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The Process of Unblocking Laos: Linking Indochina (1893–1945)

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Abstract

With the establishment of the Indochinese Federation, the French colonial government implemented policies to develop the transport system in the colonies, connecting Laos with other regions in the Indochinese Federation. Previous studies have mainly focused on demonstrating the development of the transport network in Vietnam or highlighting the limitations of the French colonial government in investing in the development of transport in Laos. This article aims to redefine the role of the French in developing the transport network and infrastructure in Laos in order to break its isolation and associate this country with the rest of the Indochinese Federation. These policies had a long-term influence on the development of modern Laos when the development of Lao trade shifted from dependence on the Mekong River and the port of Bangkok to commercial circulation by many transport services on many different transnational roads directed towards the ports of Indochina.

Keywords

unblock – trans-boundary – commerce – Laos – the French colonial government – Indochina

1 Introduction

According to the April 2, 1936, issue of Trung Bac Tan Van newspaper, Governor-General Robin's visit to Laos was welcomed by officials, local people, and Ambassador Eutrope because the "Lao transportation network was becoming convenient" due to use of modern means, such as seaplanes, cars, and newly opened roads (Trung Bac Tan Van 1936, 2–4). It was unlike Governor-General Paul Doumer's visit to Laos in 1897 during which the general complained about traffic difficulties when traveling to Laos by road or conducting trips in the dry season because it "took up too much valuable time that was originally devoted to the reorganization of the Indochinese Federation's government apparatus" (Doumer 1905, 267). These changes, as mentioned in the above colonial press, show that Laos' transport had improved over the decades.

Some scholars emphasize the positive side of French colonial rule in Indochina. They praise the role of the French colonial government in building the road network in Indochina. According to Aumiphin (1994, 116), "Like the Romans, the French colonists have always been great builders of roads". Others have observed that with the exception of possibly the American-held Philippines or British Malaya, French Indochina had the finest system of roads in the Far East (Mayfield 2003, 4; Brocheux and Hémery 1995, 124). The role of the Governor-General of the Indochinese Federation was significant in developing the railway network and building an economically and politically united Indochinese Federation (Hulot 2021; Lorin 2019; Testa 1999; Testa 2002; Nhung 2020). The construction of roads, the arrival of new technologies, and new means of transport, such as cars and trains, helped French managers narrow geographical distances and shorten the time required for managing and controlling the colonial territory. The new technology brought by the French colonial government also created new cultural trends in the colony and caused many cultural conflicts between the natives and the Metropole (Ponsavady 2018). However, previous studies focus more on transport development in Vietnam than Laos.

Meanwhile, some scholars highlight the limitations of the colonization process. They criticize the delay of the French colonial government in investing in the development of Laos' transport because the government considered Laos only a backup colony with small investments (Phi and Chalonsuc 2006, 25; Hà 1997, 247). When Siam promoted the development of transport with short travel time and reasonable prices to connect with Laos, "only limited French investments and resources found their way to Laos." Thus, Laos's infrastructure "still had many shortcomings" (Ivarsson 2008, 100; Stuart-Fox

1995). French commercial activity in the colonial Upper Laos region appeared to be a failure when the region traded mainly with Siam. "Most northern Lao exports continued to pass along Chinese trading networks into Siam Where transport infrastructure was more developed, prices were better and a wider range of manufactured goods was available for exchange" (Walker 1999, 48). The French colonialists constructed roads to "promote the exploitation and transportation of forest products" and minerals (Ninh 1991, 134; Ninh 1996; Liên 1988). For military purposes, "the French colonialists opened roads to carry out the suppression of uprisings" in the early years of the occupation of Laos (Hà 1997, 247; McCoy 1970). Scholars also mention the use of requisitioned labor (covrée) on the roads built by the French colonial government and the attitude of the indigenous people when forced to work (McCoy 1970, 83; Tappe 2016, 112). Uprisings from Lao and Vietnamese workers broke out on the road sites (Gunn 1990, 89; Nhung 2021).

Previous studies have mainly focused on addressing the development of the transport network in Vietnam or highlighting the limitations of the French colonial government in the investment and development of transport in Laos. On the basis of analyzing, comparing, and contrasting reports of the Government Council of Indochina, archives of the colonial government, memoirs, and reports of the Governor-General of Indochina, this article aims to address the plans of the French colonial government to unlock Laos, thereby connecting this region with the Indochinese Federation, as well as the difficulties that the French colonial government encountered when building the Lao transport network. We employ statistical and quantitative methods to demonstrate the process of developing Laos' transport network (i.e., its roads, waterways, airways, and railways). We also delineate the shift in the trade direction of Laos from a close dependence on the Mekong River and the port of Bangkok in the early twentieth century to close socio-economic relations with Vietnam – the center of the Indochinese Federation during the French colonial period.

The subsequent section outlines the challenges of developing a transport and trade network between Laos and Vietnam at the end of the nineteenth century and the beginning of the twentieth century. It is followed by an outline of the French colonial government's policies to develop railways, roads, waterways and airways linking the country with the rest of the Indochinese Federation. The third part of this article addresses the impacts of these policies on the development of modern Laos. Traffic and Trade in Laos at the End of the Nineteenth Century and the Beginning of the Twentieth Century

Before the twentieth century, trade between Laos and neighboring regions was mainly conducted with Bangkok (Siam), as reflected by Henri Cucherousset's remark: "Laos had hitherto turned towards Siam, its neighbor and ethnic relative [...]" (Cucherousset 1924, 11). This relationship was established based on similarities in race, language and culture along with convenience in transportation. On the other hand, the trade relationship between Laos and Yunnan was "almost nonexistent" in the late nineteenth century and early twentieth century. In addition, the navigable roads linking the Annam Plains and Mekong River "only existed theoretically rather than practically and there were very few of them on the map" (Picanon 1901, 342–349). "When a Resident Superior (Résident Supérieur) wants to reach Laos from Tonkin and Annam,¹ the journey is too long and arduous, and he must expect a travelling time of no less than 1000 days by going in a Kiệu" (Cucherousset 1924, 11).²

