

Control and Prosperity: The Teak Business in Siam 1880s–1932

Dissertation zur Erlangung des Grades des Doktors der Philosophie  
an der Fakultät Geisteswissenschaften der Universität Hamburg

im Promotionsfach

Geschichte Südostasiens

(Southeast Asian History)

vorgelegt von Amnuayvit Thitibordin

aus

Chiang Rai

Hamburg, 2016

Gutachter Prof. Dr. Volker Grabowsky

Gutachter Prof. Dr. Jan van der Putten

Ort und Datum der Disputation: Hamburg, 13. Juli 2016

## Table of Content

Acknowledgement	I	
Abstract	III	
Zusammenfassung	IV	
Abbreviations and Acronyms	V	
Chapter 1	Introduction	1
1.1	Rationale	1
1.2	Literature Review	4
1.2.1	Teak as Political Interaction	5
1.2.2	Siam: Teak in the Economy and Nation-State of Southeast Asia	9
1.2.3	Northern Siam: Current Status of Knowledge	14
1.3	Research Concepts	16
1.3.1	Political Economy	16
1.3.2	Economic History and Business History	18
1.4	Source and Information	21
1.4.1	Thai Primary Sources	23
1.4.2	British Foreign Office Documents	23
1.4.2.1	Foreign Office Confidential Print	24
1.4.2.2	Diplomatic and Consular Reports on Trade and Finance	24
1.4.3	Business Documents	25
1.5	Structure of the Thesis	25
1.6	Thai Transcription System and Spelling Variations	29
Part I Control		
Chapter 2	Macro Economy and the Political Control of Teak	30
2.1	The Impact of the Bowring Treaty on the Siamese Economy	30
2.2	The Bowring Treaty and the Government's Budget Problem	36
2.3	The Pak Nam Incident of 1893 and the Contestation of Northern Siam	41
2.4	Conclusion	52
Chapter 3	The Teak Business and the Integration of the Lan Na Principalities	54
3.1	The Teak Business before the Chiang Mai Treaty	62
3.2	The Chiang Mai Treaties and their Consequences for the Teak Trade	68
3.3	Regulations of the Teak Business	75
3.3.1	The Foundation of the Royal Forest Department	77
3.3.2	New Regulations in the Teak Business 1897–1908	80
3.3.3	Strict Control: Regulations from 1909–1932	87
3.4	Conclusion	94

## Part II Prosperity

Chapter 4	Teak Logging and the Manufacturing Process	95
4.1	Geography, Natural Characteristics, and Utilisation of Teak	95
4.2	From Forest to Market: the Processing of Teak	100
4.2.1	Girdling	100
4.2.2	Felling	105
4.2.3	Measuring	106
4.3	Transporting	111
4.3.1	From Extraction to the Floating Point	111
4.3.2	Technological Changes in the Transport System	112
4.3.2.1	Mae Lan Forest	113
4.3.2.2	Fang Forest	115
4.3.2.3	Mae Chun Forest	118
4.3.4	Hammering	120
4.4	From the Floating Point to the Duty Station	123
4.4.1	Floating and Rafting	124
4.4.2	Teak Log Larceny	128
4.5	Teak Floating in the Salween River	135
4.6	Teak Floating in the Mekong River	137
4.7	The Teak Manufacturing Process	140
4.7.1	The Sawmill	140
4.7.2	Sawmill Technology, Adaptability, and the Finished Product	143
4.8	Teak Export and the Global Market	149
4.8.1	The Export of Luxury Grade - European Class Teak	153
4.8.2	The Export of the Lower Grade - Indian Class Teak	156
4.9	The Teak Economy: the Financial System in the Teak Business	157
4.9.1	The Role of Finance and Liquidity in the Teak Business	158
4.9.2	The Banking System and the Teak Business	263
4.9.3	Currency in the Teak Business: the Role of the Rupee and Baht	167
4.10	Conclusion	175
Chapter 5	Ethnicity and Elephants: Division of Labour in the Teak Industry	176
5.1	Living and Working in the Forest	176
5.2	Working in the Teak Business: Khmu, Chinese, and Thai	179
5.2.1	Labour in the Teak Business: the Case of the Khmu	180
5.2.2	The Chinese: Intermediaries and Sawmill Workers	186
5.2.3	The Lao, the Natives of the North: neither Workers nor Officers	190
5.3	Working in the Teak Business: British Subjects, Company Officers, and Government Positions	193
5.3.1	British Subjects	193
5.3.2	Officers in the Teak Business	196
5.3.3	Foresters in the Royal Forest Department	197
5.4	Elephants in the Teak Business	200
5.5	Conclusion	204
Chapter 6	The Teak Business: Companies, Management, and Networking	206
6.1	The Character of Company and their Competition	207
6.2	Major Teak Companies and Management	218
6.2.1	Bombay Burmah Trading Corporation	219

6.2.2	Borneo Company Limited	223
6.2.3	Siam Forest Company Limited (later Anglo-Siam)	226
6.2.4	The Danish East Asiatic Company (Det Østasiatiske Kompagni)	229
6.2.5	French Business Interests	233
6.2.5.1	The French East Asiatic (La Compagnie Est Asiatique Française)	233
6.2.5.2	Failure of M.G. Wartenau and Albert A. Giard	235
6.2.6	The Dutch Trading Company: the Indische Hout Import Maatschappij	237
6.2.7	The Chinese Company: Kim Seng Lee	236
6.3	Networking: Two Case Studies of Non-Westerners in the Thai Teak Business	243
6.4	The Teak Business and Capitalism in Northern Siam	248
6.5	Conclusion	255
Chapter 7	Conclusion	257
	Bibliography	264
	Declaration of Oaths (Eidesstattliche Erklärung)	283
	Lebenslauf	284

## Tables

Table 2.1	Volume and Value of Rice Exports 1857–1944	38
Table 2.2	Government Revenue from Teak 1896–1926	42
Table 2.3	Annual Average of Teak Exports	43
Table 3.1	Statement of Cases tried in the International Court in Chiang Mai, 1895–1899	75
Table 3.2	List of Director-Generals of the Royal Forest Department, 1897–1934	84
Table 3.3	List of Companies and Merchants in the Teak Business in 1894	89
Table 3.4	Details of Teak Company Operation in 1914	93
Table 4.1	Sale Price and Duty Fees according to the Pikat Rate in 1895	110
Table 4.2	Average Distribution of Rainfall 1907–1927	123
Table 4.3	Full-Sized Teak Logs Arrivals in Bangkok, 1890–1897	127
Table 4.4	Estimated Numbers of Teak Trees with five inches Girth and above in five River Drainage Areas per square mile	130
Table 4.5	Rainfall and the Number of Teak Logs that arrived in Bangkok	133
Table 4.6	Number of Teak logs extracted floating from northern Siam to Bangkok, Moulmein, and Saigon, 1896–1926 (excluding rejections)	139
Table 4.7	Sawmills in Bangkok in 1914 and their Locations.	143
Table 4.8	The Standard Teak Products offered by European Companies	145
Table 4.9	Ratio of Teak Exports from Siam to European Markets: a Comparison of the Bombay Burmah Trading Corporation and other Companies	148
Table 4.10	Ratio of Teak Exports from Siam to non-Europeans Markets: a Comparison of the Bombay Burmah Trading Corporation and other Companies	148
Table 5.1	Total Number of Khmu Labour and Annual Salary 1890–1914	183
Table 6.1	Division of Teak Concessions in 1902	208
Table 6.2	List of Teak Concessions in 1927	210
Table 6.3	Agent Business represented by Teak Companies in 1894	216
Table 6.4	List of Business represented by Teak Companies in 1914	217

## Images

Image 2.1	Excerpt Pages for the Export Items from Siam from Pallegoix's Book	35
Image 2.2	Comparison between Income from Opium and Total State Revenue, 1892–1924 (million Baht)	40
Image 4.1	Girdling the Teak Tree	101
Image 4.2	Girdling the Teak Tree and the Rafting Process	102
Image 4.3	River Disappearing into the Hillside in Burma	113
Image 4.4	Teak-Logging in Siam: Hauling by Mechanical Power on Rails	117
Image 4.5	The Hammer Mark of a Burmese Merchant: the Hammer Mark of Phraya Uttakan Koson (พระยาอุตการโกศล)	122
Image 4.6	Example of how to cut out a defect or crooked Teak Log	147

## Maps

Map 2.1	Expansion of French Indochina	46
Map 4.1	Topography of Northern Thailand	116
Map 4.2	The Chiangmai Consular District and the Siam Forest's Railway Network	119
Map 4.3	The Chao Phraya River and its Tributaries	124
Map 4.4	Si Chang Island and Chon Buri Province	152



## Acknowledgements

When I started this long journey into *terra incognita*, I was sceptical about the future direction of my research. To this end, I met and obtained advice from various people for guidance. As a result, I feel indebted to many people and I would like to express my gratitude to these persons who have aided me on this journey.

First of all, I would like to express my deep gratitude to DAAD (Deutscher Akademischer Austauschdienst), the German Academic Exchange Service, for providing me with a scholarship to support my research, to attend conferences and workshops, enrol in German language courses, and assist me in terms of financial and legal support. In particular, I would like to give special thanks to Frau Elke Burbach and Frau Anne Schmitz, the coordinators of the DAAD Southeast Asia Section.

Moreover, I had the great luck to participated in the research project SEATIDE (Integration in Southeast Asia: Trajectories of Inclusion, Dynamics of Exclusion), which was supported and funded by the European Commission during the period 2012–2016. Accordingly, I would like to thank SEATIDE, coordinated by the EFEO in Paris, for supporting my field research and facilitating my active participation in various conferences and workshops. Coordinating the work of more than thirty researchers and support staff, SEATIDE gave me most valuable academic advice and enjoyable life experiences. I truly appreciate the intellectual companionship of my SEATIDE colleagues and friends.

I am in particular grateful to my academic advisor, Prof. Dr. Volker Grabowsky, my *Doktorvater* and Head of the Asia-Africa Institute's Southeast Asia Department. I want to thank him for all of the support and guidance that he provided to me during my time in Hamburg. It was a pleasure to work and learn from him. Despite his leading role in various research projects and his busy schedule, he always found time to provide his students with timely and informative feedback; it is because of his continuous support and advice that I matured and finally completed my dissertation project.

Another special thank goes to Prof. Dr. Jan van der Putten for an extremely important aspect of my doctoral candidature. He posed questions on my research agenda which made me looking into my dissertation with new perspectives. My discussions with him reminded me that my research needed to include the life of common people in the teak business. He also enhanced my knowledge of other parts of Southeast Asia than the Thai and Lao world. I really appreciate my intellectual adventure with him.

The same sense of gratitude goes to my external evaluator, Prof. Dr. Andrew Hardy. Despite his responsibilities as SEATIDE scientific coordinator, he reviewed my dissertation thoroughly. His thoughtful feedback enhanced my perspective on the political economy of Southeast Asia and helped me to solidify my dissertation. I feel very much in his debt.

I also thank Prof. Dr. Yavuz Köse for being part of the examination committee of my dissertation. His expertise in Ottoman business and economic history opened new venues

encouraging me to think in a more comparative perspective. I feel very grateful to have expanded my knowledge in the field of business and economic history due to his advice.

Furthermore, I would like to thank Dr. Tristan Dunning for his superb editing expertise and his great efforts in improving and polishing my English, at the same time providing additional comments and suggestions. Running a long race for my writing marathon, altogether, we sprinted towards the finishing line. Having worked with him and read his work without his notice, I am glad to know and appreciate him as another young academic, who likewise grows from a young sapling into the shade tree.

For my time in the Southeast Asian Department in Hamburg, I thank Prof. Dr. Jörg Engelbert for his support. In addition, I am thankful to EuroSEAS for having provided financial funding which enabled me to participate in a Ph.D. workshop that allowed me to further develop my research. In this context, I would also like to thank Prof. Dr. Duncan McCargo and Prof. Dr. Wolfram Schaffar for their valuable feedback during a workshop in Vienna in August 2015. An special comment from Prof. McCargo urges me to think about the complexity of the colonial contestation. The same gratitude goes to the Asian Historical Economic Society and the Institute of Economic Research, Hitotsubashi University for a bursary to attend the Fourth Asian Historical Economics Conference in Istanbul. I express similar gratitude to Prof. Dr. Nira Wickramasinghe from the University of Leiden and the International Institute for Asian Studies for the financial support to participate in a workshop on the Indian Ocean. Other thanks go to Dr. Oliver Tappe and the Global South Studies Center for giving me the opportunity to present my research at the University of Cologne.

I would also like to thank my former colleagues at Walailak University, notably Prof. Dr. Patrick Jory, Prof. Dr. Davisakd Pauksom, Prof. Jirawat Seangthong, and Prof. Thanapas Dejpawuttikul, for their support during my study period. A similar thank goes to my former academic advisor, Prof. Chalong Suntravanich at Chulalongkorn University, for his support and encouragement.

Last but not least, I would like to thank my wife, Pisinee Thitibordin – my constant source of inspiration – for always supporting me through “thick and thin”. Also, my deepest gratitude to my father and mother, as well as Pisinee’s father and mother, for of all of their ongoing support.

There are many people, including my fellow students in Hamburg, who have contributed to this project who are too numerous to mention them all by name. In addition, some of these omissions are because some of these people prefer to remain anonymous, and others are, unfortunately, a product of my own forgetfulness. Nevertheless, I am indebted to them all and have to admit that I very much enjoyed their companion. However, if there are any failures or mistakes in this work, I alone bear responsibility for such transgressions.

## Abstract

The increasing global demand for teak in the late nineteenth century led to the expansion of business operations by European companies and foreign subjects in Siamese's vassal state, the Lan Na Kingdom (situated in modern day northern Thailand) where teak flourished. The efforts of the Siamese state to control this area was a reaction to the chaotic situation in northern Siam and the increasing amount of foreign investment in the teak business.

During the 1890s, the Siamese government was unable to cope with the expansion of the teak trade, thus it founded the Royal Forest Department in 1897. Pertinently, teak was not subject to the trade conditions stipulated by the Bowring Treaty. As such, the Siamese government maintained autonomy regarding its decision-making and policy on teak. By doing so, Siam was able to control and nationalise the teak forests. As a result, income from teak immensely contributed to the governmental coffers. This dissertation, moreover, unveils the role of private companies and documents the multi-ethnic work structures which were so significant to the development of the teak industry. Another discovery of the dissertation details the indispensable role played by private companies in terms of setting up this system of production, extracting teak from the forest, and delivering it to foreign markets.

After the establishment of the Royal Forest Department, European companies dominated the teak business because they were able to conform to governmental regulations. In particular, these companies wielded a competitive advantage because they had access to global financial and shipping services, both of which were necessary to compete in the global economy. As a result, in brief, European companies were able to control and prosper from the teak trade. Teak exports, however, declined after the First World War and eventually became less important in both the global and Siamese economies. Indeed, teak ceased to be a major export item for Siam in the 1930s.

## Zusammenfassung

Die steigende Nachfrage nach Teakholz auf dem Weltmarkt im späten neunzehnten Jahrhundert war ein wichtiger Faktor bei der Erweiterung der europäischen Unternehmen und ausländischen Subjekte in Lan Na. Lan Na bestand aus fünf siamesischen Vasallenstaaten und lag im heutigen Norden von Thailand, wo Teakholz prächtig gedeiht. Aufgrund einer chaotischen Situation in seinen Vasallenstaat und die Investitionen von den Privatunternehmen in die Teakgeschäft, reagierte siamesische Regierung auf die Situation. Siam war erfolgreich in seiner Politik, den Wald zu verstaatlichen und zu kontrollieren.

In den 1890er Jahren vermochte Siam mit dem Ausbau des Teaksgeschäfts, dieses nicht länger in Eigenregie zu bewältigen. Daher kam es im Jahre 1897 zur Gründung des Royal Forest Department. Teakholz hatte nicht von dem Bowring-Vertrag unterworfen gewesen, da Siams Regierung autonom die Teakholz betreffende Politik festlegte. Daher steuerte Teakholz einen wesentlichen Beitrag zum Staatshaushalt bei. Die Dissertation deckt auch die signifikante Rolle der Privatunternehmen und der ethnischen Vielfalt im Arbeitssystem für die Entwicklung des Teaksgeschäfts auf. die Rolle der Privatunternehmen war unverzichtbar, um ein Arbeitssystem zu etablieren, das Teakholz aus dem Wald extrahierte für den ausländischen Markt exportierte.

Nach der Gründung des Royal Forest Department dominierten europäische Unternehmen das Teakgeschäft, weil sie einen Wettbewerbsvorteil durch ihren Zugriff auf die Finanz- und Versandservice besaßen. Beide waren notwendig für den internationalen Handel. Das Ergebnis war die Prosperität und die Kontrolle über das Teakholz von den europäischen Unternehmen. Wegen des Exportrückganges von Teakholz nach dem Ersten Weltkrieg, spielte Teakholz nun eine immer geringere Rolle für die siamesische Wirtschaft. Ab den 1930er Jahren war die Rolle von Teak als Hauptexportartikel Siams beendet.

## Abbreviations and Acronyms

AGR	Archives générales du Royaume
BI	British-India Steam Navigation Company
DCR	Diplomatic and Consulate Reports
DMD	Denny, Mott & Dickson, Ltd
ELC	Ewart, Latham and Company
FO	Foreign Office
HMSO	His/Her Majesty's Stationary Office
HSBC	Hong Kong and Shanghai Banking Corporation
IOR	India Office Records
LMA	London Metropolitan Archives
NAT	National Archives of Thailand
PUA	Payap University Archives
RTGS	Royal Thai General System of Transcription
SCB	Siam Commercial Bank
SOAS	School of Oriental and African Studies
UK	United Kingdom
US	United States of America

## Chapter 1 Introduction

### 1.1 Rationale

In Thailand,<sup>1</sup> there exist a variety of perceptions and memories bordering on conspiracy theories regarding foreign interests in the teak industry from the 1880s to 1932. Many of these stories are related to the extensive efforts of British teak companies to take control of the industry. These actions were viewed as a Trojan horse for the British government's 'real' intention to colonise Siam and incorporate it into the British Empire. This theory usually centres on the biggest teak company Bombay Burmah Trading Corporation (hereafter Bombay Burmah) which was established with the support of the British government and the House of Windsor.<sup>2</sup> These narratives are found in an otherwise unremarkable work of non-fiction; that is to say, neither the author nor the publishing house is especially famous. The author, Tritnay Noppakhun (ตฤตณัย นพคุณ), does not explain why the company, which concentrated its investment on teak only in northern Siam<sup>3</sup> and British Burma, had such an

---

<sup>1</sup> Field Marshall Plaek Phibunsongkhram changed the name of country from Siam to Thailand in 1939. This dissertation employs the term Siam when referring to the country before 1948, whilst the term Thailand refers to the country after 1948. However, the term Thailand is also used for the current situation of the country resulting from the continuous development before 1948. It is important to note here the territorial differences between Siam and Thailand. Siam mainly covers the current area of central Thailand, whilst Thailand refers to the current the geographical and administrative area of the country.

Before the administrative reforms by Prince Damrong, the current area of northern Thailand, excluding Tak (ตาก) and Uttaradit (อุตรดิตถ์) province, was known under various names: Lan Na Kingdom (อาณาจักรล้านนา), Laos State, Laos Principalities (หัวเมืองลาว), Monthon Lao Chiang (มณฑลลาวเฉียง), Monthon Phayap (มณฑลพายัพ), and Monthon Maharat (มณฑลมหาราชบุรี). To avoid confusion of these terms, the dissertation uses the term northern Siam when referring to the current administrative area of northern Thailand.

<sup>2</sup> Tritnay Noppakhun (ตฤตณัย นพคุณ), *Thai Forest: a Conclusion of Power and Interest* (ป่าไม้ไทย บทสรุปแห่งอำนาจและผลประโยชน์) (Bangkok: Sang Serm Thai Foundation, 2001), 21–22.

<sup>3</sup> The term northern Siam was imposed by the Siamese government in 1935 and it covers nine provinces grouped together in a regional administrative system. However, the Thai Meteorological Department includes Sukhothai (สุโขทัย), Phitsanulok (พิษณุโลก), Phichit (พิจิตร), Kamphaeng Phet (กำแพงเพชร), Phetchabun (เพชรบูรณ์), Nakhon Sawan (นครสวรรค์), and Uthai Thani (อุทัยธานี). Before 1935, the area was known as the Lan Na Kingdom. The Lan Na Kingdom was a Siamese vassal state since the end of eighteenth century. This kingdom consisted of five principalities: Chiang Mai (เชียงใหม่), Lampang (ลำปาง), Lamphun (ลำพูน), Phrae (แพร่), and Nan (น่าน). They were tied together by kinship and marriage. A local prince and their family members ruled each individual principality. The authority and influence of these principalities outside the core area with major teak resource like Chiang Rai and Mae Hong Son fluctuated over time. Rahaeng, or present day Tak, was a rich source of teak and a city under the direct rule of Siam.

