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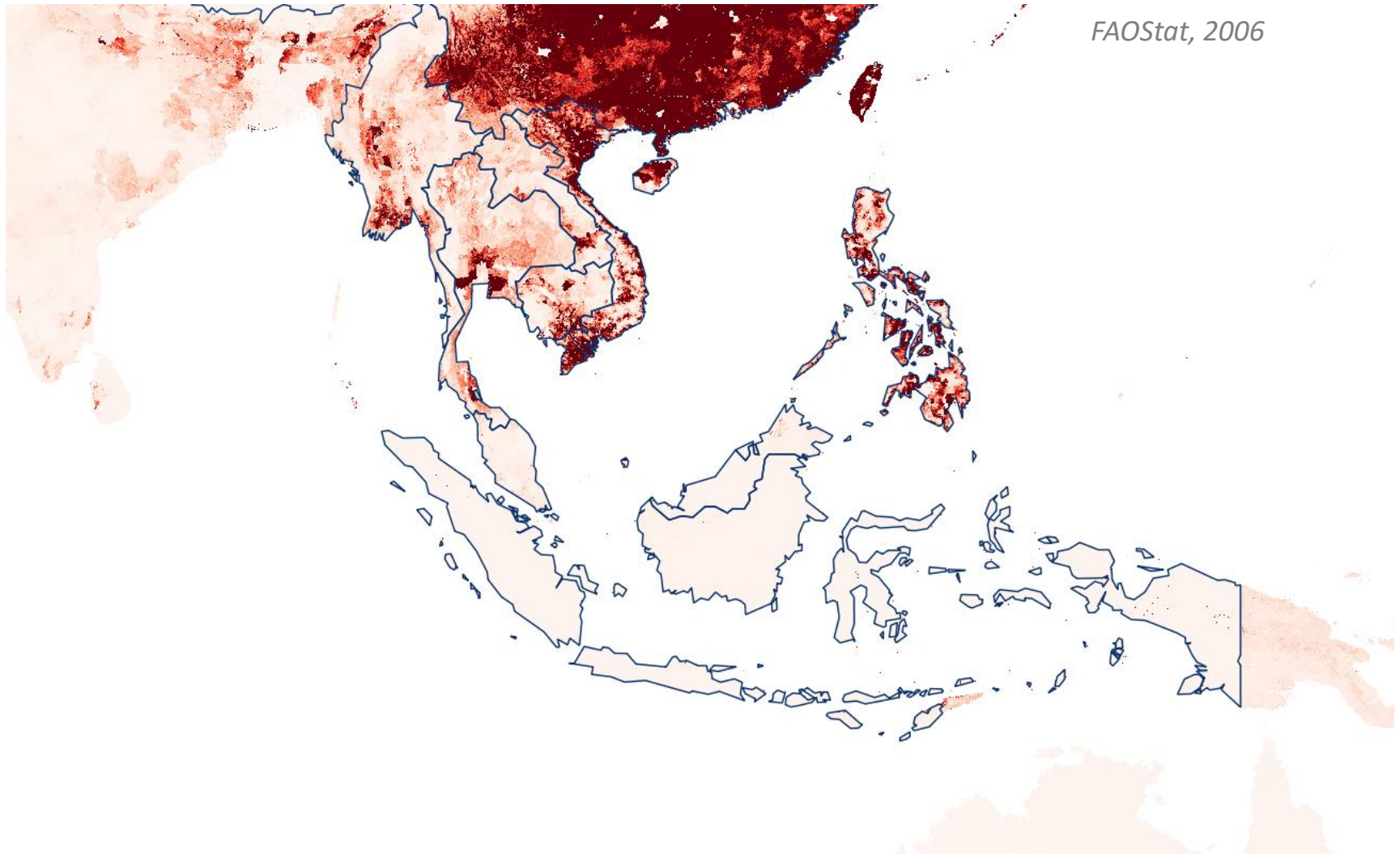
Pig Production System and Value-Chain in South-East Asia