The Mekong River, the only commercial route to connect Laos with the Saigon port of Vietnam, has many waterfalls and rapids to overcome. It took thirty to fifty days to travel from Luang Prabang to Saigon. The travel time from Central Laos to Saigon was fifteen to twenty days. People from Lower Laos only travelled to Saigon during high and medium water seasons, though the distance from Saigon was shorter than from Bangkok (GGI 1910, 223–224). Moreover, the transportation costs on the Mekong River were relatively high, and steamboats only operated during the high-water season. During the low-water season from December to May, there were many rapids that cause tremendous difficulties for traffic. Steamers could not pass between Kinak and North Khone, and encountered great difficulty in the Kemmarat Rapids (GGI 1915, 142). As a result, along with the cultural differences, the Lao found it difficult to trade with the Vietnamese.

The Lao worked as canoe rowers since their births and used this transport whenever possible. Trade often took place from village to village and with the banks of the Siam River. The primary cargoes were rice, tobacco, and salt

GGI 1913, 314

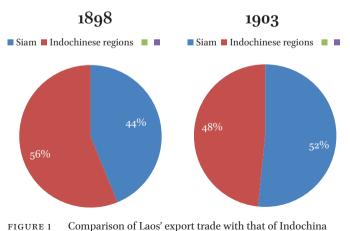
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^{1 &}quot;Annam" in the article refers one region Which the French colonial government established in the Indochine Federation. Modern-day Annam is Central Vietnam.

² *Kiệu* is a means of transportation of the Vietnamese people in the past. Until the French colonial period, the colonial officials and native officials still used the palanquin to visit and admire the scenery (Chính 2017).

However, the biggest obstacle to Lao trade was "the tariff regime in French colonies," which was "a harder obstacle to overcome than the Truong Son mountain range" (Cucherousset 1924, 27). According to the decree of June 30, 1897, the exportation of local products of Laos would be tax levied at the average rate of seven percent (Lemire 1899, 87; Beau 1908, 472). This heavy tariff diverted the circulation of goods from Saigon to Bangkok (Reinach 1911, 354). From 1898 to 1903, exports from Laos to Siam increased gradually and accounted for a higher proportion than other regions in the Indochinese Federation (Figure 1). This directly affected the economic profit of the French colonial government.

The value of Laos' exports to Siam was 545,000 francs in total, accounting for nearly forty-four percent in 1898. This value eventually increased to around 1,158,417 francs, accounting for over fifty percent in 1903. Meanwhile, goods exported to Indochina declined from fifty-six percent in 1898 to forty-eight percent in 1903 (Figure 1). Moreover, three-quarters of the imported goods to Laos came from Siam. Lucien Reinach observed that "almost all commercial activities of Laos were carried out through Siam" (Reinach 1906, 104). In his report on the situation of Indochina from 1902 to 1907, Governor-General Paul Beau stated that Laos' exports could be estimated at 4.5 million francs, of which two-thirds of exports went to Siam, the rest to Tonkin, Annam, and Cochinchina. Imports from Siam were valued at 2.5 million francs, while imports from different parts of Indochina did not exceed 1 million francs (Beau 1908, 472).



and Siam in 1898 and 1903 (Unit: %) (Reinach 1906, 103)

This situation which brings about traffic delays is a disadvantage and will be more worrying in the future. Construction work on the railway linking Bangkok with Outaradit is progressing rapidly and the Siamese government is said to have the intention to connect Outaradit with the upstream part of the Mekong River in Vientiane

BEAU 1908, 360

In order to exploit the natural resources of Laos and consolidate France's domination and influence in the Indochinese Federation, the French needed to bring Laos away from the hands of Siam and connect it with the rest of French Indochina. The next step was eliminating the threat from the feudal government of Siam. The French considered breaking the isolation of Laos from other regions in the Indochinese Federation by developing a transport network to export its abundant products which were formerly directed to Bangkok port rather than to the ports of Annam and the port of Saigon (Southern Vietnam).

3 Traffic Development Policies to Link Laos with Other Countries in the Indochinese Federation

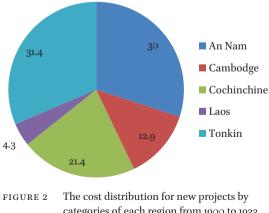
When the Federation of French Indochina was established, it comprised five protectorates: Tonkin (modern-day Northern Vietnam), Annam (modern Central Vietnam), Cochinchina (Southern Vietnam), Laos, and Guangzhouwan (Guangdong, China). However, the Indochinese Federation was regarded as "a string of territories with no similarities" and links that were "loose and even easily broken, so the whole union was like a random patchwork product" (Lorin 2019, 88). In order to form a unified Indochinese Federation in terms of politics, finance and market, the construction of an infrastructure and transport network to connect the territories in the Federation was necessary (Weber 1976, 218).

To build an infrastructure network, the French colonial government had to mobilise financial and labour resources from the colonies by taxing and forcing hard labour. Governor-General Paul Doumer also submitted a proposal to borrow 200 million francs from the Metropole. However, the budget allocated by the French colonial government for developing the traffic network in Laos was considerably small compared to that for other protectorates in the Indochinese Federation. This greatly influenced the opening of Laos. Namely, progress in improving the transport network in Laos was slightly slower than in Annam, Tonkin, and other regions in the Federation.

