

## SITUATION OF FARMING OF SON LA PROVINCE IN THE PERIOD 1900 – 1930s

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**Abstract.** Besides cultivation, breeding is one of important parts in Vietnamese traditional agricultural economy. Especially to mountainous place as Son La, this type of economy plays an essential role. Farming provides a main source of food for humans, especially for ethnic minorities because Thai people hold mostly rice-field. By investigating primary materials, mainly French documents keeping in the Vietnam National Archives Center No.I (Hanoi), this paper describes the raising situation of Son La province in the early twenty century with some main issues as following: changes of breeding policies of the French colonial government, types of animals; breeding technics, the quantity and quality, productivity and output of this economic activity. Beyond that, this article argues that there were some new factors on farming in this period.

**Keywords:** breeding, Son La province, French influence, early twenty century.

### 1. Introduction

Regarding to agricultural economy of Son La province, there are quite a lot of studies, but most of them focus on cultivation and landing system. In fact, both Vietnamese and foreign scholars paid relative attention to researching breeding activity of Son La province in the French colonial period.

Firstly, the book *Le Tonkin en 1909* (Tonkin in 1909) [1] keeping at Vietnam National Archive I was one of the studies which focus on general issues of Tonkin in twenty years after the French started to control this area. Although the content about Son La province is quite little in this work, the author mentioned several related subjects of husbandry, native soldiers, treasury, and the way of administration. Importantly, the author stressed the advantage of Son La in raising animals, especially buffalo. This province had 20.000 buffalo, which is highest in comparison with productivity of other places in Tonkin [1, p. 24].

Another book namely “Recent Tonkin” of Henri Cuherousset published in 1924 [2], with 88 pages was one of significant materials mentioned Tonkin situation in the early

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Received July 11, 2020. Revised September 4, 2020. Accepted October 5, 2020.

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twenty century. This book addressed with politics, economy (industry and agriculture), education, transportation, commerce, and medic of Tonkin. In this research, the author stated that “the government also paid attention to Son La. This place was mountainous and midland, where was farming many types of cows. When the road Cho Bo – Son La would complete, aboriginal would bring all good cows to sell in different markets in Tonkin...” [2, p. 69].

Other studies of Ta Thi Thuy (2000) namely *Farming buffalo and cow in Tonkin in the first half of the twenty century* [3]; Vu Thi Minh Huong (2001) with *Cattle market and trading of buffalo and cow in Tonkin in the period 1919-1939* [4] investigate the way of transfer cattle from Son La to other places in Tonkin and the role of Da river in this trading system.

The research *One hundred and ten years of Son La province (1895-2005)* can be seen as one of little Vietnamese studies mentioned directly agricultural economy of this province in the period 1895-1945. Although there is a small amount of pages to address with Son La’s breeding in this period, the author argues the most remarkable characteristic that “farming in Son La is spontaneous and mainly in the size of single family” [5, p. 67].

Recently, the PhD dissertation in history of Tong Thanh Binh namely *Economy, Society of Son La province from 1895 to 1945* (2017) [6] provides more comprehensive information and narrative of all economic and social issues of this place in the French colonial period. The author argues that “breeding in Son La is a supportive economy of small and single families; it is not activity of huge breeding farms” [6, p. 47]. Tong Thanh Binh’s contribution is also presented in various tables and diagrams about farming activities of Son La before 1945.

In brief, all the above studies provide the author both theory and important information to research deeply the issue of cattle farming of Son La province in the French colonial period. By investigating French primary materials in Vietnam National Archive I, the author will supply more knowledge and make clearly key subjects of animals breeding of Son La in the period 1895-1945.

## **2. Content**

### **2.1 Agricultural economy of Son La in the French colonial period**

On 3 December 1887, after conquering northeast provinces, from Bao Ha (Lao Cai province), Ouderie led one group of French soldiers to attack Ngoc Chien, It Ong, Ta Bu, Muong Bu (Muong La) and then Son La province with the help and navigation of Cam Bu Hoan (leader of Muong La force, who had worked for the French from 1884). In April 1888, France basically occupied the central area of Son La and then tried to build their administration there. On 20 August 1891, the Governor-General of French Indochina decided to put Son La province into the control of the fourth Military Territory (forming in 4 September 1891) and its administrative center was at Son La.

