



AQUACULTURE STATUS OF VIETNAM

Han Mai Huong, Cairo, November 2011



FISH CAGES IN HALONG BAY
By www.vietlinh.vn



VIETNAM

- Mainland Territory: **331,211.6 sq. km.**
- Lying on the eastern part of the Indochinese peninsula, Vietnam is a strip of land shaped like the **letter “S”**. China borders it to the north, Laos and Cambodia to the west, the East Sea to the east and the Pacific Ocean to the east and south.
- Vietnam has **3260 km coastline.**





VIETNAM

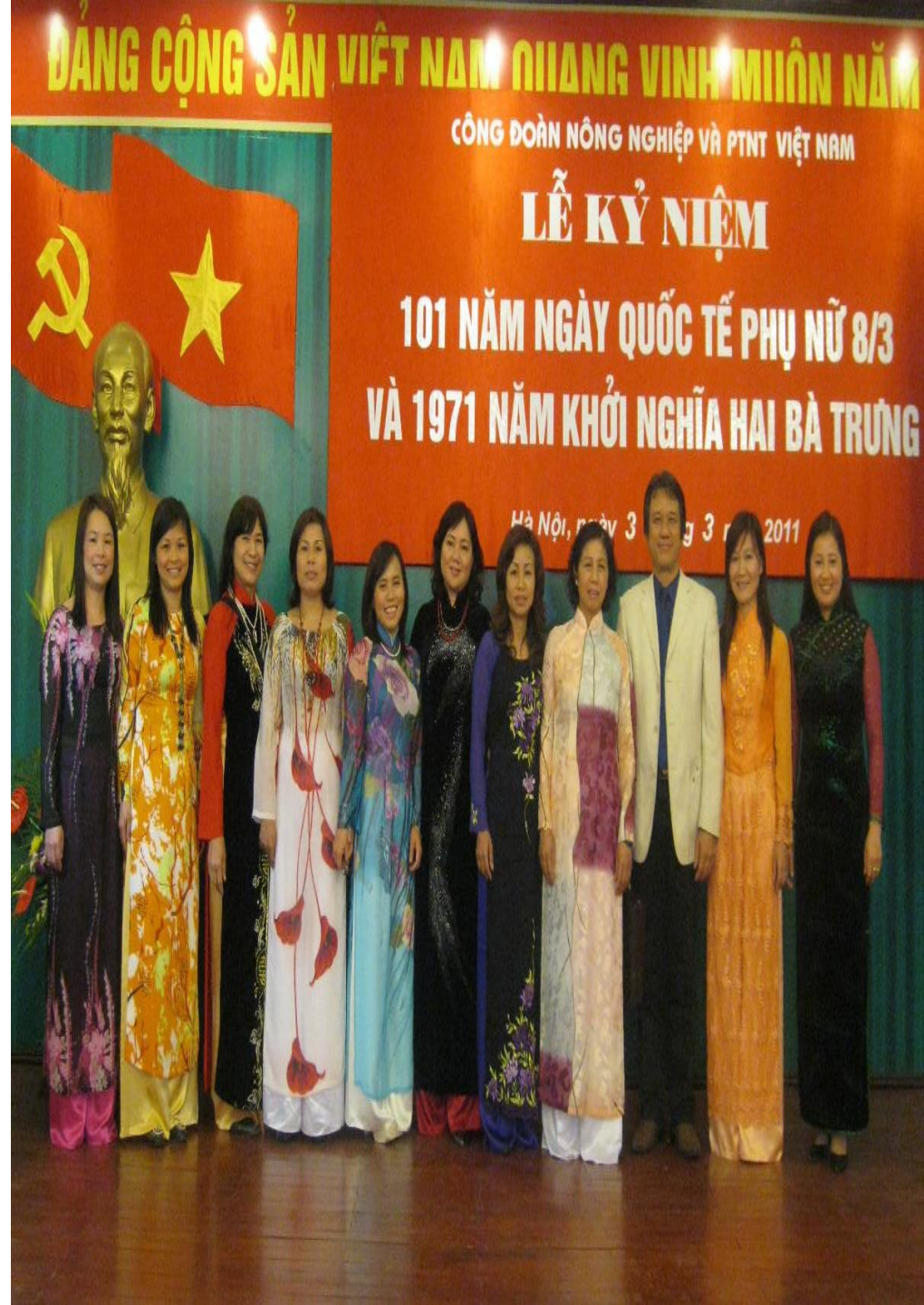
- **Population:** over 89 million, Vietnam is the 13th most populous country in the world.
- **National Capital:** [Hanoi](#).
- **Administrative Units:**
Vietnam is divided into 63 provinces and cities
- **Climate:** Vietnam lies in the tropics and monsoon.