It can be seen from Figure 2 that the cost of implementing new projects in Laos only accounted for 4.3 percent of the total budget for the Indochinese Federation from 1900 to 1933. Meanwhile, those for Annam and Tonkin were 31.4 percent and 30 percent, respectively, which was seven or eight times higher. Cochinchina and Cambodia accounted for 21.4 percent and 12.9 percent, respectively, five and three times higher than that of Laos. The investment budget to develop the traffic network in Laos and link the country with others in the Indochinese Federation was relatively small. During the first twenty years of the twentieth century, there was not much improvement in the Lao transport network because the French colonial government only invested in constructing a number of traffic works on the Mekong River and building mainly the parts of the Vietnam-Laos colonial roads within the territory of Vietnam. It was not until the end of the First World War (1914–1918) that the process of breaking the isolation of Laos showed some progress with the promotion of a road transport network and the research and development of an air and railway network linking Laos with the rest of the Indochinese territories.

3.1 Railways

The construction of the railway network connecting Laos with the coast of Annam was one of the essential steps to breaking the isolation of Laos (GGI 1910, 27–29). This railway network "opens to not only the southern sea route but also the East sea in the center of the Pacific Ocean" (Cucherousset 1924, 9). Thanks to it, the rich resources of Laos, such as timber and livestock products,



categories of each region from 1900 to 1933 (General budget and loans) Unit: % (GGI 1934b, 318–319)

were brought to the large markets in China. Once this network was completed, it helped "booster transport and break the isolation of Laos, securing its more and more valuable future" (Cucherousset 1924, 9). According to the authorities' calculations, this railway network would bring about economic and commercial benefits as it would help save transportation time and cost.³ Besides, a hypothesis was maintained that a railway line from the Mekong River to Da Nang could also open two routes for Laos to conduct trade with the outside. One was from the lower Lao region (the Kemmarat rapids) to Saigon, and the other was from the middle and upper Laos to Da Nang. This could break down the monopoly of the Bangkok port on the Lao market, thus strengthening the influence of the French colonial government in the Indochinese Federation.

The very first studies on the railway network which connected Annam and Laos appeared remarkably early. A future railway project from the coast of Annam to Savanakhet was present on a map of Indochina published in 1900 (Cucherousset 1924, 24).

In the initial plan of Paul Doumer, the Governor General of Indochina (1897-1902), railway lines were proposed to connect Laos with the Annam seaport to develop a transport network in Indochina (Doumer 1905, 345). However, the cost of implementing the railway network according to the plan was too great. Doumer had estimated that it would cost 120 thousand francs/ km, so he decided instead to focus only on developing a railway line linking Tonkin with China. Unlike Paul Doumer, Governor General Paul Beau was interested in breaking the isolation of Laos (Cucherousset 1924, 26). A variety of research on the railway line and the improvement of the Mekong River was carried out by Paul Beau. However, the construction of the network was not carried out as the French authorities calculated. Research and surveys were resumed in October 1922, leading to a 186 km railway line from Tan Ap (Ha Tinh-Vietnam) to Thakkek which carved through the Mu Gia pass in the Truong Son mountains at an altitude of 410 m (Figure 3). The estimated cost of the project was \$14 million, for an average of \$75,000 a kilometer, four times higher than Paul Doumer's initial estimate.⁴ Specifically, the cost was \$104,000/km in the mountain and \$48,000/km in the plains of Laos (GGI 1923, 194–195). In fact,

³ It cost \$36.93 to transport a ton of cargo (Type C) from Keng Kabao (Savanakhet) to Saigon according to a discounted tariff on March 1, 1909, from the Cochinchina Water Transport Company (Compagnie des Messageries fluviales de Cochinchine). However, it cost \$30 to transport the same amount (500 km x \$0.06) from Keng Kabao to Da Nang by rail. This helps save approximately \$7 and reduces the transport time by half (at least eight days) (GGI 1910, 237–238). The currency \$ using in this paper refers to Piastre (also called *dồng (nguyên T* by Vietnamese). This currency was used in French Indochina.

^{4 1922, \$1= 6}fr72 (Pouyanne 1926, 56). The currency fr refers to France monetary unit.

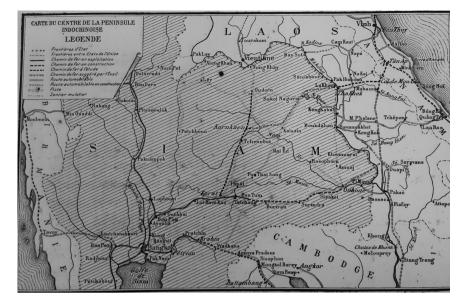


FIGURE 3 Map of roads in the central region of the Indochinese peninsula (Cucherousset 1924, 40)

the Indochinese government had to spend \$7.8 million, or nearly 80 million francs to build 18 km of railway. This amount was, surprisingly, 4,400,000 francs/km higher than the total cost for the Mekong River transformation by Colonel Bernard.⁵ Due to the excessive cost estimated for the construction of the railway part that goes through the rough mountainous terrain, the work was only completed at the two ends of the whole line. As a result, Laos still did not have a complete railway network to connect the Mekong River with the Annam seaports.

