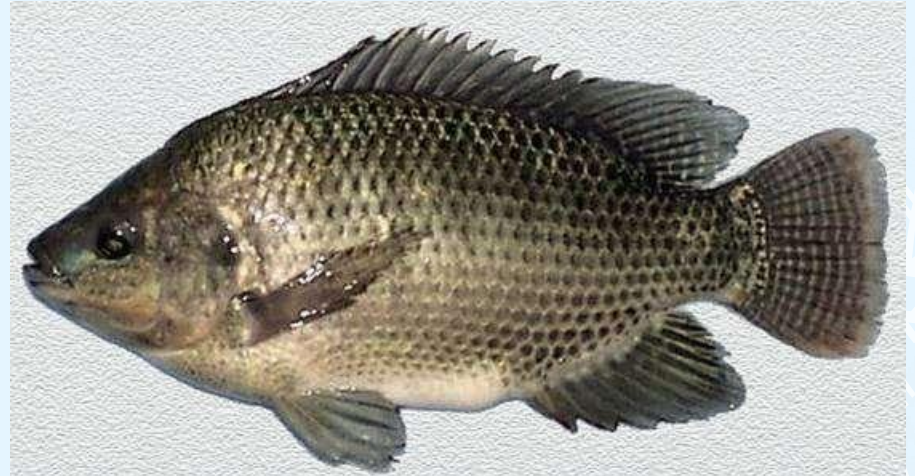
Vietnam's Tilapia Profile

- Introduced to Vietnam in 1950s
- The second white farmed species in Vietnam, after Pangasius.
- Use more domestic consumption, less for export
- Cultured species:

Red tilapia main for domestic



Black tilapia (*Oreochromis niloticus*)
main for export



Models culture



Monoculture



Poly-culture with shrimp, other freshwater fishes: common carp, silver carp, grass carp...