➤ **Vietnam:**
additionally is home
to 54 ethnic minority
groups.

➤ About 85% of
Vietnamese identify
with Buddhism.

➤ One of the most
popular Vietnamese
traditional garments
is the “Ao Dai”.





VIETNAM AQUACULTURE

Aquaculture has great potential to develop in Vietnam:

- 120,000 ha are small ponds, lakes, canals, gardens;
- 340,000 ha are large water surface reservoirs;
- 580,000 ha are paddy fields which can be used for aquaculture; and
- 660,000 ha are tidal zones.

Not included the water surface of rivers and about 300,000 - 400,000 ha of straits, bays and lagoons along the coast.

Culture species

Species which are high valued and suitable for culture.

Freshwater: common carp, snakehead, giant marble eel especially Mekong catfish are mono-sex tilapia

Marine fish: grouper, cobia, barramundi .



Culture species

- **Shrimp:** freshwater prawn and marine species, like: *Penaeus monodon*, *P. merguensis*, *P. indicus*, *P. orientalis*, *Metapenaeus ensis*, and latterly introduced white leg shrimp. Indigenous marine giant lobster is also put under marine cage culture.



Culture species

Mollusks: pearl oyster, oyster, scallop, Ngheu bivalves and blood cockle, Spotted Babylon have been put under culture.



Culture species



Seaweed:

Gracilaria spp
(11 species),
Sargassum spp. ,
*Kappapsycus
alvaresii* are the
most noticeable.

Practice/ Systems of Aquaculture (1)

There are various culture practices integrated aquaculture systems such as rice-cum-fish, rice-cum-prawn, mangrove-cum-aquaculture; mono-aquaculture such as semi-intensive, intensive and improved extensive farming of giant tiger prawn, catfishes and marine finfish and poly-aquaculture in both fresh and marine waters.



Practice/ Systems of Aquaculture (2)



In cages intensive practice catfish in freshwater, which is a new system to the delta, its practice is increasing gradually.

The productivity from cage culture has reached over 100 kg/m³/crop while productivity from pond culture varies from 183-582 tonnes/ha/crop depending on the stocking density, productivity of up to 345 tonnes/ha/crop has been obtained from fence culture.

The farming of giant river prawn (*M. rosenbergii*) is traditionally practice in the country and is mainly carried out in the Mekong River Delta.

Farming system distribution



The aquaculture sector has been considered as one of the key economic sectors of the nation. The total estimated area being utilized for aquaculture is 902,900 ha.

The northern part is dominated by culture systems which include freshwater fish ponds, cage culture in reservoirs, stocking base fish culture in small reservoir, rice-cum-fish and marine cage culture also developed.



The most common aquaculture practices in the central region are giant tiger prawn and white leg shrimp farming in pond, fence fish culture and mollusks culture in lagoon and cage culture of finfish or lobster along the beach.

Pangasiids are cultured both extensively and intensively in the Mekong delta, depending on feed availability, rearing systems and fish species. River catfish are generally cultured in pond and cage culture systems.