3.2 Waterways

The Mekong River had been the main trade route of Laos with its neighbors for a long time and had also been considered an important trade route to Yunnan (China) by the French who wanted to "turn Saigon into one of the largest warehouses in the world, the queen of the Far East" (Reinach 1906, 15). During the first two decades of the twentieth century, the work that

⁵ Colonel Bernard, President of Council Administration of the Compagnie Saigonnaise de Navigation et de Transport (FGGI File 10065, 16). In Bernard's report, from 1900 to 1933, water transport expenses in Laos totaled \$1,917,528, while road expenses totaled \$13,357,774 (FGGI File 10065, 12).

the French colonial government carried out in Laos was mainly to improve navigation on the Mekong River, build a transit railway to avoid the Khone Falls and bring steamboats to operation. In order to make these happen, they needed to take rocks from the riverbed to form passages in low, medium, and high water areas, build reinforced concrete pillars for the signal system and construct transit routes (GGI 1933, 38). Many steamboats, including Garcerie, Trentinian, Colombert, Ibis, Mouette, Massie, La Grandière, Ham Luong, Argus, Gauloise, and Sithan, were put into use depending on the water level and the river section (FGGI File 5192, 67). As a result, the Mekong River became navigable in all seasons by 35 m steamboats from Khone to Vientiane, except for Kemmarat, where there were impassable obstacles in the low-water season. In addition, in the section of Naphong to Vientiane, it was difficult for ships with a darf of more than 0.80 m to navigate during low water (basses eaux).⁶ From Vientiane to Huoeisai (in the Upper Mekong region) rock removal was done in the riverbed so that ordinary motorized canoes could go through (GGI 1933, 38-39).

The transportation on the Mekong River was assigned to the Cochinchina Waterway Transport Company. On September 25, 1894, a contract (1891–1894) was signed between Jean-Marie de Lanessan, the Governor General of Indochina, and Jules Rueff, CEO of the Cochinchina Waterway Transport Company (Compagnie des Messageries Fluviales de Cochinchine). Under the contract, the company committed to establishing a regular steamboat service on the Upper Mekong and received a government subsidy (FGGI File 3235, 8). The Cochinchina Waterway Transport Company held the exclusive right to conduct transport on the Mekong River. In 1927, the newly established company, Saigon Waterway Transport Company (La Compagnie Saigonnaise de Navigation et de Transport) replaced the Cochinchina Waterway Transport Company and operated until 1937 when the government abolished its monopoly on Mekong River transport.

There was a great effort not only by the Cochinchina Water Transport Company but also by the French colonial government to improve navigation on the Mekong River. As Bernard observed, "during the first half century, all the successive governments have recognized the importance of the Mekong as a major route linking Cochinchina, Cambodia, and Laos. All these governments were interested in the improvement of waterways by suitable works and

⁶ The term "draught" or "draft" (American) refers to the depth of water that a ship needs in order to float. In other words, it is the measurement from the waterline to the bottom of the hull. If a ship has a draft of 0.80 m, the vertical distance from the bottom of the ship to the water surface is 0.80 m (Shafran 2023).

considered it essential to maintain subsidized services which ensure the transport of passengers and cargoes at reasonable prices there" (FGGI File 10065, 3). However, the government abolished the monopoly and subsidies on the Saigon Waterway Transport Company in 1937 due to the latter's inefficient operation. The monopoly of this company reduced competition on this route, but the government nevertheless had to spend money to keep the company afloat. The commercial benefits brought by the company were marginal according to the French colonial government's calculations (Table 1).

Compared with business expenses, the commercial revenue of the Saigon Waterway Transport Company only accounted for a third, while government subsidies doubled company revenue. In a letter written by Lao Ambassador E. Eutrope to the Governor General of Indochina dated February 13, 1936, the operation of the Saigon Waterway Transport Company was referenced as "too expensive, too slow with few trips and inadequate convenience." According to the Inspector General of Public Works of Indochina "the Mekong is incapable of ensuring Lao's access to the sea in terms of transport as well as economy" and "far from becoming an essential route for opening Laos" (FGGI File 5192, 29).⁷ Hence, the French colonial government's plan to break the isolation of Laos on the waterway and railway was practically impossible.

3.3 Roads

Compared with the waterway and railway network, the project of linking Laos with other regions in the French Indochina by road achieved the best progress.

TABLE 1	Commercial revenue and business expenses of the Saigon Waterway Transport
	Company, 1931–1933 (Unit: \$) (FGGI File 5192, 29)

	Commercial revenue (Recettes commerciales)	Business expenses (Dépenses d'exploitation)	Subsidies (Subventions)
1931–1932	465,461	1,293,938	812,000
1932–1933	433,710	1,072,362	826,680

⁷ Quoted from the letter from the Public Inspector General of Indochina to Governor General of Indochina dated August 3, 1935.

The role of the road transport network was described by Lao Ambassador Roland Meyer as follows:

Roads play the role as an important supplement to the water transport network. Therefore, we have to complete the road network, pave the roads, and add solid stone and reinforced concrete works of art. The similarity between the road systems that reach Laos from Saigon, Danang and Vinh is that they all lead to Vientiane and Luang Prabang which are the two major and the most isolated centres of this country

MEYER 1930, 61

When the French authorities realized that transport activities on the Mekong River did not bring good results, they turned to road transport:

Governor-General RoBin said that he has proposed to abolish river services and dedicated all government efforts to the organization of road transport [...] this solution is necessary if we want to ensure the opening of Laos

FGGI FILE 10065, 3-4

In the first period from 1897 to 1918, due to financial and labour shortages, the road network construction in Laos was very slow. The work was done mainly on roads used by natives, while work was intended for military purposes for the French colonial government. After World War I, France boosted the colonial exploitation of the Indochinese Federation, in which Laos also received more attention. The French colonial government allocated more investment for the development of Laos' transport in the 1920s and 30s, used forced local labour, and called for workers from Annam (Central Vietnam) and Tonkin (Northern Vietnam) to work on road construction sites (GGI 1929, 116).

