

OPPORTUNITIES AND CHALLENGES FOR PIG PRODUCTION IN VIENTIANE CAPITAL, LAOS: A REVIEW

SOMSY XAYALATH^{1,2}, MUJITABA MALAM ABULBASHAR^{1,2}, ARTH DAVID SOL V.
ORTEGA^{1,3}, JOZSEF RATKY⁴

¹ Doctoral School of Animal Husbandry, University of Debrecen, Böszörményi Street
138, 4032 Debrecen, Hungary

² Institute of Animal Science, Biotechnology and Nature Conservation, Faculty of
Agricultural and Food Sciences and Environmental Management, University of
Debrecen, Böszörményi Street 138, 4032 Debrecen, Hungary

³ University of Debrecen, Faculty of Agriculture and Food Sciences and Environmental
Management, Institute of Animal Science, Department of Animal Nutrition and
Physiology, Böszörményi Street 138, 4032 Debrecen, Hungary

⁴ University of Veterinary Medicine, 1078 Budapest, István Street 2, Hungary.

*Corresponding author: xayalath.somsy@agr.unideb.hu

ABSTRACT

In Laos, pork is the second most common meat source after fish and its demand is constantly growing annually. Recently, pork has been in short supply in urban and rural areas, forcing the Lao government to import thousands of tons from neighbouring countries, particularly Thailand, Vietnam, and China. In view of the earlier-mentioned, this study aimed to look at the current situation of pork production and supply in Vientiane Capital (VC) and the prospects for pork production in VC, Laos. In 2020, Laos had a pig population of about 4.3 million, with over 91.0 % being native pigs and only 366,000 heads being European pig types, with over 54.0 % being reared in VC. In 2019, Laos had 578 commercial pig farms, with 188 farms (33.0 %) of which were located in VC. Despite the fact that most of the commercial pig farms are located in VC, pork demand is still high, with the consequence that consumers need to pay a high price. For example, in 2020, the average price of pork was 46,000 LAK/kg (\$ 4.00); it rose up by 22.0 % against 2019 and by 11.0 % from 2015. Several feed raw materials (maize, cassava, and rice bran) are produced in VC, and nearby provinces, which the farmers can use to combat the dramatic changes or instabilities of feed price. We concluded that there is a high potential to develop pig production in VC, especially local breeds considering the high demand for premium pork and more available raw feed materials.

Keywords: pig production, pork consumption, prospects pig production

INTRODUCTION

Pig production plays an essential role in the livestock sector in Laos, especially in remote areas where more than 60.0 % of households own at least one pig (EPPRECHT ET AL., 2018). The demand for pork is rising in the main cities in Laos; Vientiane Capital (VC) has the highest population density and highest pork consumption requirements. In 2018, the average pork consumption in Laos was 10.4 kg per capita [1], which was higher than the government's planned objective of 7.7 kg per capita in 2020 (XAYALATH ET AL., 2020). These figures might remain low, and it is not surprising considering the pig population, which increased from 3.8 million in 2018 to 4.3 million heads in 2020 (Lao Statistics BUREAU, 2021). This is due to the fact that 91.0 % of the pig population was native pig breeds owned by farmers in rural areas (KEONOUCHANH, 2018), and only approximately 366,000 heads (around 8.5 %) in 2019 were European types owned by companies (MAF, 2020). In 2019, Laos had around 578 commercial pig farms, including 188 farms (33.0 %) of which were located in VC, and approximately 198,000 heads were reared in VC

(XAYALATH ET AL., 2021). Although there are many commercial pig farms in VC, the demand for pork is still high. As a result, the government had to import stocks, pork, and pork products from neighbouring countries. On the other hand, thousands of tons of the main feed materials (e.g., maize, cassava, and rice) were produced in Vientiane Capital. These raw materials are ideal for pig feed production at a lower cost than the commercially prepared feed from the feed mills, which always creates instability for pig production in VC, Laos.