Hence, the areas for teak extraction and business were located in three different political contexts: an area of direct rule under the prince of each principality and an area under the influence of Chiang Mai principality. The area under direct Siamese rule was the third case. The political and administrative reforms instituted by Prince Damrong began in 1894 and created a new administrative system called a Monthon (มณฑล) system. The new administrative was named Monthon Lao Chiang. In 1899, it was renamed as Monthon Phayap by King Rama V.

unusually close connection to the British royal family. In other words, he does not provide any evidence to support his claim against the Bombay Burmah. Although his story might be based on some oral anecdote or his own fictional fantasy, my archival research on the Bombay Burmah documents found no evidence to support the author's claim. The House of Windsor or other people intimately involved with the royal family were never referred to in the company's minute book covering the period 1886–1939.<sup>4</sup>

Nevertheless, during the 1880s the government of Siam was deeply concerned about the growing influence of the Bombay Burmah in the northern regions of the country. The panic over the prospect of losing territory so prevalent amongst Siam's ruling class was reasonable given that the Bombay Burmah was a major cause of the Third Anglo-Burmese War in 1885.<sup>5</sup> Stories about the forced abdication of King Thibaw (reigned 1878–1885) and the destruction of the last Burmese dynasty, the Konbaung Dynasty, by the British Army had been dramatically emphasised in *Burma Defeated*<sup>6</sup> (พม่าเสียดเมือง), a non-academic but very popular book, written by a renowned and bestselling Thai author, M.R. Kukrit Pramoj.<sup>7</sup> The author claimed to be a relative of the Thai royal family, and the overwhelming sentiment expressed in the volume regarding foreign investment in the teak business in Siam, and the Bombay Burmah in particular, was one of negativity. The volume presents an atmosphere of collective fear permeating throughout the traditional elite of Siam. Prior to the Second World War, the general perception of Siamese society vis-a-vis the operation of foreign teak companies centred on fear of foreign encroachment.

When the staff from a private consultant company, American Universities Field Staff Inc,<sup>8</sup> published a field report about Chiang Mai, it mistakenly recorded Louis Leonowens as Lewis

---

In 1915, King Rama VI separated Lampang, Phrae, and Nan as a new Monthon, Monthon Maharat. However, this Monthon had a short life and was dissolved by King Rama VII in 1926 and the three provinces were returned to Monthon Phayap.

In order to define the area for teak business, the dissertation chose the term northern Siam to avoid confusion and misunderstanding because the term northern Siam covers both the political area and teak extraction area. In contrast, principalities and Monthon each have a specific definition which convey strong political meanings. Henceforth, the dissertation will use the term principality/principalities and Monthon when detailing the different political implications of each term, while the term northern Siam will be used to describe the general area of teak business which extended beyond the limits of specific principality/principalities and Monthon.

<sup>4</sup> LMA CLC/B/207/MS40745 Bombay Company Limited: board minute book.

<sup>5</sup> Kukrit Pramoj (คึกฤทธิ์ ปราโมช), *Burma Defeated* (พม่าเสียดเมือง) (Bangkok: Flower, 2009). *Burma Defeated* plays an important role in a reproduction of Bombay Burmah Trading Corporation in the third Anglo-Burmese War in 1885.

<sup>6</sup> Please see the detail about the "Royal Thai General System of Transcription" (hereafter RTGS) in section 1.6.

<sup>7</sup> Kukrit Pramoj, *Burma Defeated*.

<sup>8</sup> The American Universities Field Staff, Inc was sponsored by various universities in United States of America including: University of Alabama, Brown University, California Institute of Technology, Carleton College,

Leonowens.<sup>9</sup> Leonowens was a minor player in teak business. His company controlled less than three concessions in the 1910s–1920s and employed approximately two to ten European staff members, including staff in retail sector, during the same period.<sup>10</sup> It was the smallest British company in the teak business. He was the son of Anna Leonowens<sup>11</sup> and a childhood friend of King Rama V (reigned 1868–1910). However, it was not a grave error either to misspell a name or incorrectly name a person. It also could be assumed the author recalled the name through oral interviews based on the memories of local residents involved with teak business. In the teak business, he had been referred as “teak merchant”. Oddly enough, while his business was very small and had no political implications for the government, there are many recollections about him. The memories of the local residents pertaining to the character of Leonowens were of his womanising, adventurous, and macho ways.

This error would have been forgivable if this field report had been aimed at a general audience; however, the editorial page suggests that this series of reports was targeted at subscribers in the business sector and higher education institutions in the United States. Indeed, it is noteworthy to the author of the report was the former chief of the “Military Government Office of Education and Cultural Affairs on Okinawa” and later the “Chief Public Affairs Officer of the United States Foreign Service” in Jakarta and Tokyo. The major mistake of the report, however, was its failure to explain the economic changes in the northern region of Siam stemming from the operations of major companies like Bombay Burmah or the Borneo Company Limited (hereafter Borneo Company).

From above the three examples, emanating from both native and foreign sources, teak was regarded as a lucrative and luxurious item by both local people and official national history. In other words, the teak business drew politico-economic interest to the region. At the same time, the perception of foreign interest in teak exacerbated the political anxiety of the ruling elites. Almost everywhere, stories about the actions of foreign merchants in teak business were characterised by notorious tales. One infamous example concerned an incident

---

Dartmouth College, Harvard University Graduate School of Business Administration, Indiana University, University of Kansas, Michigan State University, Tulane University, and University of Wisconsin.

<sup>9</sup> Willard Hanna, *Change in Chiangmai* (New York: American Universities Field Staff, 1965).

<sup>10</sup> PUA A 19 David Fleming MacFie. *Chiang Mai Record* (1884–1919).

<sup>11</sup> Anna Leonowens (1831–1915) is a British governess, who lived in Siam from 1862 to 1867. She taught English language to the children of King Mongkut or King Rama IV. She gains her fame from the publication of her memoirs on her experiences in Siam and the biographical novel by Margaret Landon in 1944. See Anna Harriette Leonowens, *The English Governess at the Siamese Court: Being Recollections of Six Years in the Royal Palace at Bangkok* (Boston: Fields, Osgood, & Co., 1870); Margaret Landon, *Anna and the King of Siam* (New York: John Day Company, 1944).



involving a company representative in Burma<sup>12</sup> but very few possessed any verifiable information referring to the evolution of the business. Instead, it seems that the knowledge about the teak industry was based on selective memory and utilised to serve a political purpose rather than being based on scientific research.

The wax and wane of teak business was never evaluated from either an economic or a business perspective. This dissertation argues that between 1890–1914 teak was Siam's second most lucrative item of export from Bangkok in terms of monetary value. After the end of the First World War, its central role in Siam's economic system declined. As a result, the companies handling teak as their major product started to change their business models in order to survive. As knowledge of the teak industry was heavily influenced by political conflicts in Siam and Southeast Asia, it is necessary to conduct research on the teak business in order to understand its development within the politico-economic circumstances of Siam from the 1880s to 1932.

The dissertation poses two core questions:

1. Where was the teak business positioned in the Siamese politico-economic structure?
2. How did the teak business develop from the 1880s to 1932?

To answer these two core questions, the dissertation aims to explain the complexities of economic and business development in Siam, especially through a historical perspective, and thereby fill the gap left by previous studies. It will focus on how the Siamese government regulated and nationalised access to teak, and the use of teak as a national resource.

## 1.2 Literature Review

The section provides the reader with a background of teak and the wider economic conditions of northern Siam between the 1880s and 1932. It will also document the development and limits of the teak business in northern Siam during the same period.

The literature review is composed of three parts: a) teak as a key component of regional political interactions; b) the role of teak in the economic development of Siam; and, c) the current status of scholarship pertaining to the teak business in northern Siam specifically.

---

<sup>12</sup> A. C. Pointon, *The Bombay Burmah Trading Corporation Limited, 1863–1963* (Southampton: Millbrook Press, 1964).

### 1.2.1 Teak as Political Interaction

The section starts with the literature related to teak and forestry in Southeast Asia and the literature of the economy of Siam from the 1880s to 1932. Nevertheless, some of the literature reviewed in this section are studies external to Siam. These have been selected because of their useful contributions to my theoretical framework and to add to the comparative aspects of this dissertation.

The traditional kingdoms in Southeast Asia monopolised the distribution and exchange process within their respective economic systems. These monopolies took control of an item possessing a high market value, as well as the products required for everyday life in order to regulate the small-scale exchange of these products at the local level. This strict level of control increased when related to an exported item and international trade.

Research on the history of forestry during the period involving the transformation from the pre-modern to the modern states in Southeast Asia affected the politico-economic order. The control of manpower was the foundation of the state in Southeast Asia and authority was distributed to a local leader who showed loyalty to the state and/or was connected with the ruling elite. In this circumstance, the distribution of manpower was the medium to gain goods and services for the political leader.<sup>13</sup> The exploitation of manpower was based on the application of coercive power. As a result, this inhibited the development of a merchant class in Siam. Lacking institutions that were compatible with modern capitalism in the nineteenth century, Siam faced an unpleasant situation.

Compared with other types of export products, teak was not subject to strict controls according to Siam's export structure. Before the Bowring Treaty, teak was listed as a tributary item transferred from the Lan Na principalities to the government in Bangkok. While trade on teak was conducted without much oversight from Bangkok itself, certain groups of people, especially the local ruling elites in each area, made sure that teak and other timbers remained firmly under their control. The local prince who governed the principalities by heredity right held autonomous powers to decide on matters regarding the teak forest. The Shan and the Karen peoples were the biggest groups involved in the teak industry, usually working as sub-contractors for Burmese merchants. Their livelihoods were not controlled by the traditional manpower system. Instead, they were required to send tribute to Chiang Mai as

---

<sup>13</sup> Akin Rabibhadana, *The Organization of Thai Society in the early Bangkok Period, 1782–1873* (Ithaca, N. Y.: Department of Asian Studies, Cornell University, 1970).

a symbol of submission. The teak business could not rely on the manpower control system because the process regarding teak was too complicated for a traditional manpower system reliant on non-skilled *corvée* labour.<sup>15</sup>

With the absence of related historical documents, the amount of knowledge about the teak business before the Bowring Treaty is very limited and fragmented at best. The documents about teak that are kept in the National Archives of Thailand in Bangkok started in the reign of King Rama V. All previous researches on teak use the year 1897 as a point of departure.<sup>16</sup> There are two main reasons for using this year. Firstly, Siam established the Royal Forest Department (hereafter Forest Department) in 1897. Secondly, the Forest Department as a modern bureaucratic administration had been overseen by British officers. The Forest Department produced a number of records. These were stored separately as file “MR 5 16” in the National Archives of Thailand under the Ministry of Interior between 1896 and 1921, and then under the Ministry of Agriculture between 1921 and 1932. Two theses by Chamaichom Sunthornwat and Salairat Dolarom using 1896 for their starting point neglect to mention that development of teak existed before 1896. In contrast, my research in the National Archives of Thailand found records on the teak business written by the government which dated to before the establishment of the Forest Department. While teak was an important export item from the northern Siam especially under the principalities’s influence, the British diplomatic service produced a handful of documents on teak. Chamaichom and Salairat did not, however, employ British documents in their theses and relied mostly on Thai documents. As a result, these documents are only of limited additional value in an academic sense.

The research by Banasopit Mekvichai does touch on the issue of teak within the context of regional development, but her research focuses on macroeconomics rather than the development of the private sector.<sup>17</sup> Moreover, her dissertation was based on secondary sources. In other words, she uses the sources from the previous studies, who, in turn, selected the primary data based on their research preferences.

---

<sup>15</sup> The system of production employed by the teak business will be discussed in detail in the chapters four and five.

<sup>16</sup> Chamaichom Sunthornwat (ชมัชัยโถม สุนทรสวัสดิ์), “A Historical Study of Forestry in northern Thailand from 1896 to 1932 (การศึกษาเชิงประวัติศาสตร์เกี่ยวกับกิจการป่าไม้ทางภาคเหนือของไทย ตั้งแต่ พ.ศ. 2439 ถึง พ.ศ. 2475)” (Master of Arts, Chulalongkorn University, 1977); Salairat Dolarom (ไศลรัตน์ ดลอารมย์), “Development of Teak Logging in Thailand 1896–1960 (พัฒนาการของการทำป่าไม้สักในประเทศไทย พ.ศ. 2439–2503)” (Master of Arts, Silpakorn University, 1985).

<sup>17</sup> Banasopit Mekvichai, “The Teak Industry in North Thailand: The Role of a Natural-resource-based Export Economy in Regional Development” (Ph.D., Cornell University, 1988).

These documents are overly dependent on Siamese government sources. As such, their theses merely demonstrate and reproduce the perspectives of Siamese government. Given the government's anxiety toward the role of foreign companies and the many lawsuits involving teak and the local prince, these perspectives were mostly negative.<sup>18</sup> This negativity became a major theme in national narrative and still exists even today in school textbooks. The same discourse was used as a pretext for the central government in Bangkok to intervene in the domestic affairs of its vassal state and integrate the northern region into a single administrative unit under its direct control.<sup>19</sup> The two theses about teak by Chamaichom and Salairat are important in understanding the efforts exerted by Bangkok to control the teak trade, but they do not explain how the teak industry developed in business terms.

The political conditions of colonial Southeast Asia transformed traditional states into modern states possessing territorial sovereignty<sup>20</sup> and a European bureaucratic system.<sup>21</sup> In short, with the exception of Siam, all of modern polities in Southeast Asia were colonised and forced to adopt these new bureaucratic structures. Siam was never fully colonised and, as a result, the ruling elites were able to maintain their grip on the structures of power. By voluntarily adopting this new European bureaucratic system, the Siamese elites were able to merge it with existing structures based on kinship rather than meritocracy. The result was the emergence of a new bureaucratic system based on the importance of kingship and Buddhism.<sup>22</sup> The Siamese bureaucracy dramatically increased its size, influence and scope expanding from political issues to control of the economy. The first objective of the Forest Department supported bureaucratic control of the economic system. Herbert Slade, for instance, the first Conservator of Forest of the Forest Department (1897–1901), supported the idea of state-run-enterprise for the teak trade and industry. Similarly, this position was strongly supported by King Rama V and his ruling circle.<sup>23</sup>

---

<sup>18</sup> See Chamaichom chapter 2 and Salairat chapter 2. Chapter 4 in Sarailat is entitled “The state policy on teak concession on European imperialism”.

<sup>19</sup> Tej Bunnag, *The Provincial Administration of Siam, 1892–1915: The Ministry of the Interior under Prince Damrong Rajanubhab* (Kuala Lumpur: Oxford University Press, 1977), 141–163.

<sup>20</sup> Thongchai Winichakul, *Siam Mapped: a History of the Geo-body of a Nation* (Honolulu: University of Hawaii Press, 1994).

<sup>21</sup> Hans-Dieter Evers, “The Bureaucratization of Southeast Asia,” *Comparative Studies in Society and History* vol. 29, no. 4 (1987).

<sup>22</sup> Stanley Jeyaraja Tambiah, *World Conqueror and World Renouncer: a Study of Buddhism and Polity in Thailand against a Historical Background* (Cambridge: Cambridge University Press, 1976).

<sup>23</sup> Herbert Slade, *Slade's Report on the Forestry in Siam before the Establishment of Forest Department Ror Sor 114 (1896)* (Bangkok: Information Center, Royal Forest Department, 1993), translated from English language.

The transformation of state in Southeast Asia had profound implications for the distribution of wealth. Wealth in Southeast Asia did not derive from sophisticated or complex processes of manufacturing or service provision, but, rather, it was drawn from the extraction of natural resources. Forestry, especially teak, became a lucrative item for export because it was not subject to the control of the central government, but, rather, it was under the control of traditional princes in different localities. Consequently, the central government received little income from teak duties before the establishment of the Forest Department. Political transformation during the nineteenth century entailed an arrangement allowing the central government to profit from the extraction of natural resources. The result is not difficult to imagine: as the state established monopolies on many exported items, its coffers began to overflow with this additional largesse. Forestry was just one industry claimed by the state and subjected to the new wealth distribution system.<sup>24</sup>

A recent article was published by Gregory Barton and Brett Bennett about the role and influence of Great Britain on the teak business in northern Siam. Utilising British documents the article clarifies how the influence of the Foreign Office helped to facilitate contracts for British companies in northern Siam, but that this was not part of a broader effort to integrate Siam into the British Empire as feared by Siamese elites.<sup>25</sup> Their article marks the first academic writing demonstrating how foreign documents could be used in research about the teak business.

Using foreign documents to conduct research on teak helps to understand the complexities of events in terms of both the political situation and business performance of different companies. Another article uses French documents to describe the operations of a French company in the Mekong River (แม่น้ำโขง) area on the western border between Siam and present-day Laos. By using French documents, the article disputes the static worldview preserved in the National Archives of Thailand. The result is the disclosure of French company activity and the interaction between the Siamese government, the Forest

---

<sup>24</sup> Timothy P. Barnard, "The Timber Trade in Pre-Modern Siak," *Indonesia* vol. 65, no. 65 (1998); Raymond L. Bryant, *The Political Ecology of Forestry in Burma: 1824–1994* (Honolulu: University of Hawaii Press, 1997); Tim N. Harper, "The Politics of the Forest in Colonial Malaya," *Modern Asian Studies* vol. 31, no. 1 (1997).

<sup>25</sup> Gregory A. Barton and Brett M. Bennett, "Forestry as Foreign Policy: Anglo-Siamese Relations and the Origins of Britain's Informal Empire in the Teak Forests of Northern Siam, 1883–1925," *Itinerario* vol. 34, no. 2 (2010).

Department, and the French company during 1909–1924.<sup>26</sup> The French approach is unique and differs from the cases of British companies. This will be explained in the Chapter 6.

The eminent feature of the studies about teak described above is that they pay special attention to how the Siamese government took control of the teak business in northern Siam by establishing the Forest Department and allowing it to control every issue pertaining to forestry. These studies help the reader to understand the political development and control of natural resources during the post-1897 era.

The literature review found two topics lacking in previous studies: first, the interactions between the government of Siam and both foreign governments and companies from the 1880s until 1896. This dissertation will examine the interactions between the Siamese government and the teak business in the context of Siam's economic system. Second, none of the previous studies explain teak from a business perspective. This dissertation will explore the commercial narrative and explain on detail the development of the teak industry.

### 1.2.2 Siam: Teak in the Economy of Nation-State of Southeast Asia

This section reviews the literature related to the economic development of Siam. Moreover, the section explains the character of teak in Siam's economic system and the gap left by previous research.

As mentioned in the previous section about the political control and seizure of forestry from the northern provinces, studies from section 1.2.1 viewed Siamese efforts at controlling the teak business as a political movement to defend its influence in the northern region against the intrusion of both the British government and British business interests. As an export item in high demand on the global market, these studies, however, failed to explain the economic motives, namely, that teak was a lucrative resource. While Chaiyan Rajchagool included teak in his explanation about the transformation of Siam's feudal economy into a peripheral part of the global capitalist system,<sup>27</sup> only five pages in his book deal with the economic role of teak.<sup>28</sup>

---

<sup>26</sup> Suphawat Laohachaiboon and Shinya Takeda, "Teak Logging in a Trans-Boundary Watershed: an Historical Case Study of the Ing River Basin in northern Thailand," *Journal of the Siam Society* vol. 95 (2007).

<sup>27</sup> Chaiyan Rajchagool, *The Rise and Fall of the Thai Absolute Monarchy: Foundations of the Modern Thai State from Feudalism to Peripheral Capitalism* (Bangkok: White Lotus, 1994), 65.

<sup>28</sup> *ibid.*, 17–19, 22.

Yoshihara Kunio, a Japanese economist specialising in the political economy and economic development of Southeast Asia, published a book on Southeast Asian capitalism and its development in 1988. He interprets Southeast Asian capitalism as “ersatz” and “cronies” through examination of the concentration of wealth amongst each capital-group: Chinese capital, state-capital (bureaucrats in the state-owned enterprise, usually military personnel), and foreign capital in the post Second World War period. The book refers to the colonial period as well. It emphasises the political character of the crony-economy in the region and argues that the Southeast Asian economy was controlled by political power.<sup>29</sup> The system was based on interpersonal relationships between the actors referred to above. In short, the state monopolises and grants access to high value natural resources in terms of concessions or economic activities like licenses for industrial products for a selective group. As a result, prosperity was unfairly distributed and accumulated amongst the members of this closed circle. In effect, the system excluded non-members from this new wealth-generating-machine. This same system applied to teak.

The second point in Yoshihara’s book is his explanation of the pattern of Southeast Asian capitalism, which was different to that of Western Europe and Japan. Southeast Asia lacked the development of private economic institutions and a merchant class because economic activity was monopolised under state control. Yoshihara uses this characterisation to categorise Southeast Asia’s capitalism as ersatz.