Farming facilities



Cage in river, lake



Pond

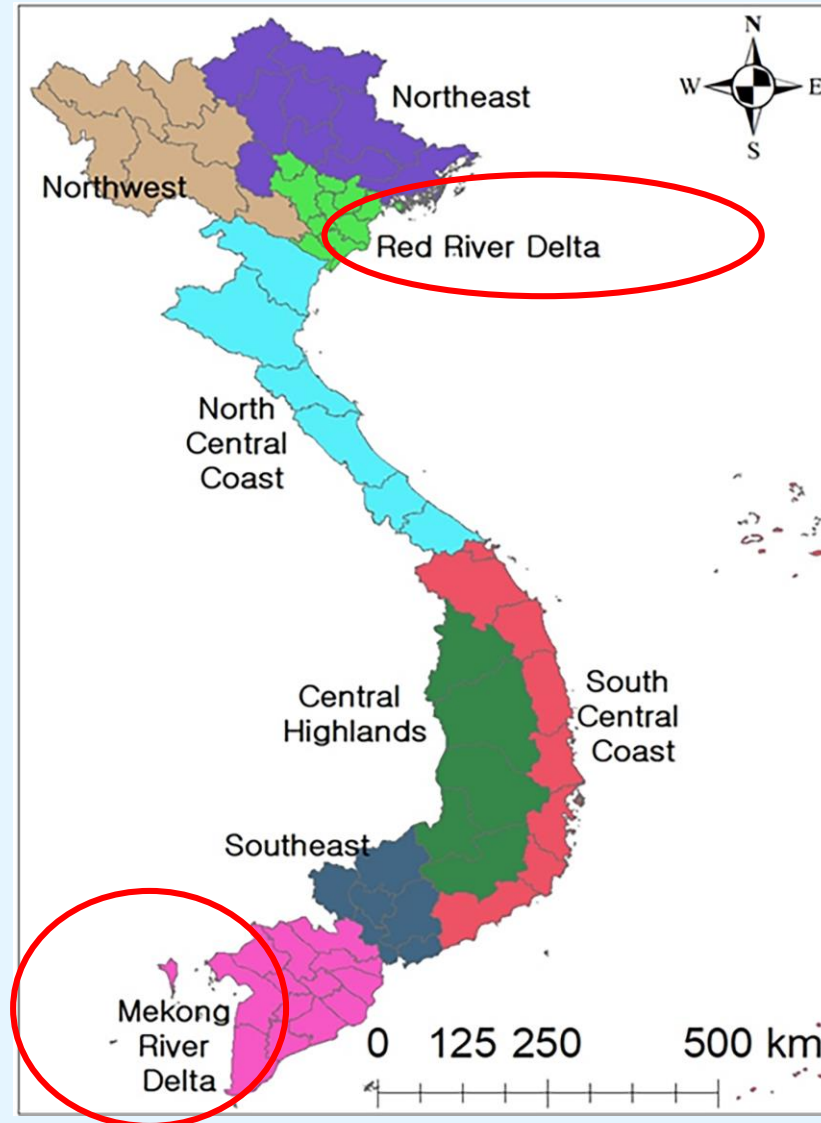


Vietnam Farmed Tilapia



Year	Farmed areas (ha)	Production (including farmed in cage) (tons)
2005	29.717	54.487
2010	8.262	40.955
2014	25.748	125.000
2015	21.000	150.000
2018	30.000	255.000
2020	33.000	300.000
Expected 2030	40.000	400.000

Tilapia farmed areas



Vietnam Farmed Tilapia