1st SGE-Asia Meeting
10 April 2019, Beijing, China

Pigs in South-East Asia

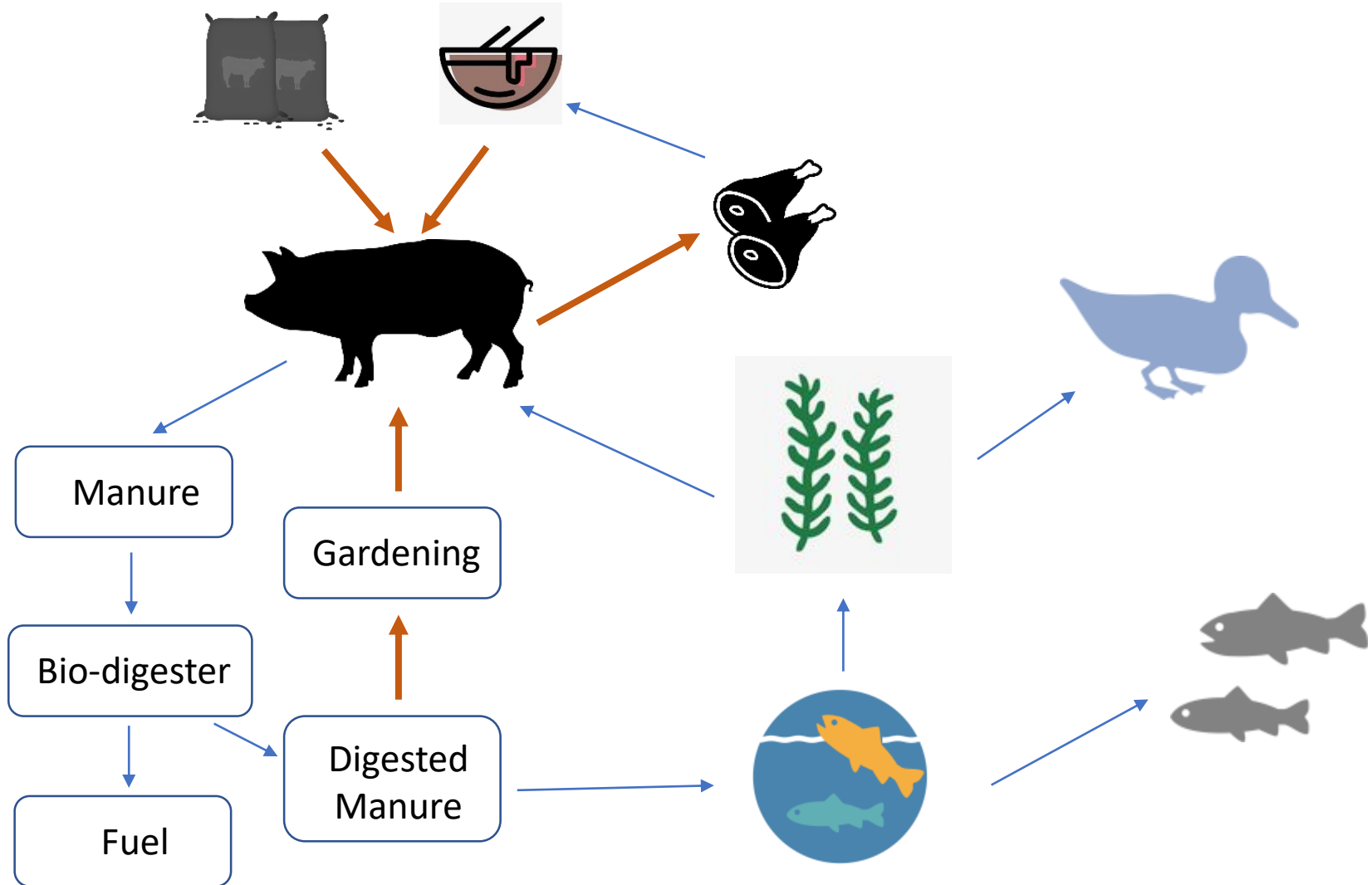


Pig Density in South-East Asia



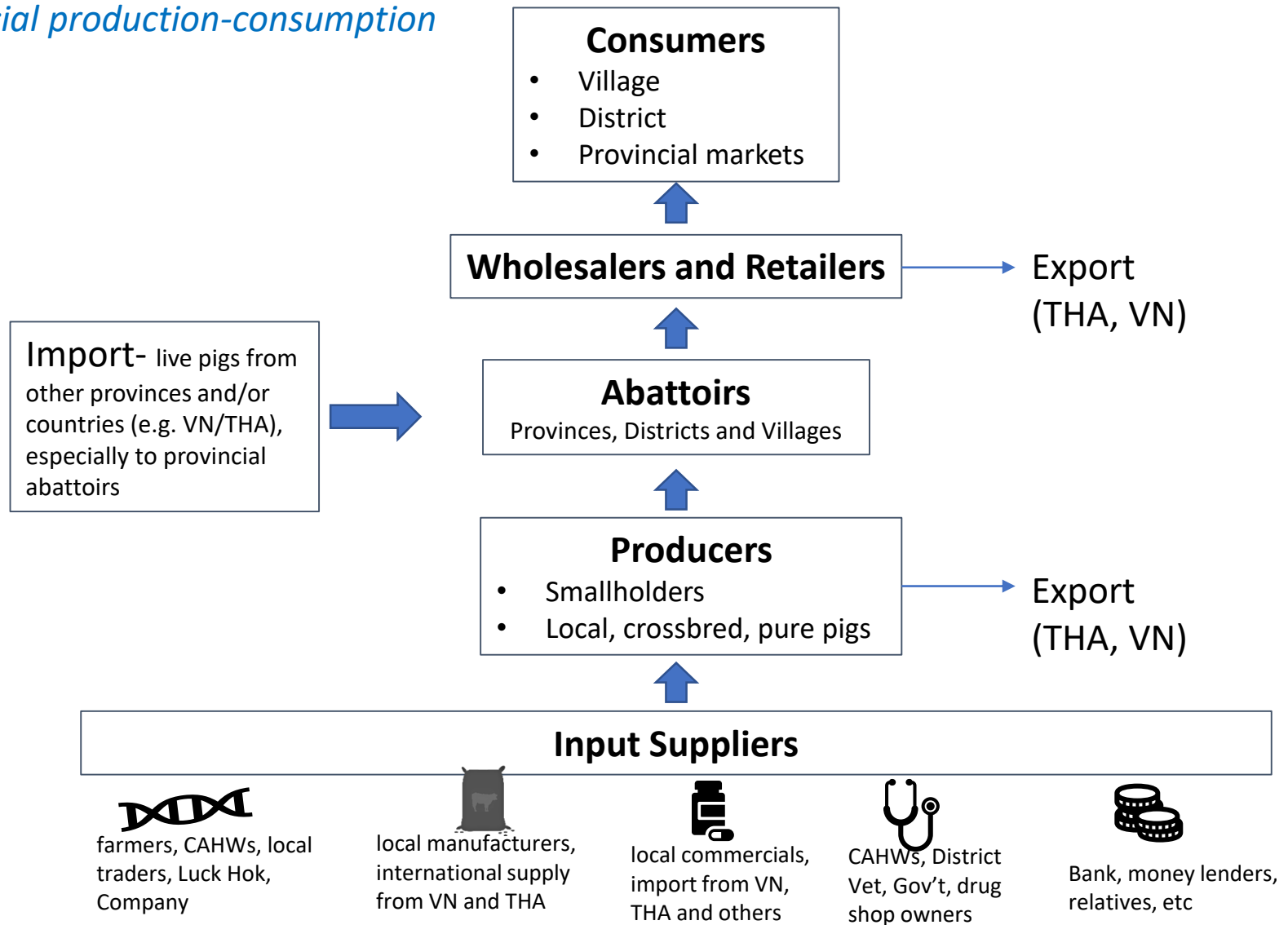
Pig is a major meat source for GMS countries and the Philippines

Integrated pig–fish–duck–vegetable system in Countries around South China Sea



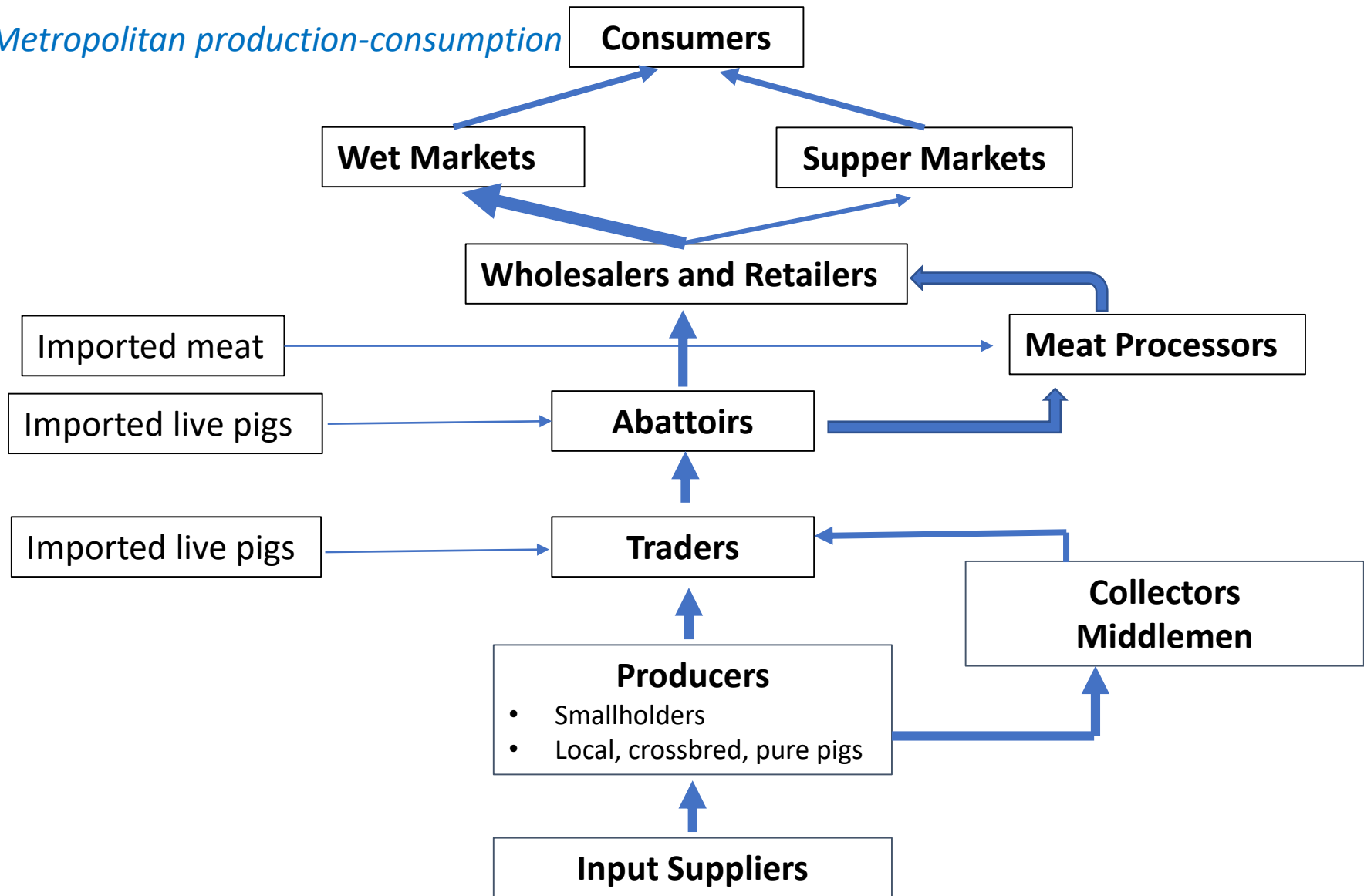
Typical Pig Value-Chain in SE Asia

Provincial production-consumption



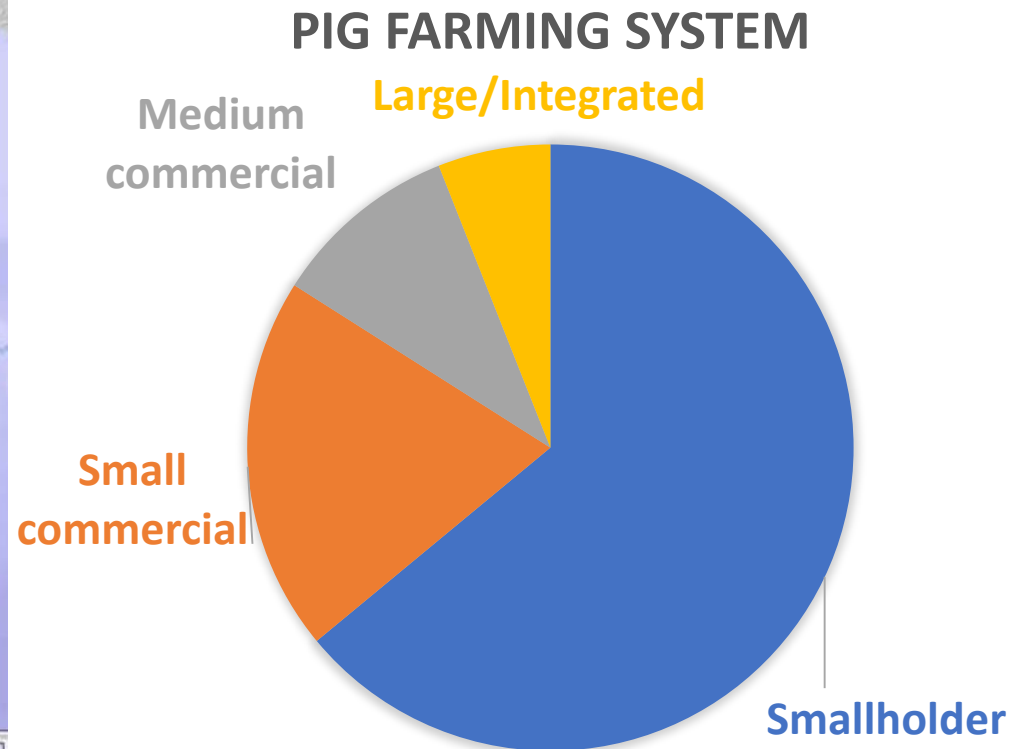
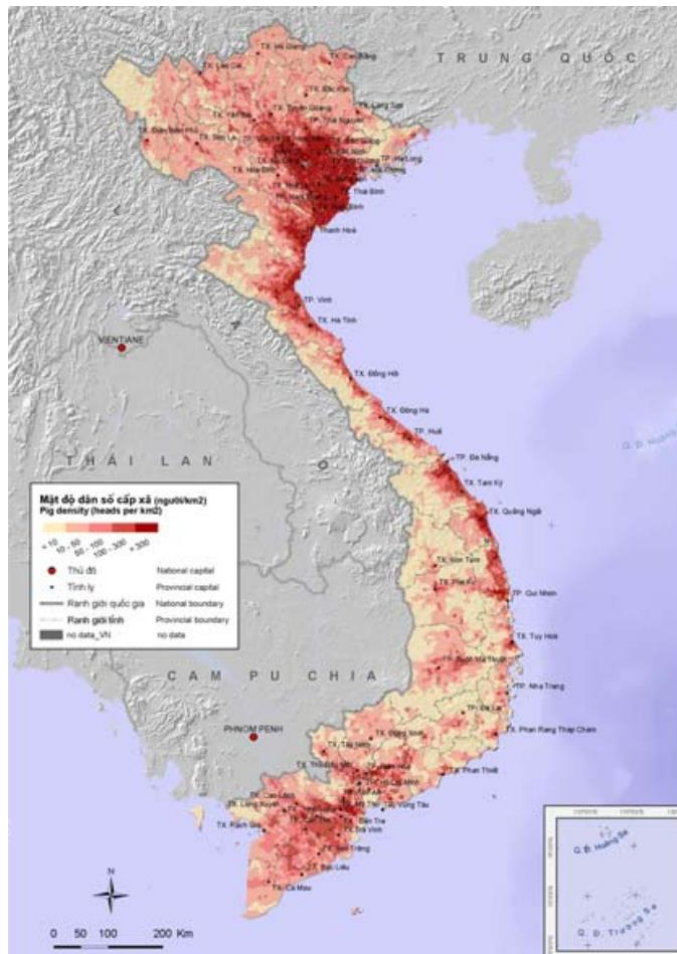
Typical Pig Value-Chain in SE Asia