His hypothesis on the development of capitalism in Southeast Asia instigated a debate on the topic. Scholars on Southeast Asian economic development published a multi-author book, *Southeast Asian Capitalists* in 1992, edited by Ruth McVey. In brief, the volume, in particular the introductory chapter, questions Yoshihara’s hypothesis on Southeast Asia’s ersatz capitalism and demonstrates both the dynamism and variety of the economic patterns in Southeast Asia.<sup>30</sup> For example, Akira Suehiro elaborates on the economic complexities of Thailand by demonstrating the complex relationships present in the Thai economic system, especially conflicts within elite circles.<sup>31</sup> Moreover, academic research on the development and activity of private companies in Siam prior to the Second World War points out how European companies and overseas Chinese companies had different methods and concepts of

---

<sup>29</sup> Kunio Yoshihara, *The Rise of Ersatz Capitalism in South-East Asia* (Singapore: Oxford University Press, 1988).

<sup>30</sup> Ruth T. McVey, “The Materialization of the Southeast Asian Entrepreneur,” in Ruth McVey, *Southeast Asian Capitalists*.

<sup>31</sup> Suehiro Akira, “Capitalist Development on Postwar Thailand: Commercial Bankers, Industrial Elite, and Agribusiness Groups,” in Ruth McVey, *Southeast Asian Capitalists*.

business management that differ from Yoshihara's suggestion. Another study on a British company in Thailand disputes Yoshihara's premise because the British company trading was forced to conform to the politico-economic conditions in Thailand, as well as the business environment in different regions.<sup>32</sup>

Fundamentally, European and Chinese merchants utilised different approaches in order to adapt to local condition and expand their business networks. European and Chinese merchants had similar aims but adopted different strategies; both tried to adapt to local business conditions, but their approaches were based on their cultural preferences and context. This resulted in differing *modi operandi*. One major aspect to understanding economic and business development in Southeast Asia is the role of the Chinese overseas. The success story of Chinese business in the region has been fully highlighted and systemically researched in both foreign languages and the vernacular languages of Southeast Asia.

The second category of research demonstrated how Chinese merchants operated in the Thai economic system. This category includes studies focusing on the central, or Bangkok, area and the regional level. The most famous research on Thai economic history is *Capital Accumulation in Thailand* by Akira Suehiro<sup>33</sup> and Pannee Bualek's *The Analysis and Characteristics of Thai Commercial Banker* and *The Characteristics of Thai Capitalists between 1932–1939: the lessons from success and tragedy*.<sup>34</sup> In the regional area of Siam, the role of Chinese in Siam's economic system has been highlighted as well. The area which received highest attention from the academic world is southern Siam, because this area has a long history of connectivity with the global commodities' market in tin and rubber. Chinese merchants connected the communities in southern Siam with the major commercial cities in the Straits Settlements.<sup>35</sup>

---

<sup>32</sup> Malcolm Falkus, "Early British Business in Thailand," in Davenport-Hines, R. P. T; Jones, *British Business in Asia since 1860*.

<sup>33</sup> Akira Suehiro, *Capital Accumulation in Thailand, 1855–1985* (Tokyo: Centre for East Asian Cultural Studies, 1989)

<sup>34</sup> Pannee Bualek (พรณี บัวเล็ก), *The Analysis and Characteristics of Thai Commercial Banker, 1932–1973* (วิเคราะห์ธนาคารพาณิชย์ของไทย พ.ศ. 2475–2516), 2nd (Bangkok: Siam, 2000); Pannee Bualek (พรณี บัวเล็ก), *The Characteristics of Thai Capitalists between 1914–1939: the Lessons from Success and Tragedy* (ลักษณะของนายทุนไทยในช่วงระหว่าง พ.ศ. 2457–2482 บทเรียนจากความรุ่งโรจน์สู่โศกนาฏกรรม), 2nd (Bangkok: Panthakit Publishing, 2002)

<sup>35</sup> Jennifer Wayne Cushman, *Family and State: the Formation of a Sino-Thai Tin-Mining Dynasty, 1797–1932* (Singapore: Oxford University Press, 1991); Suri Liengsaengthong (สุรีย์ เลียงแสงทอง), "An Analytical Study of



The overseas Chinese in the Siamese export sector were highly competitive and overshadowed European companies, especially in rice and tin. At the domestic level, European merchants could not penetrate into the retail market. However, European merchants could remain competitive by supplying luxurious goods for a very small niche market in Bangkok and in the provincial centres. The phenomenon of the teak business was different from the widespread success of the Chinese export businesses in Southeast Asian countries. On the whole, Chinese influence on teak was very small.

Knowledge about Chinese business networking and its structure are well researched compared with the business networks of European business. For northern Siam, there are two studies by Plaioor Chananon and Kanokwan Uthongsap focusing on Chiang Mai and Lampang respectively.<sup>36</sup> They explain the increasing influence of Chinese merchants in these two provinces. The Chinese merchants in northern Siam were urban dwellers. This was a common feature found in the communities of Chinese merchants in Siam. Both researches explore the development of individual Chinese communities under different socio-economic circumstances. In Chiang Mai, Chinese played a significant role in rice, opium, textiles, and the livestock business. Their role in teak was less important, although some small sawmills existed and delivered teak for local consumers.<sup>37</sup> In Lampang, the Chinese were active players in rice, rice mills, and tannery. Unlike Chiang Mai, the Chinese played an important role in the teak industry and obtained teak concessions through connections with the local prince.<sup>38</sup> Ultimately, however, they were unable to compete with Burmese foresters<sup>39</sup> who received contracts from British companies.

All of the academic writing on the overseas Chinese in Siam explains their role as a medium for the agricultural sector and the export sector. In northern Siam, they played a significant

---

Phuket's Economy during 1853–1932 (การศึกษาวិเคราะห์สภาพเศรษฐกิจเมืองภูเก็ตระหว่าง พ.ศ. 2396–2475)” (Master of Arts, Chulalongkorn University, 1981)

<sup>36</sup> Kanokwan Uthongsap, “The Economic Roles of the Sino-Thai Community in the Northern Region of Thailand from 1900 to 1960: a Case Study of Lampang Province” (Ph.D., Waseda University, 2012); Plaioor Chananon (ปลาย้อ ชนนวนนท์), *The Roles of Merchant Capitalists in the Rise and Expansion of Capitalism in Northern Thailand, 1921–1980* (นายทุนพ่อค้ากับการก่อตัวและขยายตัวระบบทุนนิยมในภาคเหนือของไทย พ.ศ. 2464–2523) (Bangkok: Social Science Research Institute, Chulalongkorn University, 1987)

<sup>37</sup> Plaioor Chananon (ปลาย้อ ชนนวนนท์), *The Roles of Merchant Capitalists in the Rise and Expansion of Capitalism in Northern Thailand, 1921–1980* (นายทุนพ่อค้ากับการก่อตัวและขยายตัวระบบทุนนิยมในภาคเหนือของไทย พ.ศ. 2464–2523), 39, 47, 50–51.

<sup>38</sup> Kanokwan Uthongsap, “The Economic Roles of the Sino-Thai Community in the Northern Region of Thailand from 1900 to 1960,” 100, 132–137.

<sup>39</sup> *ibid.*, 114–115.

role in Siam's economic system by playing the role of the middlemen. In Southeast Asia, Chinese networking scattered over vast areas helped their peers to acquire goods and credit easily. Very often, these financial networks went beyond the territory of one nation-state.<sup>40</sup>

Compared with the Chinese merchants, it was difficult for non-Chinese merchants to acquire long-term credit with low interest rates. Teak was an exception; the Chinese were recorded as middlemen in the teak business, European companies were latecomers becoming involved in teak from the 1880s. Starting from the first decade of the twentieth century, the role of Chinese in the teak business slowly declined. Very few could sustain their middleman status or remain competitive. The United States special agent from the Department of Commerce and Labor visited Siam on the eve of the First World War to inspect the teak market in Siam and Indo-China. He found that there was a very small group of Chinese merchants operating in the teak export sector.<sup>41</sup>

The development of the teak business was different from the overall trend for rice and tin in Siam. The number of Chinese in the teak business was very limited compared to other export-products. To fill the gap left from previous studies, this dissertation will explore the expansion of the teak business through the development of European companies. The development of European and Chinese companies operating under the politico-economic context of Siam between the 1880s and 1930s will be explained later in chapter 6.

The teak business always possessed strong political implications. This feature is absent in a major book on Thai economic development, *Economic Change in Thailand, 1850–1970* by James C. Ingram, which failed to explain the politico-economic complexities of teak as a major Siamese export. He does, however, briefly write about teak in the section about “Other Exports”.<sup>42</sup> According to the Bowring Treaty and similar treaties signed with the several European countries, including Japan and United States, Siam placed restrictions on foreigners pertaining to travel and residency limiting these to areas accessible within twenty-four hours from Bangkok.<sup>43</sup> However, there was no clause to punish people who violated that limit. The

---

<sup>40</sup> Clifton G. Barton, “Credit and Commercial Control the Strategies and Methods of Chinese Merchants in South Vietnam” (Ph.D., Cornell University, 1977); Kunio Yoshihara, *The Rise of Ersatz Capitalism in South-East Asia*; Pannee Bualek (พรณี บัวเล็ก), *The Characteristics of Thai Capitalists between 1914–1939*.

<sup>41</sup> Franklin H. Smith, *Teak in Siam and Indo-China* (Washington: Government Print Office, 1915).

<sup>42</sup> James C. Ingram, *Economic Change in Thailand, 1850–1970* (Stanford, Calif.: Stanford University Press, 1971), 93–111.

<sup>43</sup> *Siam. Treaty of Friendship and Commerce between Her Majesty and the Kings of Siam. Signed at Bangkok, April 18, 1855. With an Agreement Supplementary thereto. Signed at Bangkok, May 13, 1856.* (London: HMSO, 1857).

Siamese government seemed to tolerate the offence for people in teak business when some westerners lived in Chiang Mai from 1899. However, in 1896, the Siamese government enforced the limitation in the legal disputation between Bombay Burmah and Chin Jau Chiew about landownership in Nakhon Sawan province. The Siamese court decided to grant ownership to Chin Jau Chiew because of the principle that foreigners must be within twenty-four hours of Bangkok based on the Bowring Treaty.<sup>44</sup> As shown in Ingram's book, this focus on political implications had no place in a macroeconomic analysis. Therefore, it is important to fill the research on specific product like teak with a political analysis.

### 1.2.3 Northern Siam: Current Status of Knowledge

The status of research about the economic history of northern Siam is comparatively small when compared with other areas like central or southern Siam. In short, the present knowledge on the economic system of northern Siam is insufficient.<sup>45</sup> Research on northern Siam's socio-economic conditions and development are usually dominated by the perspectives of the central government in Bangkok. The existing literature often focuses on how the government handled and reacted to European imperialist intrusions. The official perspective of the Siamese state and of the people living in the centre perceived the peripheral areas as self-sufficient and backward communities.<sup>46</sup> The aforementioned historical narrative of northern Siam is directly tied to the explanation of how Bangkok successfully controlled and exploited the northern region. The central government justified such measures by invoking reasons of national unity and ensuring independence from an encroaching foreign power. A similar point of view existed in regards to the case of northeastern Siam, another landlocked area that was considered economically significant according to French records.<sup>47</sup>

British reports on trade in northern Siam usually suggested that the role of teak from northern Siam were statistically essential to Siam's overall economy.<sup>48</sup> This premise is under-

---

<sup>44</sup> FO 881/6721 SIAM: Desp. Court held by Vice-Consul W. Beckett at Nakonsawan to try Robberies of Teak.

<sup>45</sup> Sarasawadee Ongsakul (สรสชาติ อึ้งสกุล), *The History Lan Na* (ประวัติศาสตร์ล้านนา) (Bangkok: Amarin, 2010).

<sup>46</sup> Amnuayvit Thitibordin, "Mapping Discourses of Community Rights in Northern Thailand, from the First National Economic and Social Development Plan to the Thaksin Era," in *Political Governance and Minority Rights: The South and South-East Asian Scenario*, ed. Lipi Ghosh (London: Routledge, 2009).

<sup>47</sup> Ministère du commerce et de l'industrie, *Siam, mouvement économique du Laos Siamois (Monthons Isan et Oudon)*, Rapports commerciaux des agents diplomatiques et consulaires de France 865 (Paris: Office national du commerce extérieur, 1910).

<sup>48</sup> Stringer, C. E. W., *Report: By Mr. C.E.W. Stringer of a Journey to the Laos State of Nan, Siam. Presented to Both Houses of Parliament by Command of Her Majesty, April, 1888* (London: HMSO, 1888); Ernest Mason Satow, *The Satow Siam Papers: the Private Diaries and Correspondence of Ernest Satow, C.M.G. H.B.M.*

investigated in academic research for two major reasons. Firstly, northern Siam is a landlocked area. It is divided into several basins by a series of mountainous areas. Each basin contains a limited area of arable land. Individual basins were represented and performed as separate political entities and functioned on a basis of resource distribution. In each basin, people principally lived on the cultivation of wet rice rather than trade. The geographic characters and political make-up of the region inhibited people from engaging in large-scale trade. Nevertheless, commercial activities did exist in mainland Southeast Asia and goods flowed through the current contact area between Thailand, Myanmar, Laos, and Southern China.<sup>49</sup> There was the caravan trade operated by Haw merchants from Southern China, but the function of caravan trade was to provide the basic necessities for peasant communities rather than to encourage industrialisation or increase total productivity in rural areas. An interview with a native trader who traded with the oxen caravan merchant in northern Siam found that the short-range caravan was based on the oversupply of rice left over from what was needed for consumption during a year of good harvest.<sup>50</sup>

Secondly, the ruling class in the Lan Na principalities never encouraged local people to participate in commercial activities. Instead, the ruling class holding political authority also engaged in certain commercial activities. There were some commercial activities conducted by ethnic groups however. While exploitation from the ruling class existed,<sup>51</sup> the relationship between these two social groups did not point to commercial relations or results in the creation of any institution promoting commercial activities. It was not until the first decade of the twentieth century that the socio-economic structure of the region was affected by nationwide administrative reforms.<sup>52</sup> This not only changed the political order, but the

---

*Minister-Resident, Bangkok, 1885–1888* (Bangkok: Historical Society, 1997); Ernest Satow, *Diplomat in Siam: H.B.M. Minister-Resident, Bangkok, 1885–88*, ed. Nigel Brailey, *Itineraria Asiatica* v. 8 (Bangkok: Orchid Press, 2000); William J. Archer, *Report on a Journey in the Mě-kong Valley* (London: HMSO, 1892).

<sup>49</sup> Yoshiyuki Masuhara (โยชิยุกิ มาซุฮารา), *The Economic History of Laos Lan Chang Kingdom in 14th–17th: from the Inner Trading State to Semiport Trading State* (ประวัติศาสตร์เศรษฐกิจของราชอาณาจักรลาวล้านช้าง สมัยคริสต์ศตวรรษที่ 14–17 จาก "รัฐการค้าภายในภาคพื้นทวีป" ไปสู่ "รัฐกึ่งเมืองท่า") (Bangkok: Matichon, 2003); The Diplomatic and Consular Reports in Trade and Finance various volumes.

<sup>50</sup> Michael Moerman, "Chiangkham's Trade in the "Old Days"" in *Change and Persistence in Thai Society: Essays in Honor of Lauriston Sharp*, ed. William Skinner and Thomas Kirsch (New York: Cornell University Press, 1975).

<sup>51</sup> Katherine A. Bowie, "Peasant Perspectives on the Political Economy of the Northern Thai Kingdom of Chiang Mai in the Nineteenth Century: Implications for the Understanding of Peasant Political Expression" (Ph.D., University of Chicago, 1988).

<sup>52</sup> Tej Bunnag, *The Provincial Administration of Siam, 1892–1915*, 220–228.

economic order as well.<sup>53</sup> The construction of railways became a significant transformative factor in northern Siam by increasing the number of Chinese merchants and goods moving from Bangkok.<sup>54</sup> During the same period, Chinese merchants usurped the role of ethnic Karen and Shan merchants by supplying a variety of goods to their clients in northern Siam. Additionally, they were agents of socio-economic change and conducted their business under state patronage.<sup>55</sup>

### 1.3 Research Concepts

The concepts utilised in this dissertation are concentrated in two groups: political economy and economic/business history. These two concepts provide a framework for the dissertation as detailed in the following sections. It is important to remark here, however, that using these concepts does not mean that the dissertation rigidly or blindly follows this theoretical framework. Rather, this dissertation utilises this framework to guide it in terms of how the sources should be collected, viewed, arranged, and understood.

#### 1.3.1 Political Economy

The significant aspect of the concept of political economy is the interconnection between the two domains of politics and economics. The basic idea of political economy is: a) that power can affect the distribution of wealth, and b) that the accumulation of wealth can lead to access to power. However, political economy is sometimes perceived as unscientific by mainstream economists because some political issues cannot be measured mathematically.

Nevertheless, the field of political economy has been revitalised following the global economic meltdown of 2008 because the crisis did not only affect the economic conditions.

---

<sup>53</sup> Plaioor Chananon (ปลาย้อ ชนนวนนท์), *The Roles of Merchant Capitalists in the Rise and Expansion of Capitalism in Northern Thailand, 1921–1980* (นายทุนพ่อค้ากับการก่อตัวและขยายตัวระบบทุนนิยมในภาคเหนือของไทย พ.ศ. 2464–2523), 15–19; Tej Bunnag, *The Provincial Administration of Siam, 1892–1915*; Weerathep Srimongkol, “The Tax Collection in Lanna 1884–1902” (Master of Arts, Silpakorn University, 1987).

<sup>54</sup> Ichiro Kakizaki, *Laying the Tracks: the Thai Economy and Its Railways 1885–1935*, Kyoto area studies on Asia (Kyoto: Kyoto University Press, 2005); Poonporn Poonthachak (พูนพร พูลทจักร), “Economic Change in Monthon Pha-Yap after the Construction of the Northern Railway, 1921–1941 (การเปลี่ยนแปลงทางเศรษฐกิจในมณฑลพายัพ หลังการตัดเส้นทางรถไฟสายเหนือ พ.ศ. 2464–2484)” (Master of Arts, Silpakorn University, 1987).

<sup>55</sup> Kanokwan Uthongsap, “The Economic Roles of the Sino-Thai Community in the Northern Region of Thailand from 1900 to 1960,” Plaioor Chananon (ปลาย้อ ชนนวนนท์), *The Roles of Merchant Capitalists in the Rise and Expansion of Capitalism in Northern Thailand, 1921–1980* (นายทุนพ่อค้ากับการก่อตัวและขยายตัวระบบทุนนิยมในภาคเหนือของไทย พ.ศ. 2464–2523).

The superiority of mainstream economics taught at the economic schools around the world was challenged. Mainstream economics have been criticised for being overly-reliant on econometrics and the presupposition of Homo Economicus. Why did the methods of mainstream economics and the idea of Homo Economicus fail to comprehend economic change and prevent an economic collapse? The problem of mainstream economics derives from a notion central to economics itself. Epistemologically, economics, as a body of knowledge, seeks to develop knowledge without human subjectivity. In this sense, many have claimed that economics is the hardest of the “soft” sciences, because it relies on the intensive use of mathematics, and tends to ignore socio-political factors and omitting these from descriptive analyses.

Another important notion, “Homo Economicus,” implies that human beings act rationally. When coming to a decision in terms of rational economic choice, Homo Economicus decides on the basis of profit and loss. In reality, this belief about the rationality of human beings and their ability to act according to their economic interests has been challenged. There are several major arguments against Homo Economicus.

Human beings, as individual members of society, are connected with other individuals in either formal or informal ways. In both forms of relationship, each individual has a socially designated role in their community: whether this be their family, school, township, workplace, or country etc. Each designated role exercises varying levels of power depending on each specific society. When it comes to economic interactions, each member or party is able to draw power based on their designated role in order to obtain better outcomes.

Combining the notion of power assigned to designated roles and the limits of econometric methods to measure and comprehend human interaction, the symbiosis of politics and economics in the concept of political economy provides the analytical platform for teak business in Siam. This is because teak business needs to be explained by reference to politico-economic change in Siam.

### 1.3.2 Economic and Business History

Research in the field of economic history is likely to focus on the macro level of economic change. Although economic history can help us to understand the dynamics of historical change through time, there are still criticisms of this approach. Economic history, for instance, does not necessarily position human beings as agents of change. It also does not adequately study the interactions between and behavior of different parties in the economic system. One approach to solve these problems is to examine micro level economic activity; this is known as business history. Business history pays attention to issues of economic change, but it also tries to understand and explain how private companies and/or individual actors make decisions and manage themselves in the business world. In this aspect, business history overlaps with economic history. Business history, in addition, addresses the problem of individual or group participation in the economic system.

Business history was famously founded by N. S. B. Gras. One of his articles “Why Study Business History”, published in 1938, had a significant impact on the direction of business history and established it as a field of inquiry. Basically, business history is the study of the development of business administration including various business activities such as production, marketing, and private finance.<sup>59</sup> The article critiques the gaps left by macroeconomic approaches that concentrate on issues like fiscal policy, import-export, interest rates, exchange rates, and so forth. These concepts tend to be based solely in economic theory,<sup>60</sup> but business history has strong interdisciplinary features. As mentioned earlier in the section about political-economy, mainstream economics tend to exclude politics from their analyses. In contrast, business history includes political factors that may influence business matters; for instance, a change of government policy could affect business operations. Before the Second World War, macroeconomic approaches often received a privileged role in economic analyses but the researchers did not put enough effort in understanding the role of business organisation.<sup>61</sup> Gras created a new paradigm to include actors from the private sector in order to help understand changes in economic and business systems.

