

Economic Aspects of Wildlife Farming

Analysis of household surveys from two Vietnamese provinces

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Background

Vietnam is a global hotspot for wildlife trade and farming, with thousands of licensed operations raising species such as civets, porcupines, bamboo rats, snakes, and wild boar for meat, traditional medicine, and the exotic pet trade (Van Thu et al., 2023). The sector poses significant public health risks due to the potential for transmission of novel zoonotic diseases (Latinne & Padungtod, 2025). Understanding the economics of this sector is critical to developing effective policy for managing and de-risking wildlife supply chains but data is scarce, typically based on small sample sizes and limited study sites (Thuy et al., 2021). This note provides descriptive statistics regarding the economics of wildlife farming in two provinces of Vietnam, based on a survey of wildlife farming households.

Methods

We use survey data from structured quantitative household interviews of wildlife farmers in the provinces of Lao Cai in northern Vietnam and Dong Nai in the south. Knowledge, attitudes, and practices relevant to zoonotic disease transmission risk among the producers in this sample have previously been described by Nguyen et al. (2025). The producer sample was selected from administrative lists of operations rearing bats, bamboo rats, civets, or wild boars, in districts with significant wildlife production activity, after stratifying by district and farm size (46 in Lao Cai, 164 in Dong Nai). Interviews were conducted between November 2023 and February 2024.

A wildlife farmer was defined as anyone directly engaged in the captive breeding, raising, or keeping of wild animal species, or in harvesting bat guano for commercial or household use. This included farm owners, co-owners, and hired workers who conducted routine tasks such as feeding, enclosure cleaning, animal handling, or collecting wildlife products. Individuals were eligible to participate in the survey if they were ≥ 18 years old and provided informed consent. Those who declined participation were replaced with

other eligible individuals. Anyone not actively involved in wildlife farming was excluded. One participant was enrolled per farm, prioritizing the owner or the person most involved in day-to-day activities.

While the primary focus of the survey instrument was on biosecurity procedures and how wildlife species are maintained and raised, the inclusion of data on purchases and sales enables us to describe some pertinent economic characteristics of the trade in these animals in these areas.

Respondent Characteristics

Table 1 presents summary statistics on survey respondents. Producers in the analysis sample were adults, with a median age of 46 years. Respondents were predominantly but not exclusively male, with female respondents comprising 37% of the sample. Approximately four-fifths of the sample (81%) were from the majority Kinh ethnic group, with the remaining 19% coming from a range of minority ethnic groups in Vietnam, of which the largest share were Tày (8%). Almost all respondents were married (92%) with a large share (84%) owning their farm, while the remainder either worked on a family farm owned by another household member (9%) or worked on the farm as a hired laborer (9%).

Table 1: Characteristics of wildlife farmers in survey sample

	Mean	SD	Min.	Max	Obs.
Age	46.67	12.35	22	77	210
Is female	0.37	0.48	0	1	210
Is married	0.92	0.27	0	1	210
Ethnicity: Kinh	0.81	0.39	0	1	210
Is owner	0.84	0.37	0	1	210
Is hired laborer	0.06	0.24	0	1	210
Is family laborer	0.09	0.28	0	1	210
No other occupation	0.11	0.32	0	1	210
State employee	0.08	0.27	0	1	210
Private employee	0.03	0.18	0	1	210
Trader	0.35	0.48	0	1	210
Conventional farming	0.49	0.50	0	1	210
Livestock farming	0.38	0.49	0	1	210
Share of income from wildlife	39.55	29.52	0	100	112