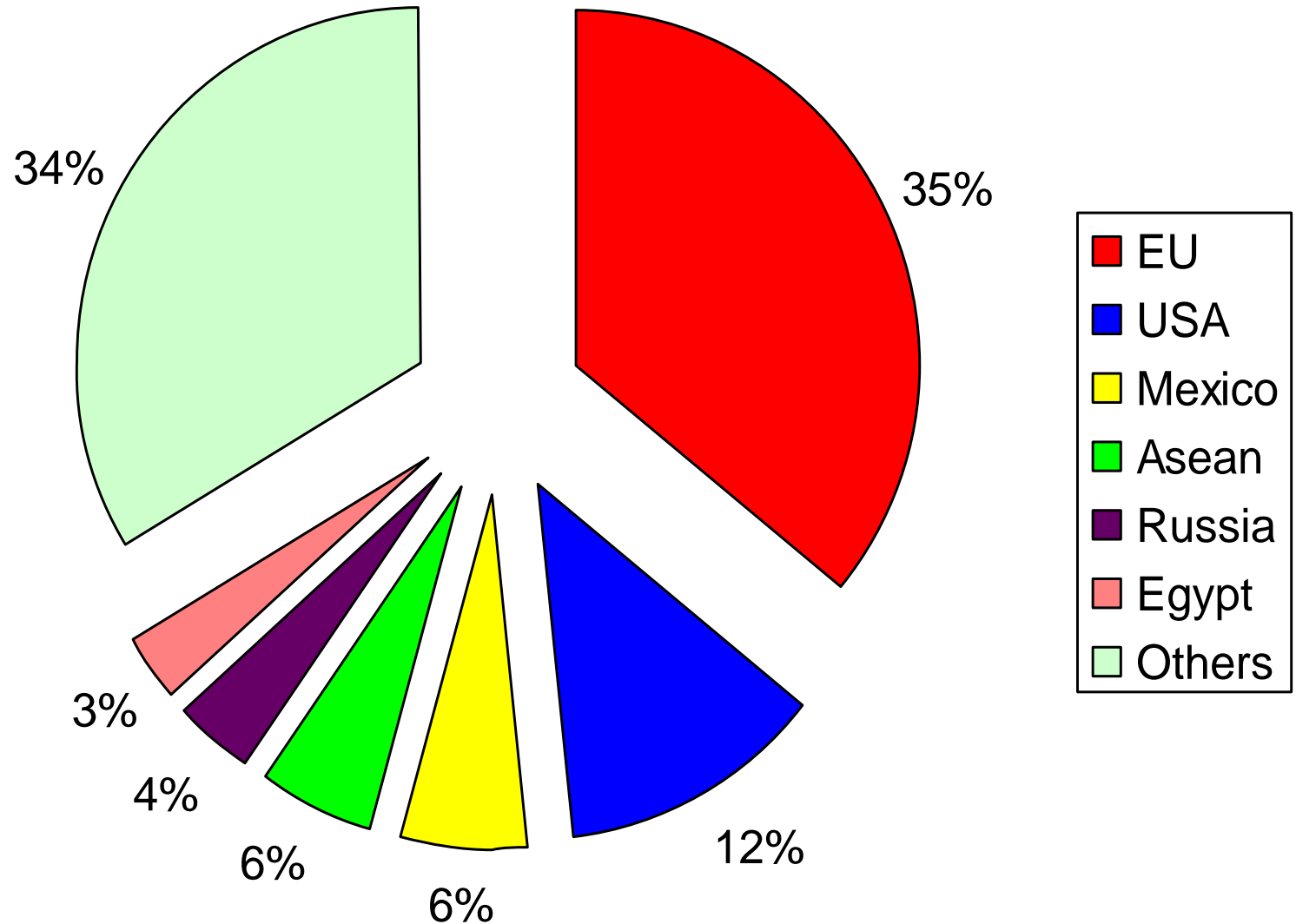






- Cage culture is an intensive culture system since fish are stocked at very high densities (100 kg/m^3) and artificial feed is provided as the only nutrient source for fish growth. contributing 85% of the total cage production in the Mekong delta.
- The main markets for tra and basa catfish of Vietnam are EU and US.

IMPORTERS OF VIETNAM'S CATFISH IN 2010



Status of shrimp farming system and issues

- With 446,208 ha of land are officially under shrimp aquaculture production, with an average yield of 0.36 ton/ha.
- Vietnam is the world's fifth largest producer of farmed shrimp.