---

<sup>59</sup> Gras, N. S. B., “Why Study Business History?,” *The Canadian Journal of Economics and Political Science / Revue canadienne d’Economie et de Science politique* vol. 4, no. 3 (1938): 320.

<sup>60</sup> *ibid.*, 323.

<sup>61</sup> This argument could be supported by the published work of Ronald H. Coase “The Nature of the Firm” The article was published in 1937. It asked the question about the characteristic of a business organisation. Even an academic circle acknowledges the article very late. He won a Nobel Prize from his article in 1991. See Ronald H. Coase, “The Nature of the Firm,” *Economica* 4, no. 16 (1937).

Hartmut Berghoff categorises the direction of business history and the understanding of business organisation into four streams: business organisation as a motor of history (Unternehmen als ökonomischer Motor der Geschichte); business organisation as social interaction field (Unternehmen als soziale Interaktionfelder); business organisation as a culturally creative institution (Unternehmen als kulturschaffende Institutionen); and business organisation in a political history (Unternehmen in der politischen Geschichte). This dissertation draws the first and the fourth streams into consideration.

Berghoff's explanation for the first stream is similar to Gras' ideas on business history; that is, private companies are key players when it comes to commercial activities.<sup>62</sup> Indeed, such companies produce products and services for clients. Competition between companies helps to improve living standards and transforms the landscape of human ecology. Gras and Berghoff also share the idea that business interactions are part of the political arena. However, as mentioned earlier, Gras places an emphasis on the internal administration of a company.<sup>63</sup> In this context, business is a passive actor for political change. Conversely, Berghoff's fourth stream contends that the involvement of business in politics is visible in many cases, for example: direct lobbying, the influence of non-profit foundations, funding by companies, and research grants for particular studies at research institutions and universities, amongst others. As the business organisation starts to become involved with the government's decisions and policy, all of these are imbued with political implications.<sup>64</sup>

Although Gras published his article before the Second World War and Berghoff published his book more than half a century later, it appears that the influence of the business sector in politics is gradually increasing. As such, the notion of the political economy discussed in the previous section, or the symbiosis between politics and economics, will be incorporated alongside the concept of business history in order to analyse the central focus of this dissertation: the teak business in Siam. As demonstrated in the literature review, the previous studies focused on the political aspects of the teak business as their main theme of research; none of them attempted to understand the development and teak economy from a business perspective. The basic notion of business history is that it pays special attention to the roles of companies because these are some of the major players in capitalist economies. From this

---

<sup>62</sup> Hartmut Berghoff, *Moderne Unternehmensgeschichte: Eine themen- und theorieorientierte Einführung* (Paderborn: F. Schöningh, 2004), 22.

<sup>63</sup> Gras, N. S. B., "Why Study Business History?," 325–329.

<sup>64</sup> Berghoff, *Moderne Unternehmensgeschichte*, 26–29. See an example of how the Bombay Burmah Trading Corporation involves in the Third Anglo-Burmese War in 1885 in Anthony Webster, "Business and Empire: A Reassessment of the British conquest of Burma in 1885," *The Historical Journal* vol. 43, no. 4 (2000).



point of view, business history contributes to the understanding of an individual unit within a selected economy. Secondly, business history highlights different perspectives vis-a-vis business-state relationships. Many studies on the economic history of Thailand before the Second World War focus on the role of the state and thereby overshadow the roles of private companies. By adopting an approach orientated to business history, it is theoretically possible to discuss both the role of the state and microeconomic spheres as well. For the purposes of this dissertation, business history will function as the primary tool or the main approach to guide the author and the reader from the start to the end.<sup>66</sup> However, it is important to explain the status of theory within this dissertation. The dissertation treats theory as a yardstick to measure the reality or how the information has been gathered.<sup>67</sup> It does not take theory as an instant formula because theories are constructed according to selected models based on particular societies or periods.

The line between economic and business history – that is, how business units perform in a given economic system for economic history, and the study of the administration of specific companies in business history – is widely accepted.<sup>69</sup> The dissertation intends to understand not only the operation of teak companies and their performance in Siam, but also the ways in which it interacted with Siam’s politico-economic development. By focusing on just a single company and narrating how the company changed, it is similar to a company biography or the history of the company, rather than business history.<sup>70</sup>

Arthur Cole, a business historian, proposed in 1962 the concept of “business system.” The concept views a selected business as a single unit that has connections with multiple business organisations involved in several types of activities.<sup>71</sup> This includes activities such as the extraction of raw material, the manufacturing processes, financial issues, the transportation of goods from place to place, and acting as both a wholesaler and a retailer. A “business system” implies a systematic chain of connectivity within a single industry or a chain of organisation. Business history, as a field of inquiry, contributes to the understanding of business problems and development in the past and highlights the changing role of business within the wider society.<sup>72</sup> The dissertation adapts the notion of a “business system” and considers each

---

<sup>66</sup> The Business history concept use here is including the concept of economic history and political-economy.

<sup>67</sup> Fritz Redlich, “Approaches to Business History,” *The Business History Review* vol. 36, no. 1 (1962): 67.

<sup>69</sup> *ibid.*, 65.

<sup>70</sup> The dissertation is using various examples of British, Chinese, Danish, Dutch, and French companies to explain how individual company adapted to the Siam politico-economic condition.

<sup>71</sup> Arthur H. Cole, “What Is Business History?,” *The Business History Review* vol. 36, no. 1 (1962): 100.

<sup>72</sup> *ibid.*, 104–105.

business unit as an interconnected node. Moreover, not only is a business unit, for instance a company, viewed as a node, but smaller units – such as a branch, department, or even individuals – are also viewed as smaller nodes within the overall company structure.

The dissertation employs the concept of economic history and business history to understand the change in the Siamese economic system and the operation of teak companies within this system. On the one hand, economic history provides the tools to analyse and understand economic change on a macro level. On the other hand, business history supplies the concepts to understand interactions at a micro level. This, in turn, will provide a better understanding of how individuals or groups act in a particular politico-economic context. The focal point of the dissertation is an examination of the changing place of business in Thai society dictated by politico-economic change between the 1880s and 1932.

By incorporating socio-politic features, the method of business history adopted in this dissertation differs from the dominant stream in business schools that tries to reduce the role of social factors, political regulations, and power structure. Combining concepts from both business history and economic history with those from political economy, this dissertation will not only focus on the business unit, but also the dynamics that the companies helped to create within the Siamese politico-economic system and vice versa. In short, the influences that Siamese politico-economic structures had on business will be considered as well.

#### 1.4 Sources and Information

There are at least two categories of documents that will be used in my research. The first category comprises the primary sources containing information produced by the people who experienced and recorded their direct involvement in the events.

In this respect, primary sources would be, for example, official records written by state agents or released by state organisations. In some cases, primary sources refer to statistical data and official reports from the people who had a first-hand experience of each event. Indeed, information recorded by non-state agents who were directly involved in and/or possessed first-hand insights of each event are also considered to be primary sources for this dissertation.

For the focus period of this dissertation, there are very few sources available in Thailand except for Siamese government reports and correspondences. This meant that previous

studies might be biased towards the Siamese government because they had to rely on primary sources from the Siamese government. To reach a more accurate representation of the reality of historical development, primary sources written in foreign languages will be used to balance Siamese government documents. Beyond the sources produced by the Siamese government, this research employs a number of western language documents, most of which were written by British officers. The incorporation of these documents helps to ameliorate the problem of bias mentioned above stemming from an imbalance of source material. As the world's predominant imperial power throughout the nineteenth century, Great Britain played a crucial role in the race for power and economic expansion on a global level. In Southeast Asia, she left her footprint in Malaysia (previously known as British Malaya) and Myanmar (which was once a province of British India). In Siam, British diplomats were stationed in various areas. Many of them produced regular reports, for example, W. J. Archer, J. S. Black, and W. A. R. Wood etc. They supplied a huge amount of diplomatic correspondence reporting back to the Foreign Office in London. These documents are major sources when to understand changing conditions in northern Siam.

Although Siam was not a British colony, the notion that Siam was of a semi-colonial status has been widely discussed<sup>73</sup> because British influence within Siam and the Siamese ruling-elite was so strong. Due to geopolitical factors, the British government required the diplomatic service – both the embassy and consulate – stationed in Siam to submit an annual report, as well as provide occasional updates to the Foreign Office in London. The character of British documents will be discussed in detail in section 1.4.2 and 1.4.3.

Secondly, the dissertation collects information from secondary sources. A secondary source refers to the work by authors who were not directly involved. This category also includes academic research, travelogue, and newspaper articles<sup>74</sup> about the topic.

---

<sup>73</sup> Mandy Banton, *Administering the Empire, 1801–1968: A Guide to the Records of the Colonial Office in the National Archives of the UK* (London: University of London, Institute of Historical Research, 2008); Barton and Bennett, "Forestry as Foreign Policy," SarDesai, D. R., *British Trade and Expansion in Southeast Asia, 1830–1914* (New Delhi: Allied Publication, 1977).

<sup>74</sup> During the nineteenth century, major newspaper in Southeast Asia reports the story based from information provided by the authority or bought the news from local newspaper.

#### 1.4.1 Thai Primary Sources

Thai primary sources for this dissertation can be found in the National Archives of Thailand and the Rare Material section in the National Library of Thailand. Both of these are located in Bangkok and managed by the Fine Arts Department.

All documents kept in the National Archives of Thailand are either government records in the form of manuscripts or typed documents. The content of National Archives of Thailand documents are widely known amongst researchers of Thai history. Documents about teak in National Archives of Thailand are stored in the filing system of three government agencies: the Ministry of Interior, the Ministry of Agriculture, and the Financial Adviser Office.

The content of the National Archives of Thailand details the political situation in Siam and political control over teak. Nevertheless, there are many documents which discuss teak as a major export item in northern Siam from an economic and business perspective. As mentioned before, previous theses on teak were strongly focused on the political control of teak by the government in Bangkok, but the content regarding economic and business issues have largely been left untouched. Therefore, this dissertation will analyse these untouched documents to explain the development of the teak business.

#### 1.4.2 British Foreign Office Documents

The British documents used in this dissertation will be briefly explained here. Documents detailing communication between the diplomatic service in Siam and Great Britain were located in the Foreign Office section. Documents called “Despatches” are the highest rank of official correspondence and the primary channel used to communicate between the Foreign Office and their diplomats in foreign countries. However, the concept of Despatches was well-known as formal communication between the colonial government, a group of colonies, or a deputy acting on the behalf of the governor, and the Secretary of State for the Colonies (or Colonial Secretary) in London.<sup>75</sup> The Despatches could also pass directly through the Secretary of State.

Although the “Despatches” in the context of the Foreign Service pertains to formal communication between the Foreign Office and the head of the Foreign Service stationed in a

---

<sup>75</sup> Banton, *Administering the Empire, 1801–1968*, 50.

foreign country, many documents detailing communication between British representatives in Bangkok were filed under the category “Despatches”.

#### 1.4.2.1 Foreign Office Confidential Print

Most of the communication between the Foreign Office and the British diplomats in Siam was accessible by the members of the government and some members in the civil service. The second category, “The Confidential Print” comprises of confidential letters that were sent back from foreign countries and colonies to London. Access to the Confidential Print was restricted to cabinet members, the Secretary of the Foreign Office, and the King or the Queen. The information provided in this series range from commercial activities, to feuds between ruling elites, to the influence of foreign powers, etc.

The status of Siam and her geopolitical location made the country important to British foreign policy. It was the duty of British diplomats in Siam to provide the Foreign Office with annual reports about the domestic situation. The content of the reports varied and depended of what happened in each year. Many files in the Confidential Print series relate to the teak business. There are two filing numbers of confidential print related with Siam in the National Archives of UK, these are “FO 422 - Foreign Office: Confidential Print Siam and South East Asia” and “FO 881 - Foreign Office: Confidential Print (Numerical Series)”.

Some of the “Confidential Print” were selected for publication. This dissertation accesses and uses the versions printed by University Publications of America. The series is known as “British Documents in Foreign Affairs: Reports and Papers from the Foreign Office Confidential Print”. The information about Siam was published in volume 27 of Series E Asia Part I: Asia, 1860–1914 and the volume 49 and 50 of Series E Part II Asia, 1914–1939.

#### 1.4.2.2 Diplomatic and Consular Reports on Trade and Finance

Every year, British diplomats were required to submit an annual report about the commercial activities and related statistics of their diplomatic jurisdictions to the Foreign Office in London. It was named “The Diplomatic and Consular Reports on Trade and Finance” (hereafter Consular Reports). A Consular Reports has the clear objective of providing essential information to business circles and policy makers at home. Consular Reports were printed almost every year and sold in Great Britain by the management of the His/Her Majesty’s Stationery Office (HMSO). After each issue was released, a copy was kept under

the “Diplomatic and Consular Reports in Trade and Finance” collection by the House of Commons.

In the case of Siam, the series for Bangkok’s jurisdiction started in 1886 and ended in 1914.<sup>76</sup> The Bangkok report mainly focuses on the commercial situation in Bangkok and the export of Siam’s major commodities to global markets. This publication of the Consular Reports series ended after the outbreak of First World War. British interest in the commercial condition of northern Siam, especially in regards to teak and the border trade, led to the publication of the Consular Reports for the Chiang Mai jurisdiction by the British Vice-Consul in Chiang Mai.<sup>77</sup> For some years the reports from Chiang Mai also included reports about other principalities in the north, such as Nan, Phrae, Lampang, and Chiang Rai.

Information from the Consular Reports from Chiang Mai jurisdiction focuses on the regional commercial conditions in the northern region. A most striking feature of the Consular Reports Chiang Mai is the intensive discussion of the teak trade between northern Siam and British India. These discussions have not been mentioned in the previous studies on teak. In some years, the report’s authors cited the business source for the information used in the report.

The Consular Reports of Chiang Mai keeps record of the annual number of teak logs floated to Bangkok and Moulmein. It also provides data about the annual wage for the Khmu, an ethnic group from Laos. They worked as non-skilled workers in the teak industry. The documents record, for example, the official number of Khmu, the market price for elephants, including the number of stolen and recovered of elephants each year, and the exchange rate between Baht and Indian Rupee. Baht and Rupee were the fundamental currencies used in the teak business.

### 1.4.3 Business Documents

The definition of business documents used in the dissertation is that these are documents produced by people with firsthand experience in the teak business, including business

---

<sup>76</sup> The report for the Bangkok jurisdiction contains the year 1886, 1888, 1889, 1891, 1892, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908–09, 1909, 1910–11, 1911–12, 1912–13, and 1913–14.

<sup>77</sup> The report for the Chiang Mai jurisdiction contains the year 1891, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, and 1914.

directories or business reports, which explain the development of the business world in Siam. Sometimes the Ministry of Commerce published documents in this category.<sup>78</sup>

The use of business documents helps to get an inside picture of how business developed and to learn about the perspective of the business world. These documents contain a lot of business-oriented information because the authors started their records with business in mind. These documents often provide information like information on business operations, staff's salary and pension fund, business logistics, and changing of technology and its consequence on business performance, etc. This information was usually overlooked or omitted by Siamese government documents because the government had a strong prejudice against the business.

Similar to the British documents, business documents are useful if they are used to balance and correct the prejudices reflected in the government documents of Siam. Many documents in the National Archives of Thailand, for instance, refer to the malpractice of the foreign companies. The discourse of the Siamese government on the teak business is reproduced in many narratives already mentioned in section 1.1. One unarguable goal of business is to maximise profit. Business documents show how companies think and tell the reader how the company participated in the teak business.

Though the total amount of business document is small compared with the documents from National Archives of Thailand or Foreign Office, it might be possible to assume that the companies avoided losing control on its information because this could possibly affect their business competitiveness. Business documents were published occasionally and circulated to specific audiences. These documents include some non-English language business publications which are used in the dissertation. A document by the Danish East Asiatic Company (Det Østasiatiske Kompagni), for instance, is written in Danish with some English language explanations. Similarly, Hans Niels Andersen, one of the major entrepreneurs in the teak business and the founder of Danish East Asiatic wrote two books in Danish dealing with his business experiences in Siam<sup>79</sup> and they are incorporated in the dissertation.

---

<sup>78</sup> Ministry of Commerce, *Importers and Exporters Directory for Siam, 1924*, 2nd (Bangkok: Ministry of Commerce, 1924); Ministry of Commerce and Communications, ed., *Siam: Nature and Industry* (Bangkok: Ministry of Commerce and Communications, 1930).

<sup>79</sup> Hans Niels Andersen, *Tilbageblik* (København: Hølst, 1914); Hans Niels Andersen, *Udvikling* (København: Hølst, 1929).

The dissertation also incorporates sources from two business collections in London: Archives & Special Collections in the School of Oriental and African Studies (SOAS) and the business archive section in London Metropolitan Archives (LMA). Access to these business documents is useful because they widen the dissertation's research perspective. However, the archive does impose regulations on how different documents can be accessed. It made the accessibility of some of these documents difficult. The author of this dissertation faced similar problems. Access to a number of documents was declined because these contained confidential business information.

There are few studies on Thai economic history that utilised business documents and the previous works on teak are not an exception. Therefore, the use of business documents in this dissertation will help to understand the development of teak business. These documents show that the teak industry dynamically interacted with the politico-economic system during the period study. This is in marked contrast the teak business depicted by the fear and anxiety of the Siamese government in Bangkok.

### 1.5 The Structure of the Dissertation

Apart from the first chapter which describes the necessary information for the reader to understand the concepts and documents used in the dissertation, the content of the dissertation has two parts: "Control" and "Prosperity". Each term describes and groups the relevant chapters as follows.

Part One, "Control", consists of chapters 2 and 3. This part starts by examining the budgetary problems of the Siamese government. These problems stemmed from political changes in Siam and government spending. It is argued that during the era of administrative reform and modernisation, usually known as the "Chakri Reform" (the name derives from the name of King Rama V, who led the reformation), the government spent a large amount of money on the establishment of the modern bureaucratic system, the construction of a railway system, and the creation of a canal network, etc. These projects gradually became a burden on the national budget and a problem for the government. Taking control of natural resources was the method used by the government in order to fix the budget. In this context, the teak industry in northern Siam had an important role in the economic system because the government received substantial amounts of revenue from royalty fees, stump fees, and customs duties.



To understand the politico-economic implications of teak business in northern Siam, chapter 2 explains the changing politico-economic situation of Siam following the Bowring Treaty of 1855 until the establishment of the Forest Department in 1896. It starts with the question: how did the Bowring Treaty affect Siam's politico-economic structure? It explains the processes by which the government transformed its bureaucratic system and used it to control regional areas. In the early twentieth century, the central government in Bangkok succeeded in controlling and integrating the Lan Na principalities or the former Lan Na Kingdom into the Siamese administrative system. Chapter 3 addresses the budgetary problems of the Siamese government. It also examines some of the problems inherent within the macroeconomic structures of Siam. This chapter explains the role of teak in Siam's macroeconomic system and details the government's efforts to control and profit from teak.

Part Two, "Prosperity", covers chapters 4, 5, and 6. It explores the teak business from the perspective of both business history and economic history. Chapter 4 starts with an explanation of teak's physiology, natural character, and how cutting and pricing were conducted in the forest. It will be followed by an account detailing how teak was transported from the forest to the foreign market. The last issue covered in chapter 4 interrogates how teak merchants or companies measured and set the price for teak. Chapter 5 concentrates on events occurring in the forests, including a description of administrative systems and field-operations. It focuses on the life of people working in the teak business and explains how the company managed its system of production in the forest. The role of elephants in the teak business and their status in the business will be highlighted. The chapter also analyses how crime and theft evolved in the teak business.

Chapter 6 explains the administrative structure of the teak business. The chapter discusses the different methods utilised by various companies in order to stay competitive in the teak business. This includes aspects such as a company's foundation, financial arrangements, where and how the company found and recruited their officers, and the role of networking in business. Chapter 6 describes the different business approaches taken by European and Chinese companies. Different business management strategies explain why British companies remained the major players in the teak industry and left few opportunities for Chinese, French, and Dutch companies until the Second World War.

Finally, chapter 7 will draw together the various aspects of the dissertation and consequent implications of its findings in conclusion.

## 1.6 Thai Transcription System and Spelling Variations

The transcription using in the dissertation follows the regulations of the Royal Institute of Thailand (ราชบัณฑิตยสถาน). The system is known as the Royal Thai General System of Transcription (hereafter RTGS). The current version was published in the Royal Gazette of Siam on 22<sup>th</sup> April 1999 and is endorsed by the Thai government.

The dissertation follows the RTGS guideline with one exception. When there are different transcriptions for the same person, position, or company, then the dissertation uses the version used by the owner or organization that owns the name. For example, the name for Damrong Rajanubhab (ดำรงราชานุภาพ) will be used instead of Damrongrathanuphap (RTGS) or the name of Rama VI was transliterated as Vajiravudh (วชิราวุธ) instead of Wachirawut (RTGS).