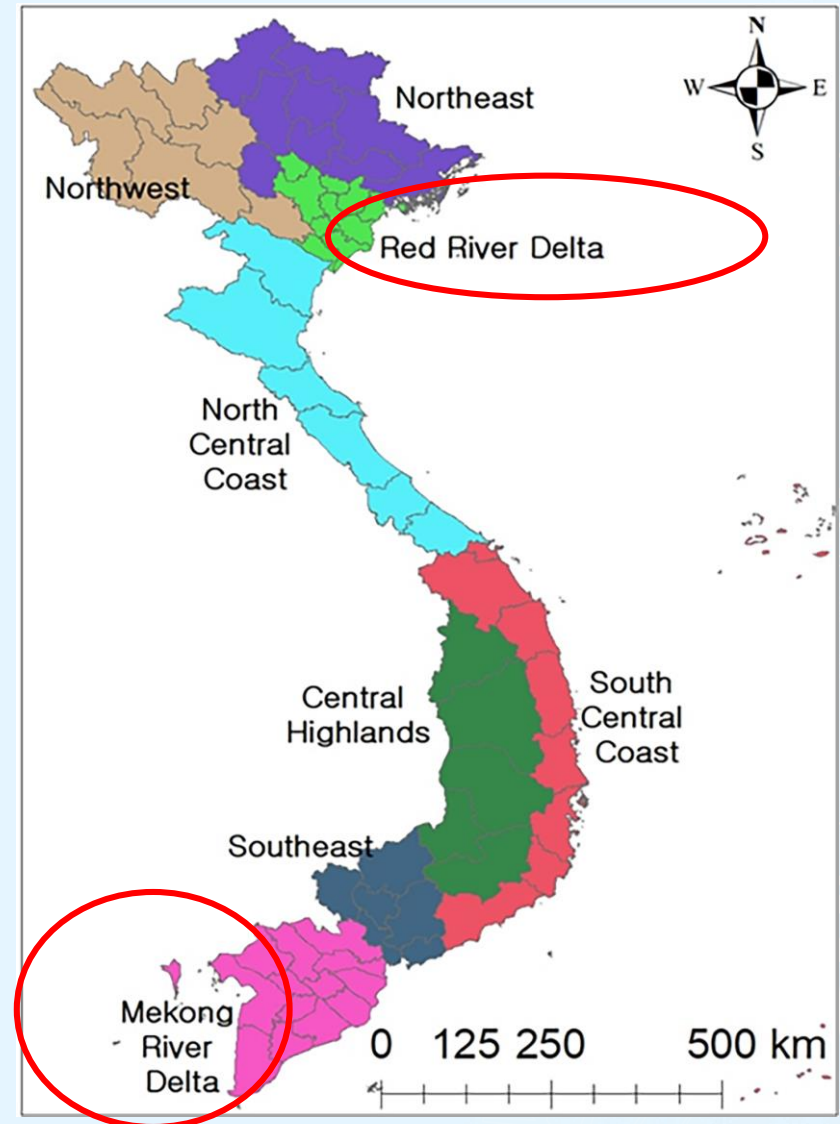
Location	Pond (ha)	Cage (m ³)	Production (tons)
Northern Mountains	8.050	25.000	30.100
North River Delta	11.700	218.000	91.200
North Central Coast	3.770	38.000	33.100
South Central Coast	1.500	54.000	8.200
Central Highlands	1.800	19.000	9.200
Southeast	1.900	16.000	11.300
Mekong River Delta	4.280	1.130.000	116.900
Total	33.000	1.500.000	300.000