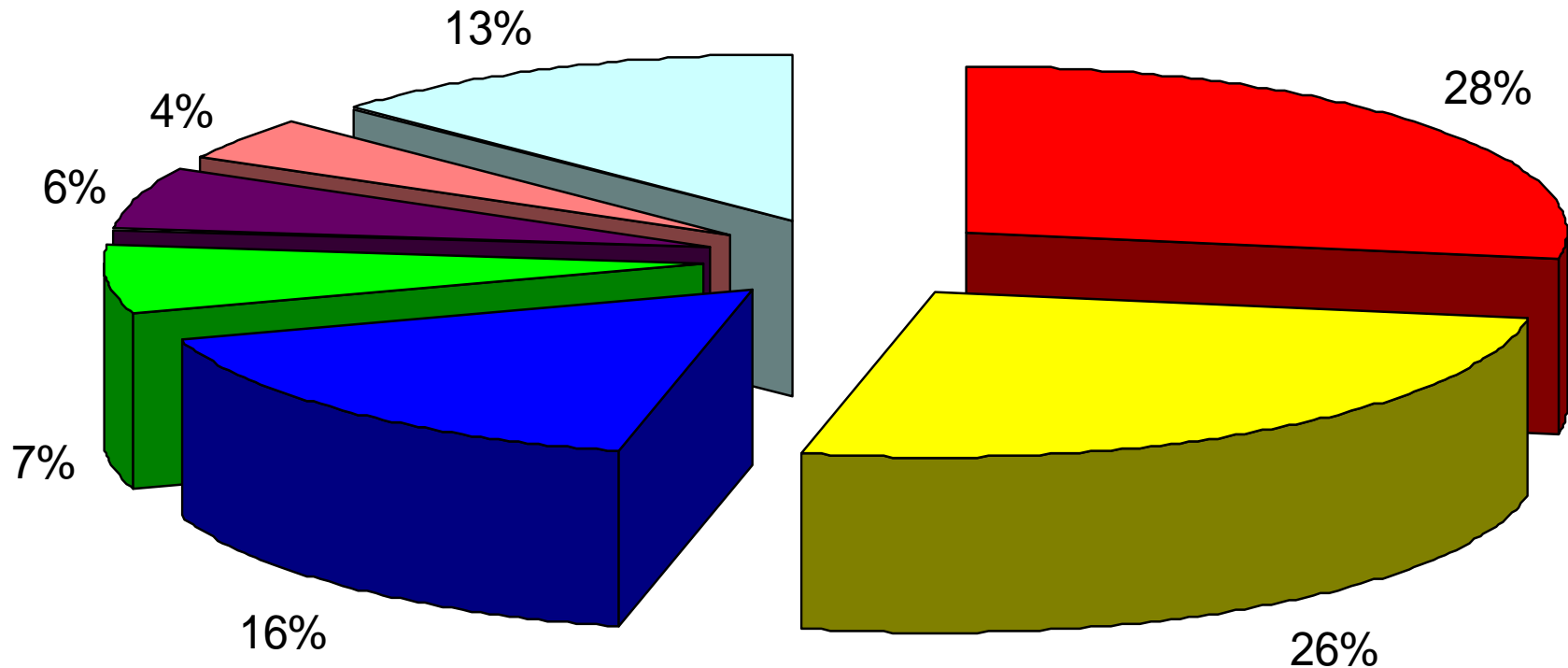
Status of shrimp farming system and issues (2)



Much of Vietnam's shrimp aquaculture is small-scale development.

Though the government has planned to reduce shrimp aquaculture's environmental impacts, and is implementing a 5 million ha reforestation program, aquaculture development plans are placing intense pressure on coastal areas.