## Chapter 2 The Macro Economy and the Political Control of Teak

Siam's economy began to change after the signing of the Bowring Treaty in 1855. This chapter explains how the treaty affected the economy of Siam, especially at a macro level. This chapter contends that the state adapted in accordance with the new economic order brought about by the treaty. A new form of state and industry emerged, which demanded better infrastructure and a more comprehensive bureaucratic system to deal with administration etc. Filling state coffers was one of the Siamese government's top priorities. Within this context, teak became a lucrative natural resource for export. Accordingly, the second section of this chapter explains the importance of teak during the transformation of the Siamese state and the impact that it had on the government's budget.

The Bowring Treaty and the 1893 Paknam Incident were two especially important politico-economic incidents that occurred during this period. Both incidents were significant for the development of the Siamese economic system and led to an influx of foreign capital into Siam for business purposes. Politically, these two essential incidents dominated the Siamese government's politico-economic policies towards teak and the northern region. This chapter argues that these events affected Siamese policy on teak and resulted in an increased level of state control over the resource.

### 2.1 The Impact of the Bowring Treaty on the Siamese Economy

During the first half of the nineteenth century, European merchants in Siam conducted business without any of the guarantees afforded by business laws and contracts. Instead, most foreigners needed to deal with the king or high-ranking noblemen for permission to engage in commercial activities in Siam. Even with this permission, however, foreigners were subject to various regulations. There were, for instance, restrictions on where Europeans could live and conduct their business. All business activities were handled through middlemen in Bangkok. Sometimes these were Chinese, but sometimes these were noblemen who commanded state organisations. In the latter case, European merchants needed to follow Siamese regulations and buy from governmental agents at a price higher than the market rate.<sup>80</sup> Some European merchants were forced to buy luxurious items from the court because the majority of native residents did not consume imported products. This situation encouraged foreign merchants to stick to the export sector.

---

<sup>80</sup> W. S. Bristowe, "Robert Hunter in Siam, 1824–44," *History Today* vol. 24, no. 2 (1974): 90.

The commercial activities of the European merchants largely depended on personal relationships with influential figures in Siamese court and the king himself. Robert Hunter, for instance, was a Scottish merchant who came to Siam during the reign of King Rama III (reigned 1824–1851) for business purposes. He lived in Siam from 1824 to 1844. His success was derived from private relations with the king and other prominent individuals in the royal palace.<sup>81</sup> His business thrived until he broke the trust of King Rama III by transporting contraband opium from India to Siam.<sup>82</sup> In consequence, the Siamese court treated him with disfavour and this eventually ruined his business operations.<sup>83</sup>

King Rama III tried to adjust Siam's economic structure to take into account decreased levels of income from tributary trade with the Qing Dynasty.<sup>84</sup> He boosted Siam's economy by changing the structure of the Siamese domestic economy. He reformed the taxation system; for example, many tools used in small scale fisheries and household industries were included in the new taxation system.<sup>85</sup> During the reign of King Rama III, Siam waged war on Vietnam over the Cambodian royal succession. The war covered the area of present-day Cambodia and southern Vietnam from 1833 to 1847.<sup>86</sup> This war was aimed at controlling Cambodia and trade networks in the Mekong delta region.<sup>87</sup> In particular, Siam wanted to control the areas used for pepper and cardamom cultivation.<sup>88</sup> These two items were crucial export items for Siam.

In his efforts to maintain the state's income, King Rama III did not embrace the role of the private sector. State control over foreign trade remained intact throughout his entire reign.

---

<sup>81</sup> *ibid.*, 92.

<sup>82</sup> *ibid.*, 94–95.

<sup>83</sup> Adey Moore, "An early British Merchant in Bangkok," *Journal of the Siam Society* vol. 11, no. 2 (1915): 23–38; Chaophaya Tiphkornrawong (เจ้าพระยาทิพากรวงศ์มหาโกษาธิบดี), *The Rattanakosin Royal Chronicle of Rama III* (พระราชพงศาวดารกรุงรัตนโกสินทร์ รัชกาลที่ 3) (Bangkok: Department of Fine Arts, 1995), 115–116.

<sup>84</sup> Sarasin Viraphol, *Tribute and Profit: Sino-Siamese Trade, 1652–1853* (Cambridge, Mass.: Council on East Asian Studies, Harvard University, 1977), 227, 232.

<sup>85</sup> Chaophaya Tiphkornrawong (เจ้าพระยาทิพากรวงศ์มหาโกษาธิบดี), *The Rattanakosin Royal Chronicle of Rama III* (พระราชพงศาวดารกรุงรัตนโกสินทร์ รัชกาลที่ 3), 150.

<sup>86</sup> This account of the war was published anonymously and the date of its first publication is unknown. See *Annam Siam Yuth* (อนามสยามยุทธ), 2 vols. (Bangkok: Phare Phitthya, 1971) For the account on the political development in Cambodia during the same period see Chapter 7 The Crisis of the Nineteenth Century. David P. Chandler, *A History of Cambodia* (Chiang Mai: Silkorm Books, 2003), 117–136.

<sup>87</sup> Puangthong Rungswasdisab, "Siam and the Contest for Control of the Trans-Mekong Trading Networks from the Late Eighteenth to the Mid-Nineteenth Centuries," in *Water Frontier: Commerce and the Chinese in the Lower Mekong Region, 1750–1880*, ed. Nola Cooke and Tana Li (Singapore: Singapore University Press, 2004), 102–107.

<sup>88</sup> For a full analysis regarding the warfare in Cambodia see Puangthong Rungswasdisab, "War and Trade Siamese Interventions in Cambodia, 1767–1851" (Ph.D, University of Wollongong, 1995).

However, an increasing number of foreign commercial activities developed. In particular, the British East India Company was frustrated with the monopolies exercised by the Siamese government vis-à-vis major export items. The company sent Henry Burney as its agent to Bangkok in 1826 to negotiate a commercial treaty. Both parties decided to sign a treaty known as the Burney Treaty in 1827. Nevertheless, the treaty did not improve commercial relations between Siam and the British East India Company. British merchants could enter Bangkok without constraint, but state monopolies and the prohibition of movement outside of Bangkok remained for European merchants. The contribution of Burney was the recognition of Siamese control over several sultanate states on the Malay Peninsula; in exchange Siam recognised British authority over Penang Island.<sup>89</sup>

In fact, the Burney Treaty did not really affect many foreign commercial activities in Siam. Accordingly, the British government decided to put the pressure on Siam in aid of British commercial interests. In 1855, Sir John Bowring, the governor of Hong Kong (1854–1859), travelled to Bangkok to negotiate a new treaty during the reign of King Rama IV (1851–1868). Unlike Henry Burney, who represented the British East India Company, Bowring represented the British government and advocated for completely free trade. He argued that free trade would improve Siam's economic situation.<sup>90</sup>

The official title of the new treaty was “The Treaty of Friendship and Commerce between Her Majesty and The Kings of Siam”. However, it is more commonly known as the Bowring Treaty. The content of the treaty focused on the opening of Siamese markets to foreign goods and the export of products from Siam without interference from Siamese authorities. Moreover, it revoked the right of the state to monopolise export products. The treaty fixed a maximum tariff of 3 per cent ad valorem on all imports entering Siam, except for four products still monopolised by the Siamese government: opium, firearms, ammunition, and all sorts of alcoholic drinks. In regard to exports, the treaty provided a list of 64 products that foreign merchants could buy from the market and export without paying export duties.<sup>91</sup> Siam also decided to open her markets and all of her seaports to British subjects.

---

<sup>89</sup> D. G. E. Hall, *Henry Burney: a Political Biography* (London: Oxford University Press, 1974), 99–125.

<sup>90</sup> David Todd, “John Bowring and the Global Dissemination of Free Trade,” *The Historical Journal* vol. 51, no. 2 (2008): 393.

<sup>91</sup> These are ivory, gambodge, rhinoceros horns, cardamoms best, cardamoms bastard, dried Mussels, pelican's quills, dried betel nut, krachi wood, white shark fin, black shark fin, lukkrabau seed, peacock tail, buffalo and cow bones, rhinoceros hides, hide cutting, turtle shells, turtle soft shell, Bêche-de-mer (sea cucumber: the author), fish maw, bird nest (uncleaned), kingfisher feathers, cutch, beyche seed (Nux Vomica), pungtarai seed,

The treaty negotiations went smoothly and entailed the full of cooperation between the two parties. Later, however, the British government decided that the draft version presented by Bowring was too ambiguous. It demanded a revision and second expedition headed by Harry Smith Parkes travelled to Siam in May 1856 to conclude the second draft of the treaty. Harry Parkes was a British diplomat and a specialist on the East Asia region. A lack of knowledge about Siam was expected, but Bowring selected Harry Parkes for this task because he was known for his tact.<sup>92</sup> They inserted a supplemental agreement in the 1855 version of the treaty in order to avoid arbitrary interpretations. Parkes focused the negotiations on financial issues<sup>93</sup> and the commercial activities of British subjects.<sup>94</sup>

There are almost no official statistics or reports available regarding exports from Siam prior to the Bowring Treaty. It is almost certain, however, that the king and other high-ranking mandarins controlled most of these activities.<sup>95</sup> There was only a single estimation of Siamese exports published before the Bowring Treaty. This was by Jean-Baptist Pallegoix, an apostolic vicar of Siam from 1841 to 1862, and it was published just one year before the Bowring Treaty.<sup>96</sup> Bowring translated the data into English and published it in his book.<sup>97</sup> It

---

gum benjamin, angrai bark, agilia wood, ray skin, old deer horn, soft or young deer horn, fined deer hide, common deer hide, buffalo and cow hide, elephant bone, tiger bone, buffalo horn, elephant hide, tiger skin, armadillo skin, sticklac, hemp, dried fish, dried fish Plasalit (snakeskin gourami: the author), sappan wood, salt meat, mangrove bark, rosewood, ebony, rice, white sugar, red sugar, clean and unclean cotton, pepper, salt-fish, bean and pea, dried prawn, tilseed, raw silk, bees-wax, tallow, salt, tobacco.

<sup>92</sup> Nicholas Tarling, "Harry Parkes' Negotiations in Bangkok in 1856," *Journal of the Siam Society* vol. 53, no. 2 (1965): 153.

<sup>93</sup> Tomas Larsson, *Land and Loyalty: Security and the Development of Property Rights in Thailand* (Ithaca: Cornell University Press, 2012), 38.

<sup>94</sup> *Siam. Treaty of Friendship and Commerce between Her Majesty and the Kings of Siam. Signed at Bangkok, April 18, 1855. With an Agreement Supplementary thereto. Signed at Bangkok, May 13, 1856.*, 11.

<sup>95</sup> The Siamese court's business was conducted through appointed agents. Siamese port authorities were administrated by Chinese and Iranian operators from the Ayutthaya period until the nineteenth century. See Chulitphong Chularat (จุฬิศพงศ์ จุฬารัตน์), *The Krom Tha Khwa officials: their roles and functions during the Ayutthaya and Ratanakosin periods (1610–1892)* (บทบาทและหน้าที่ของขุนนางกรมท่าขวา ในสมัยอยุธยาถึงสมัยรัตนโกสินทร์ (พ.ศ. 2153–2435)) (Bangkok: Chulalongkorn University Press, 2007) and Adisorn Maukphimai (อดิศร หมากพิมาย), "Krom Tha and Thai Economic System: The Analysis of the Structural Change and the Development from Thonburi Period to the Bowring Treaty 1767–1855 (กรมท่ากับระบบเศรษฐกิจไทย: วิเคราะห์โครงสร้างและการเปลี่ยนแปลงตั้งแต่สมัยธนบุรีกับการทำสนธิสัญญาเบาว์ริง พ.ศ. 2310–2398)" (Master of Arts, Thammasart University, 1989). Additionally, from the late Ayutthaya period (1679–1723) all of the Siamese junks that visited Japan was operated by Chinese crews because of a lack of Siamese maritime skill. See Yoneo Ishii, *The Junk Trade from Southeast Asia: Translations from the Tōsen fusetsu-gaki, 1674–1723* (Singapore: Institute of Southeast Asian Studies, 1998), 2–3. This dependence on Chinese crew continued until the nineteenth century. See Sarasin Viraphol, *Tribute and Profit: Sino-Siamese Trade, 1652–1853*, 187.

<sup>96</sup> Jean-Baptiste Pallegoix, *Description du Royaume Thai ou Siam: comprenant la topographie, histoire naturelle, moeurs et coutumes, législation, commerce, industrie, langue, littérature, religion, annales des Thai et précis historique de la mission; avec carte et gravures. Tome Premier* (Paris: Mission de Siam, 1854), 237–238.

<sup>97</sup> John Bowring, *The Kingdom and People of Siam Volume 1* (Tokyo: Oxford University Press, 1969), 253–254.

is likely that Bowring used the information from Pallegoix's book during his negotiations with the Siamese court.

The information about teak exports in Pallegoix's book is fragmented and the amount documented appears insufficient for it to have been considered a major export item for Siam. Pallegoix provides the total amount of exports related to four types of wood exported from Siam. Siam annually exported 130,000 teak (bois de tek)<sup>98</sup> logs, although the export price of these were not listed, and 500,000 piculs<sup>99</sup> of sappanwood (bois de sapan)<sup>100</sup> at the price of one Baht per picul.<sup>101</sup> The other two types of wood were agarwood or eaglewood (bois d'aloès or bois d'aigle) and rosewood. The export of agarwood totaled only 6,000 piculs at a selling price of four Baht per catty.<sup>102</sup> According to Pallegoix, Siam exported 25,000 piculs of rosewood<sup>104</sup> (bois rose in Pallegoix's book) per year at the price of between five or six Baht per picul.<sup>105</sup>

Bowring also surveyed market prices during his stay in Bangkok. In terms of timber, he only found out that the price of the sappanwood ranged from between 50 satang to one Baht per picul.<sup>106</sup>

---

<sup>98</sup> The contemporary spelling is bois de teck.

<sup>99</sup> Picul is traditional measurement unit. It equals to 60.478982 Kilograms.

<sup>100</sup> The contemporary spelling is bois de sappan.

<sup>101</sup> Pallegoix, *Description du Royaume Thai ou Siam*, 327.

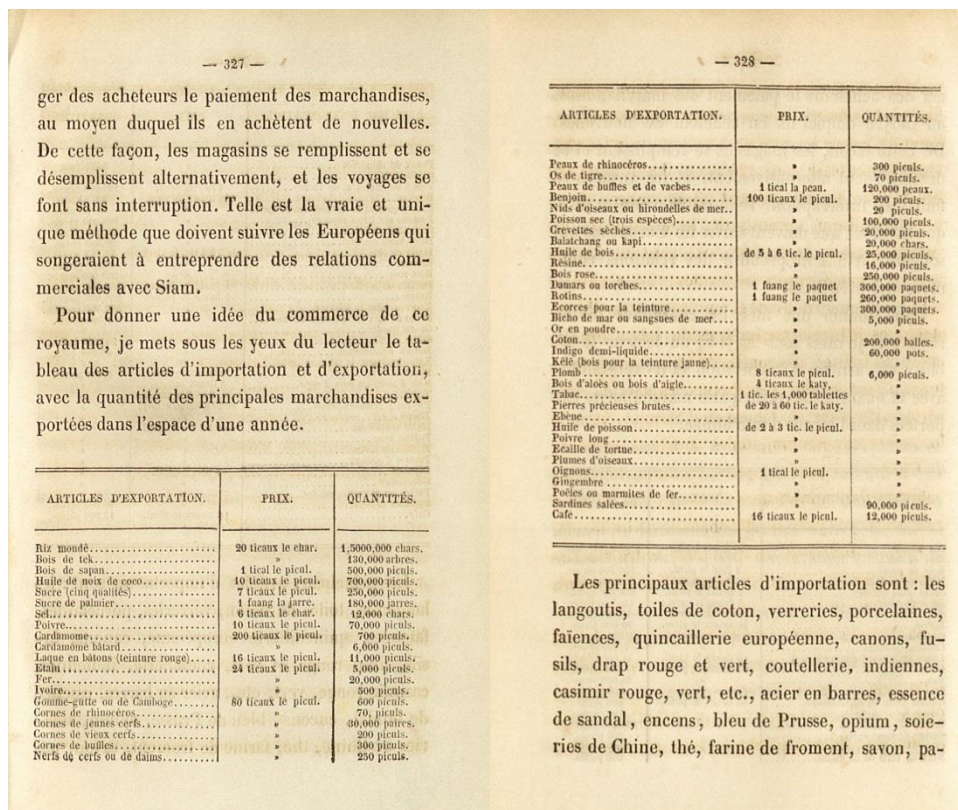
<sup>102</sup> Catty is traditional measurement unit. It weights around 604 grams.

<sup>104</sup> The French term now is palissandre. Rosewood consists of any kind of tropical wood with a reddish-brown hue.

<sup>105</sup> Pallegoix, *Description du royaume Thai ou Siam*, 328.

<sup>106</sup> Bowring, *The Kingdom and People of Siam Volume 1*, 255.

Image 2.1 Excerpt Pages for the Export Items from Siam from Pallegoix's Book



Source: Jean-Baptiste Pallegoix. Description du royaume Thai ou Siam. Tome Premier (Vol. 1), pp. 327–328.

The availability of the price of sappanwood in Bangkok suggests that there were intensive commercial activities surrounding this item at the time. Indeed, a report by a protestant missionary, Karl Gützlaff, confirms that sappanwood (*Caesalpinia sappan*) was a popular export wood from Siam.<sup>107</sup> Dan Beach Bradley's documentation of a Chinese ship full of sappanwood similarly reinforces these observations.<sup>108</sup> This information undoubtedly had an impact on Bowring's negotiating positions. Notably, he included sappanwood in the treaty because of its importance to the export market and omitted teak due to a lack of information.

Nevertheless, the omission of teak from the Bowring Treaty had incredible consequences. From the 1880s, teak became one of Siam's most profitable export items as it was not limited by any articles in the Bowring Treaty. Hence, teak had a specific character in the Siamese

<sup>107</sup> Karl Gützlaff, *Journal of Three Voyages along the Coast of China, in 1831, 1832, & 1833; with notices of Siam, Corea, and the Loo-Choo Islands*. (London: Frederick Westley and A.H. Davis, 1834), 53–54, 67, 134.

<sup>108</sup> Prachum Phongsawadan Vol. 18 (Division 31) *The Story of American Missionaries in Siam* (ประชุมพงศาวดาร เล่ม 18 (ประชุมพงศาวดาร ภาคที่ 31) จดหมายเหตุเรื่องมิชชันนารีอเมริกันเข้ามาประเทศสยาม) (Bangkok: Khrusapha, 1963), 12. The information on sappanwood in this volume is similar to Gützlaff's account. It is likely that the book's compiler used Gützlaff's information in his book.



politico-economic system because the Siamese government was able to increase inland taxes and duties on teak. Additionally, as it became a popular export commodity the Siamese government was able to increasingly levy more duty. The Siamese government maximised the utility of teak to the Siamese economy by nationalising the forest after the foundation of the Royal Forest Department (hereafter Forest Department). Through the Forest Department the government was able to strictly control access to forestry concessions in northern Siam.<sup>109</sup>

## 2.2 The Bowring Treaty and the Government's Budgetary Problems

“[...] my success involved a total revolution in all the financial machinery of the Government,-that it must bring about a total change in the whole system of taxation,-that it took a large proportion of the existing sources of revenue, that it uprooted a great number of privileges and monopolies which had not only been long established, but which were held by the most influential nobles and the highest functionaries in the State.”

Sir John Bowring<sup>110</sup>

As a consequence of the Bowring Treaty, Siam reduced its tariffs on imports thereby allowing foreign merchants to import foreign products into Siam. In terms of exports, 64 items were freed from export duties. However, these changes affected export items differently. Sugar, for example, disappeared from the list of major exports, while the export of rice dramatically jumped to the top. Previous research focusing on the economic consequences of the Bowring Treaty highlights the impact that rice exports had on the economy of Siam. It is an undeniable fact that the volume of rice exported from Siam increased significantly from the 1880s. For the period on which this dissertation focuses, rice easily ranked as Siam's top export product (see Table 2.1).

From a macro perspective, rice was the most important export commodity in terms of total value. Although rice was a vital commodity, the economic impact of rice differed between the government and private sectors. For the government, rice was not subject to export duties (stipulated by article number 8<sup>th</sup> of the Bowring Treaty), thus governmental income derived from rice was rather small.<sup>111</sup> The increasing number of total rice exports related to the expansion of foreign businesses in the trade. This included Chinese companies that were registered as Siamese subjects.<sup>112</sup>

---

<sup>109</sup> This process of nationalisation and the foundation of the Royal Forest Department is discussed in chapter 3.

<sup>110</sup> John Bowring, *The Kingdom and People of Siam Volume 2* (Tokyo: Oxford University Press, 1969), 226.