Source: D-Fish, 2020

Brook-stock and Fingerlings Production

In 2018

- Total 250 tilapia seed production facilities
- Brood-stock: 50 facilities stocking around one million broodstocks
- Annually 1.2 billion fingerlings and 500 million fries were produced, meeting around 75% of farmed pieces in need
- Mono-sex fingerlings



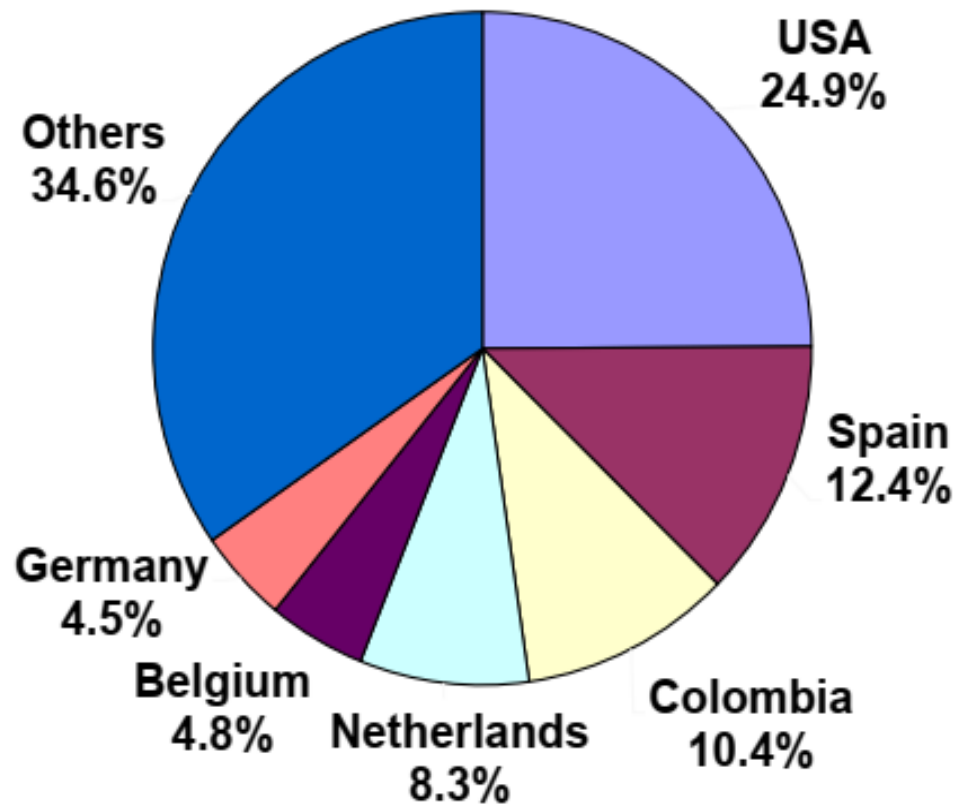
Tilapia Export Market Structure 2014



Country	Value (USD)	Percentage
USA	8,911,672	24.9%
Spain	4,450,093	12.4%
Colombia	3,718,744	10.4%
Netherlands	2,974,238	8.3%
Belgium	1,717,745	4.8%
Germany	1,614,374	4.5%
Others	12,397,777	34.6%
Grand Total	35,784,642	100.0%