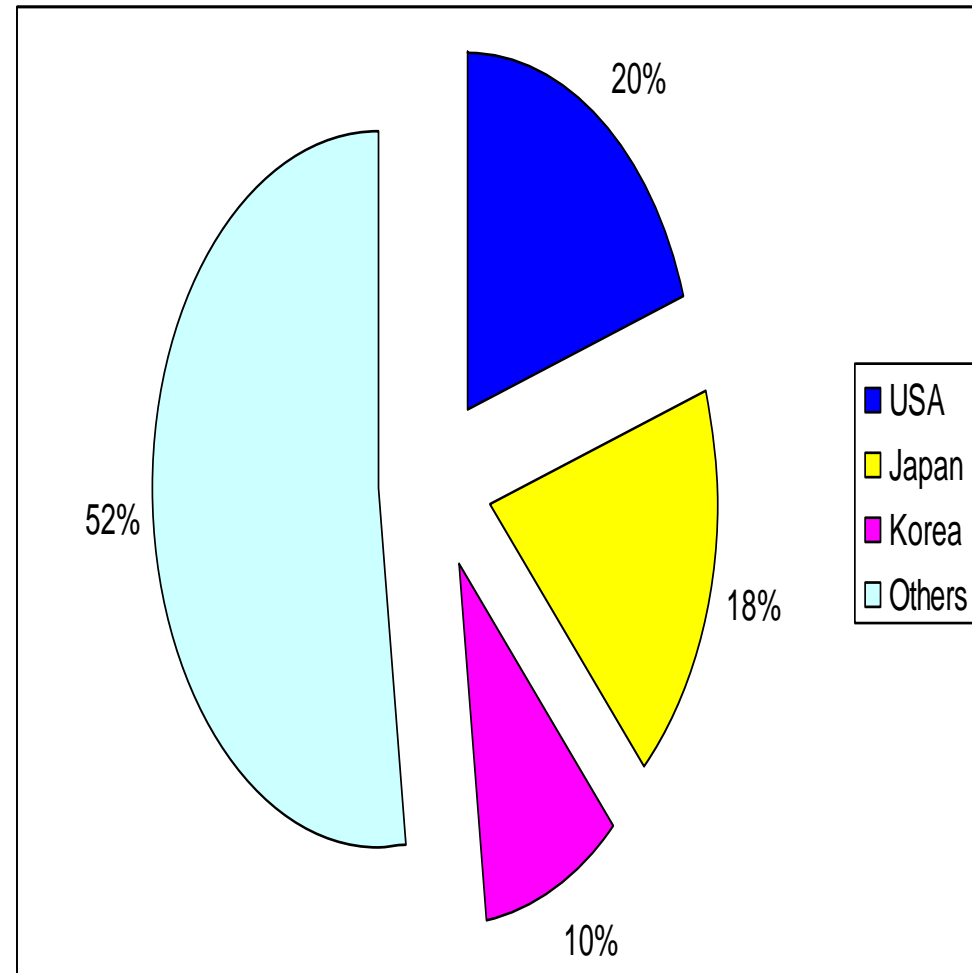
The Main Importers of Vietnam's Shrimp