As shown in Table 2, the cost of constructing colonial roads was significantly higher from 1919 to 1933 than before 1919. Strikingly, the spending on Route No. 9 was forty-six times higher, for a total of \$3,296,540, greater than any other route. At the same time, this road was ranked as being of the best quality. Meanwhile, the amount spent on Route No. 4 was over four times higher and Route No. 7 was 3.4 times higher. Route No. 13 and No. 8 also received only two times as much and Route No.6 1.6 times the investment in before 1919. Between 1926 and 1927, Route No. 9 was completely surfaced so cars and medium-size trucks could use it year around. The journey time between Savannakhet, Lao Bao and Dong Ha was five hours and fifteen minutes by car. From Luang Prabang to Hanoi, it was only a seven-day drive (GGI 1927, 373–385). By 1936,

Road name	Estimated cost	Amount spent before 1919	Amount spent from 1919 to 1933	Amount spent in 1934	Total cost of construction until 1933
Route No. 4 ^a	2,322,915	757,915	3,223,419	72,308	3,295,727
Route No. 6	7,710,360	284,655	456,746	15,587	472,333
Route No. 7	5,795,108	675,108	2,321,989	66,252	2,388,150
Route No. 8	2,447,231.46	695,144	1,447,853	40,926	1,488,779
Route No. 9	1,837,500	70,000	3,225,031	71,509	3,296,540
Route No. 13	2,040,000	780,200	1,686,193	89,209	1,775,402

TABLE 2Cost of colonial roads (Unit: \$) (GGI 1935b, 264)

a Route No. 4, Route No. 6, Route No. 7, Route No. 8, Route No.9, and Route No.13 were also known as Colonial Route No. 4, Colonial Route No. 6, Colonial Route No. 7, Colonial Route No. 8, Colonial Route No. 9, and Colonial Route No. 13, respectively. Pursuant to the decree signed on June 18, 1918, the classification of routes in the French Indochina was stipulated. Accordingly, the colonial routes in the French Indochina were equivalent to French national roads, with the local routes tantamount to departmental roads and provincial roads for the Cochinchina (GGI 1918, 129).

Route No. 9 from Dong Ha to Savanakhet and a branch line to Keng Kabao had been opened permanently. This is the only road that generated traffic between the coast of Annam and the largest Mekong River section within the territory of Laos (GGI 1936a, 33).

The French colonial government classified the road network in Laos in 1939 into four groups based on the quality of the roads. First, Route No. 8 (from Nape to Laksao), Route No. 9 (from Dong Ha to Savannakhet), and Route No. 13 (from Pakse to the Cambodian border) were classified as top-quality roads. These permanent roads (routes définitif) were surfaced with stones and equipped with fortified bridges (pont définitif). Second, Route No. 12 (from Thakhek to Naphao) and part of Route No. 13 (connecting Route No. 9 with Thakhek and Paksane) were in the second group because they were completely surfaced and had Eiffel bridges and wooden bridges, which allowed vehicles with a load of six tons. Next, Route No. 7 and Route No.13 (from Vientiane to Phatang in the direction of Luang Prabang) belonged to the third group because they were completely or partially surfaced, capable of allowing vehicles with a load of three tons. The fourth group included trails such as Colonial Route No. 13 from Pakse to Savanakhet and local route No. 8 between Laksao and Nhomarath (GGI 1939, 25–26).

3.4 Airways

The French colonial government saw airways as crucial to Laos' postal communications, passenger transport and valuable goods transport. For an isolated and landlocked country, where traffic and transport faced many difficulties, opening an air route brought significant commercial benefits to Laos by providing rapid connections with other countries. The French colonial government had seen that the opening of Laos would be completed if there was an air route in Laos connecting the two capitals of Vientiane (Laos) and Hanoi (Vietnam) within a few hours of flight. Aerial explorations and mapping were carried out by the Department of Aviation. On September 24, 1925, Dauplay, the Lao Ambassador sent a telegram to the Director of Indochina Aviation about the allocation of land in Laos for the construction of airports (SEDT File 6190, 2–3).

On February 7, 1929, the Governor General of Indochina issued an order to the Department of Public Works to study and direct the necessary work for the installation of the infrastructure of the Vientiane-Vinh air route. By February 4, 1931, military aircraft were flying that route, but following the rainy season that year, the airport had to be closed until construction was completed. The government also planned to expand another Lao airport and build new airports in Camkeut and Sam Neua (GGI 1931, 33–34).

Starting in January 1935, the Vientiane-Hanoi route (located on the France-China international route) was frequently used by Air-France Airlines. However, this route stopped operating in July 1938, after Air-France Airlines switched its flights to Bangkok, Saigon, and Hanoi. This route opened a direct link between Batavia and Hong Kong, without passing through the French Lao territory. The route on the Mekong River between Khone and Luang Prabang included the Vientiane airport and eleven auxiliary airports along the Mekong River (GGI 1936a, 48). There was another seaplane route on the Mekong River with anchorages Pakse, Thakhek, Vientiane, and Luang Prabang, a temporary site in Ban Houeisai and there would be another in Paklay soon. From February to June 1937, a weekly postal service extended between Vientiane and Luang Prabang by seaplanes from Cochinchina (GGI 1937a, 58). At the beginning of 1937, in addition to the Vientiane-Hanoi route, the possibility of a route connecting Houeisai, Upper Laos, and Saigon via Vientiane was investigated, and on June 6, 1939, the Hanoi-Vientiane-Saigon air route was opened with scheduled weekly flights (GGI 1937a, 57–58; GGI 1939, 87).

4 The Impacts of the Traffic Development Policies of the French Colonial Government

First, it is important to look at some facts about the situation in Laos under the French administration. Before the railway network was established in Laos, the Kemmarat rapids system was still a difficult obstacle to travel along the Mekong River, and road network development was still incomplete. Most roads were only accessible in the dry season, except for Route No. 9, which could be traveled all year round. Nevertheless, progress in developing the transport network in Laos should be noted. Building a road transport network was considered a remarkable contribution of the French colonial government to Laos and the process of unlocking Laos.