Source: VASEP

Tilapia Export Market Structure 2014



Source: VASEP

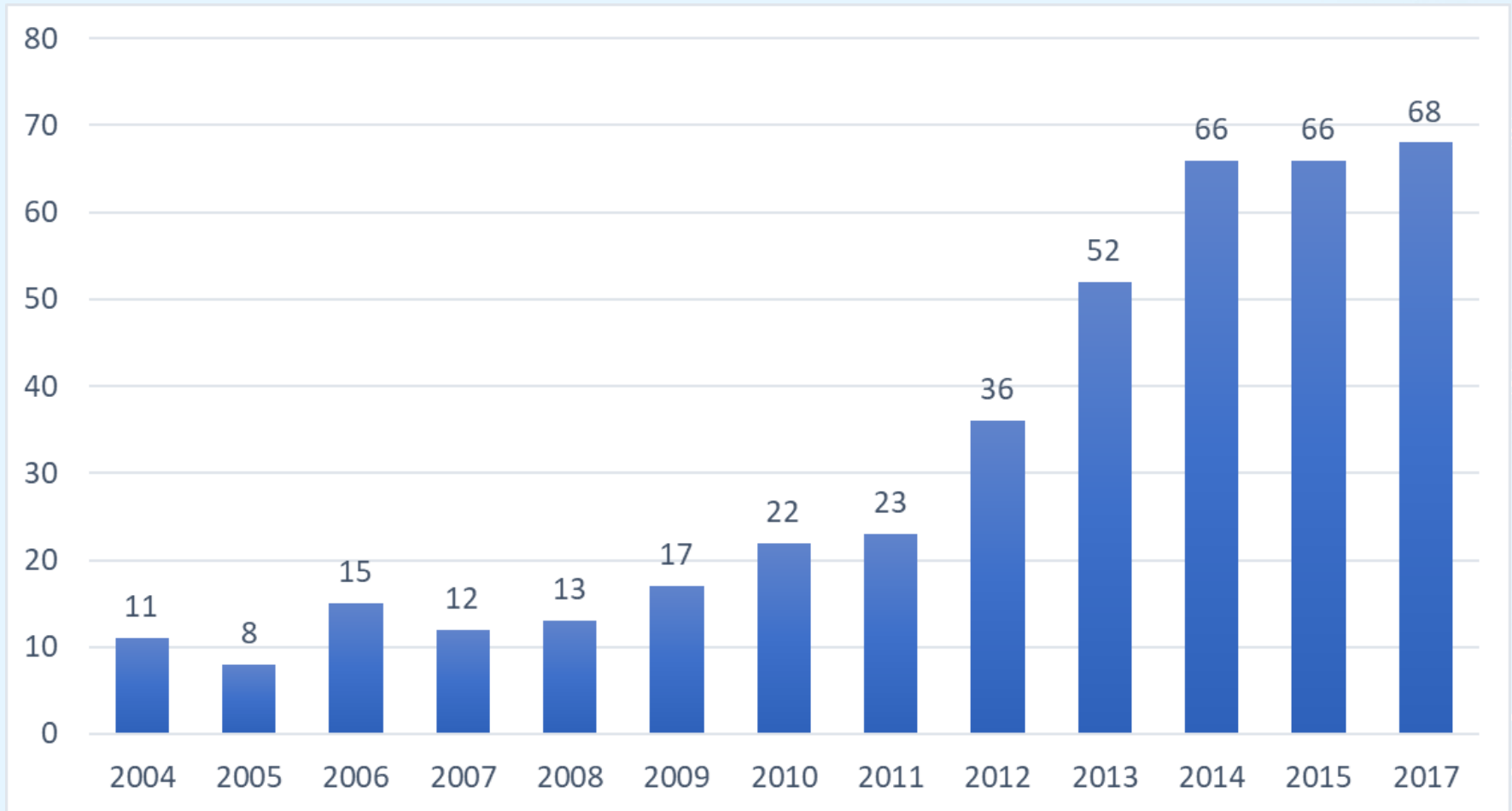
Tilapia Export Market 2015 - 2018



- In 2015: Vietnamese tilapia exports was 36 US million to 60 countries (mainly EU and the US).
- In 2017: 45 million to 68 markets, up 32% compare to 2016