On 10 October 1895, the Governor-General of French Indochina decided to transfer the small military zone Van Bu of the fourth Military Territory from military frontier to civilian system. The prefecture of Son La is still at Pa Giang, (Hieu Trai *canton*) – center of the small military zone Van Bu. With this decision, the French Indochina

government believed that Son La was completely pacified. The date 10 October 1895 is therefore the beginner of Son La province [5, p. 52].

After the French pacified Son La, its economy was still depended on agriculture. In which, cultivation played the main role of agricultural economy. All landing fields in Son La were mostly mono-rice cultivated with only cultivation per year. In the dried season, Thai people cultivated nothing and therefore, their agriculture seemed to be stop in winter. Their farming activities were only started in February or March annually [7]. Under the French influence, they tried to cultivate two farming seasons per year but this worked on a small area of Phu Yen. French economic reports showed this fact quite clearly: it was only Phu Yen where local people could plan two rice-seasons per year in May and October. Other areas in Son La could plant only cultivation in October. As a result, the quantity of rice in May was quite small in comparison with the products in October” [8]. In fact, local farming activities were still dependent on natural condition, especially water. “Thai people only farmed in areas where they could find water naturally. There were many waste lands although they could farm under the Viet people’ approaches of cultivation. Accordingly, local citizen had insufficient provisions to serve their domestic demand. Other types of cultivating created the same result and they supplied little demand of local people” [9]. Farming sweet corn, cotton or indigo plants were basically unchanged as they were not taken care and there were no modern farming technics. In order to maintain the domestic demand, local people had to “destroy forest in the last days of winter, and then fired all dried grass from February to April to cultivate with different seeds, including dried-rice, sweet corn, cotton and indigo plants. After sowing, they left them work naturally without destroying grass or using fertilizer. After one farming season, they left to other field” [10]. As a result, forests disappeared quickly.

Besides farming, breeding witnessed a sharp improvement as the French performed some types of experiments such as importing some new cattle as sheep and mule, or applied new technics. However, in fact breeding was still a supplemental branch of agriculture and its result was only to serve local demand. Their breeding technics were mostly unchanged. That exploiting natural products still provide a large of foods and provisions, so people had little demand to improve their produce and Son La’s economy was still depended on nature. In general, economy of Son La was under the self-sufficient situation [6, p. 135].

## **2.2 French colonial government’s policies and changes of Son La’s breeding**

### **2.2.1 The government’s breeding policies (1895-1945)**

In order to improve and create new factors for Son La’s animal farming, the French colonial government applied various approaches.

In 1925, Tonkin government established a Veterinary Office in Son La to manage its cattle farming, especially in prophylactic treatment and cure. However, this office was quite simple and cursory. In 1935, the French built a new building with house-staff, office, clinical rooms, and stables and coops to keep diseased animals for cure. The new building allowed curing many diseased animals.

Regarding to performing approaches of prophylactic treatment: in 1926 the Tonkin government sent in the first time an internship of veterinary surgeon and the fifth-level nurse to inject vaccine in Son La and an internship of veterinary surgeon in Van Yen [11]. Before the appearance of those officers, aboriginals mostly conducted traditional prophylactic treatment. Therefore, after 1926 the French policies contributed to prevent disease of animals. Cattle Office of French Indochina also sent another assistant officer to Son La to control animal disease in Phu Yen and Moc Chau. They performed a presentation, in which one veterinary surgeon instructed native people to breed their cattle and poultry better.

The government built a large abattoir at the center of Son La. They also examined regularly the standard of hygiene at meat shops. As a result, in the years 1935-1936, there was no disease in all cattle in Son La. Then after the government of Son La promised to build a centered area of abattoirs to secure the food safety and prevent the expansion of animal disease and of course limit infect to people.