<sup>111</sup> *Siam. Treaty of Friendship and Commerce between Her Majesty and the Kings of Siam. Signed at Bangkok, April 18, 1855. With an Agreement Supplementary thereto. Signed at Bangkok, May 13, 1856.*, 4.

<sup>112</sup> Akira Suehiro, *Capital Accumulation in Thailand, 1855–1985*, 71–90.

Recent research by Tomas Larsson on land and property rights in Thailand also points out the limitations that the Bowring Treaty set in regard to land taxes. A supplemental agreement within the treaty, the “Schedule of Taxes on Garden-ground, Plantations, or other Lands”, fixed the price of every major orchard and cultivated land for British subjects.<sup>113</sup> Uncultivated land was the only type of private land that was not taxed. The treaty forbids Siam from modifying taxes on agricultural land so the revenue from the land was denominated in absolute terms.<sup>114</sup> Without the power to raise additional income from agricultural land, the Siamese government had almost no incentive to invest in irrigation or build a highway system to access new agricultural areas.<sup>115</sup> This helps to explain why agriculturally-oriented projects, such as an irrigation system in the central plain, did not develop on a more significant scale.<sup>116</sup>

---

<sup>113</sup> *Siam. Treaty of Friendship and Commerce between Her Majesty and the Kings of Siam. Signed at Bangkok, April 18, 1855. With an Agreement Supplementary thereto. Signed at Bangkok, May 13, 1856.*, 16–18. The supplemental agreement by Harry Parkes fixed the taxes on betel-nut tree, coconut tree, siri vine, mango tree, Maprang (*Bouea macrophylla*) tree, durian tree, mangosteen tree, Langsat (*Lansium parasiticum*) tree, orange tree, jackfruit tree, breadfruit tree, Makfai (*Baccaurea ramiflora*) tree, guava tree, Saton tree, rambutan tree, pineapple, mango tree, tamarind tree, custard apple tree, plantain tree, and pepper vine.

<sup>114</sup> David Feeny, *The Political Economy of Productivity: Thai Agricultural Development, 1880–1975* (Vancouver: University of British Columbia Press, 1982), 83.

<sup>115</sup> Larsson, *Land and Loyalty*, 38.

<sup>116</sup> Leslie Small, “Historical Development of the Greater Chao Phya Water Control Project: an Economic Perspective,” *Journal of the Siam Society* vol. 61, no. 1 (1973).

Table 2.1 Volume and Value of Rice Exports 1857–1944

Period	Average Volume per Year (Thousand Piculs)	Average Value per Year (Thousand Baht)
1857–1859	990	
1860–1864	1,840	
1865–1869	1,630	
1870–1874	1,870	5,110
1875–1879	3,530	10,110
1880–1884	3,580	9,610
1885–1889	5,320	15,080
1890–1894	7,250	23,780
1895–1899	8,000	36,410
1900–1904	11,130	61,280
1905–1909	14,760	81,020
1910–1914	15,220	81,230
1915–1919	15,790	108,140
1920–1924	17,680	115,350
1925–1929	23,390	169,600
1930–1934	5,720	91,240
1935–1939	25,970	94,570
1940–1944	13,250	99,320

Source: James Ingram. *Economic Change in Thailand, 1850–1970*, p. 38.

Politically, the ruling-elites of Siam succeeded in maintaining their independence and it is the sole nation in Southeast Asia that was able to do so. However, it was very expensive to maintain its sovereignty; to do so Siam needed a strong financial base. Siam's loss of financial autonomy stemming from the Bowring Treaty did not immediately affect the economy, but it later became a concern during the reign of King Rama V (reigned 1868-1910).

Although Siam signed a series of trade treaties in the 1850s and the 1860s, there are no data available which pertain to Siam's budget until the government created the Office of the Financial Adviser in 1896.<sup>117</sup> The historical significance of this reform during the reign of King Rama V has been accepted amongst many scholars on Southeast Asia as the most successful political reform instituted by an indigenous ruling elite within the region. The reform centralised power and incorporated the tributary states in northern, southern, and northeastern Siam into a single administrative system in Bangkok.

<sup>117</sup> Ian Brown, "British Financial Advisers in Siam in the Reign of King Chulalongkorn," *Modern Asian Studies* vol. 12, no. 2 (1978): 196.

The backbone of this reform was the newly established bureaucratic system and it was partially funded by the export sector.<sup>118</sup> The expenditure demanded by this bureaucratic system was massive. Military spending, for instance, never stopped increasing. Furthermore, new bureaucratic elements were perpetually added to this system.<sup>119</sup> As a result, a consistent supply of finance was required to pay monthly salaries. The expansion of bureaucracy, however, was a common development in Southeast Asia.<sup>120</sup> Besides the new bureaucratic system, Siam engaged in two other major developmental projects during the reign of King Rama V: the railway system<sup>121</sup> and the development of irrigation system in the Chao Phraya River delta of Siam.<sup>122</sup> Both projects were delayed because the government's inability to access adequate funding. These projects were finished after the end of the First World War and the Second World War respectively.<sup>123</sup>

The fundamental question was: how would the Siamese government finance both this new bureaucratic system and these two vital development projects? As noted, the limitations set by the Bowring Treaty meant that rice only contributed a small proportion to the government's overall budget. Rice exports accounted for one quarter of total exports from 1896 to 1900. However, the revenue that the state raised from rice was very small compared to the income derived from the consumption of opium. In 1899, for example, the government's total revenue was 28,496,033 Baht, of which only 1,578,699 Baht came from rice. Similarly, in 1900, the government's total revenue was 30,022,639 Baht of which only

---

<sup>118</sup> Regarding the cadet schools of Siam see Sukanya Bumroongsook, "Chulachomkiao Royal Military Academy: The Modernization of Military Education in Thailand (1887–1948)" (Ph.D., Northern Illinois University, 1991).

<sup>119</sup> Pornpen Hantrakool (พรเพ็ญ ฮั่นตระกูล), "The Government Spending during the Reign of King Rama the Sixth (A.D. 1910–25) (การใช้จ่ายเงินแผ่นดิน ในรัชสมัยพระบาทสมเด็จพระมงกุฎเกล้าเจ้าอยู่หัว (พ.ศ. 2453–68))" (Master of Arts, Chulalongkorn University, 1974), 69–75.

<sup>120</sup> However, the development of bureaucratic systems in Southeast Asia was unique according to each different country. See more details in Evers, "The Bureaucratization of Southeast Asia," 666–685.

<sup>121</sup> Ichiro Kakizaki, *Laying the Tracks*, 15–46.

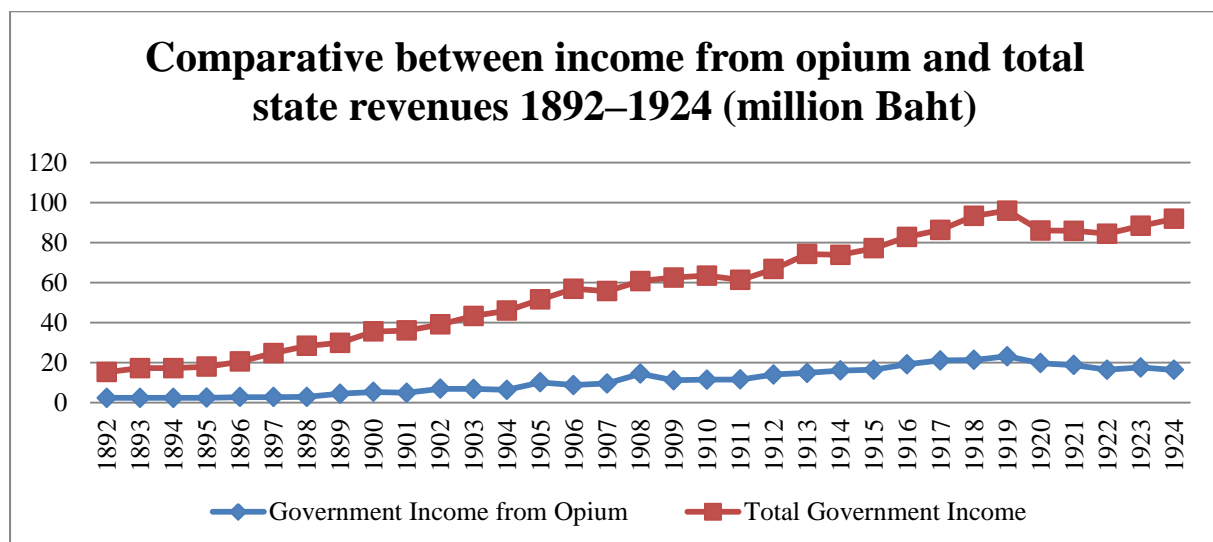
<sup>122</sup> Feeny, *The Political Economy of Productivity*, 59–84; Suntharee Arsvai (สุนทรี อาสะไวย์), *The History of Rangsit Canal: Impact on Land Development and Social Condition 1888–1914* (ประวัติศาสตร์คลองรังสิต: การพัฒนาที่ดินและผลกระทบต่อสังคม พ.ศ. 2431–2457) (Bangkok: Thammasart University Press, 1987).

<sup>123</sup> In regard to research about the development of the irrigation system in the Chao Phraya delta, David Feeny documents Siam's failure to design a long-term plan for agricultural development and to foresee an increase in agricultural productivity. See this topic in the chapter 4, 5, and 7 of Feeny, *The Political Economy of Productivity*.

1,392,772.10 Baht was derived from rice.<sup>124</sup> Siam’s solution was to increase state revenue from the tax-farming system and the items exempted from the Bowring Treaty.

In the first category, the tax-farming system, the Siamese government relied heavily on the income from auction fees and the sale of opium, spirit, gambling, and lottery. In 1894, for instance, “46 percent of total state revenues came from opium, gambling, liquor, and lottery”.<sup>125</sup> The income that the government derived from the opium trade was perhaps even higher if one includes economic activities, such as manufacturing and transportation, associated with the industry. However, the importance of opium to the budget gradually declined in the 1920s after Siam reduced the number of private opium dens.<sup>126</sup>

Image 2.2 Comparison between Income from Opium and Total State Revenue, 1892–1924 (million Baht)



Source: Visualised from the statistical numbers taken from Suparporn Jarunpattana. *Opium Revenue and Fiscal Policy of Thailand 1824–1925*, pp. 170–171.

Government revenue from the tax-farming was based on consumption in the domestic market. In addition, the Siamese government attempted to reduce the role of the Chinese tax-farmers and utilised the new bureaucratic system to collect taxes and duties on teak and tin.

<sup>124</sup> Ministry of Finance, *Report of the Financial Adviser upon the Budget of the Kingdom of Siam for the Year 120 (1901–1902)*, 20.

<sup>125</sup> Anthony Webster, *Gentlemen Capitalists: British Imperialism in Southeast Asia, 1770–1890* (London: Tauris Academic Studies, 1998), 160.

<sup>126</sup> Siam and twelve other countries signed the International Opium Convention in Den Haag in 1912. A similar phenomenon occurred in French Indochina where opium made up a quarter of the government’s budget until 1906. The contribution of opium to the budget fluctuated between 21 to 30 per cent before the First World War. In 1918, opium reached its height at 42 per cent. For details on opium in Indochina see Chantal Descours-Gatin, *Quand l’opium finançait la colonisation en Indochine: L’élaboration de la régie générale de l’opium, 1860 à 1914* (Paris: L’Harmattan, 1992), 223–225.

The Siamese government also worked to encourage the export of these two commodities. Both the quantity and total value of these exports gradually increased and became a substantial source of government revenue. The Siamese government controlled access to tin as early as 1891 when the Royal Department of Mines (กรมราชโลหกิจ) was established under the Ministry of Agriculture. In contrast, the Siamese government did not gain control of the teak forests until after the establishment of the Forest Department in 1897. As a result, the government was required to share the revenue from teak with the princes in northern Siam because of their traditional rights over the forest.

In 1895, British diplomats calculated the total revenue from teak as 40,500 Pound Sterling or 648,000 Baht. From this total value, the Siamese government received revenue from duty fees valued at 16,500 Pound Sterling or 264,000 Baht. Another sum of 24,000 Pound Sterling or 400,000 Baht was derived from royalty fees (or concession fees), this went to the princes who ruled the Lan Na principalities and owned the forests.<sup>127</sup> Official records documenting the revenue from teak started in the 1897 (see Table 2.2). As teak was not included within the parameters of the Bowring Treaty, the Siamese government was free to increase fees, which it proceeded to do on several occasions. This boosted the government's revenue for the first two decades of the twentieth century, especially at the end of the First World War. Teak revenue, however, dropped substantially after the First World War. Although there was an attempt to reform teak concessions in 1922, this had no effect on the revenue that teak generated for the government.

A memo from the Office of the Financial Adviser in 1927 raised concerns over the amount of revenue derived from teak. It suggested that governmental revenue from teak should be at least 3,500,000 Baht per year. It also noted that the annual expenditure for the Forest Department was 800,000 Baht per year,<sup>128</sup> but this was likely to increase in the future. Therefore, the office recommended that the government design a long-term plan to boost revenue from teak. The government did not respond to this memo or change any policy towards the teak business. It is possible that the government had more economic options

---

<sup>127</sup> J. S. Black, *Siam: Report on the Teak Trade in Siam* (London: HMSO, 1895), 7.

<sup>128</sup> NAT FA 0301.1.10/12 Resumption by Government of two forests at Lampang. Question of sufficiency of present expenditure on forests generally.

available to it after Siam and Great Britain revoked the Bowring Treaty in 1926.<sup>129</sup> An absence of statistics after 1926, however, makes this hard to verify.

Table 2.2 Government Revenue from Teak 1896–1926

Year	Revenue in Baht
1896–97 to 1900–01	3,430,950
1901–02 to 1905–06	6,340,775
1906–07 to 1910–11	6,960,915
1911–12 to 1915–16	6,559,180
1916–17 to 1920–21	8,953,790
1921–1922	2,019,371
1922–1923	1,730,699
1923–1924	2,393,163
1924–1925	1,840,557
1925–1926	1,650,000

Source: D.R.S. Bourke-Borrowes. *The Teak Industry of Siam*. 1927, p. 27.

This economic change during the 1920s allowing Siam to freely adjust its tariff barriers was not the only factor that lessened Siamese dependency on teak. The total volume of teak did not decline in the 1920s. In fact, it was even higher than in the period during the First World War (see Table 2.3). However, the reserves of fine quality teak in northern Siam were depleted. Teak had previously been marketed and sold as the premium product, but most of the teak exported from Siam from the 1920s was of low quality and, as such, commanded a lower price (see chapter 4 for details).

---

<sup>129</sup> Between end of the First World War to the end of the 1920s, Siam revoked the treaties that replicated the Bowring Treaty.

Table 2.3 Annual Average of Teak Exports

Period	Volume (Thousand cubic metres)	Value (Million Baht)
1873–1876	5.6	0.25
1883–1887	27.0	1.10
1890–1894	37.0	1.30
1895–1899	62.0	4.10
1900–1904	78.0	6.90
1905–1909	122.0	11.90
1910–1914	90.0	5.90
1915–1919	68.0	6.90
1920–1924	83.0	7.60
1925–1929	92.0	9.20
1930–1934	67.0	5.40
1935–1939	85.0	7.50
1940–1944	27.0	2.70

Source: James Ingram. *Economic Change in Thailand, 1850–1970*, p. 90.

### 2.3 The Pak Nam Incident of 1893 and the Contestation of Northern Siam

“The only business that shows signs of increasing is that of teak. If this trade were encouraged it would rise to urgent importance, but as the Government does nothing but collect duty on the timber, and those engaged in the trade have but little capital, it has to struggle against many difficulties.”

Thomas Knox<sup>130</sup>

From Bowring’s description, he merely recounted his story about teak from Pallegoix without providing any further information about how teak was floated from the north.<sup>131</sup> Nonetheless, teak exported through the port of Bangkok usually came from northern Siam, that is to say, vassal states of Siam. As teak was not listed under the tax regime outlined in the Bowring Treaty, it unexpectedly contributed a significant sum of revenue to Siam’s economy.

<sup>130</sup> *Siam. No. 1 (1876). Commercial Report from Her Majesty's Consul-General in Siam for the Year 1875* (London: Harrison and Sons, 1876), 1.

<sup>131</sup> Bowring, *The Kingdom and People of Siam Volume 1*, 21.



When Bowring visited Siam, the government in Bangkok did not have complete control over the vassal states where teak grows naturally. Additionally, no one tried to demarcate the frontier clearly between Siam and its northern vassal states in the Bowring Treaty. A lack of rigid political borders between Siam and its vassal states, in turn, caused problems regarding the interpretation and enforcement of the Bowring Treaty. It is quite ironic that, although Bowring wrote about the complex relationships between Siam and its vassal states – describing the situation as “imperfect and fragmentary”<sup>132</sup> – he did not prepare the treaty accordingly. In Bowring’s view, northern Siam was grouped together as part of “Laos” category.<sup>134</sup> The Lao is an ethnic group which lives in Chiang Mai, Lam Phun, Lampang, Phrae, Nan, Muang Lom, and Luang Prabang.<sup>135</sup> He also refers to Chiang Rai as a city captured by the Lao<sup>136</sup> but does not detail the demographic character of the city. Although he refers to the Laos and Cambodia as the biggest dependencies of Siam, he refrains from using the term “vassal state”. Apart from these two dependencies, there were also small tributary states in the Strait of Malacca and the Gulf of Siam<sup>137</sup> as well as tribes in the northwest area<sup>138</sup> that submitted to Siam. Khorat or Nakhon Ratchasima in the northeastern region functioned as a frontier town<sup>139</sup> between Bangkok and the northeastern region. Before the 1850s there was no equivalent town that functioned as a frontier town between Bangkok and the northern region. Transportation by water was the only available means of communication. The area around Ayutthaya functioned as a natural border because sand-banks interrupted the ability to navigate the river.<sup>140</sup>

This awkward situation was a result of the conditions created by the Bowring Treaty and the loophole left by the treaty vis-à-vis British merchants and British subjects. The supplemental agreement added by Harry Parkes in 1856 made the treaty more problematic. British subjects who crossed from the British territories of Mergui, Tavoy, Ye, Tenasserim, and Pegu<sup>141</sup> could

---

<sup>132</sup> Bowring, *The Kingdom and People of Siam Volume 2*, 1.

<sup>134</sup> *ibid.*, 2–22.

<sup>135</sup> *ibid.*, 2. When Bowring referred to Muang Lom, he was perhaps referring to what is currently known as Lom Sak District in Phetchabun province. Carl Curt Hosseus, a German botanist who travelled through northern Siam and southern China, found that Maung Lom was the southernmost area where teak grew. See Carl C. Hosseus, “Die Gewinnung des Teakholzes in Siam und seine Bedeutung auf dem Weltmarkt,” in *Jahresbericht der Vereinigung für angewandte*, 42,

<sup>136</sup> Bowring, *The Kingdom and People of Siam Volume 2*, 8.

<sup>137</sup> *ibid.*, 48–51.

<sup>138</sup> *ibid.*, 43–47.

<sup>139</sup> *ibid.*, 52.

<sup>140</sup> Bowring, *The Kingdom and People of Siam Volume 1*, 20.

<sup>141</sup> These are the areas in the southern part of Burma that were annexed to British India during the colonial period.

trade in Siam.<sup>142</sup> In Bangkok, conversely, British subjects were only permitted to reside in a four-mile circuit designated by the treaty.<sup>143</sup> Only British merchants were granted the right to buy or rent property outside of this area, provided that it was no further than 24 hours travelling time from the centre of Bangkok. In brief, there were no trading restrictions for British subjects who crossed the border for business in northern Siam, but there were many for those who entered via Bangkok.

The demand for teak encouraged British subjects from British India to invest in northern Siam. This led to conflicts between the owners of the forest and British subjects. This dire situation sometimes developed into diplomatic problems between Siam and Great Britain. Several legal cases brought to court by British subjects alarmed the government in Bangkok regarding the increasing influence of the British businesses in both the teak industry and in northern Siam in general. Politically, northern Siam, and its endowment of teak resources, was an area of contestation between Siam and Great Britain during the 1870s and 1880s (for details see chapter 3). This contestation was further exacerbated because of the British and French desire to access southern China through the hinterland of mainland Southeast Asia.