On this note, this study aimed to explore the current pork production and supply situation and the prospects of pork production in Vientiane Capital, Laos.

CURRENT SITUATION OF PIG PRODUCTION AND PORK SUPPLY IN VIENTIANE CAPITAL, LAOS

According to the Vientiane Capital Provincial Agriculture and Forestry Office (VCPAFO) reports, the pig population in VC, increased from 145,000 heads in 2015 to nearly 202,000 heads in 2018. However, it was decreased to 174,000 heads in 2020, a decrease of almost 21.0 % compared to 2019. However, the number of commercial pig farms grew up from 187 farms in 2018 to 194 farms in 2020, but the number of pigs produced by commercial farms decreased from 198,467 heads in 2019 to 157,470 heads in 2020 (VCPAFO 2019, 2020, 2021). The fluctuation in the pig population and commercial pig farms in VC between 2018 and 2020 are shown in (Table 1). Since the Lao government first confirmed ASF's expansion in June 2019, the decline in the pig population between 2019 and 2020 could be linked to the African Swine Fever (ASF) epidemic (Matsumoto et al., 2021). Moreover, the annual report of VCPAFO in 2020 also reported that over 260 sows were killed in 2019 due to ASF infection.

Table 1. The trend of pig farms and pig population in VC, Laos, from 2018–2020

Districts	Pig population (head)			Commercial pig farms (unit)					
	2018	2019	2020	No. of farms			No. of pigs		
				2018	2019	2020	2018	2019	2020
Chanthaboury	23	118	50	0	0	1	0	0	50
Sikhotthabong	1,423	1,508	260	1	1	0	425	520	0
Saysetha	2,625	2,965	3,315	1	1	1	1,200	1,200	1,200
Sisatanake	9	69	10	0	0	0	0	0	0
Nasaithong	81,381	82,393	43,857	90	90	83	80,645	80,954	42,402
Xaithany	67,242	64,838	65,716	55	54	60	62,308	59,908	61,909
Hardxaifong	2,561	987	1,308	1	0	0	1,200	0	0
Sangthong	3,265	17,021	20,234	1	3	3	1,500	14,851	16,858
PakNgeum	43,266	45,400	39,349	38	39	46	38,900	41,034	35,051
Total	201,795	215,299	174,099	187	188	194	186,178	198,467	157,470

Source: Vientiane Capital Provincial Agriculture and Forestry Office (2018, 2019, 2020a)

According to the VCPAFO record, the sows number increased from 6,619 in 2015 to 13,023 in 2020. However, it decreased slightly by 2.0 % in 2019, compared to 2018, then dramatically increased by almost 47.0 % in 2020 (Figure 1). Most commercial pig farms are located in four outside districts, i.e., Naxaithong, Xaithany, PakNgeum, and Sangthong, where there is less population density live in. However, the number of sows is insufficient to produce the fattening pigs to meet the consumers' demand for pork. For instance, more than 5,500 sows were imported from neighbouring countries into VC in 2020, while only

588 sows were imported in 2019. However, there was no importation of piglets in 2020, while more than 21,300 were imported in 2019 (VCPAFO, 2020a).