Abandoning animal exportation from Son La to the Delta of Hong River can be seen as the unique and most effective approach to improve the quantity of cattle and poultry in Son La. However, this policy affected negatively civilians' income. Recognizing the limitation of farming in Son La as it lacked modern technics and suitable management and policies from Europe, the Governor of Tonkin decided to build a cattle market in this province with the Decree on 24 August 1939. This policy led to a decrease of exporting cattle from Son La to the Delta but it encouraged the domestic commerce [8].

From 1933, Son La performed a regular “*trade fair*”, in which people showed many types of good buffaloes, cows, horses which confronted well with disease and were suitable with the harsh wealth and difficult terrain of this province. Those animals could transfer well in the mountainous areas.

### **2.2.2 Types of animals**

Raising cattle created a large benefit for people in Son La. With huge and advantageous plateaus such as Moc Chau, Mai Son, farming had good condition for development and improvement. In fact, the quantity of buffalo, cow, pig, and goat were quite large but the issue of caring for was limited so that there was a risk in breeding. With the management of the French, farming in Son La started to import new cattle, horse from 1904 [7]. Moreover, raising sheep and mule also began in the Moc Chau Plateau.

Farming poultry was quite advantageous with effective results. Poultry could be sold with good price, especially chickens and ducks. For example, one capon in Hanoi was sold at 0.6 dong (silver) while its price in Son La was only 0.3 dong [12].

Moreover, farming bees developed at Muong Chanh (of Mai Son) to provide honey and beeswax. Those products were traded in Lao Cai with high demand.

### **2.2.3 Farming technics**

In general, the key breeding approach was to range freely, spontaneously. Farmers let their animals in the nature and sometimes took care for them so the result was quite low. “Mostly buffaloes, cows were ranged freely, even semi-wildlife in forest. Until the crop, people went into forest to find their cattle. It was not surprising when Thai people

brought to home female buffaloes and their calves which were born in forest. But sometimes, they could not find their cattle because of many reasons of being stolen and died from disease [13].

Breeding pig was popular in all Thai family in Son La. The way of breeding was still to range freely in midlands of Phu Yen, Mai Son. Type of this animal was dark pig.

Farming sheep had good results but people had no scientific method and they were depended on their own experiments. Moreover, only some places in Son La were suitable for farming sheep, especially the Moc Chau Plateau so that it was difficult to farm sheep.

In general, farming in Son La lacked scientific methods, especially effective technics. Thai people were not professional in farming animals as they worked on their own experiments, without modern approaches and technics. Importantly, they considered farming as only supplement for other economic jobs as cattle could provide a mean of transportation of goods and people. "They paid little attention to farming, letting animals freely in forest. They did not breed directly, and only find their cattle in the crop season" [14].

Due to the cursory and unscientific technics, disease of animals happened regularly and affected negatively to the productivity. This situation was presented clearly in Annual Economic Report of Son La. In detail:

In 1908, bubonic plague in cow happened in Son La, especially serious in Thuan Chau from the early days of the year. This disease quickly expanded to county Mai Son, and county Son La. In 1911, farming animal in Son La faced difficulty and crisis as disease, mostly bubonic plague and cholera killed many cattle herds (horse and cow) in Moc Chau [15].

Disease happened seriously in some cantons, as *canton* Gia Phu (*county* Phu Yen), *canton* Moc Thuong (Moc Chau), *canton* Muong Vat, Muong Khoa (Yen Chau), *canton* Muong Pieng (Thuan Chau). This situation was extremely serious and Governor of Tonkin decided to issue 2 Decrees on 28 April and 27 May 1925 to announce the disaster in Son La [16].

In 1925, bubonic plague in cow happened and devastated solemnly all cattle herds in Son La. 2.000 buffaloes, 58 cows, 2.9000 pigs were killed in this year because of disease. Until 1926, the number of died cattle were 3.072 buffaloes, 72 cows, 3.762 pigs. The damage of this devastation was 100.000 dong. As a result, the Governor of Tonkin issued the Decree number 1900-A dated 20 May 1926 to proclaim the mean situation in Son La, abandon transferring all cattle and their skin from Son La to other provinces [17]. In 1927, again the bubonic plague devastated all cattle herds in counties of Mai Son, Son La, and Thuan Chau. The number of died animal was 3.274 cows and 3.764 pigs [11].