The expansion of British commercial interests in Siam came directly from Bangkok and British India. Conversely, the scale of French investment in Siam could not compete with the British. France was unable to influence the domestic situation in Siam through its businesses because of its smaller scale of investment. Rather, France preferred aggressive military manoeuvres. French influence in Southeast Asia increased following the formation of the colonial system in the second half of the nineteenth century. French Indochina expanded from the current area of southern Vietnam or Cochinchina to certain parts of present-day Cambodia in the 1860s. France later annexed Annam (central Vietnam), Tonkin (northern Vietnam), and the northwest of Laos in the 1880s. Many of these areas were previously claimed by Siam as vassal states. These French incursions threatened Siamese ascendancy in Cambodia and Laos and evoked feelings of uncertainty amongst Siam's ruling-elites. Fear and anxiety of being colonised loomed large in the minds of the Bangkok elite. In 1886 alone, not long after France established Saigon as the capital of French Indochina, Siam imported

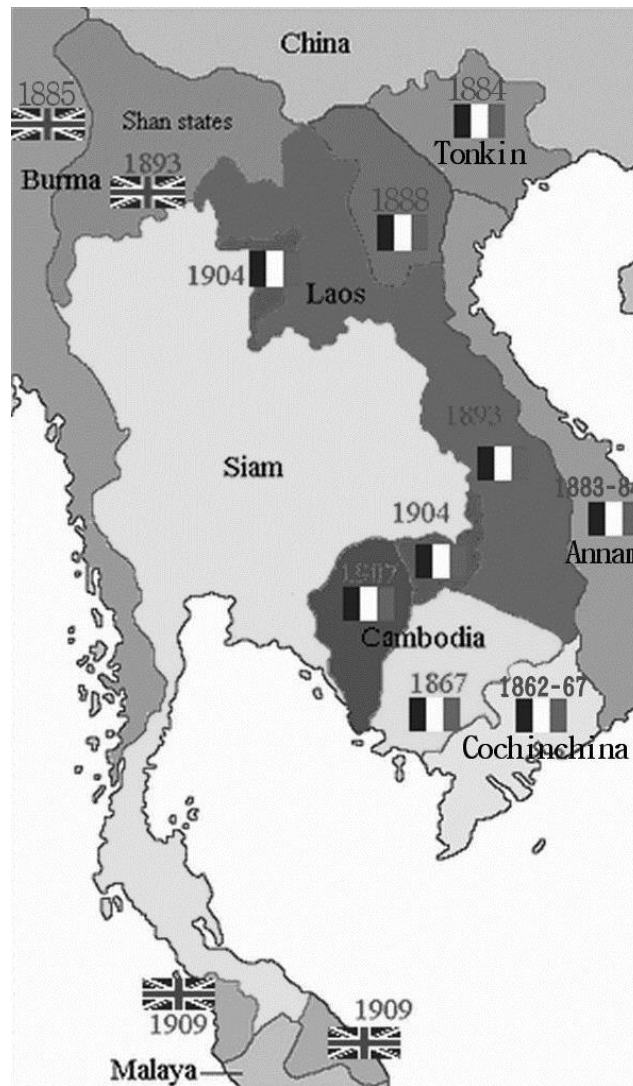
---

<sup>142</sup> *Siam. Treaty of Friendship and Commerce between Her Majesty and the Kings of Siam. Signed at Bangkok, April 18, 1855. With an Agreement Supplementary thereto. Signed at Bangkok, May 13, 1856.*, 11.

<sup>143</sup> *ibid.*, 14.

59,200 muskets compared to 9,280 muskets just the year before in 1885.<sup>144</sup> Unsurprisingly, most of these imports were destined for the army.

Map 2.1 Expansion of the French Indochina



Source: Wikimedia

<sup>144</sup> *Diplomatic and Consular Reports on Trade and Finance: Report for the Year 1886 on the Trade of Bangkok* (London: HMSO, 1887), 2.

As many of areas surrounding Siam were colonised by Great Britain and France, Siam grappled with the dilemma of how to retain its control over, or even tighten, its grip on its vassal states. In the nineteenth century, the traditional administrative structures and statecraft of Siam were based on the interpersonal relationships such as kinship and marriage.<sup>145</sup> These structure were very fragile because these relationships could change according to the politico-economic context. This system functioned efficiently under the guise of a charismatic and talented leader, but it never guaranteed control over resources or the distribution of wealth from vassal states to the political centre in Bangkok. Siam realised these limitations and put administrative reforms on the agenda. Although the reform process was slow, it also became more benign as the Bangkok government needed to compromise with various interest groups. In the Lan Na principalities, the princes tended to oppose reforms because these reduced their power and authority.

The Bangkok elite's anxiety about foreign encroachment and the dilatory reformation characterised Siam in the 1880s. The turning point came in 1893 when France advanced its military to the east bank of the Mekong River and claimed it as an imperial domain. Concurrently, French authorities sent gunboats to blockade the Chao Phraya River. This naval blockade was the meant to enforce French claims over the east bank of the Mekong River. This event has been portrayed as a shameful tragedy in official Thai historiography. It is known in Thailand as the Paknam Incident (เหตุการณ์ปากน้ำ). The incident was instigated by the French “colonial party” (*parti colonial*), a loosely connected nationalist group in the French parliament that advocated for the expansion of the French Empire. This group was “[...] a movement composed of a number of colonially minded individuals and group which achieved a measure of formal organization at the beginning of the 1890s [...]”.<sup>146</sup> They promoted the acquirement of the new land even if there were no economic interests in the area. The impetus driving this mindset in early 1890s was the perceived need to prevent the increasing influence of the British in Asia, and Siam in particular.<sup>147</sup>

---

<sup>145</sup> These characteristics were common features of traditional states in Southeast Asian. For details see O. W. Wolters, *History, Culture, and Region in Southeast Asian Perspectives*, Rev. ed. (Singapore: Institute of Southeast Asian Studies, 1999), 18–26, 112.

<sup>146</sup> Patrick J. N. Tuck, *The French Wolf and the Siamese Lamb: the French Threat to Siamese Independence, 1858–1907*, Studies in Southeast Asian history 1 (Bangkok: White Lotus, 1995), 99.

<sup>147</sup> *ibid.*, 100–102.

The blockade ended when Siam accepted the terms offered by the French government.<sup>148</sup> Considering the content of the treaty between Siam and France in 1893<sup>149</sup> and the subsequent convention in 1902,<sup>150</sup> it appears that there were no significant economic or business interests driving the conflict. Even the governor-general of French Indochina (gouverneur général de l'Indochine), Jean Marie Antoine de Lanessan, assessed that the east bank of the Mekong River was economically worthless.<sup>151</sup>

The British, however, were suspicious that the French had designs on the Mekong River itself. If this was the case, then at least three articles in the treaty between France and Siam could be interpreted as threatening to British commercial interests. Article seven of the treaty stated that the movement of French citizens and subjects into Siamese territory, whether for private or commercial purposes, could only be done with a passport granted by French authorities. Moreover, the third article allowed a French subject carrying a passport to enter the Siamese territory of Battambang and Siem Reap.<sup>152</sup> This also included an area that stretched 25 kilometres from the river bank to the inland areas along the whole west bank of the Mekong River. Article eight, in addition granted the French government the right to build a Consul in Nan.<sup>153</sup> All of this clearly displeased the British government because the treaty expanded French commercial operations to a vast territory on the west bank of the Mekong River. In contrast, the Bowring Treaty constrained British citizens from leaving Bangkok. Only British subjects from British India were allowed to travel northward for commercial purposes.

Apart from the conflict between Siam and France, British companies and government bodies publicly and confidentially discussed their concerns about the commercial consequences of the blockade conducted by the French Navy. The result of the blockade directly damaged the British commercial interests over the short-term, albeit on a small scale. According to the British Consul in Bangkok, most of the damage was due to delays in transportation. Some

---

<sup>148</sup> The objective of this dissertation, however, is not to explain the military conflict and subsequent diplomatic negotiations. For an in-depth investigation of this conflict, see Tuck, *The French Wolf and the Siamese Lamb*, 102–103.

<sup>149</sup> *Ministre des Affaires étrangères, Documents Diplomatiques: Affaires de Siam* (Paris: Imprimerie Nationale, 1893), 14–16.

<sup>150</sup> *Ministre des Affaires étrangères, Documents Diplomatiques: Affaires de Siam, 1893–1902* (Paris: Imprimerie Nationale, 1902), 70–73.

<sup>151</sup> Tuck, *The French Wolf and the Siamese Lamb*, 106.

<sup>152</sup> Now Battambang and Siem Riep are the city in Cambodia.

<sup>153</sup> *Ministre des Affaires étrangères, Documents Diplomatiques*, 15. It states “Les Citoyens, sujets ou ressortissants français pourront librement circuler et commercer dans les territoires visés à l'article 8, munis d'une passe délivrée par les autorités françaises. La réciprocité sera accordée aux habitants desdites zones.”

British merchants were also fined for these delays.<sup>154</sup> However, the British trade chambers overreacted. They, either in the Great Britain or in Asia, sent a letter pressuring the British government to do something about the naval blockade. The Singapore Chamber of Commerce, for instance, submitted a letter of concern to the Foreign Office in London.<sup>155</sup>

The reaction of the Foreign Office was clumsy because it did not have any control over military forces and needed to cooperate with the Colonial Office. Policy differences and delays in communication between these two governmental bodies led to further confusion. This, in turn, caused additional trade chambers in Great Britain to put pressure on the Foreign Office. In total, 78 trade chambers in Great Britain submitted a joint statement to the Foreign Office under the name of the Associated Chambers of Commerce arguing to expand British commercial activities in Asia. It was further argued that this would also give the Asian population the opportunity to experience excellent products from Great Britain.<sup>156</sup> The collected correspondences of the British show that British traders used their imagination when describing the effects of the French blockade. One petition from merchants, bankers, and ship-owners from London, for instance, details their fears regarding potential food shortages in the Strait Settlement and Hong Kong due to a lack of supply from Siam. They used the spectres of famine, hardship, and the suffering of British subjects in Asia to convince the British government to act.<sup>157</sup>

Although the short-term damage to British commercial interests in Siam was small, the fear of a long-term damage loomed large. The dominance of British businesses in Siam was undeniable. In the years before the blockade, British businesses shared between 85 to 93 per cent of annual imports and exports in Siam whereas French businesses only accounted for 0.03 per cent of the same market.<sup>158</sup> Another serious concern came from the rice export sector. The blockade caused anxiety amongst the Chinese in Bangkok to the extent that they rationed rice.<sup>159</sup> This was additionally prompted by poor harvests in 1891 and 1892. The

---

<sup>154</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1893 on the Trade of the District of Her Majesty's Consulate-General at Bangkok* (London: HMSO, 1895), 8.

<sup>155</sup> *Siam. No. 1 (1894). Correspondence Respecting the Affairs of Siam* (London: HMSO, 1894), 116.

<sup>156</sup> *ibid.*, 194–196.

<sup>157</sup> *ibid.*, 86.

<sup>158</sup> *Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1892 on the Trade of the District of Her Majesty's Consulate-General at Bangkok* (London: HMSO, 1893), 2.

<sup>159</sup> *Siam. No. 1 (1894). Correspondence Respecting the Affairs of Siam*, 48.

confusion surrounding Siam's rice industry became worse when some farmers stockpiled the product consequent to fears of a prolonged conflict.<sup>160</sup>

Conversely, the 1893 rice harvest in Siam came as a surprise to the market because according to the available data, the total amount exceeded the total amount from Saigon for the first time.<sup>161</sup> When this rice hit the market, many rice merchants were afraid that overproduction would lead to a fall in market prices.

The loss of the east bank of the Mekong River affected Siam's economy on a very small scale. However, the national discourse narrated a painful tale of losing national territory and dignity. Almost two decades after the blockade, a French commercial report from northeastern Siam described the scale of the trade between the opposite sides of the Mekong River: a peddler trade of the locally produced items.<sup>162</sup>

The Foreign Office in London was worried about the French blockade, but hesitated to make a decision regarding military operations. It was not ready to confront the French government because of its concerns about conflict in Europe. The Foreign Office did not want to aggravate the crisis in Siam so that it developed into a war between European superpowers. However, the Foreign Office was required to take the issue more seriously when members of the House of Commons debated the matter and demanded an explanation regarding the loss of British influence in the Asia-Pacific. One transcript of a parliamentary debate on 25<sup>th</sup> July 1893 raised concerns about increasing French influence vis-à-vis the inland trading network. Specifically, it highlighted the risks faced by British-owned ruby and sapphire mines located near areas occupied by the French army.<sup>163</sup> The fears and anxiety of the British also extended to the caravan trade in the hinterland. A letter by Joseph Watson, a secretary of the Blackburn and District Incorporated Chamber of Commerce, documented concerns about the supply of tea from Simao in Yunnan. He described the possible rerouting of the caravan trade between

---

<sup>160</sup> *Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1892 on the Trade of the District of Her Majesty's Consulate-General at Bangkok*, 7–8.

<sup>161</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1893 on the Trade of the District of Her Majesty's Consulate-General at Bangkok*, 7.

<sup>162</sup> Ministère du commerce, *Siam, mouvement économique du Laos Siamois (Monthons Isan et Oudon)*, Rapports commerciaux des agents diplomatiques et consulaires de France (Office national du commerce extérieur, 1910), 37–41.

<sup>163</sup> United Kingdom, *Hansard House of Commons Debates*; 25 July 1893 Series 4 Vol. 15 Cols. 467–8.

southern China and British India to French Indochina, and opined that this would certainly damage the export trade of the British products from India.<sup>164</sup>

The Siamese-French conflict in 1893 affected many aspects of the Siamese economic system. Siam was worried about the teak forest on the west bank of the Mekong River. Siam was extremely wary of granting forestry concessions in this area as this could act as a pretext for French encroachment in northern Siam. As such, forest concessions in Nan and Chiang Rai province were granted in very limited numbers.<sup>165</sup> Most of these were granted to British companies and Siamese subjects. The 1893 conflict became an opportunity for British companies to set the stage for their next business operations. The Wallace Brothers, the parent company of the Bombay Burmah Trading Corporation (see chapter 6 for details of individual companies), encouraged the British government to dispatch the military in order to protect British interests in Siam.<sup>166</sup> The Bombay Burmah Trading Corporation, through the Foreign Office, applied pressure on the Siamese government for more teak concessions on the grounds that a greater British presence would balance French influence in Siam.<sup>167</sup>

Concerns and anxiety regarding British economic interests in northern Siam eventually developed into political pressure on the British government to enter into serious negotiations with France in order to resolve the situation in Siam. Despite many pressures, the Foreign Office opted for diplomacy rather than military confrontation. The ultimate goal was to turn Siam into a buffer state and avoid an armed conflict at all costs. The decision to make Siam a buffer state required knowledge about the situation in northern Siam. The Foreign Office selected W. J. Archer, the British Vice-Consul at Chiang Mai, and summoned him to Paris to assist the Marquis of Dufferin, the British ambassador to Paris, in negotiations.<sup>168</sup>

The negotiation process was very slow because neither party knew the exact borders of Siam.<sup>169</sup> Although Siam started a survey mission in the 1880s, it took a very long time to complete. Attempts to settle border disputes with neighboring states were also very time

---

<sup>164</sup> *Siam. No. 1 (1894). Correspondence Respecting the Affairs of Siam*, 175.

<sup>165</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1893 on the Trade of the District of Her Majesty's Consulate-General at Bangkok*, 17. Suphawat Laohachaiboon and Takeda, "Teak Logging in a Trans-Boundary Watershed: an Historical Case Study of the Ing River Basin in northern Thailand," 132.

<sup>166</sup> *Siam. No. 1 (1894). Correspondence Respecting the Affairs of Siam*, 45.

<sup>167</sup> Barton and Bennett, "Forestry as Foreign Policy," 73.

<sup>168</sup> *Siam. No. 1 (1894). Correspondence Respecting the Affairs of Siam*, 189.

<sup>169</sup> In this period, the concept of statecraft and the borders of traditional states evolved in a manner consistent with modern nation-states which are delineated by exact and recognised territorial borders. For discussion of the concept of a traditional state see Tambiah, *World Conqueror and World Renouncer*, 102–158. For the invention of Siam as a modern state with recognised borders see the chapter 2 and chapter 3 of Thongchai Winichakul, *Siam Mapped*, 37–80.



consuming.<sup>170</sup> Moreover, they needed the consent of the Chinese government because both the British and the French wanted to gain access to China through its southern regions. The situation improved when Siam was set up as the buffer state between British India and French Indochina by the agreement of both parties in 1893. Nevertheless, the official agreement did not materialise until 1896.<sup>171</sup> It was no coincidence that Siam approached the Government of British India for a forestry specialist in 1896 and then established the Forest Department in 1897 in order to control forestry resources in northern Siam.

The political atmosphere of the post-1893 conflict and French threats to northern Siam continued until 1904. Despite a series of negotiations between Siam and France vis-à-vis the Mekong River, French attempts to annex the west bank persisted from 1896 until 1898.<sup>172</sup> It was not until the British and French government reached the *Entente Cordiale* agreement in 1904 that both parties disclaimed efforts to annex Siamese territory.<sup>173</sup> The agreement finally assuaged the anxiety of the Siamese government. Nevertheless, this anxiety had been deeply influential when it came to governmental policy vis-à-vis the teak industry and a key reason behind the unification of Siam.<sup>174</sup>

## 2.4 Conclusion

The nineteenth century entailed a marked change in Siam's economy, the decline of tributary trade with China, and an increased number of the European merchants trading in Asia. The Bowring Treaty in 1855 and Harry Parkes' supplemental agreement in 1856 ended state monopolies on commercial activities in Siam. These treaties regulated various sectors of the Siamese economy and fixed both import and export tariffs, especially in regard to agricultural products.

Under the strict regulations set by the Bowring Treaty and other treaties, the Siamese government struggled to raise enough income in order to pay for government spending and the expansion of the bureaucratic system. Teak played a major role in the Siamese economic system because these commercial treaties did not cover the industry. As a result, the

---

<sup>170</sup> The survey mission was led by a single British surveyor. He describes his experiences in James McCarthy, *Surveying and Exploring in Siam* (London: J. Murray, 1900).

<sup>171</sup> Chandran Jeshurun, "The Anglo-French Declaration of January 1896 and the Independence of Siam," *Journal of the Siam Society* vol. 58, no. 1 (1970): 113–114, 118, 126.

<sup>172</sup> Tuck, *The French Wolf and the Siamese Lamb*, 183–188.

<sup>173</sup> *France No. 1 Despatch to His Majesty Ambassador at Paris forwarding Agreements between Great Britain and France of April 8, 1904* (London: HMSO, 1904), 26.

<sup>174</sup> Carl C. Hosseus, "Kurzer Bericht über Vorkommen, Anbau und Gewinnung des Teakholzes in Siam," *Notizblatt des Königl. botanischen Gartens und Museums zu Berlin* vol. 4, no. 39 (1907): 279.

government in Bangkok realised the economic significance of northern Siam as the natural abode of teak. Although the total export value of teak was much smaller than rice, more governmental income was derived from duty fees in the teak business. In fact, the government did not receive much income from rice because of the conditions set by the commercial treaties signed between Siam and the other countries.

The fear of losing northern Siam increased as a result of Siamese-French conflict in 1893. This conflict demarcated the modern border of west Siam. The reaction of the British to the French-Siam treaty, however, exposed the teak-bearing area to contestation between the European powers. Faced with French and British desires on the area, the Siamese government was forced to reconsider the status of the Laos state of Lan Na and the usage of forest in this area. As a result, the central government put the northern region under the direct administrative control of Bangkok and transformed the vassal states into what is now known as northern Thailand.

## Chapter 3 The Teak Business and the Integration of the Lan Na Principalities

“[...] But the customs of the Province of Chiengmai and the laws are rude, are crude, and uncertain.”

Letter from the King of Siam to Viceroy of India<sup>175</sup>

“[...] in the case of a country like Siam, where the administrative system of the districts, never very strong, though strong enough to afford sufficient protection under normal circumstances, collapses under any external shock.”

Messrs. Wallace Brothers<sup>176</sup>

As indicated in the previous chapter, at the beginning of nineteenth century and prior to the Bowring Treaty, the definition of northern Siam was limited to the current area between Rahaeng (Tak Province) and Phitsanoulouk. Nowadays, people recognise this area as the contact point between northern and central Thailand. These provinces are teak-bearing areas but the trees grow in smaller amounts there. Conversely, in the vassal state of Siam located further north, the Lan Na principalities, teak grows naturally in abundance and is scattered throughout the countryside. During the nineteenth century, Lan Na comprised of the five principalities of Chiang Mai, Lamphun, Lampang, Phrae, and Nan.<sup>177</sup> Its centre covered the current area of northern Thailand.<sup>178</sup> When referring to these five principalities before they were directly integrated into the Monthon (มณฑล) system in 1899, this dissertation uses the term northern Siam so that it corresponds with the modern territory of Thailand's northern region.<sup>179</sup>

Inside these five political units, there were two powerful factions competing with each other. The first group included Chiang Mai, Lampang, and Lamphun, whereas the second group included Nan and Phrae. Between these two factions, Chiang Mai and Nan were the most influential states with the greatest control over smaller cities and districts.<sup>180</sup> These five core

---

<sup>175</sup> *Treaty between Her Majesty and His Majesty the King of Siam for the Prevention of Crime in the Territories of Chiengmai, Lakon, and Lamphoonchi, and for the Promotion of Commerce between British Burman and the Territories Aforesaid.* (London: HMSO, 1884), 24.

<sup>176</sup> *Siam. No. 1 (1894). Correspondence Respecting the Affairs of Siam*, 96.

<sup>177</sup> For the development of the Lan Na before the nineteenth century see chapters 2 to 5 in Sarasawadee Ongsakul (สร้อยสวัสดิ์ อ่องสกุล), *The History Lan Na* (ประวัติศาสตร์ล้านนา).