Metropolitan production-consumption



Vietnam: Pig Farming System

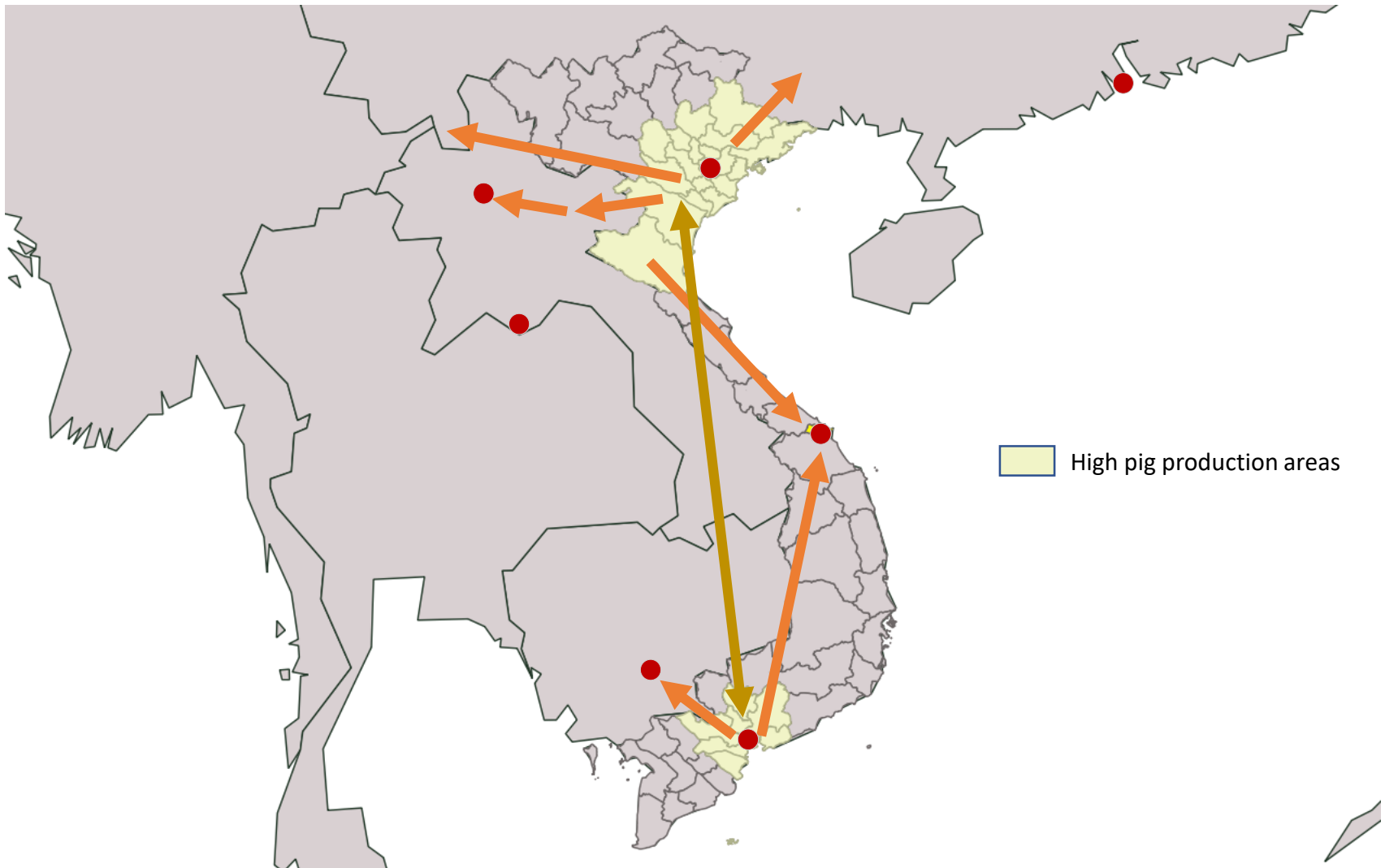
Raw pig density (head/km²)
2005



Phil Psilos, smallholder Swine-Pig Meat Production in Asia

Dinh Xuan Tung, et al, Current Status and Prospects for the Pig Sector in Viet Nam: A Desk Study

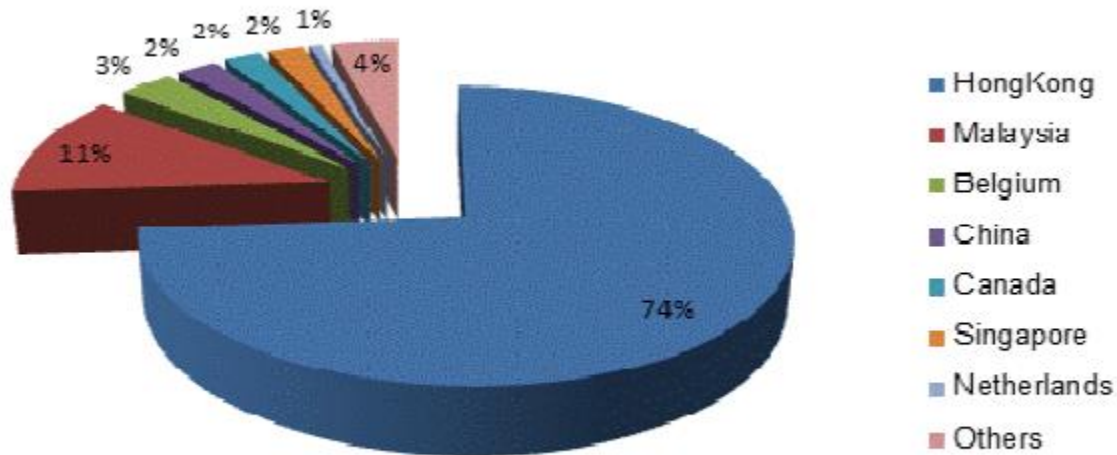
Vietnam: Pig Movements



Domestic movements to supply demands in big cities and a net exporter

Vietnam: Pork Exportation

Top importers of meat from Vietnam (% of value), 2007-2012



Data from Vietnam General Customs

Vietnam exports mainly frozen suckling pigs, and in the past it exported to Western countries but at present, most exports are live pigs to China