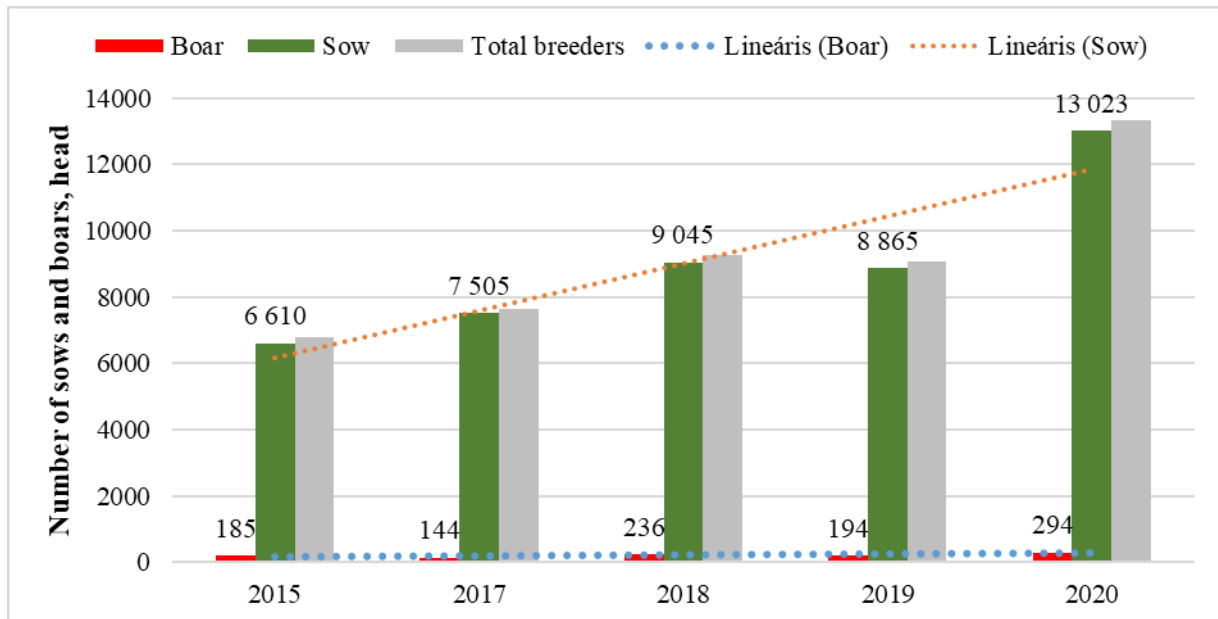


Figure 1. The trend of sows and boars reared in VC between 2015 and 2020

In 2018, the average pork consumption in Laos was 10.4 kg [1], and this number might differ between remote areas and cities. According to the VCPAFO record, pork consumption in VC increased from 21.5 kg in 2017 to 24.8 kg per capita in 2020. The trend steadily increased, while fish consumption was the highest but slightly decreased from 30.6 kg in 2017 to 28.7 kg per capita in 2020 (*Figure 2*). On the other hand, chicken consumption slightly increased from 2.7 kg in 2017 to 4.1 kg per capita in 2020. It seems there is a wide range compared to the demand for pork consumption. This proved that there are huge opportunities to promote the pig production business in Vientiane Capital, Laos.