- Tilapia export products
 - ✓ Frozen whole fish
 - ✓ Skin-on fillet
 - ✓ Skinless fillets
- There are about 10 tilapia processing companies for export in some provinces: An Giang, Can Tho, Dong Thap, Thanh Hoa...

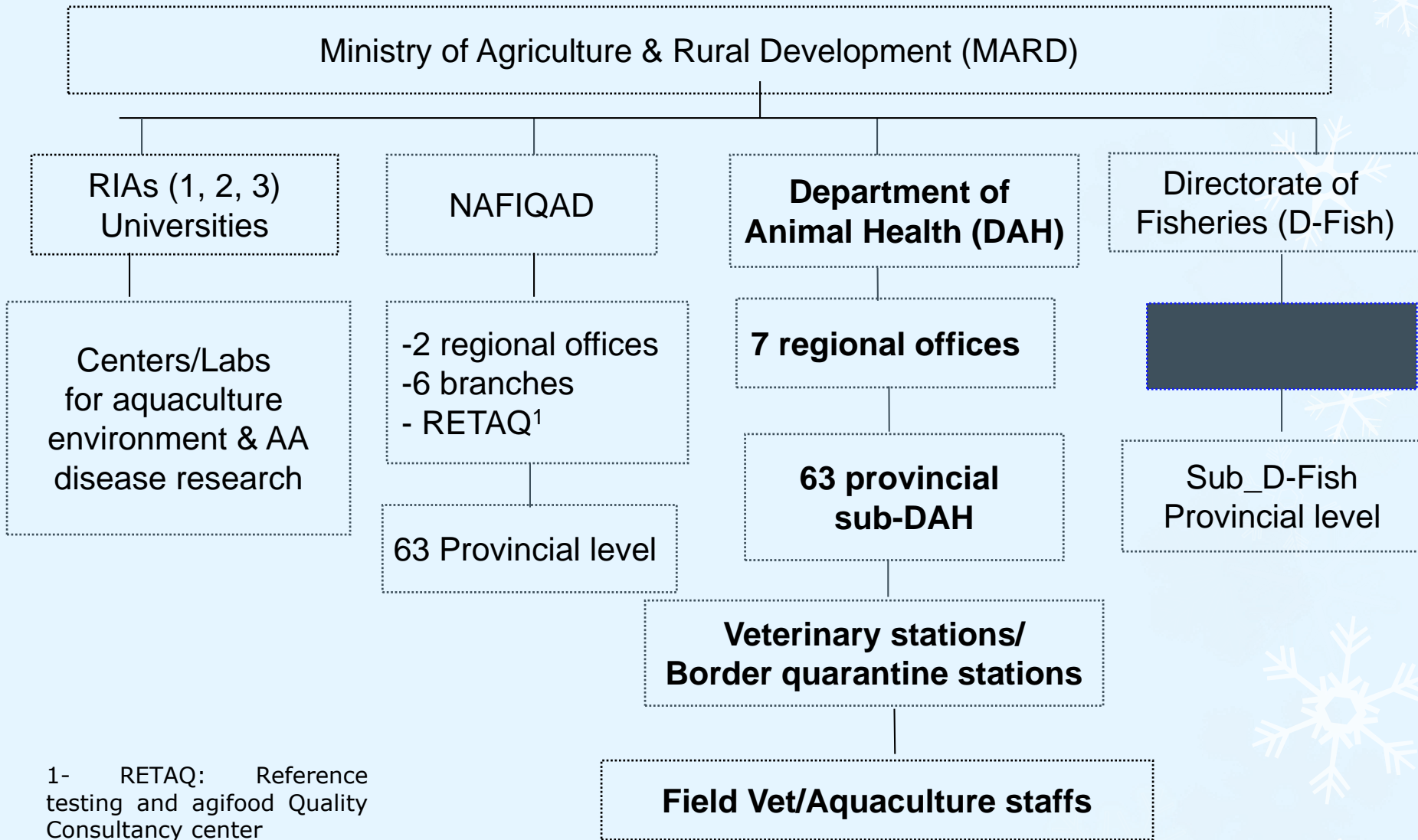
Source: VietFish Magazine, 2019 and D-Fis