One of new and modern technics was applied in breeding was choosing good original race. The French instructed native people how to castrate in order to remove substandard male animals. This technic also helped people to easily breed and exploit their cattle while all male animals could provide good meat without bad-smelling. In 1938, veterinary surgeons conducted two times of castration of buffaloes and cows, one at Mai Son and one at county Moc Chau. Accordingly, 25 calves and 19 cows were

castrated. Only 9 cows were chosen as mates in various areas. In 1939, this job was done 18 times. The French also imported a new cow race of Faune to become an original mate [11].

New approaches of caring for cattle were transferred as the French performed training courses which helped aboriginals to have basic knowledge about caring technics, prophylactic treatment. Beyond that, this policy improved the quality of cattle.

In fact, the above policies created new and relative changes in breeding in particular and economy in general of Son La in the French colonial period.

## **2.3 Son La's farming results**

### **2.3.1 Size, productivity of farming**

Farming was an important part of agricultural economy in Son La, and this activity focused mainly at fertile midland such as Thuan Chau, Phu Yen, the Moc Chau Plateau and Mai Son. Those areas were advantageous for breeding cattle in a huge size. Therefore, the number of cattle could serve the domestic demand and sometimes traded with other provinces. However, raising cattle in Son La in fact was mainly occurred in single and small families.

In Economic Reports and Generally Annual Reports, there was no collection or detail data about types of animals, but via the data of exporting agricultural products from Son La, we can see that the output of farming in this period was sufficient to serve internal demand in the early years of the twenty century. For example, “in February and March, Van Bu sold to Hanoi 316 pigs, to Hung Yen and Yen Bai 109 pigs and 36 buffaloes” [18] (please see more detail in table 3). In this period, thousands of pigs were exported annually while the number of trading cattle was quite high as well. This situation will be analysed carefully in the section of agricultural commerce.

From 1929 to 1939, the number of cattle and poultry were recorded quite precisely and detail.

***Table 1. Number of cattle and poultry in Son La from 1929 to 1939.***

<b>Year</b>	<b>Horse</b>	<b>Cow</b>	<b>Buffalo</b>	<b>Goat</b>	<b>Sheep</b>	<b>Pig</b>	<b>Poultry</b>
1929	1.784	2.213	17.825	3.182	161	19.142	79.389
1930	2.907	3.047	18.842	2.627	282	22.120	73.267
1931	2.718	3.093	22.791	2.721	259	24.477	
1933	2.537	3.766	19.222	3.044	375	13.000	
1934	2.440	3.974	19.121	3.105	290	18.000	93.796
1935	2.300	6.450	21.800	3.050	360	19.400	73.000
1936	1.726	5.279	18.241	2.718	290	16.877	99.390
1937	1.800	5.300	18.500	2.520	296	18.000	110.246
1938	1.600	4.300	17.100	2.230	185	18.400	97.200
1939	1.574	3.986	17.481	1.583	177	23.767	

*Source: All data were collected and analysed from Economic Reports of Son La province from 1929 to 1939 keeping at the Vietnam National Archives Centre No I, Hanoi.*

As the above table, pig took the highest ratio of breeding cattle in Son La. In 1939, the production was at peak with 23.767 heads and the lowest number in 1933 with 13.000 pigs because in 1932, the Bubonic Plague devastated mostly animals. In this year, there were 20.000 died pigs. Moreover, due to the influence of the Great Depression, price of cattle was decreased quickly, down to 40% and even 50% in comparison with the previous years. Price of a normal buffalo before 1932 was 40 dong (silver) while in 1933 was only 20 Vietnamese dong of silver [19].

Breeding buffalo was also at high ratio and the number was stable. The highest number in 1931 was 22.791 buffaloes and the lowest was 17.100 heads in 1938. Buffalo was exploited mostly in agriculture.