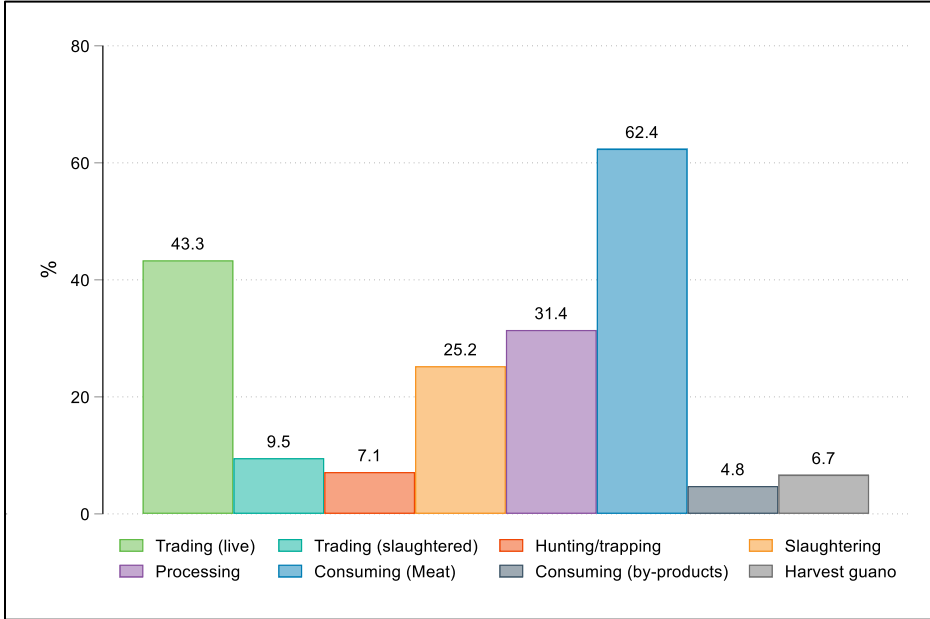
Only 8% of the sample reported wildlife farming as their sole occupation. Less than 10% of the sample worked in formal employment, with 35% reporting earning money via trading or commercial activities.

Around half of the sample (49%) were engaged in other farming activities, with 38% of respondents personally reporting livestock farming as their occupation (52% of farms had livestock present at the time of the survey). Wildlife was an important source of income for survey respondents, comprising an average share of slightly less than 40% of total income, with 9% of the sample reporting it as their sole income source.

Activities and sourcing

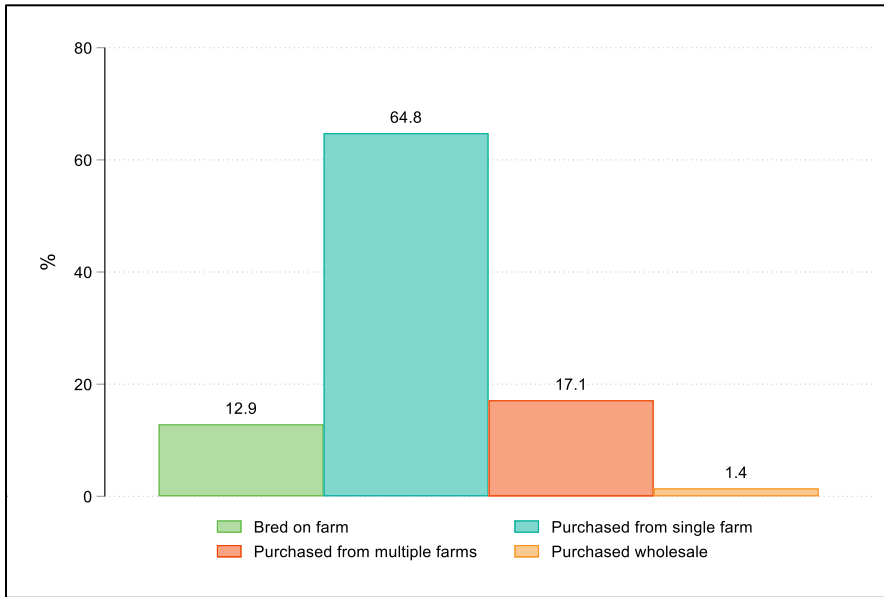
Figure 1 shows activities carried out by wildlife farming households in the analysis sample.

Figure 1: Wildlife-related activities reported by sample farmers



As Figure 1 shows, respondents did not exclusively rear wildlife species for commercial sale. Of the sample, 43% reported having sold at least one species of wildlife live, while 10% reported having sold slaughtered animals. Household consumption of wildlife species was widely practiced, with 62% of households reporting raising one or more species to eat, and 5% reporting consumption of animal by-products. 25% of respondents reported slaughtering animals on farm, while 31% reported some form of processing of animal carcasses or byproducts. Only 7% of respondents reported hunting or trapping wildlife species themselves. As hunting and trapping of wildlife is illegal in Vietnam, these activities may be under-reported (Pham, 2020). Figure 2 below summarizes how wildlife were sourced, according to respondents.