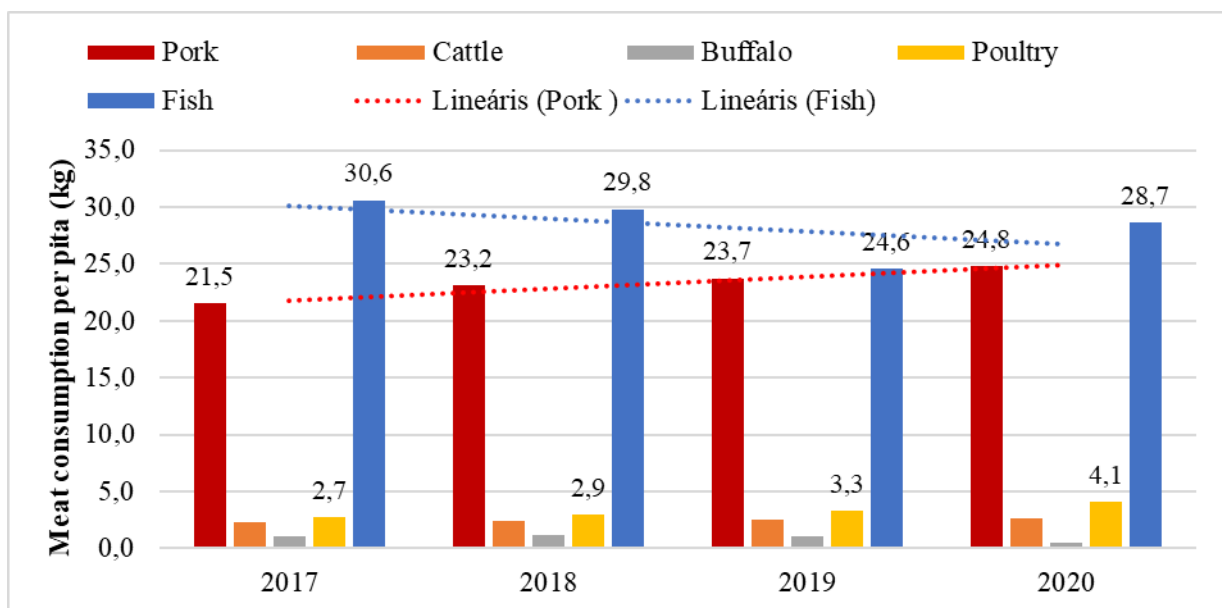


Figure 2. The trend of meat consumption in Vientiane Capital, Laos from 2017–2020

Despite being that most commercial pig farms are located in VC, the consumers are still willing to buy pork at a high price during the last two decades, especially pork produced

from the local indigenous pigs. *Figure 3* demonstrates the general increase in pork prices in Vientiane Capital (Laos) from 2001 to 2020, which increased by almost 128.0 % during this period. The pork price steadily decreased 41,665 LAK (\$ 3.56)/kg in 2015 to 36,898 LAK (\$ 3.14)/kg in 2018, and it dramatically increased from 37,708 LAK/kg in 2019 to 46,297 LAK/kg (almost 22% increased) in 2020. This was assumed that this big jump in the price was due to the ASF (African Swine Fever) epidemic in the second half of 2019, which affected the supply of pork in the market. Moreover, the high price of pig feed forced most smallholder pig producers in VC to stop producing pigs after ASF infection and during the facing of COVID 19 situation.