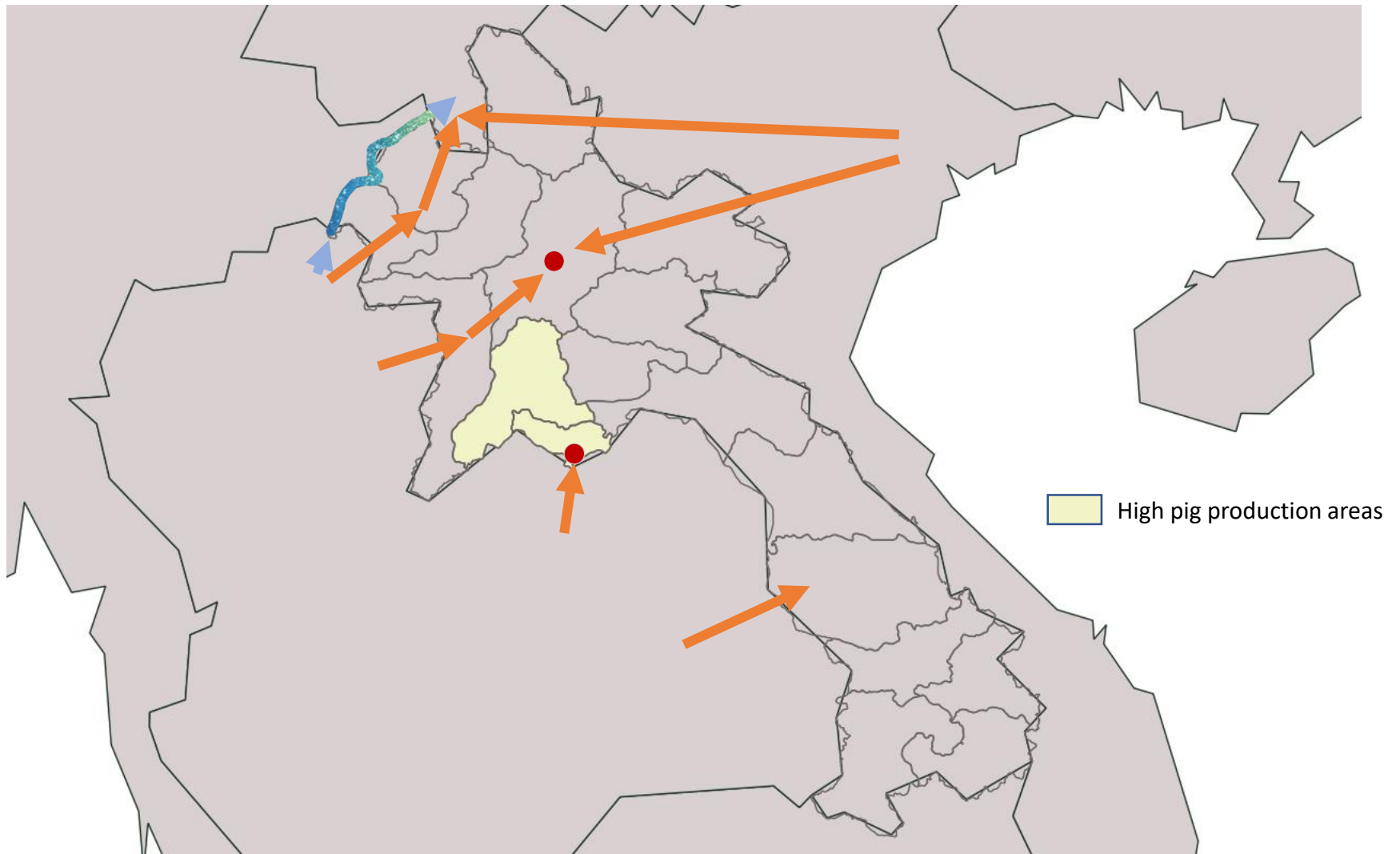
Vietnam: Pork Consumption

- Pork represents more than 70% of meat consumption in Vietnam, and pig production provides livelihood for more than 4 million small farmers in the country
- 93% pork consumed fresh, and 7% go to food processing companies (10% in big cities)
- Most pork consumed within 10km of slaughter site
- Pork production is constrained by a lack of improved feed, poor quality and low hygiene slaughter and processing facilities

Laos: Pig Farming Systems

- 64% of households are involved in pig production, which totally contributes to 96% of total pig production
- The average number of pig per household is 1-4 animals
- A mixture of extensive (free-roaming) and intensive (fattened in pens for local markets)

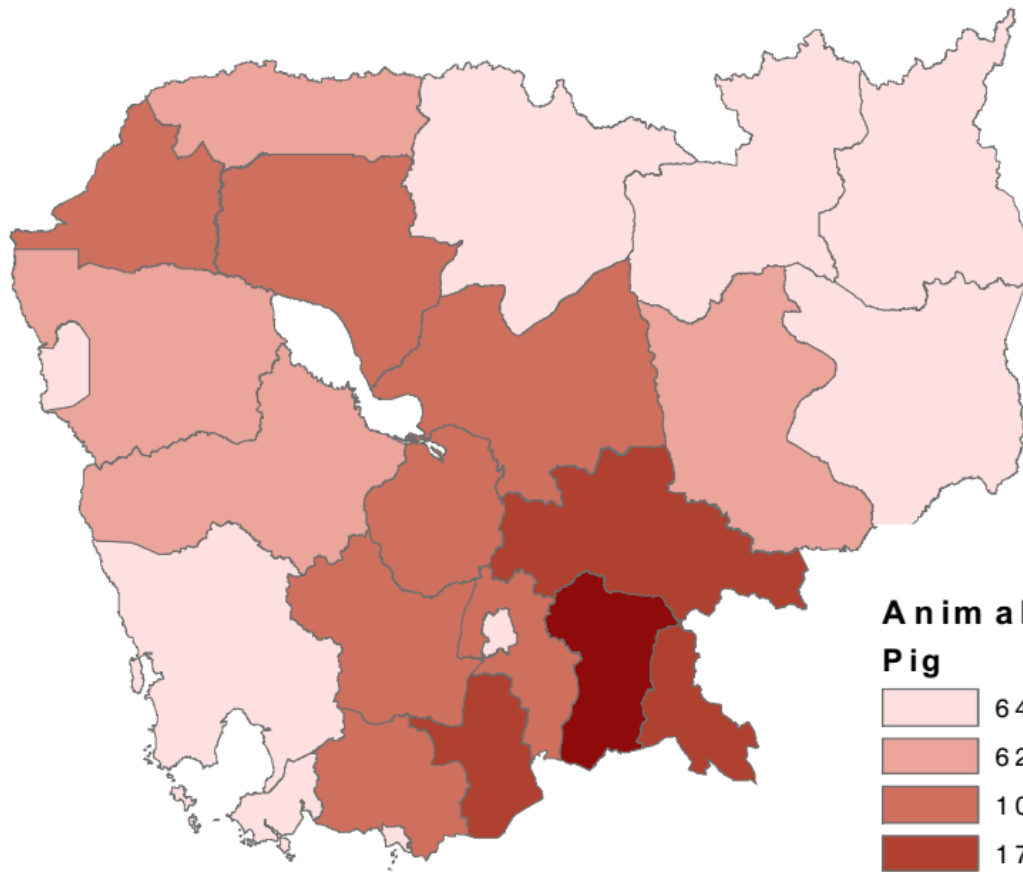
Laos: Pig Movements



Net importer of pigs and pig products; transiting movements of live pigs into China