This progress is illustrated by a twofold increase in the distances of road and water transport service journeys within Laos, from 421,742 km between 1935-1936 to 911,820 km between 1938–1939; a decrease in the number of government subventions for transportation services from \$507,076.00 between 1935–1936 to \$118,953.00 between 1937-1938 and \$140,151.00 between 1938-1939; and a significant fall in the subsidy amount per kilometer from \$120 between 1935-1936 to \$0.15 between 1938–1939 (GGI 1939, 85). Transport services in Laos also improved, with more trips being made per week. In the past, Laos' only means of transport on the Mekong River was by canoe, and there were only tricycles, buffaloes, cows, horses, and pedestrians on the trails. However, by the late 1930s, new means of transport, such as cars, steamboats, and airplanes, appeared. As a result, the travel time between different regions was shortened. The number of motor vehicles (including motorcycles) registered in Laos jumped from 106 in 1926 to 865 in 1936 (Pouyanne 1926, 83; GGI 1936b, 206; GGI 1937b, 253). The journey time between Vientiane and Saigon was shortened to 3 days and the Vientiane-Hanoi travel time was reduced from a couple of weeks to 2.5 days (GGI 1937a, 7). The connection between Laos and Vietnam was promoted with many different modes of transport divided into two groups. Group 1 linked North-South with a combination of roads and waterways stretching from Saigon to Houeisai via Pakse, Savannakhet, Thakhek, Vientiane, and Luang Prabang. Group 2 consisted of a group of horizontal links connecting with the coast of Annam (Thakhek-Savanakhet-Dong Ha, Thakhek-Xom Cuc-Tan Ap, Luang Prabang-Xieng Khouang-Vinh), Tonkin (Sam Neua-Cho Bo-Hanoi) and with Siam (Pakse- Oubone). Previously, water transport had been monopolized by Saigon Waterway Transport Company. In 1937, after the contract with this company ended, the transportation services were increasingly diversified. The North-South linkage group included Bainier, M. Simonpiétri company in Sagon, Hoa Eah company in Phnom Penh, Le Van Chanh company in Pakse, Laos River Transport Company (Société de Transports Fluviaux du Laos) in Pakse, Malpuech company in Vientiane, and Mr. Thit-Pan in Vientiane. The horizontal linking group consisted of Mr. Thit Pan's company in Vientiane, SAMANAL, and Mr. Aviat (GGI 1939, 75–82).

Advances in transportation in Laos since the First World War contributed to gradually breaking the isolation of Laos from other regions in the Indochinese Federation. In the late nineteenth and early twentieth centuries, "products of Upper Laos and most products of Bassac region were exported to Bangkok, so there was almost no trade with other regions of the Federation" (Beau 1908, 360). By the 1930s, trade transactions between Upper and Lower Laos with the Indochinese Federation changed considerably when Route Nos. 13, 6, and 7 came into operation. On Route No. 7 connecting Vinh with Luang Prabang, the numbers of passengers in 1936, 1937 and 1938 were 5,600, 4,080, and 1,860, respectively. The amount of cargo in circulation in these three years was 290 tons, 801 tons, and 1,482 tons, respectively (GGI 1938, 31). On Route No. 13, from Pakse to Cochinchina and vice versa, the number of passengers between 1937–1938 was 2,348, and the cargo volume was 6,706 tons (GGI 1939, 34).

[...] a veritable miracle of spatial and moral rapprochement. Laos has taken its place with the other countries in the Union and now the Indochinese *communauté* is complete

MARTY 1938, 72

The progress of developing the transport network also led to the development of Lao economic sectors, including industry, agriculture, services, and especially commerce. The Far West region (of Laos) that had previously been considered the "Storage Area" (Magasin de réserve) was exploited by the French colonial government, with the birth of a series of companies researching and exploiting the natural resources of Laos. Exports were also increasingly diversified, bringing an abundant source of income. Some Lao products, therefore, were introduced at major fairs in Hanoi, Saigon and Paris.

Mining companies were established, mainly in mining areas such as Nam Pathene and Bo Neng. In 1923, the Indochinese Mining and Research Company (Société d'Études et d'Exploitation Minière de l'Indochine) was established for mining in the Nam Pathene area (Khammouan province). It was followed by the Khammouan Tin Company (Société des Etains de Cammon), the Indochinese Tin Company (Société des Etains de l'Indochine), and the Upper MeKong Mining Company (Compagnie minière du Haut Mekong). Some Lao tin products were exported to Singapore. Specifically, in 1936, the Phon Tiou mine exported 1,123 tons of cassiterite (concentrés de cassiterite), containing 53.22 percent tin (étain), while the Bo Neng mine exported 630 tons of cassiterite (concentrés de cassiterite) to Singapore. In addition to promoting investment in mining, a number of industrial enterprises were also put into operation on a small scale in the fields of textile, paper making, timber sawing, food processing (rice milling, winemaking, sugar making), and car and ship repair. Power plants in Vientiane, Luang Prabang (established in 1928), Savannakhet, and Pakse (established in 1935) also came into operation (GGI 1937a, 49).

Laos' crop production and livestock industries also showed significant progress. Besides rice, the Lao traditional crop, there were many crops introduced by Westerners and tested in Laos with good results, such as tea in Xieng Khouang Plateau. Coffee and rubber trees were also planted on the Boloven Plateau. In 1935, forty tons of coffee from the Bassac province were exported to Saigon and 103 tons in the year after that. In addition, other crops, such as cardamom, amonum tsao-ko, tobacco, and cottonwere, were also exported. In 1936, 217 tons of cardamom were exported from Pakse to Siam and Cochinchina, and about 185 tons of chili from Saravane were exported, mainly to Siam (GGI 1937a, 47).