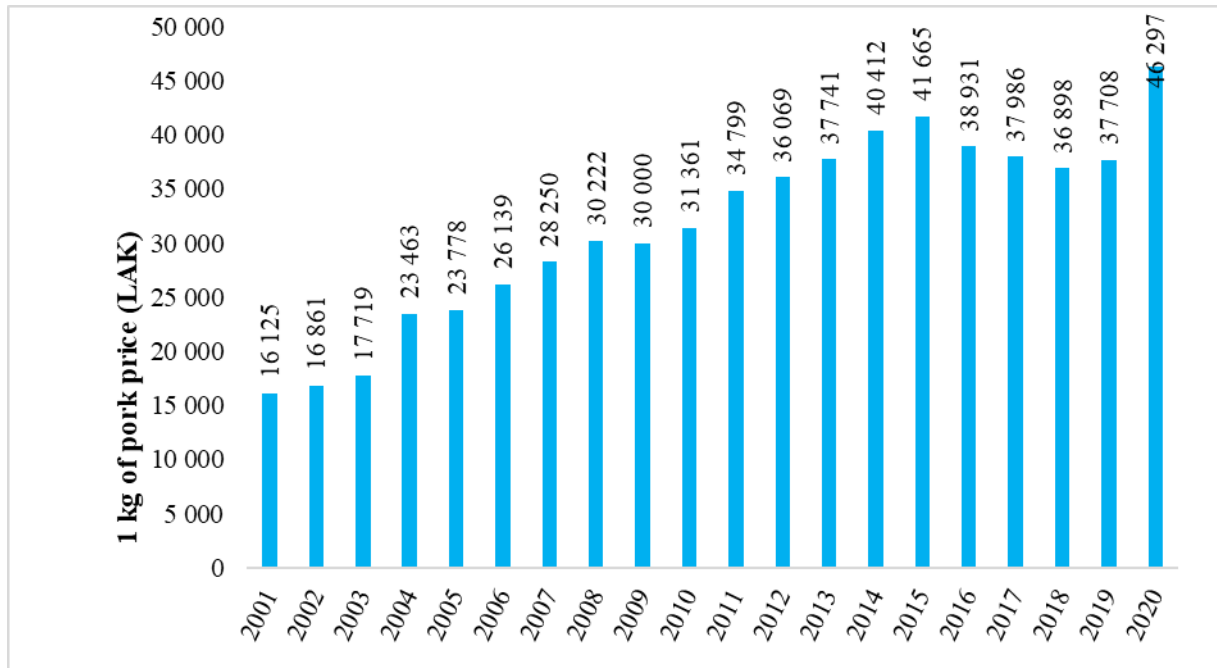


Figure 3. Comparison the trend of pork price per 1 kg from 2001–2020

Maize, rice bran, and cassava are considered the primary raw materials for pig feed in Laos. In 2020, more than 12,000 tons of maize, 305,000 tons of rice, and 43,000 tons of cassava were produced in Vientiane Capital, Laos (Lao Statistics Bureau, 2021). Although many kinds of raw materials for pig feed were produced in VC, still, the supply of these raw materials cannot suffice the needed amount to produce feed; hence sourcing from nearby provinces is important.

Instability of feed price remains the major challenge for pork production in Laos, especially in VC. It might be because most pig producers in VC prefer to use the commercially prepared feed than the self-mixed or on-farm formulated feed. As a result, farmers need to spend a lot of money on feed costs. Moreover, in 2020, there were only two feed factories functioning in VC. Therefore, the government needs to import feed and relative raw materials from neighbouring countries such as Thailand, Vietnam, and China every year. For example, in 2020, more than 19,870 tons of pig feed were imported to VC, which increased by almost 1.0 % compared to 2019 (VCPAF, 2020a).

THE PROSPECTS FOR PORK PRODUCTION IN VIENTIANE CAPITAL, LAOS

To serve the food security, the Lao government set its food production target, including meat and main cereal production. More than 1,489 tons of beef cattle, 27,958 tons of pork, and approximately 4,132 tons of chicken will be produced in VC by 2025, which will increase by more than 11.0 %, 9.0 %, and 10.0 %, respectively, compared to 2021. By

2025, the government of VC must produce at least 105,344 head of cattle, 219,671 head of pigs, and 3,111,476 head of chicken to meet these targets (VCPAFO, 2020b). Regarding these goals, it might be a great opportunity for pig producers to expand their business on pig farms in VC from now to 2025. Particularly, native pig breeds, considering the steady increase in the demand for organic products. However, no separate record was found between the commercial pig farms and native pigs, but the consumers prefer pork produced from native pigs.

DISCUSSION

There are many opportunities and challenges for pig production in Vientiane Capital (VC), Laos. Similarly, there is also a correspondingly high demand for pork. Interestingly, a lot of feedstuff is produced in, and nearby VC which is a golden opportunity for the pig producers. Unfortunately, the feed prices instability might be a significant challenge for pig producers in VC. Therefore, venturing into native pig breeds production, which is well adapted to the local feed resources and on-farm feed formulation, might be a better option for pig farming in VC, Laos, especially for smallholder farmers. Considering the demand for its pork quality, the rearing of local breeds, and the use of local feed resources can improve pig production in VC, Laos.

ACKNOWLEDGEMENTS

The authors acknowledge the Tempus Public Foundation in the framework of the Stipendium Hungaricum Programme. Similarly, the authors also acknowledge the Doctoral of Animal Science, University of Debrecen, which provided all facilities for the study.

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[1] <https://www.helgilibrary.com/indicators/pork-meat-consumption-per-capita/laos/> (2022. 03. 25.)