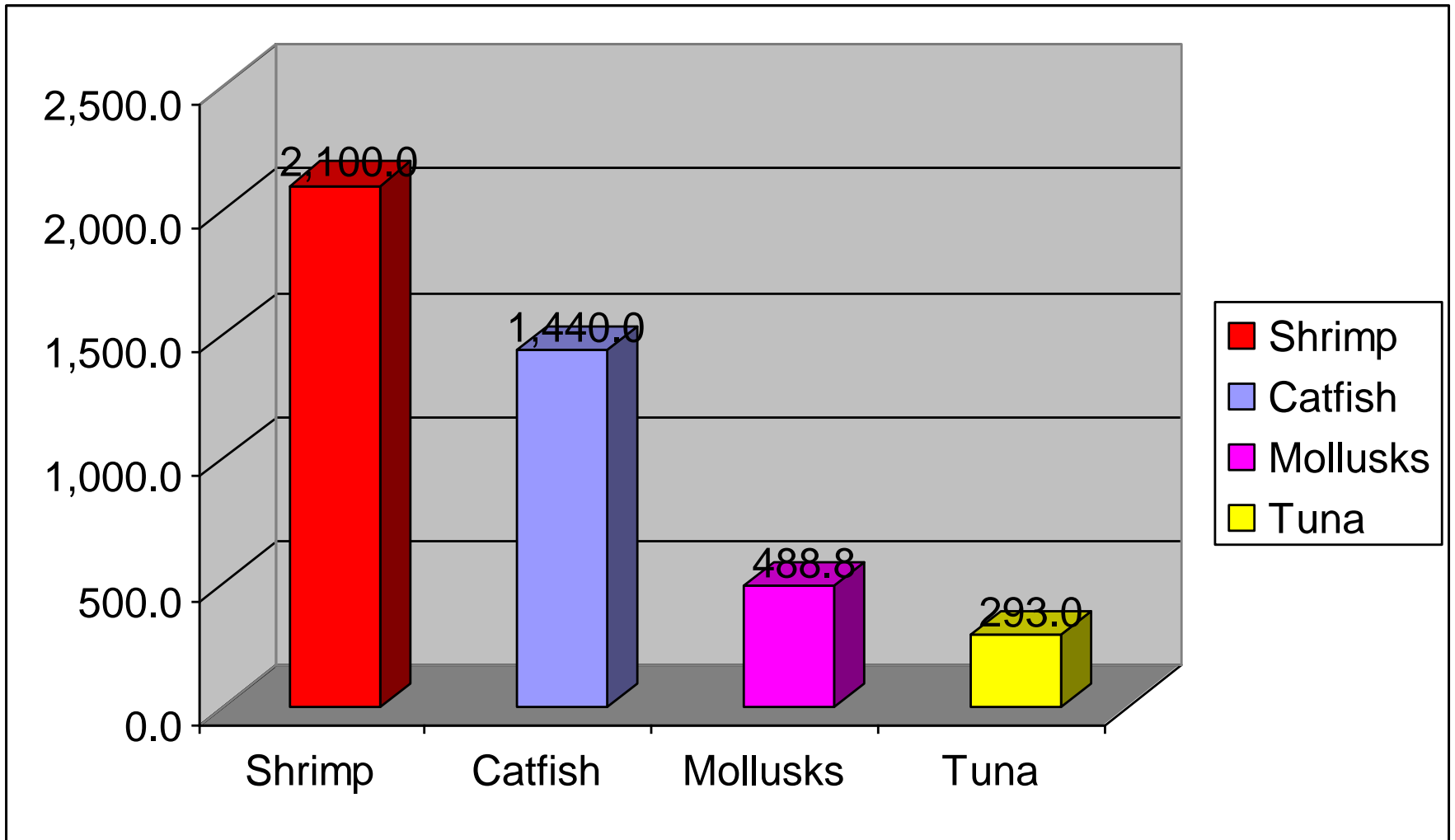
■ Japan ■ USA ■ EU ■ China ■ Korea ■ Australia ■ Others