Besides buffalo, thousands of other animals such as cow, goat, and horse could be provided annually. Only production of sheep was lower with hundreds per year. Noticeably in 1929, Son La only produced 161 sheep; in 1939 this number was 177. It was not difficult to explain this situation as sheep was new cattle towards aboriginal and only the Moc Chau Plateau was suitable for breeding this type of animal.

Farming poultry achieved a high result as those were done in small families. Chicken and duck were the main production, in which chicken played the highest role. In 1929, all poultry supplied 79.389 heads, in which there were 58.547 chickens (obtained 73.7%). In 1930, there were 73.267 poultry, in which 48.115 chickens (achieved 65.7%). The above data not only show the role of chicken in farming poultry in Son La but also present the decrease of its production due to the influence of disease.

Farming in Son La was under the size of small families. This activity served the demand of agriculture as using cattle to plough and to provide organic manure. Horse mainly served the demand of transportation and carrying commodities. Poultry mostly became food for native civilian. Although Son La had advantages to develop huge herds of cattle and poultry, the issue of trading became a big trouble as transportation was so poor. As there was no stable and regular output for farming, this economic activity was difficult to improve. Most cattle served in agriculture but Thai people could provide more enough than the real domestic demand of agriculture in Son La.

### 2.3.2 Farming's productions

As the previous mention, breeding in Son La was to serve native people in agriculture, transportation, transference, and food. Besides, some productions were exported to other markets in Tonkin. However, in comparison with cultivation's commodities, breeding provided little productions of skins, horns of cattle, buffalo, cow and pig. In which cattle's skins were the main commodities (see more detail in table 2).

***Table 2. Exporting cattle's skins of Son La in the period 1901 - 1931***

<b>Duration</b>	<b>Production (kg)</b>
1901	2.400
1903	3.198
July and August 1904	120
1905 (except for July, August, September and October)	3.781
January, February, March, April, November and December 1906	11.260

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March, April, May, June, October and November 1907	28.640
From 6/1925 to 6/1926	3.660
From 6/1926 to 6/1927	0
1929	5.520
1930	8.880
1931	2.376

*Source: The author collects and creates this table from Economic Reports of Son La in 1902, 1903, 1904, 1905, 1904 – 1909, 1929, 1931, 1931-1933 and General Reports of Son La in 1922, 1927, keeping in the Vietnam National Archives Center No I, Hanoi.*

From the table 2, we can see that the year 1907 witnessed the highest ratio of exportation of cattle's skins as the wealth was good and there was no disease in this year. As a result, although the table showed only the data of six months, it still peaked. Buffalo's skin was a favourite product of Chinese merchants and the French government in Son La. Its original price was 10 dong, and then increased to 20 dong per 100 kg [20]. However, this exportation was unstable because of the influence of regular disease. It is interesting that from June 1926 to June 1927, there was no exportation of cattle's skin. It was the most noticeable evidence of influence of disease towards breeding and trading of Son La. The General Report of Son La in 1927 mentioned that "regarding trade of buffalo's skin, it was devastated for a year (from 1926) because the Bubonic Plague broke out". In this year, the Bubonic Plague continued to destroy the cattle herd in Mai Son, Son La and Thuan Chau. In brief, 3.274 cows and 3.764 pigs died [8].

All reports show that the main market of Son La's farming was in Yen Bai, Phu Tho, Hoa Binh and even in the center of Son La province. Moreover, sometimes cattle were sold to the Delta such as Hanoi, Hung Yen. That selling cattle created a quite high profit. "Price of a buffalo for plough was 35 dong while its price for food was 25 dong" [21]. Merchants bought higher number of cattle and especially in some years as 1903, 1904, thousands of buffalo and cow were selling.