Number of Tilapia Export Markets



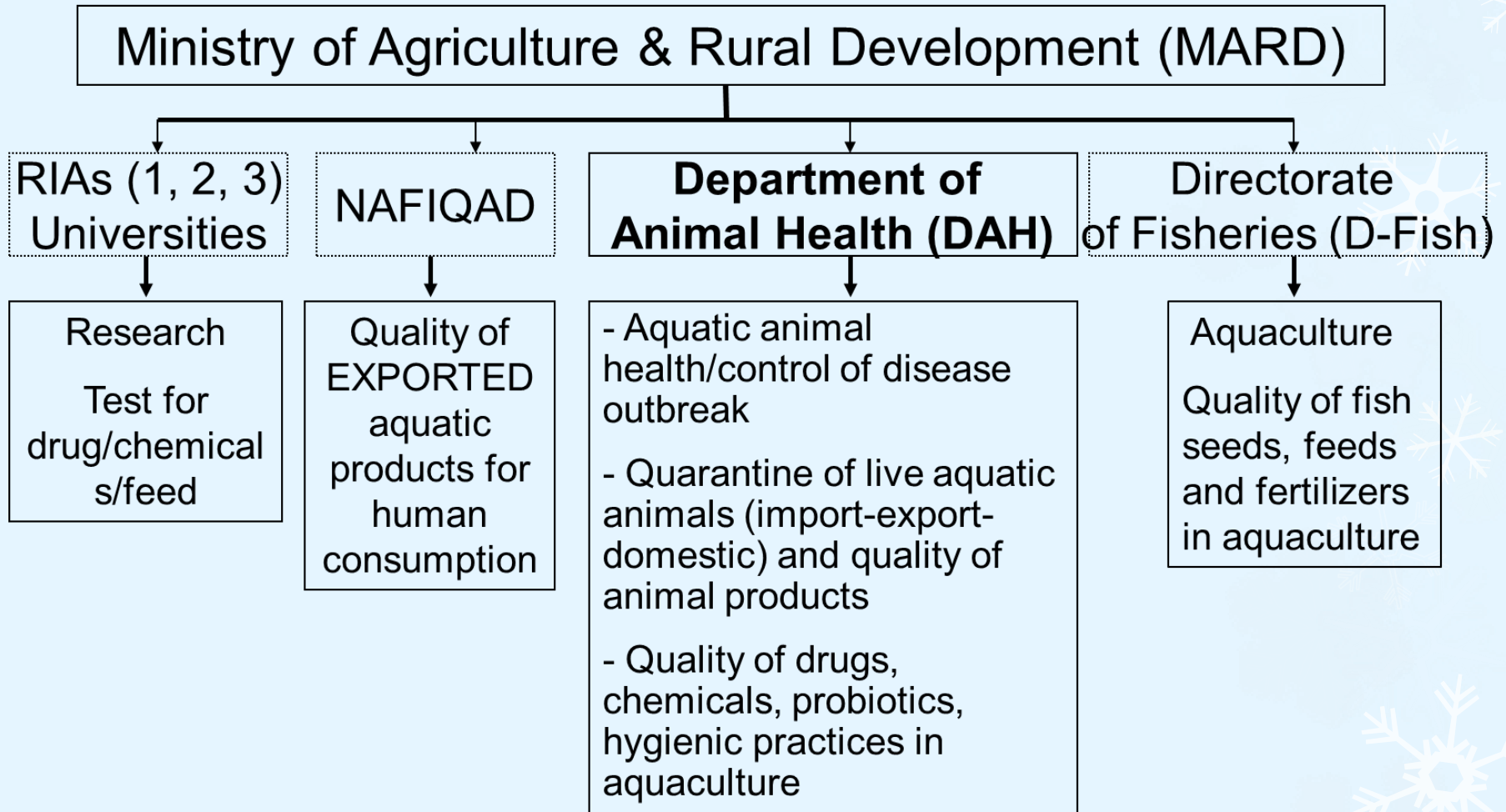
Source: VASEP and D-fish, 2017

Part 2: Aquatic animal health/aquaculture biosecurity governance

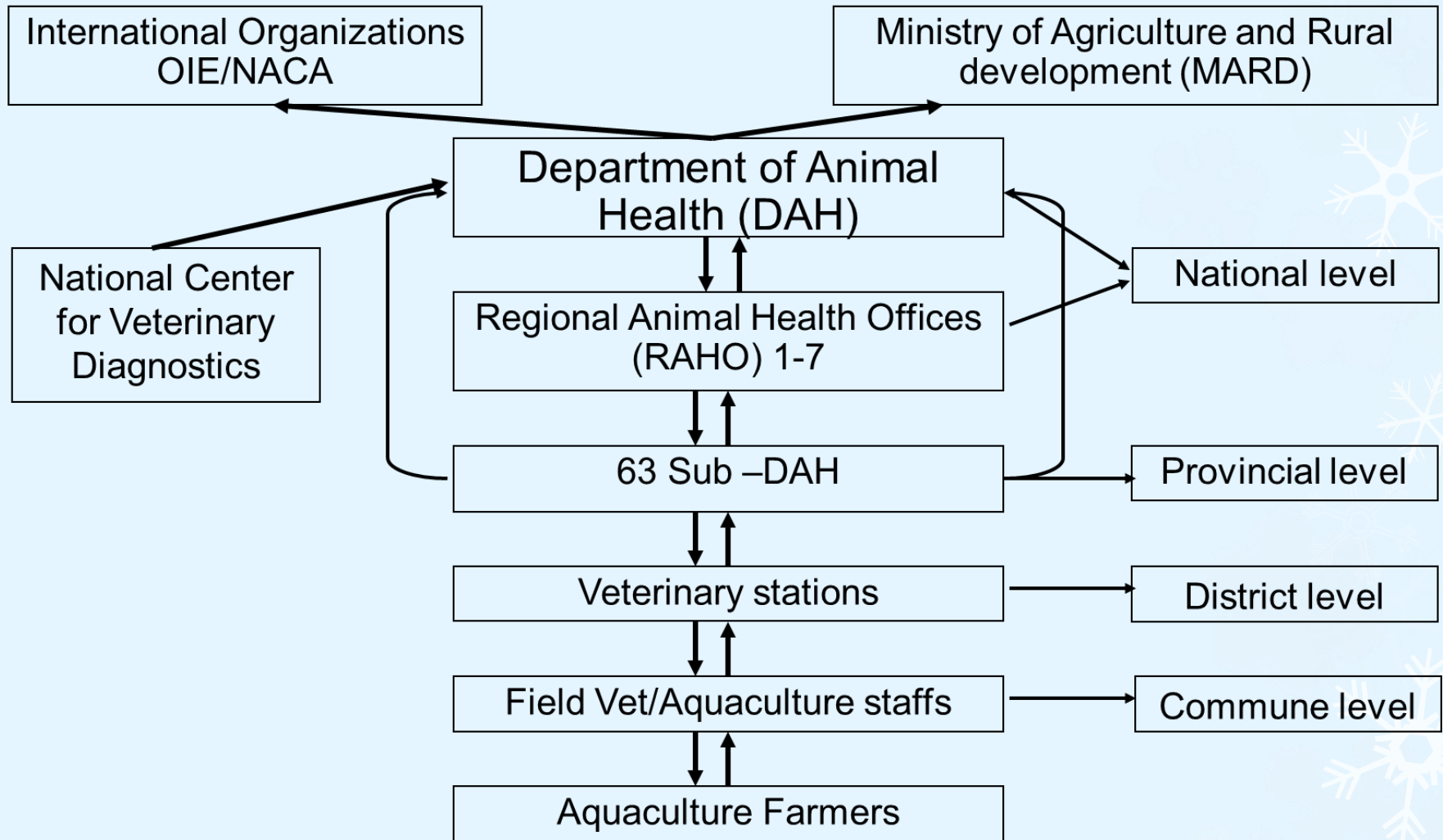


1- RETAQ: Reference testing and agifood Quality Consultancy center

Function of organization in system



Disease outbreak reporting system



- **Veterinary Law**
- Article 6: System of specialized veterinary management agencies
- Chapter 2: Prevention and control of animal epidemics
- Article 32: Monitoring, warning aquaculture environment
- Article 33: Handling of aquatic disease outbreak
- Article 34: Declaration of aquatic animal disease
- Article 35 : Organization of control of aquatic animal epidemics

Prevention and control of AA diseases



- Circular No. 04/2016/TT-BNNPTNT dated 10 May 2016 regulating prevention and control of aquatic animal diseases, including the list of aquatic animal diseases must be declare.
- Circular No. 26/2016/TT-BNNPTNT dated 30 June 2016 regulating quarantine for terrestrial and aquatic animals and their products.
- Circular No. 13/2016/TT-BNNPTNT dated June, 02 2016 issued by MARD regulating veterinary drug management.
- Decision No. 4995/QĐ-BNN-TY dated 20 November 2014 of MARD Approving “National Plan for prevention and control of diseases in pangasius catfish, from 2015-2020”.

Aquatic disease status in Vietnam



Disease in shrimp



❖ Hatcheries:

- *Vibriosis* (Luminescent Bacterial disease caused by *V.harveyi*)
- Can be controlled by better management practice.

❖ Shrimp farms:

- Viral diseases (WSSV)
- Bacterial disease (AHPND/EMS);

❖ Main serious diseases:

- White Spot Disease (WSD)
- Acute Hepatopancreatic Necrosis Disease (AHPND)

Disease in marine fish

❖ Major diseases:

- Bacterial disease: Vibriosis



Disease in Mollusc

- Massive deaths in hard clams
- Swollen siphon disease in otter clams
- High mortality have been yearly reported in hard clams since 2011 in winter and spring season
- The cause of the massive deaths: related to environmental factors (high temperature or sudden change salinity).



Disease in fresh water fish

- *Edwardsiella* infection in Catfish
- *Streptococcus* infection in Tilapia



TiLv in Tilapia



- TiLv in Tilapia hasn't been reported yet
- TiLv outbreak Colombia, Ecuador, Egypt, Israel and Thailand....
- Production of Tilapia increase rapidly
- Research and training for TiLV should be considered

No

Farm registration



Circular 02/2020/TT-BNNPTNT date 28/02/2020: Farm registration conditions

➤ **Conditions:**

1. Farm areas (min): 1.0 ha
2. Average production value (min): 87,000 US dollars per year

➤ **Implementation:**

- ✓ Commune People's Committee directly implementing administrative procedures.
- ✓ Certification approved by District People's Committee

Research Institute for Aquaculture No.1



Thank you very much for listening!