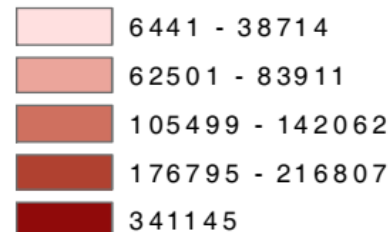
Cambodia: Pig Farming System

Pig Population in 2008

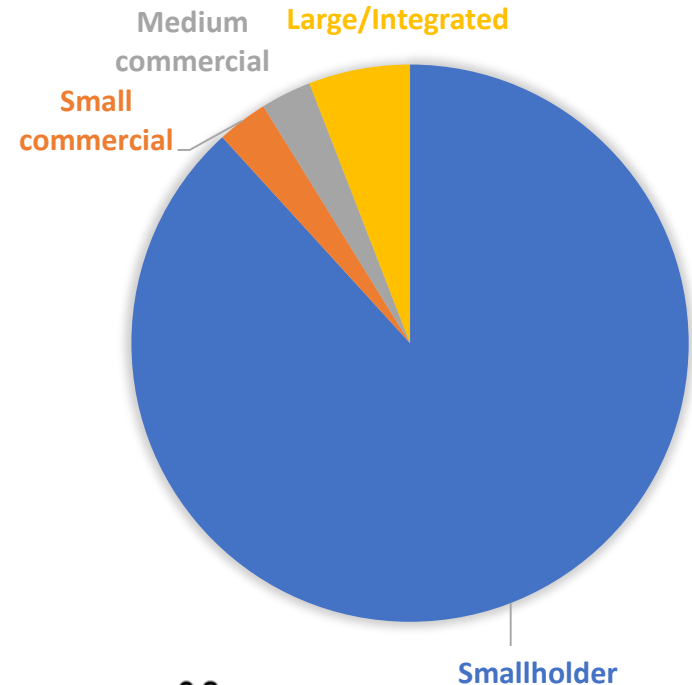


Animal census 08

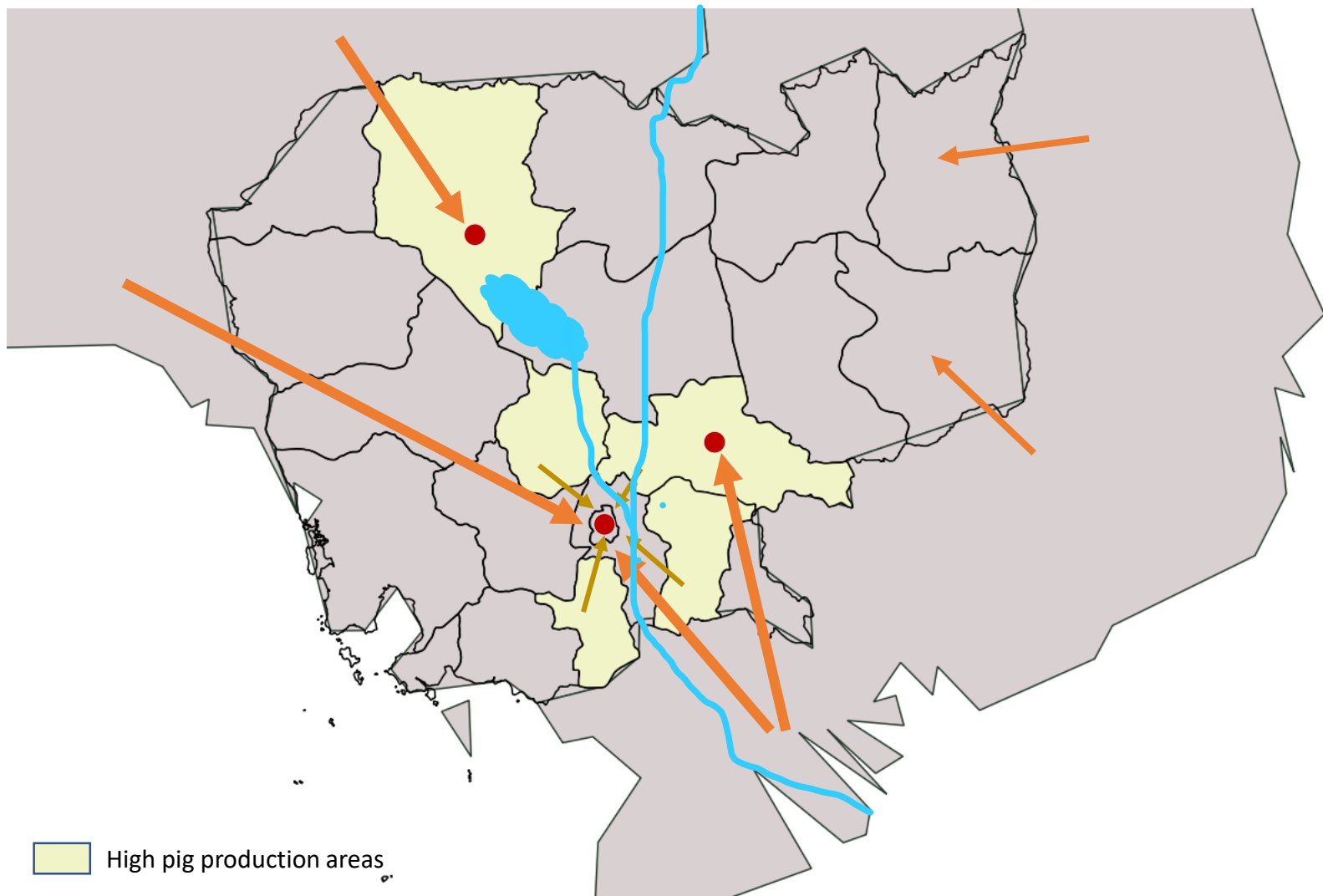
Pig



PIG FARMING SYSTEM



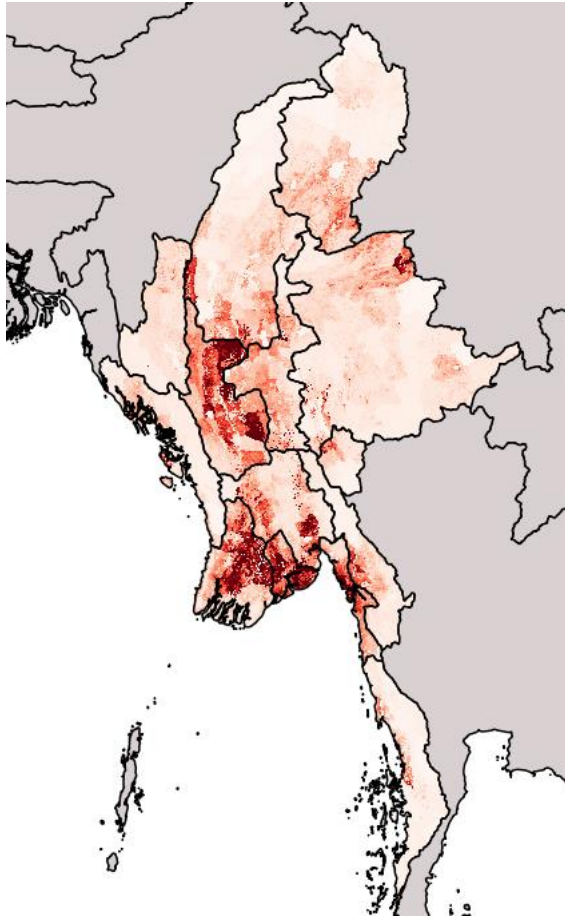
Cambodia: Pig Movements



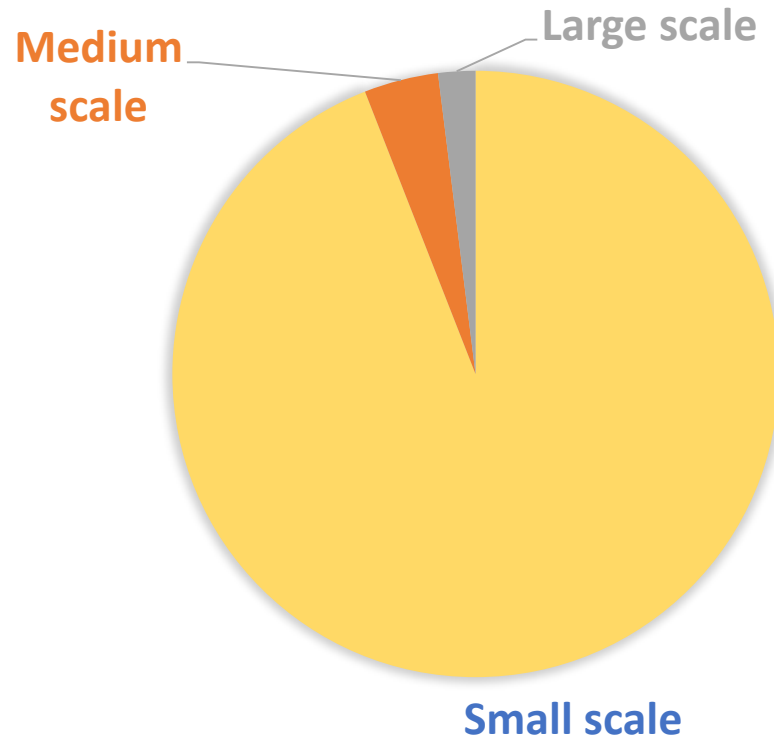
Domestic movements to supply demands in big cities and a net importer

Myanmar: Pig Farming System

Pig Density in 2006, FAOStat

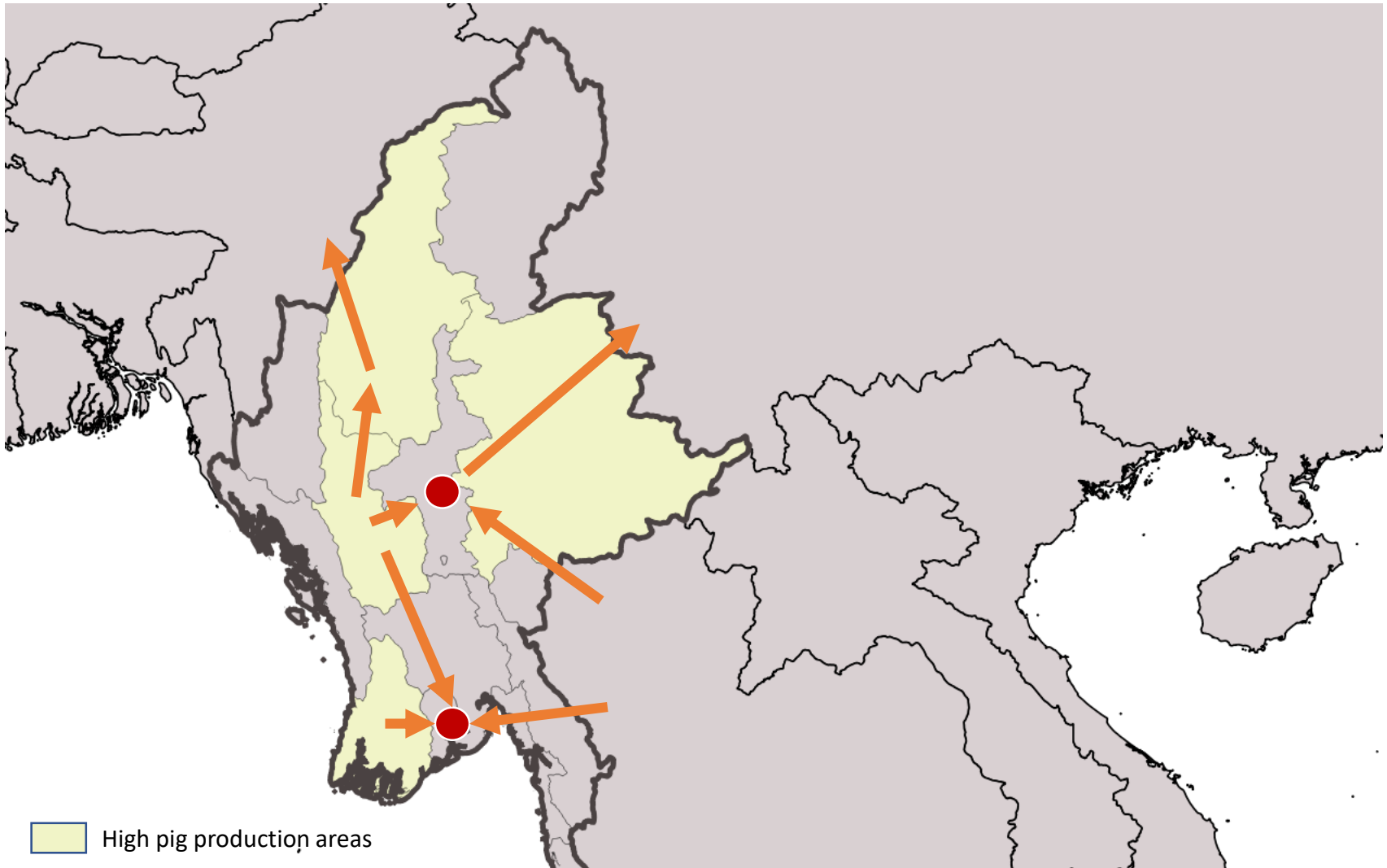


PIG FARMING SYSTEM



Nearly 95% of pigs are raised in small-scale farm, which is a main source for meat supply for local consumption.