Sam Neua and Luang Prabang were famous for sticklac and benzoin (benjoin) products. The J.B. Sticklac Association (Société de la Gomme–laque J.B) planted 120 hectares of trees for growing gum in Muang Het (also known as Muang-Ét) (in Sam Neua). In 1924, these trees were producing 240 tons of gum lacca (gomme-laque) with a value of \$240 thousand. This company proposed expanding mining on a 1,000-hectare surface with an expected production of two thousand tons of benzoin worth \$2 million in total (GGI 1924, 243). However, by 1931, the price of sticklac and benzoin had dropped, resulting in a decrease in its output.⁸ In 1934, benjoin extraction experienced a slight recovery. In 1935, more than forty-two tons of sticklac from Luang Prabang and forty tons of benzoin from Houa Phan (Sam Neua) were exported (GGI 1936a, 50).

The livestock industry also brought a considerable source of income to Laos thanks to better control of disease by means of prevention, vaccination,

⁸ The price of sticklac was \$58/quintal in 1929, which dropped to \$25/ quintal by 1931 (GGI 1932, 43).

cross-breeding and breeding. Laos successfully held cattle fairs in the provinces and obtained a large source of income from the sale of animals. Hatsaikhoune Fair in Lower Laos, held in December 1938, sold 3,007 animals and earned \$105,000. At the Houeisai Fair held in January 1939, 1,331 animals were sold, their sales totaling \$21,628 (GGI 1939, 73). The Indochinese regions were major markets for Lao livestock products (see Table 3).

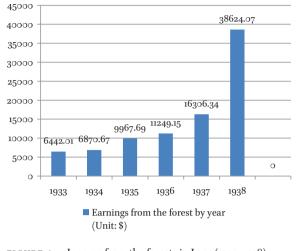
The exploitation of Lao rich forest resources with products such as teak (wood) and rosewood, which originally accounted for two-thirds of the country's area, was managed appropriately and methodically under the guidance of the French. The French East Asia Company (Compagnie de l'Est Asiatique France) developed the exploitation of teak in the upper Mekong and the Namkok valley. They cut wood and let it float down the river. This resulted in an annual volume of between thirteen and fourteen thousand logs (billes), and output sometimes reaching eighteen thousand.⁹ Logging brought a great source of income and increased rapidly from 1933 to 1938. Lao rosewood was also exported to the Hong Kong market during this period. Looking at Figure 4, we can see that earnings from the forest in 1938 increased six times compared to 1933.

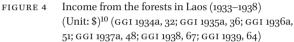
Advances in the transport sector led to a thriving economy and helped revive trade in Laos. The number of passengers and especially the quantity of goods increased rapidly after Laos' transport network was upgraded. From 1934 to 1937, the increase in traffic was consistent, but with the new transport organization, commercial development sped up rapidly after 1937. The volume of goods increased by 159.12 percent, from 12,981 tons (1934–1935) to 20,655 tons (1937–1938) (GGI 1939, 73).

	Buffaloes	Cows	Pigs	Horses
To Cambodia and Cochinchina	2,818	7,099	510	159
To Annam	1,629	991	4,566	
To Tonkin	48			
Total	4,495	8,090	5,076	159

 TABLE 3
 Cattle export to regions in the Indochinese Federation (1938–1939) (GGI 1939, 74)

9 The price of teak was 80.00/ m³ in Saigon in 1937 (GGI 1938, 68).





Previously, the only Lao trade route to the sea was the Mekong River, which linked to the Bangkok port. By the 1930s, the export of Lao products to the outside world no longer depended heavily on the water flow of the Mekong River. There were many other trade routes which directed products to the ports of Tonkin, Annam, and Cochinchina.

As shown in Table 4, freight transport on the Mekong River in 1933 and 1934 came in at a little over thirty percent of the total volume of goods, accounting for smaller percentages than Route No. 9. Road traffic was already three times higher than water traffic. Passengers in particular chose to travel by road, as it took a much shorter time than the waterway. As a result, the numbers of passengers traveling on Route No. 9 and 8 were very high. Route No. 9 carried the highest quantities of passengers and goods.

From 1927 to 1936, the transport of goods and passengers on the Mekong River showed a downward tendency. In 1927 freight transport was 10,223 tons (the highest goods volume between 1927 and 1936). This figure shrunk to 9,910 tons in 1936. As for passengers, the number fell significantly from 3,787 in 1927 to 3,154 in 1936 (GGI 1937a, 53–54). On the other hand, road transport increased, especially following 1937 when the French colonial government abolished the

^{10 \$:} Indochinese monetary unit.

TABLE 4 COMPARISON OF ITAMIC ON FOARS AND WAREFWAYS IN LAOS IN 1930 (UNIT OF BOORS: FOIR) (FGGT FILE 5192, 54)	ין/ייייייייייייייייייייייייייייייייייי	011 10aus allu wate	I Ways III even	? IN 11120 (NULL 1				
	No. of passengers	sengers			Goods			
	1933		1934		1933		1934	
	Quantity	Percentage	Quantity	Quantity Percentage Quantity (tons)	Quantity (tons)	Percentage	Quantity (tons) Percentage	Percentage
Mekong River	2.970	6,1%	2.740	6,6%	3.420	30,4%	4.390	35,8%
Route No.9	36.000	74,3%	24.000	57,4%	5.640	50,2%	5.590	45,5%
Route No.8	9.500	19,6%	15.000	36,%	1.200	10,6%	1000	8,1%
Cable					060	8,8%	1.300	10,6%
Total	48.470	100%	41.740	100%	11.250	100%	12.280	100%

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monopoly and subsidies of the Saigon Waterway Transport Company. The volume of goods tripled on Route No. 9, from 2,736 tons (1936) to 8,489 tons (1938). On Route No.12, the amount of freight also increased threefold, from 1,823 tons to 5,356 tons (GGI 1939, 32 – 34). When Route No.13 was opened in 1938, freight and passenger transport took on important role. In 1938, there were 2,835 passengers traveling on Road No. 13, from Cambodge to Pakse, and 1,745 tons of goods transported (GGI 1939, 35).