Figure 2: Reported source of current stock of wildlife

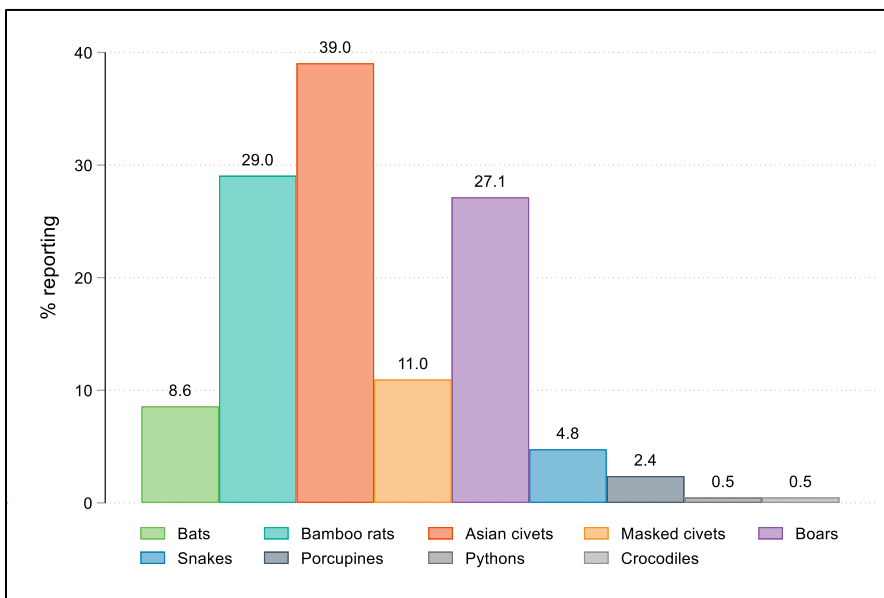


In line with the small (reported) share of respondents engaged in trapping or capturing wildlife species directly, the most common source of current wildlife stocks was through purchase from other farms. 65% of respondents reported obtaining a given species from a single farm, with 17% reporting having purchased a single species from multiple farms. Large-scale trading is rare, with only 1% of respondents reporting having obtained animals via a wholesale trader, while 13% report having bred their current stock on farm.

Types of wildlife

74% of respondents in our sample reported raising a single wildlife species, 20% report raising two, and the remaining 6% raised three or four. Figure 3 reports the share of farmers raising each type of wildlife.

Figure 3: Wildlife reported by sample farmers



The animals most commonly raised by farmers in the sample are civets, a small cat-like carnivorous mammal. 47% of the sample report raising at least one type of civet, with 39% reporting raising common or Asian palm civets (*Paradoxurus hermaphroditus*) and 11% reporting raising masked palm civets (*Paguma larvata*). The next most commonly reported animals are bamboo rats (29%), a designation which includes multiple species of rodents from the tribe *Rhizomyini*. These are commonly regarded as agricultural pests due to their propensity to eat crop roots, but also a common food source in some areas. 27% of respondents report rearing wild boars (*Sus scrofa*). 9% of farmers report harvesting guano from bat caves on or in close proximity to their farmland for fertilizer (concerningly one respondent also reported consumption of wild bat meat). Small numbers of respondents also report other species including snakes, porcupines, pythons and crocodiles.

Producer Aims

Producers report varied motivations for raising different types of wildlife. Table 2 presents the stated reason(s) for raising each of the four most common species in the dataset.