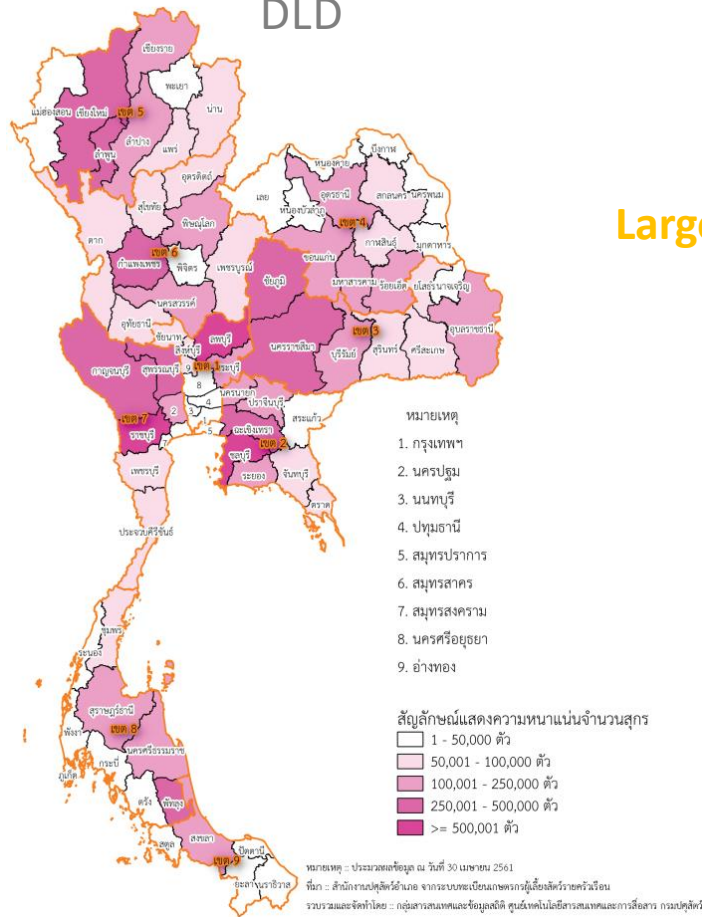
Myanmar: Pig Movements



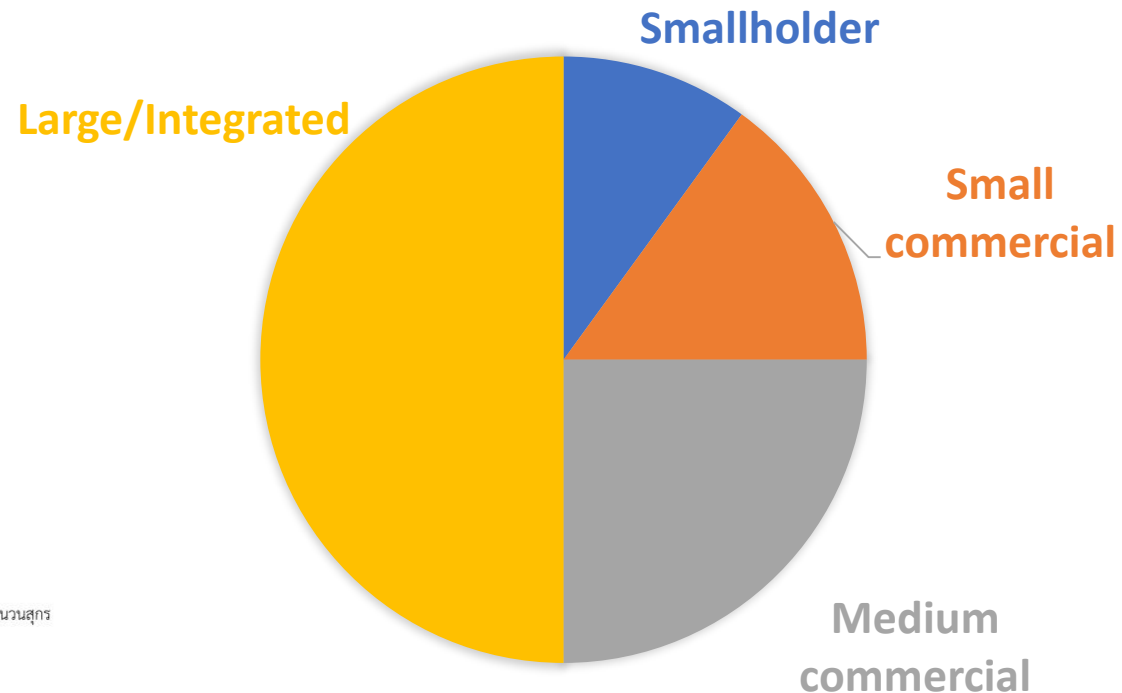
Domestic movements to supply demands in big cities; import/export/transiting movements