In 2010, the total exported turnover value reached 5 billion USD.

- Vietnam's seafood products export to 162 countries and regions in the world.
- The largest markets importing seafood from Vietnam are USA (US \$971 mil USD), followed by Japan (US \$897 mil), Korea (US \$386 mil), China (US \$247 mil)



The Main Exported Fisheries Products of Vietnam (in \$ US bil)



Aquaculture production



Shrimp and catfish are considered as two of the major aquaculture products.

The production of shrimp (*Penaeus monodon*) about 450,000 tonnes/ year, catfish (*Pangasius hypophthalmus* and *Pangasius bocourti*) 350,000 tonnes/year. The production of giant river prawn estimated about 7,000 tonnes/year .

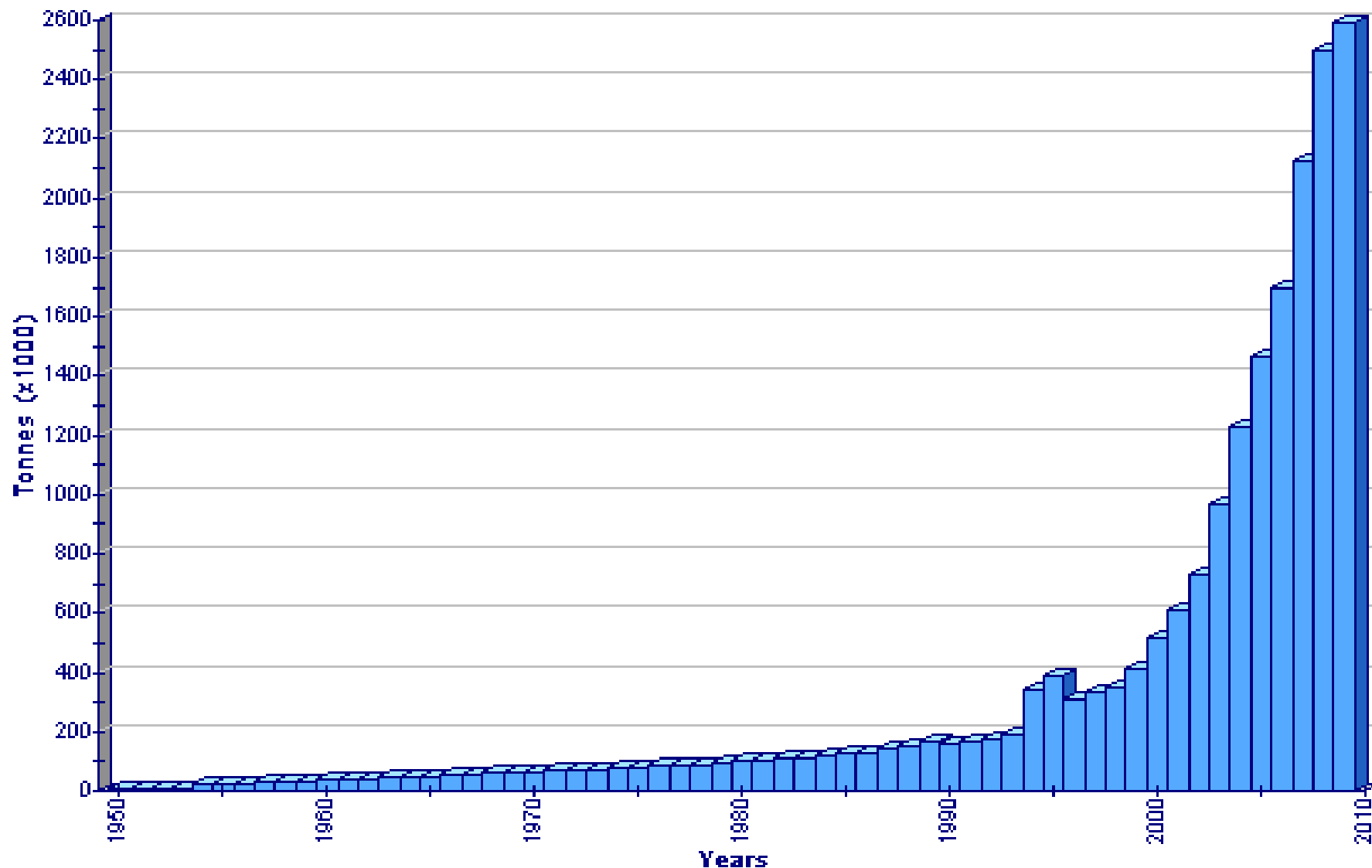
- The remaining aquaculture production is farmed reached 124,253 tonnes including fresh and marine culture.



Shrimp products made up 52 % of the total volume of aquatic products exported. The fisheries sector (including aquaculture) has played an important role in the economy of the country; the sector has ranked third in the league of the key economic sectors of Viet Nam.



Total aquaculture production of Vietnam



Trends and issues to be solved

- Total aquatic production and export turnover value will be increased. The growth in value of total production has been maintained at the rate of over 10 percent, the growth in export turnover is expected to remain over 8 percent annually in the coming years.
- The composition of key farmed species will be developed to meet the needs of both commercial aquaculture development and export requirements. Further development in future of marine and coastal aquaculture will also take place.
- The quality of aquatic products has also been enhanced to meet the demand from export and domestic markets.

- Applied research, education and training activities will be developed to meet the need for the sustainable and effective development of the fisheries sector.
- Alongside these positive trends and advantages in continuing to develop aquaculture, Viet Nam's fisheries sector (including aquaculture) is also faced with several issues which require to be addressed, namely:
- The demand from export markets for high quality, safe and clean aquatic products.

- Despite the rapid development of industrial scale shrimp culture which has contributed significantly to the total aquaculture production from the fisheries sector, the large scale outbreak of disease is a serious issue of concern for future shrimp farming development in the coastal areas of Viet Nam.
- A decline in coastal aquatic resources has occurred in recent years, which has caused an increased pressure on the livelihood of millions of people who depend on natural aquatic resources e.g. small scale fishing activities.

A rapid expansion of the area being utilised for aquaculture has been difficult to regulate, this has in some cases resulted in:

- The required infrastructure and canal systems not meeting the standards required for aquaculture operations;
- A lack of effective solutions to meet the need for good quality seed in sufficient amounts to meet requirements;
- A lack of environmental protection for aquaculture areas;
- A lack of capital for investment in aquaculture infrastructure;
- Limitations on availability of man power, skilled staff and workers; insufficient administrative capacity for the sector; as well as the situation where poorly educated fish farmers are struggling to meet the high targets set for the safe and effective development of a sustainable fisheries sector.

**THANK YOU
AND WELCOME TO VIETNAM**