Table 2: Stated reasons for raising wildlife, by wildlife type

	Purpose of raising				N
	Consumption	Sell for meat	Breeding	Medicine	
Bamboo rats	19.4%	54.8%	91.9%	1.6%	62
Asian palm civets	4.8%	38.1%	94.0%	0.0%	84
Masked palm civets	13.0%	65.2%	87.0%	0.0%	23
Wild boars	69.5%	84.7%	42.4%	0.0%	59

For these species, only wild boars are primarily raised for household consumption (70% of respondents) in contrast to bamboo rats (19%) and civets (5% and 13% for Asian and masked palm civets respectively). In contrast to wildlife species in other contexts, almost no respondents reported raising animals for medicinal purposes. Wild boars were predominantly raised for their meat (85% of respondents), while bamboo rats and both types of civet, which were typically bred for live sale. This is also reflected in reported sales data, where live bamboo rats and civets were mostly sold to other farmers, while wild boards were more likely to be sold to intermediaries or directly to consumers (Table 3).

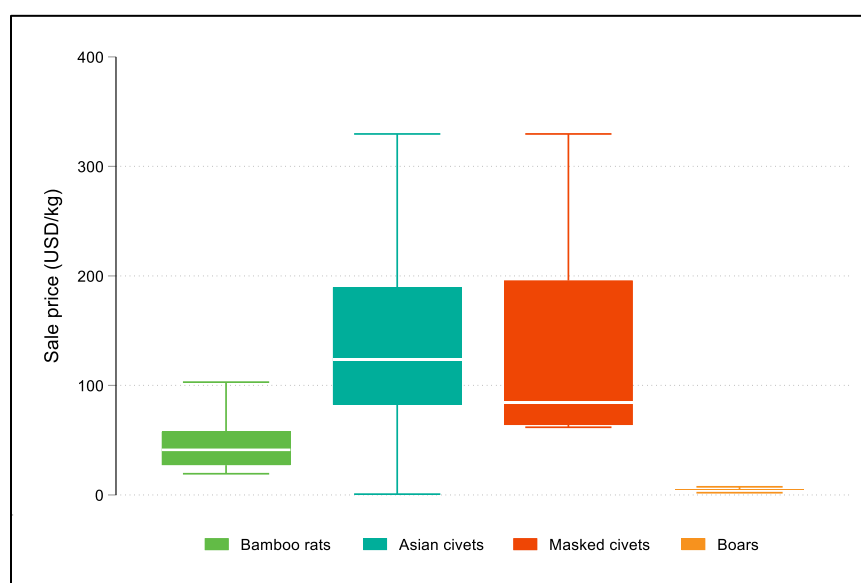
Table 3: Categories of purchaser, by main species

	Share of producers selling to...				N
	Other farmers	Traders	Consumers	Restaurants	
Bamboo rats	65.4%	0.0%	19.2%	11.5%	26
Asian palm civets	90.7%	0.0%	4.7%	0.0%	43

Masked palm civets	40.0%	20.0%	20.0%	20.0%	10
Wild boars	26.9%	40.4%	26.9%	7.7%	52

Figure 4 shows the median (white line), interquartile range (solid box) and 95% CI (whiskers) for the stated sales price per kilo of each of the main species raised by farmers in the sample. As can be observed, on a per weight basis bamboo rats and civets command a substantial price premium relative to wild boar. The median price per kg reported for wild boar is \$3.30 USD/kg, comparable to that of domestic pork meat. This contrasts with the sales price (live weight) of \$41.20 for bamboo rats, \$123.61 for Asian palm civets and \$84.47 for masked palm civets reflecting the luxury price these animals (and in the case of palm civets their byproducts) command in urban centers.

Figure 4: Box & whisker plot of species price, by wildlife type



Conclusion

This note has presented an initial analysis of some economic aspects of wildlife farming in Vietnam. While the data used represents a small sample in two specific areas, it nevertheless demonstrates some important features of this trade. Notably, producers are engaged in a value chain in which animals are, at least reportedly, typically purchased from other farms, and sales to other intermediaries – rather than direct to consumers – are the norm. There is substantial heterogeneity both in the types of species raised and their purpose. Wildlife farming is an important income source for producers in the sample, and the prices of certain species command a premium significantly above domesticated livestock categories. Understanding the economic situation and incentives of producer households is an essential component of developing policy to address a range of priorities including conservation goals, zoonotic disease risk, rural development and human welfare.

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