Thailand: Pig Farming System

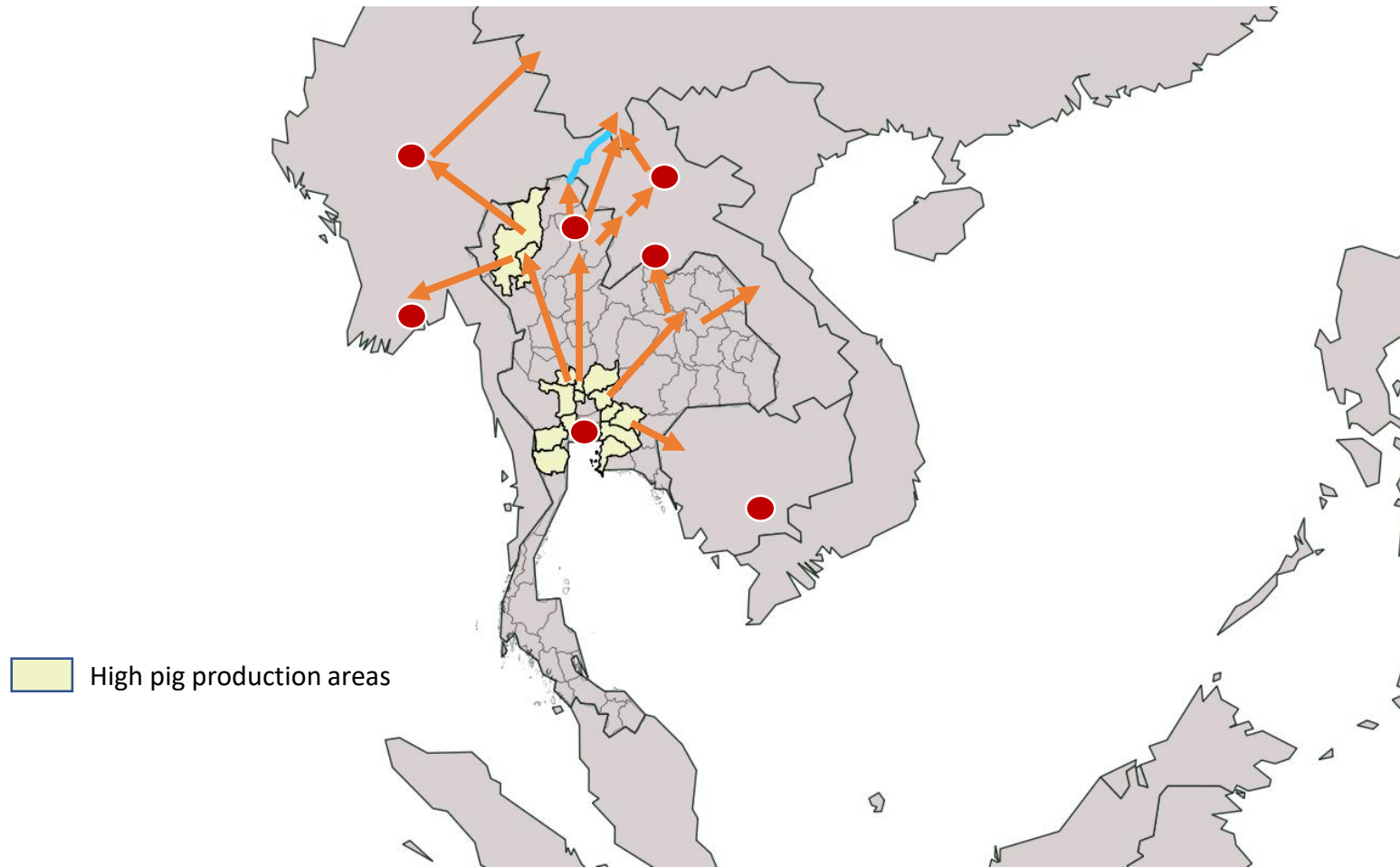
Pig density, 2018
DLD



PIG FARMING SYSTEM

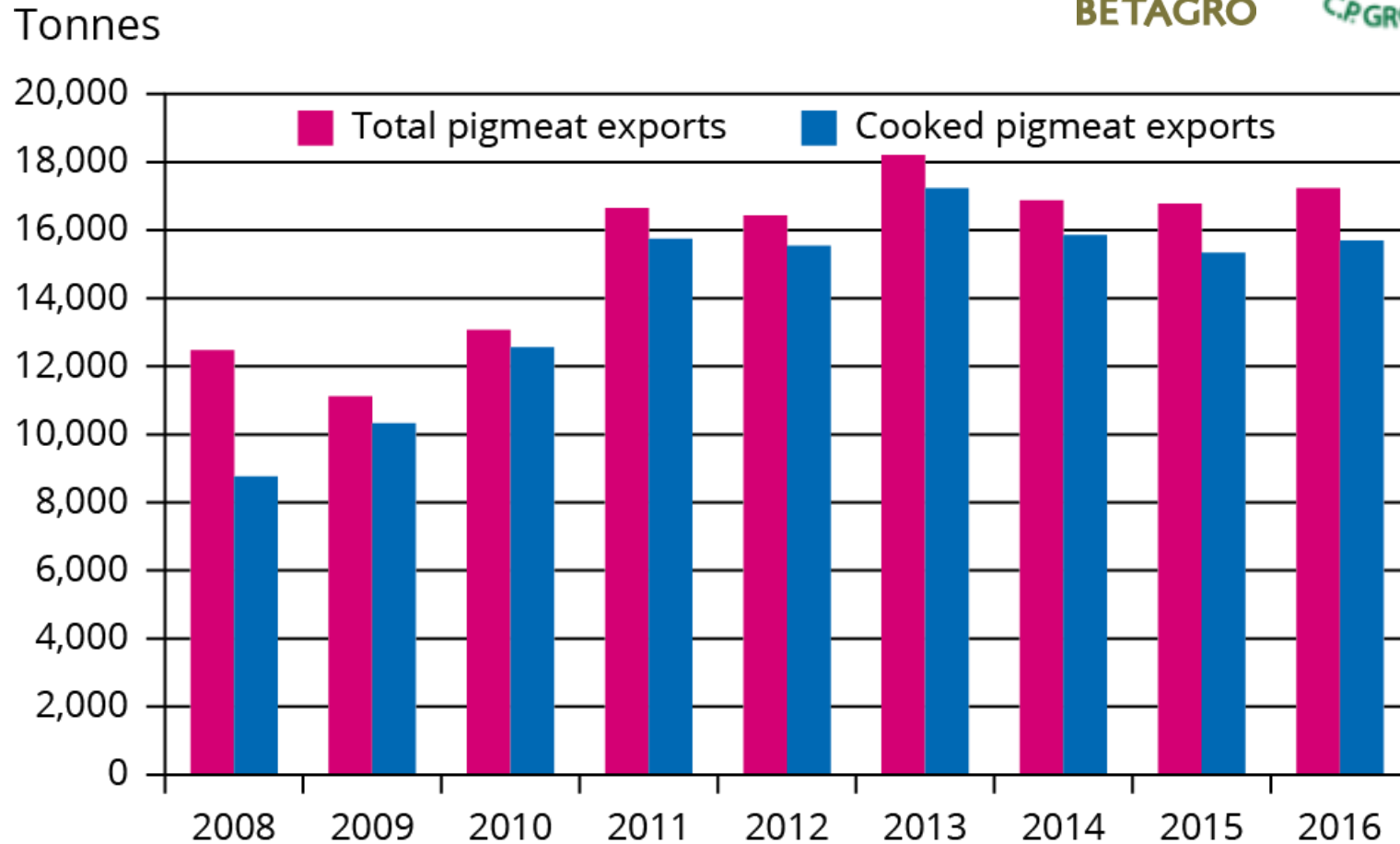


Thailand: Pig Movements



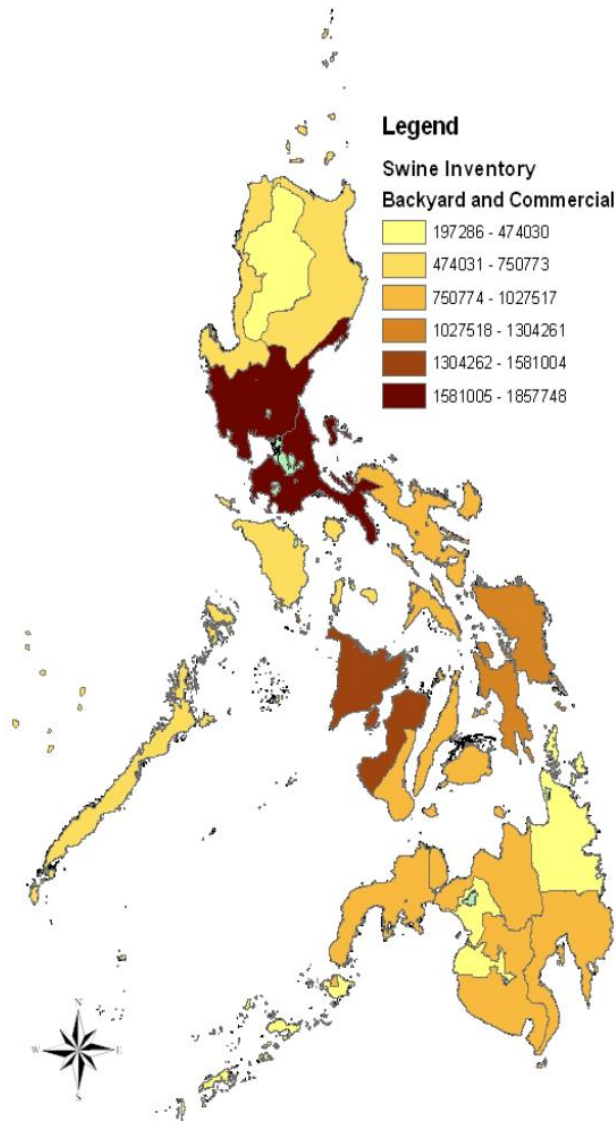
High level industrialized production; net exporter of pigs

Thailand: Pork Exportation



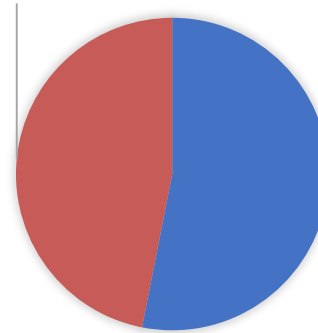
Constant high level of pork exportation

Philippines: Pig Production System

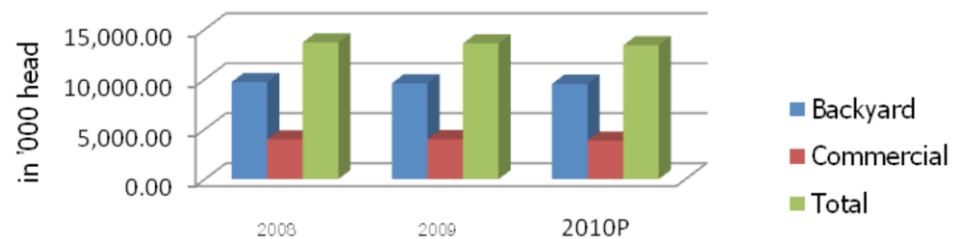


PIG FARMING SYSTEM

Commercial (>100 pigs)