The quantities of goods imported and exported to Indochinese territories nearly doubled those to Siam.

The chart above (Figure 5) reveals that the volume of goods exported and imported to Indochina in 1936 was 1.7 times higher than that to Siam. In regard to the proportion of imported goods specifically, the total volume from Indochina accounted for 52.3 percent, while just 47.7 percent arrived from Siam. A striking difference can also be seen in the proportions of exported goods. That is, a staggering eighty-seven percent of exported goods were sent to Indochina, while the remaining thirteen percent went to Siam. Thus, compared with the late nineteenth and early twentieth century, there was a marked shift in the Lao exports from Bangkok to Indochinese regions, although the proportion of goods imported from Siam was still significant.

The improvement of Laos' transport also led to the development of tourism. After having been isolated and neglected for a long time, Laos became an

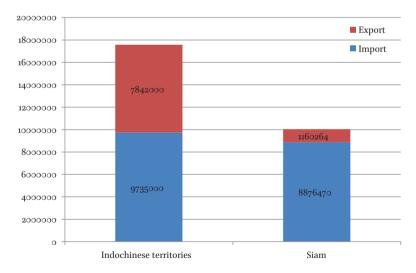


FIGURE 5 Comparison of import and export circulation of goods between Laos and Indochina and Siam in 1936 (Unit: kg) (GGI 1937a, 54)

increasingly attractive destination for tourists from Indochina and other parts of the world.

Thus, the progress in the development of Laos' transport network contributed to the socio-economic transformation of the country. This network was incomplete in some areas because there were no railways connecting Laos with the coast of Annam. However, Laos has been brought into the orbit of capitalist development along with other regions in the Indochinese Federation. Laos' economy and trade were not yet developed strongly, and the traces of the capitalist economy in Laos were still only minimal. Also, Lao's major industries were only mining, and its exports mainly relied on the country's available resources, such as forest wood, benzoin, sticklac, and tin. The development of these industries as well as the exploitation of Laos' natural resources were not beyond the purpose of bringing income to the Metropole itself. Laos' economy under the French colonial rule in general and Laos' transport system, with the development of the first road network in particular, reflected a complete dependence of this peripheral region on the areas that form modern Vietnam, the center of the whole federation.

The expansion of transport and mining in Laos led to the use of mainly Vietnamese workers. This was especially true for road construction sites. In Lower Laos, road work was carried out by 600 workers, including 300 Vietnamese, 30 Chinese, and 170 Lao. In Central Laos, the 4th lot of the Tan Ap-Thakhek railway was built by 1200 Vietnamese workers. The road work (Savanakhet, Thakhek, Vientiane) was done by 1400 laborers (1100 Vietnamese and 300 Lao). In Upper Laos, Road No. 7 required 800 workers, including 200 Vietnamese, and 400 Lao and Hmong (GGI 1932, 46). Roads made it increasingly easier to travel from Vietnam to Laos. As a result, Vietnamese migration to Laos increased rapidly in the 1920s and 1930s. This resulted in a diverse classification of the Vietnamese immigrant community in Laos in terms of their occupation, status, and reaction to the French colonial government (Nhung 2021, 92).

5 Conclusion

At first, the French colonial government considered Laos a secondary colony, an area to ensure the political stability of the Indochinese Federation. They, therefore, allocated only a small budget for infrastructure, transportation, and economic development within the country compared to other territories in the Federation. As a result, in the first two decades of the twentieth century, Lao transportation had remained unchanged from the earlier period in which it was managed by a simple administrative apparatus. During that time, a lack of trade routes to the sea had left the country isolated, thereby confining it to a limited agricultural economy and a relatively low-income level. With the only trade route running along the Mekong river, the country still relied heavily on Siam for its imports and exports. However, the French, recently emerged from the First World War (1914–18) and in dire need of markets and raw materials to restore and develop their own country, boosted their colonial exploitation of Indochina. Accordingly, Laos, though considered a back-up colony, also received higher investment and subsequently underwent fundamental changes.

Before the arrival of the French, traditional Laos' trade traffic had been tied to the Mekong River, thereby depending mainly on the Siamese market and the route heading towards the Bangkok seaport. When, in 1893, the Mekong became the natural border dividing Laos into French Laos in the East and Siamese Laos in the West, French Laos was sent down a new path, becoming closely linked with and dependent on Vietnam, the center of Indochinese Federation development.

In the early years of the twentieth century, Laos was isolated from the surrounding regions in the Indochinese Federation. However, in the 1920s and, especially, the 1930s, traffic with a new, more modern appearance was established in Laos. There were roads that brought strategic economic benefits by allowing Laos to conduct sea trade. These roads connected resource-rich regions with each other and broke the isolation of Lao provinces.

Although Laos' transport network was still underdeveloped compared to other countries in the Indochinese Federation and the country was still essentially a landlocked territory, the network of infrastructure built by the French government in Laos constituted a significant foundation from which the formation of a unified Laos state in modern times could emerge. During the French colonial period, policies for the development of the Lao transport network contributed to breaking the isolation of Laos from the other regions in the Indochinese Federation. Nowadays, Laos maintains an open-door policy and participates in international and regional organizations. The development of transportation to connect Laos with other countries in the Mekong subregion and with the ASEAN region plays an important role in this participation. The current national highways (i.e., national highways 6, 7, 8, and 9) which connect Laos with Vietnam have been renovated from the original colonial roads built by the French colonial government in the Indochinese Federation during the French colonial period.

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