***Table 3. Exportation of Son La's agricultural commodities from 1901 to 1931***

*(weight: kg)*

<b>Duration</b>	<b>Cultivation</b>	<b>Breeding</b>	<b>Total</b>
1901	480.032	2.442	482.474
1903	62.806	(2.721 heads) 4.148	(2.721 heads) 66.234
July and August 1904	32.160	(520 heads) 1.740	33.900
1905 (except for July, August, September and October)	224.248	(2.113 heads) 4.198	(2.113 heads) 228.446
November and December 1906	56.536	(894 heads) 4.510	61.604
March, April, May, June, October and November 1907	286.098	(730 heads) 31.586	(730 heads) 317.684



From 6/1925 to 6/1926	8.520	4.320	12.840
From 6/1926 to 6/1927	3.084.720	0	3.084.720
1929	323.560	8.220	331.780
1930	185.220	10.800	196.020
1931	223.791	5.796	229.587

*Source: The author collects and creates this table from Economic Reports of Son La in 1902, 1903, 1904, 1905, 1904 – 1909, 1929, 1931, 1931-1933 and General Reports of Son La in 1922, 1927, keeping in the Vietnam National Archives Centre No I, Hanoi.*

It can be seen that Son La had advantages to develop farming not only to serve the demand of domestic agriculture and transportation but also to export. This activity was not only a supplemental economy. Productions of breeding could sell with high price, especially buffalo and cow. For example, in 1935 and 1936, in Son La, a buffalo of around 150-200 kg could sell from 15 to 25 dong; a cow of 160 kg was priced at 12-17 dong [22]. Meanwhile, in the Delta of Tonkin, as Henri argued, in 1930 the price of a buffalo was from 50 to 80 dong, a cow could sell at 30-40 dong [23, p. 217]. The difference of price between the mountainous and plain areas created profit for merchants. Moreover, buffalo's horns could be collected at 3-6 dong per 100 kg, even sometimes 10 - 16 dong per 100 kg [24]. Price of horse in Son La was quite high, around 40 – 100 dong per head because it played a key role in transportation. Alongside, pig, especially pig Meo (of Hmong ethnic) was valuable. The Economic Report in 1939 showed that "pig of Hmong ethnic was favourite because they were cleaner and fatter. Merchants and customers also liked their hen and capon" [8]. The report also presents that "pig lived freely in the forest. They were stunted type of pig with straight hairs on the neck and back. Price of this pig was more expensive than the price of normal pig in the Delta. The most delicious meat was from Hmong's pig. They were also easy to breed with low expense" [25].

### 3. Conclusions

Firstly, there were new factors in breeding in Son La with the appearance of the French in the early decades of the twenty century. Herds of cattle and poultry were cared for; the quality of animal race was improved, some new races were imported as experiments; new technics of choosing race, injecting vaccine were applied via training courses. Especially, the government paid attention to selling breeding's productions. All above factors created little changes of Son La's farming in the French colonial period with the new trend of development in both number, quality with high using of technics. However, those changes were not remarkable in comparison with the previous period. The new French applications and experiments were quite small and they were original steps of Son La's breeding improvement. In general, this type of activity in Son La was still dependent on nature and its characteristic was family and spontaneous economy. There was no huge farm for breeding. It means that breeding activity in Son La had changes in the early twenty century but those changes were little small and not breakthrough.

Secondly, breeding not only served sufficiently the domestic demand of Son La province (agriculture and transportation) but also became commodities to export to other markets in Tonkin. However, goods for exportation were not abundant and most of them were raw materials. As a result, income of breeding and its exportation was quite low.