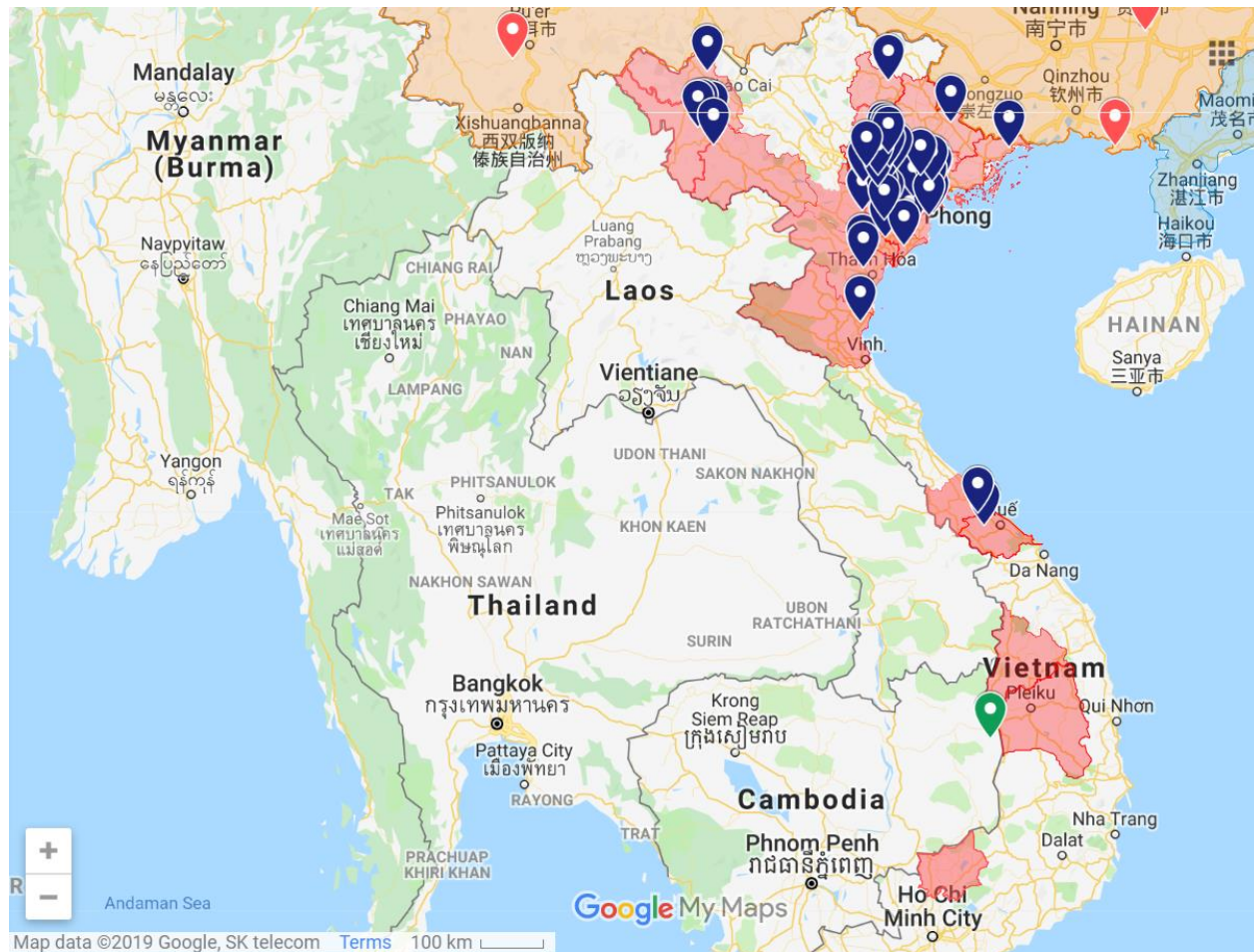


Smallholder



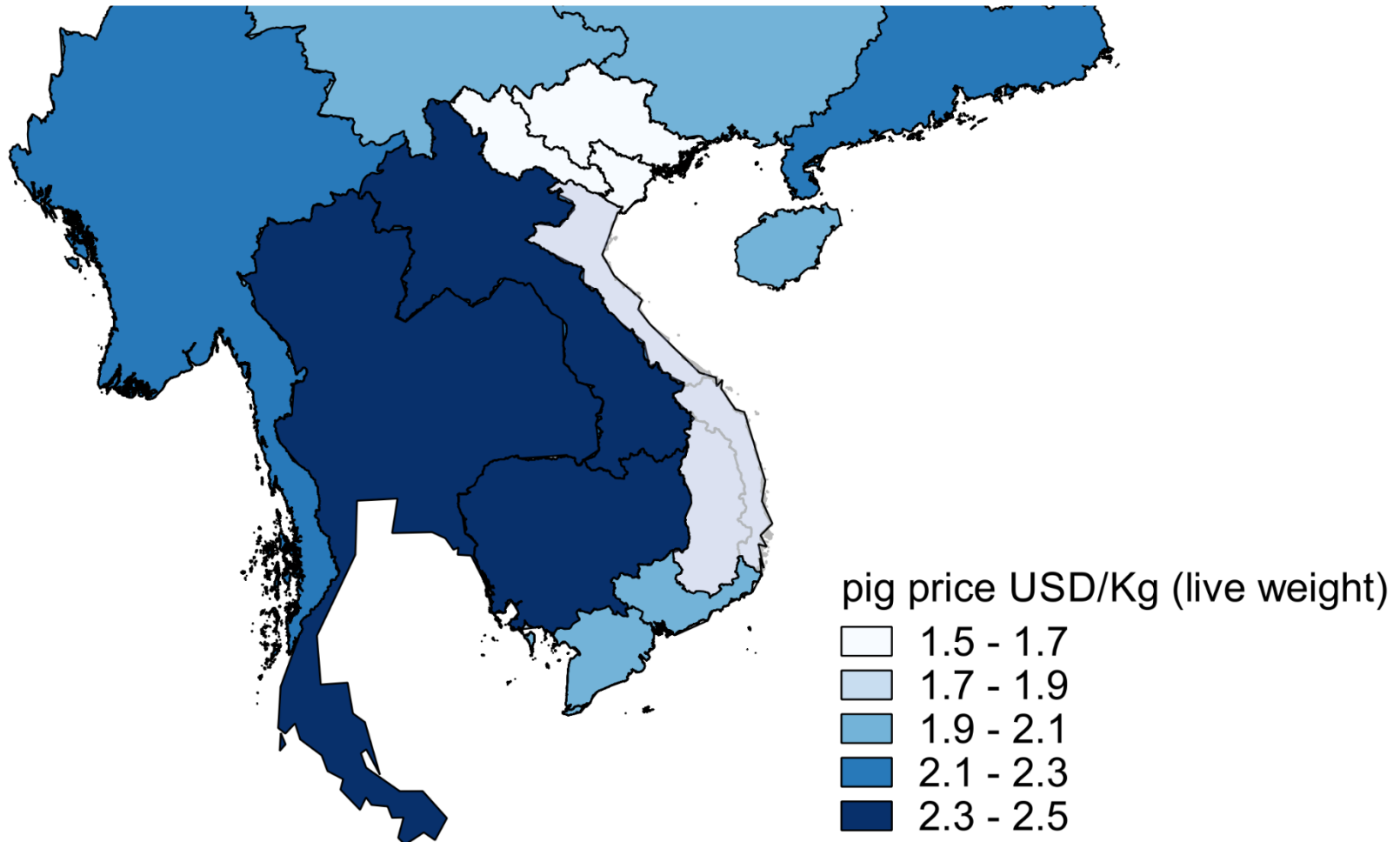
Maria Angeles Ocampo Catelo et al, 2008. Structural Changes in the Philippine Pig Industry and Their Environmental Implications.

ASF Outbreaks in SE Asia, updated on April 4, 2019



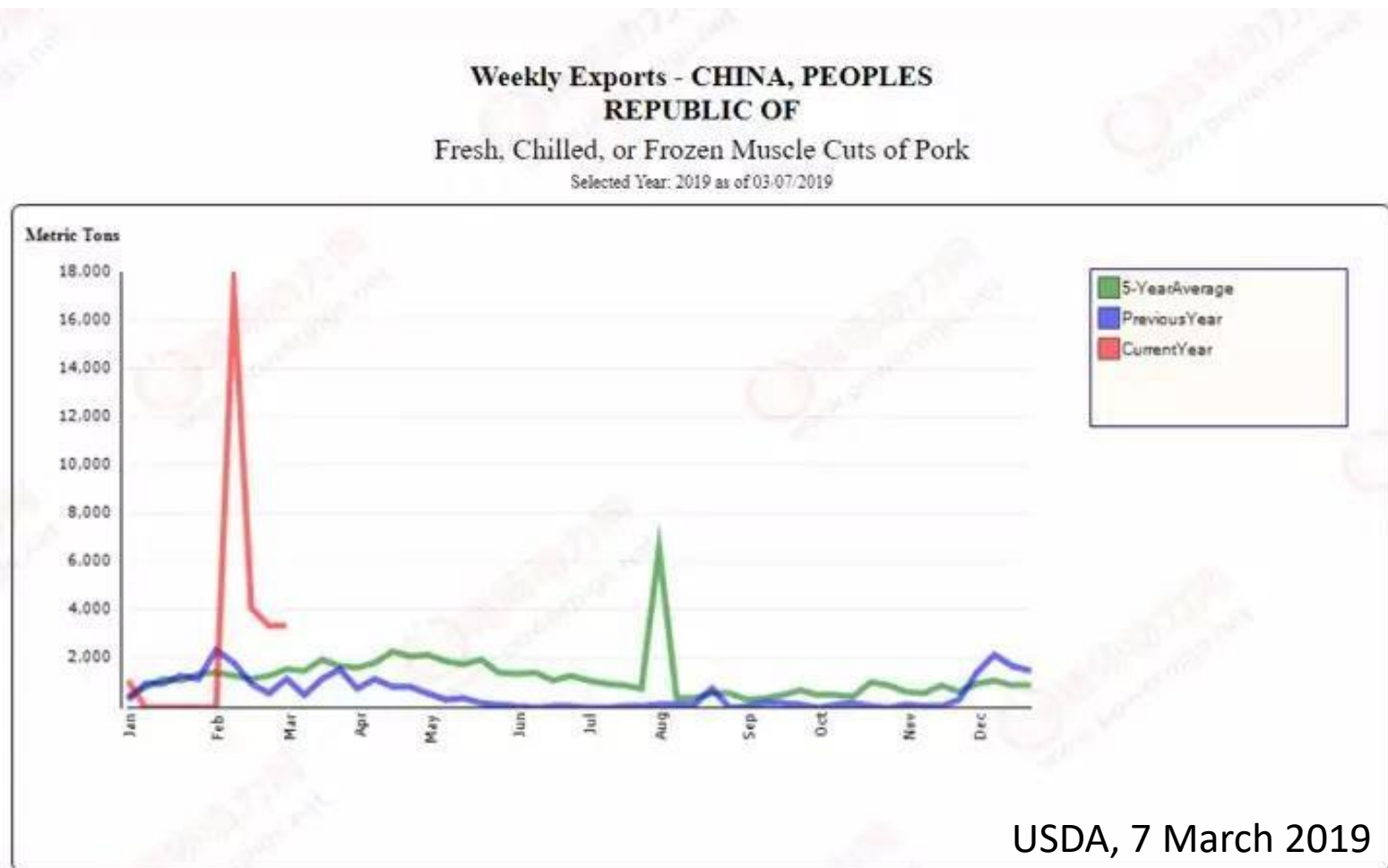
Pig price differentials in the subregion

March 2019



Lowest pig price in Vietnam, especially in ASF affected areas

Pork demands in China



Pork demands in China may drive increased unofficial movements from SE Asia

More research is needed!!!



Conclusions

- The vast smallholder, low-biosecurity pig production system makes SE Asia at very high risk of ASF
- Short/medium/long-distance spread of ASF are likely attributed to different risk factors
- ASF outbreaks will likely lead to long-distance pig movements, driven by the price differentials and sociological factors
- Cross-border spread of ASF is difficult to control due to the long and porous borders between countries
- Once ASF outbreaks occur, the environment is likely to be heavily contaminated due to the heavy environment-relying and multi-integrated production system
- ASF crisis may cause significant changes to the current pig production and value chain system
- More in-depth research in the value chain is needed to support the compartmentalization approach

Surveillance and control of ASF should consider the local production system and socio-economic culture

References for the movement data

- A. Costales, 2007. Pig systems, livelihoods and poverty in South-East Asia: current status, emerging issues, and ways forward.
- E. Baudon et al, 2015. Analysis of swine movements in a province in Northern Vietnam and application in the design of surveillance strategies for infectious diseases.
- FAO, 2012. Pig value chain study on disease transmission in Cambodia.
- FAO, 2012. Swine health management.
- Ma. Lucila et al, 2015. Review of the pig sector in Vietnam.
- OIE, 2019. Risk assessment study to support safe cross-border trade of FMD-susceptible livestock from Lao PDR and Myanmar to China.
- Phil Psilos, 2007. Smallholder swine-pig meat production in Asia.
- T.T.T. Huynh et al, 2007. Pig production in Cambodia, Laos, Philippines, and Vietnam: A Review.
- Vinod Ahuja, 2012. Asian Livestock. Proceedings of an international policy forum held in Bangkok, Thailand, 16-17 August 2012.

Thanks for your attention!

谢谢!



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