## REFERENCES

- [1] G. Dauphinot, 1909. *Le Tonkin en 1909, Ha Noi – Hai Phong Imprimerie d’Extreme-Orient*, Vietnam National Archive I (VAN I), reference number: M1045.
- [2] Henri Cucherousset, 1924. *Recent Tonkin*, (Tran Van Quang translated), L’Éveil Économique Publisher, Hanoi.
- [3] Ta Thi Thuy, 2000. “Breeding cattle in Tonkin in the first half of the twenty century”. *Journal of Historical Review*, vol. 2 pp. 67-76.
- [4] Vu Thi Minh Huong, 2001. “Cattle market and trading of buffalo and cow in Tonkin in the period 1919-1939”. *Journal of Historical Review*, vol. 1, pp. 44-56.
- [5] Son La province, 2005. *One hundred and ten years of Son La province (1895 – 2005)*. National Political Publishing House, Hanoi.
- [6] Tong Thanh Binh, 2017. *Economy and Society of Son La from 1895 to 1945*. PhD dissertation, Academy of Social Sciences, Hanoi
- [7] *Rapports économiques de la province de Son La 1904 – 1909*, reference number 69.AFC, VAN I, Hanoi.
- [8] *Rapports économiques de la province de Son La de 1939*, reference number 74296. RST, VAN I, Hanoi.
- [9] *Rapports généraux annuels des provinces de Son La, Son Tay, Thai Binh, Thai Nguyen, Tuyen Quang et Yen Bay de 1917 à 1918 au Conseil de Gouvernement de l’Indochine (session 1918)*, reference number 36531-06.RST, VAN I, Hanoi.
- [10] *Monographie de la province de Son La*, reference number 75499.RST, VAN I, Hanoi.
- [11] *Rapport annuel sur la situation générale de la province de Son La pour l’année 1927*, reference number 36567-21. RST, VAN I, Hanoi.
- [12] *Rapports économiques du 2e semestre 1917 des provinces du Tonkin: Ninh Binh, Phu Tho, Quang Yen, Son La, Thai Nguyen, Tuyen Quang, Vinh Yen 1917*, reference number 72586-02. RST, VAN I, Hanoi.
- [13] *Rapports économiques de la province de Son La de 1934*, reference number 74290. RST, VAN I, Hanoi.
- [14] *Rapports économiques de la province de Son La de 1935*, reference number 74291. RST, VAN I, Hanoi.
- [15] *Rapports économiques des provinces du Tonkin de Ninh Binh, Phu Tho, Phuc Yen, Son La, Son Tay, Vinh Yen en 1911*, reference number 72553 – 01. RST, VAN I, Hanoi.
- [16] *Rapports économiques des provinces du Tonkin: Quang Yen, Son La, Son Tay, Thai Binh, Thai Nguyen, Tuyen Quang, Yenbay 1924 - 1925*, reference number 72582 – 03. RST, VAN I, Hanoi.

- [17] *Rapport annuel sur la situation générale des provinces de Son La, Son Tay, de 1925 à 1926*, reference number 36562-14. RST, VAN I, Hanoi.
- [18] *Rapports économiques et statistiques commerciales des provinces de Thai Nguyen, Tuyen Quang, Van Bu, Van Linh, Vinh Yen, Yenbay 1902*, reference number 72575 – 02. RST, VAN I, Hanoi.
- [19] *Rapports économiques de la province de Son La de 1933*, reference number 74289. RST, VAN I, Hanoi.
- [20] *Rapports économiques annuels des provinces de Phuc Yen, Phu Tho, Quang Yen, Son La et Son Tay de l'année 1929*, reference number 78473-02. RST, VAN I, Hanoi.
- [21] *Rapport annuel sur la situation générale de la province de Son La du de Juin 1922 à Décembre 1922*, reference number 36544-22. RST, VAN I, Hanoi.
- [22] *Rapports économiques de la province de Son La de 1936*, reference number 74293. RST, VAN I, Hanoi.
- [23] Henry, 1932. *French Indochina's agricultural economy* (Vietnamese translation in Library of University of Social Science and Humanities, Hanoi).
- [24] *Rapports économiques et statistiques commerciales des provinces du Tonkin: Quang Yen, Son La, Son Tay, Thai Binh, Thai Nguyen 1905-1906*, reference number 72583 – 05. RST, VAN I, Hanoi.
- [25] *Rapports économiques du 1er semestre 1919 des provinces du Tonkin: Ha Dong, Ha Nam, Hai Duong, Hoa Binh, Hung Yen, Lai Chau, Nam Dinh, Phuc Yen, Phu Tho, Quang Yen, Son La, Son Tay, Thai Binh, Thai Nguyen, Yenbay 1919*, reference number 72586-06. RST, VAN I, Hanoi.