<sup>178</sup> The current area of northern Thailand comprises the eight provinces of Chiang Rai, Chiang Mai, Lampang, Lamphun, Mae Hong Son, Nan, Phayao, and Phrae. In the nineteenth century, the territory claimed by the Lan Na Kingdom included certain parts of Trans-Salween and the Shan State. However, Siam ceded the Trans-Salween to Great Britain. For details see Charan Chakandang, “Siam's Loss of Trans-Salween Territory to Great Britain in 1892” (Ph.D., Pennsylvania State University, 1987).

<sup>179</sup> Sarasawadee Ongsakul (สร้อยสวัสดิ์ อ่องสกุล), *The History Lan Na* (ประวัติศาสตร์ล้านนา), 449–462.

<sup>180</sup> For the list of the cities and districts under the control of Chiang Mai and Nan, see Volker Grabowsky, *Bevölkerung und Staat in Lan Na: Ein Beitrag zur Bevölkerungsgeschichte Südostasiens* (Wiesbaden: Harrassowitz, 2004), 193–194.

principalities were tied together by kinship. Kinship played an important role in terms of exerting political control over smaller cities. Kinship was a very important factor in Lan Na politics as the major bureaucratic positions of each principality were occupied by the kinsmen of the ruling family. The refounding of Chiang Rai, Phayao, and Ngao in 1843, for example, was achieved by sending a member from the family of the prince of Chiang Mai (for Chiang Rai) and from the family of the prince of Lampang (for Phayao and Ngao).<sup>181</sup> Such loose politico-economic structure of the Lan Na principalities permitted Siam to deal with each single principality without resistance. In this way, Siam demanded tributary items from every individual principality and involved with the appointment of the prince who ruled each principality. As it was recorded, as an example, in the Nan Chronicle on the appointment of the princes of Nan. Every prince needs an approval by the Siamese king<sup>182</sup>

The tributary system between Siam and the Lan Na principalities was part of a broader political strategy of Siam. Before the British's annexation of Burma in the nineteenth century, the warfare between Siam and Burma was the priority for Siam to prepare the army to protect itself from Burma. Vice versa, Siam also waged war against Burma.<sup>183</sup> From the end of the eighteenth century to the end nineteenth century, the Lan Na principalities had the function of a buffer zone and prevented Siam from the Burmese army.<sup>184</sup> This system permitted Siam to recruit manpower both in times of war and peace. In response to real or perceived threats from Burma, a war mentality shaped Siamese state affairs and led Bangkok to strengthen its strategic position with the help of surrounding vassal states. Within this circumstance, the Siamese vassal states were functioned in the defensive constellation against a Burmese invasion. Likewise, Cambodia functioned as a buffer state against any potential Vietnamese attack. Amongst the Siamese vassal states, the Lan Na principalities held the most prominent position in Siam's geopolitical defensive plan against Burma. In this tributary system, Siam priority was to maintain the political strength of the five principalities and it should strengthen the Siamese self-defence mechanism against the Burmese invasion.

The role of the Lan Na principalities in Siam's economic system, however, was rather small. With the strong political function, Siam could not request for an excessive demand for

---

<sup>181</sup> Sarasawadee Ongsakul (สรวิสวัสดิ์ อ่องสกุล), *The History Lan Na* (ประวัติศาสตร์ล้านนา), 333.

<sup>182</sup> David K. Wyatt, trans., *The Nan Chronicle* (Ithaca, N.Y.: Southeast Asia Program, Cornell University, 1994), 92, 104, 112, 115–116.

<sup>183</sup> See Prince Damrong Rajanubhab (สมเด็จพระเจ้าบรมวงศ์เธอ กรมพระยาดำรงราชานุภาพ), *The Chronicle of our Wars with the Burmese* (พงศาวดารเรื่องไทยรบพม่า) Bangkok: Matichon, 2002.

<sup>184</sup> Grabowsky, *Bevölkerung und Staat in Lan Na*, 175.

tributary item in order not to cripple or burden its vassal states. Captain William McLeod confirmed this explanation when he sought the permission from Chiang Mai to visit Chiang Tung. He found the amount of the tributary item to Siam was small because the most important element in the tributary relation demanded by Siam was the political allegiance.<sup>185</sup>

Nevertheless, the tributary relations between Siam and the Lan Na principalities had an economic dimension as well. It served both real economic purpose and the symbol of submission. Bangkok demanded two categories of the tributary items: tributary gifts (เครื่องราชบรรณาการ) and *suai* (ส่วย). The item in the first category was the pair of gold and silver trees of the same size and it needed to send to Bangkok for the interval period of three years. The size of these trees, however, dependent on the political position as well as economic and demographic potential of a tributary state; thus, for example, Chiang Mai's gold and silver trees were always of much larger size than those sent by the ruler of Phrae. The failure to send the pair of tree to Bangkok would otherwise considered as rebellion against Siam government.<sup>186</sup> While it was mandatory, sometime the prince personally went to Bangkok to present the tributary item.<sup>187</sup> Beside the pair of golden and silver tree, Bangkok demanded specific item in some specific years. For the year of Rama IV, the king demanded 300 teak logs<sup>188</sup> and liquid lacquer for the tributary item.<sup>189</sup>

The second category of the tributary item or *suai*, it served an economic demand of the Siamese government on the annual basis. The main *suai* item from the Lan Na principalities was teak. Information concerning the delivery of teak traces back at least to the reign of Rama III. Every year he demanded specific number of teak logs as following – 500 from Chiang Mai, 400 from Nan, 400 from Lampang, and 200 each from Phrae and Lamphun.<sup>190</sup> However, the number probably fluctuated because McLeod indicated from his inquiry into the tributary system when he was visiting Chiang Mai in 1837 that Bangkok demanded only 250 teak logs from Chiang Mai.<sup>191</sup> Dr. David Richardson, a British military surgeon and a representative of the British East India Company, visited the principalities of Lampang and Chiang Mai several times in the course of the 1830s for the purpose of establishing

---

<sup>185</sup> Volker Grabowsky and Andrew Turton, *The Gold and Silver Road of Trade and Friendship: the McLeod and Richardson Diplomatic Missions to Tai States in 1837* (Chiang Mai: Silkworm Books, 2003), 304.

<sup>186</sup> Grabowsky, *Bevölkerung und Staat in Lan Na*, 186.

<sup>187</sup> Wyatt, *The Nan Chronicle*, 128.

<sup>188</sup> Grabowsky, *Bevölkerung und Staat in Lan Na*, 187.

<sup>189</sup> Sarasawadee Ongsakun, *The History of Lan Na* (ประวัติศาสตร์ล้านนา), 361.

<sup>190</sup> *ibid.*

<sup>191</sup> Grabowsky and Turton, *The Gold and Silver Road of Trade and Friendship*, 314.

commercial relations between British India and the Lan Na principalities. He reiterated the role of teak as the mandatory item demanded by Bangkok.<sup>192</sup> Unfortunately, there were certain problems with the delivery of teak. For example, the delivery from Phrae was delayed and Nan could not fulfil the quota required by the Siam government. The Siam government was concerned about the number of undelivered teak which gradually accumulated and warned them about the delay.<sup>193</sup>

Looking at teak as a *suai* item, Siam was quite lenient towards the delivery of teak logs. Comparing with another vassal state in the same period, the tributary relationship between Siam and Cambodia was similar. Siam was quite flexible with the delay and usually returned favour in a form of gift to the Cambodian king.<sup>194</sup> It also happened to the prince of Nan when he personally presented the tributary item to the king of Siam, which gained him a royal favour. Then he received a set of regalia bestowed upon him by the king.<sup>195</sup>

However, the Lan Na principalities were not obedient as much as Bangkok wanted them to be. The prince of Chiang Mai was impressed by the might of the British Army after the impressive victory of the First Anglo-Burmese War in 1826 and it shifted the attention of the prince of Chiang Mai to the powerful British army. He successfully enticed the British commissioner in Moulmein with his correspondence.<sup>196</sup> Captain McLeod's mission in 1837 demonstrates Chiang Mai's flexibility towards Siam and British India. McLeod received the assignment from the East India Company to connect Moulmein with southern China. In order to get access to China, he preferred the route via Chiang Tung and Chiang Rung as these polities were considered Burmese vassal states. As a result, he met with the strong objection from the Chiang Mai noblemen in the first week of his arrival in Chiang Mai. They persuaded him to travel through Nan taking the Mekong route instead.<sup>197</sup> They decided and informed McLeod "[...] they had determined here not to let me proceed, at least to object to it, but if I persisted they would not prevent me, but would in no way assist me".<sup>198</sup> Furthermore, the objection came directly from the prince of Chiang Mai "[...] he expressed his surprise at my

---

<sup>192</sup> David Richardson, *Dr. Richardson's Missions to Siam, 1829–1839*, ed. Anthony Farrington (Bangkok: White Lotus Press, 2004), 107.

<sup>193</sup> Sarasawadee Ongsakun, *The History of Lan Na* (ประวัติศาสตร์ล้านนา), 361.

<sup>194</sup> David P. Chandler, *A History of Cambodia*, 114.

<sup>195</sup> Wyatt, *The Nan Chronicle*, 118, 128.

<sup>196</sup> Mayuri Ngaosivat and Pheuiphanh Ngaosyvathn, *Paths to Conflagration: Fifty Years of Diplomacy and Warfare in Laos, Thailand, and Vietnam, 1778–1828* (Ithaca, N.Y.: Southeast Asia Program Publications, Cornell University, 1998), 120–121.

<sup>197</sup> Grabowsky and Turton, *The Gold and Silver Road of Trade and Friendship*, 294.

<sup>198</sup> *ibid.*, 292.

intended journey to China, and intimated his wish that I should not go.”<sup>199</sup> Rather stubborn than tact, McLeod replied in haste “I told them I had come as a friend, and if they refused me permission, I should not certainly attempt to force my way, but return without delay to Moulmein. I only begged them not to detain me longer than necessary [...]”<sup>200</sup>

McLeod found out later about the reason behind their objection against his travel through Chiang Tung because their animosity towards Burma and unwilling to grant the permission without the direct sanction from the Siamese king.

“[...] they [Chiang Mai noblemen], therefore, did not wish us [the British] to have any communication with Kiang Tung or them. He told me that the authorities were much embarrassed how to act with respect to my journey; one the one hand, the fear of the court at Bangkok [...], and on the other, that of displeasing us.”<sup>201</sup>

McLeod was losing his patience when the Chiang Mai noblemen did not reach the consensus on him.<sup>202</sup> Finally, he decided to go to Chiang Tung without both permission and assistance from Chiang Mai. As McLeod’s account informed us

It was ultimately agreed, that I should select my own road, that I should be guided by the information I collected on the march, and I should not, in consequence of my travelling with my party over any particular one, consider it as opened permanently, but merely as a favour to me, being on a mission [...].<sup>203</sup>

McLeod tellingly points out the position of Chiang Mai towards Siam and Great Britain. Chiang Mai’s case may not be representative for all other Lan Na principalities, but at least it proves Bangkok’s imperfect control of the tributary system. If looking at teak from the tributary system point of view, some insight is provided. For Bangkok, the information concerning teak was very limited, no one knew whether the principalities really sent teak logs in the numbers demanded by the Siamese government or it was delayed by the natural cause. Thus, though teak became part of the tributary system the amount of teak that reached Bangkok was limited. According to the information from Chiang Mai, the amount was not fixed at all.<sup>204</sup> Even the ranking officer in the ministry suspected about the availability and the exact number of teak.<sup>205</sup> Bangkok’s information concerning teak was unclear and likely inaccurate because the method used to transport teak involved floating logs down the river. As such, no one could predict when the teak would arrive or, indeed, guarantee its arrival at

---

<sup>199</sup> *ibid.*, 293.

<sup>200</sup> *ibid.*, 294.

<sup>201</sup> *ibid.*, 297.

<sup>202</sup> *ibid.*, 317.

<sup>203</sup> *ibid.*, 321.

<sup>204</sup> *ibid.*, 314.

<sup>205</sup> Bowring, *The Kingdom and People of Siam Volume 1*, 465.

all.<sup>206</sup> When King Rama V was enthroned in 1868, the amount of teak that arrived in Bangkok was similarly unclear. Also, some of the teak demanded under the previous king failed to arrive. As a result, he decided to change the method for managing teak as a tributary item. A letter from King Rama V was sent to three of the personnel involved that reads as follows:

Dear Phraya Maha Ammat, Phrya Srisungsahathep, Luang Anuchitphithak, the head of the teak tributary unit, from now on the number of teak send as the tribute including the debt [regarding the teak demanded by Bangkok under the reigns of King Rama III and King Rama IV] will be purge. The future tribute teak will be demanded from Phitsanoulouk, Phichit, Rahaeng, Phichai, Nakorn Sawan, Kamphaeng Phet, Uttaradit, Sawankhalok, Sukhothai, Thoenburi [...].<sup>207</sup>

Sometimes, someone in authority manipulated the data on teak before it arrived in Bangkok. In 1877, King Rama V ordered an investigation of Phra Phol (พระพล) the petty-ranking officer in Rahaeng, whose duty was to oversee the movement of goods that pass through the provincial gate. He was accused of siphoning away teak and manipulating the numbers that passed through the provincial gate in the accounting ledger.<sup>208</sup>

In order to understand the background and the political implications of teak, it is necessary to explain the intervention of the Siamese government in Bangkok and the successful establishment of modern bureaucratic institutions in its vassal states in the Lan Na principalities. From the 1870s, the Siamese government went to great lengths to integrate the northern region as an official part of Siam proper. Siamese efforts to incorporate northern Siam into the central administration occurred concurrently with the development of the teak industry. Specifically, these actions were the consequence of a pivotal event in Thai history: the Bowring Treaty of 1855. However, the Siamese government's intention to govern the Lan Na principalities from Bangkok was not directly influenced by the treaty. Research by Nigel Brailey describes the long-term relationship between Bangkok and its vassal states as a "Peacetime Tributary Relationship"<sup>209</sup> which ended during the 1850s.

---

<sup>206</sup> For details about the teak floating method, see chapter 4.

<sup>207</sup> ถึง พระยามหาอำมาตย์ พระศรีสังฆเทพ หลวงอนุชิตรพิทักษ์ แม่กองสัก โปรคให้ยกส่วนไม้ที่ค้างเก่า [จากยุครัชกาลที่สามและรัชกาลที่สี่] ให้คิดเกณฑ์ใหม่ และให้เรียกจาก พิษณุโลก พิจิตร ตาก พิไชย นครวสวรรคร์ กำแพงเพชร อุตรดิษ สวรรคโลก สุโขทัย เติมนบุรี. NAT Kor Ror 5 Mor Tor (I) 3/133 To Phraya Maha Ammat, Phrya Srisungsahathep, Luang Anuchitphithak, the head of the teak tributary unit (ก-ร 5 มท (ล) 3/133 ถึงพระยามหาอำมาตย์, พระยาศรีสังฆเทพ, หลวงอนุชิตรพิทักษ์ แม่กองสัก).

<sup>208</sup> *The Personal Letters of King Rama V in the year 1877* (จดหมายเหตุนครราชสีมาในพระบาทสมเด็จพระจุลจอมเกล้าเจ้าอยู่หัวจุลศักราช 1239 พุทธศักราช 2420) (Bangkok: Department of Fine Arts, 2010), 42.

<sup>209</sup> Nigel J. Brailey, "The Origins of the Siamese Forward Movement in Western Laos, 1850–92" (Ph.D., University of London, 1968), 24–79.



As the Siamese government attempted to chart a course of action to take more direct control of the northern provinces, it needed to take into account the ruling families of the principalities and the interventions of the foreign powers. To be precise, the central government profited from the fragmentation and disunity of the polities of each valley, as well as competition between Great Britain and France.

Tributary relationships between the northern provinces and the Siamese government predated the Bowring Treaty.<sup>210</sup> The teak industry developed within the context of such relationships. Teak was an object of political contestation between the Siamese government and the princes of the Lan Na principalities. This contestation revolved around issues pertaining to ownership of forestry resources. The expansion of western influence in Siam, and northern Siam in particular, combined with the inconsistent approaches taken by Bangkok towards the Lan Na principalities and vis-à-vis foreign powers, led to a series of conflicts based on teak.<sup>211</sup> These conflicts resulted in the end of tributary relations between Siam and the Lan Na principalities.<sup>212</sup> The central government in Bangkok eventually succeeded in forcing the complete submission of the Lan Na principalities. Not only was the region incorporated into the central administration, but these changes also marked the transformation of Siam itself from a traditional state into a modern nation state.<sup>213</sup> In brief, a political system based on patronage morphed into one dominated by bureaucracy.<sup>214</sup>

Undoubtedly, the princes and their family members lost much of their income as a result of taxes redirected to Bangkok and the central government's requisition of the forest. Expressions of discontent emerged in various forms. Disgruntlement with new forms of

---

<sup>210</sup> *ibid.*, 25.

<sup>211</sup> For more detail about the scholarly works investigating western expansion in Siam see, SarDesai, D. R., *British Trade and Expansion in Southeast Asia, 1830–1914* in chapter 3 “Towards an Informal Empire in Siam” Tuck, *The French Wolf and the Siamese Lamb*; Nigel J. Brailey, “The Origins of the Siamese Forward Movement in Western Laos, 1850–92,” 80–114; Ratanaporn Sethakun, “Political, Social, and Economic Changes in the Northern States of Thailand Resulting from the Chiang Mai Treaties of 1874 and 1883” (Ph.D., Northern Illinois University, 1989) in chapter 4 “Western Intervention in the Northern States”.

<sup>212</sup> See, for examples, Nigel J. Brailey, “The Origins of the Siamese Forward Movement in Western Laos, 1850–92,” Ansil J. Ramsay, “The Development of a Bureaucratic Polity: The Case of Northern Siam” (Ph.D., Cornell University, 1971).

<sup>213</sup> Please see details in Thongchai Winichakul, *Siam Mapped*.

<sup>214</sup> The author acknowledges that interpersonal relationships continue to characterise Thai politics. While the bureaucratic reforms changed the political character of the state and the political relationship between Bangkok and the Lan Na principalities during the period of King Rama V, it could not, however, obliterate the socio-political influence of interpersonal relationships that had once dominated the political dealings between these two parties.

taxation and the tax reformation of 1884<sup>215</sup> manifested themselves in the form of the Phya Phap (พญาผาบ) rebellion in San Sai District (สันทราย) in Chiang Mai in 1889,<sup>216</sup> and the so called Shan Rebellion of Phrae in 1902.<sup>217</sup>

This socio-political and civil unrest prompted the government in Bangkok to assert direct control over the northern regions. Within this context, Siam fought on two politico-economic fronts, namely to gain control over teak and control over territory. Escalating tensions between Bangkok and the Lan Na principalities prompted the central government to undertake two significant measures during the 1880s and the 1890s. The first entailed the installment of a permanent commissioner in the north.<sup>218</sup> The second involved the systematic expansion of Bangkok's power in northern Siam through the imposition of a modern bureaucratic system under the control of the Ministry of Interior.

The northern regions also became a point of contestation between Siam, Great Britain, and France. All three political actors clashed over the hinterland of northern Siam and competition for teak. Siamese elites probably considered the ongoing situation as a zero-sum game, meaning that whoever controlled northern Siam would gain a control over the teak resources and vice versa. The conflict became increasingly serious because of British and French ambitions to establish an overland route to Yunnan through mainland Southeast Asia.

This dissertation does not explain the entire history of the integration of the Lan Na principalities into the Siamese administration, but rather focuses on the processes of integration that involved teak.<sup>219</sup> Therefore, this chapter focuses on the relationship between

---

<sup>215</sup> For a full account of the tax reformation in northern Siam, see, Weerathep Srimongkol (วีระเทพ ศรีมงคล), "The Tax Collection in Lanna 1884–1902 (การจัดเก็บภาษีอากรในล้านนา พ.ศ. 2427–2445)" (Master of Arts, Silpakorn University, 1987).

<sup>216</sup> Sarasawadee Ongsakul (สร้อยสวัสดิ์ อ่องสกุล), *Culture and Politics in Lan Na* (วัฒนธรรมการเมืองล้านนา) (Bangkok: Ton Orr Grammy, 1996); Sarasawadee Ongsakul (สร้อยสวัสดิ์ อ่องสกุล), *The History Lan Na* (ประวัติศาสตร์ล้านนา), 531; Weerathep Srimongkol (วีระเทพ ศรีมงคล), "The Tax Collection in Lanna 1884–1902 (การจัดเก็บภาษีอากรในล้านนา พ.ศ. 2427–2445)," 86–87. The occurrence of Phya Phap Rebellion was a consequence of the tax reformation in 1884.

<sup>217</sup> Constance M. Wilson, "The Holy Man in the History of Thailand and Laos," *Journal of Southeast Asian Studies* vol. 28, no. 2 (1997): 353. Tej Bunnag (เตจ บุญนาค), *Ror Sor 121 Rebellion* (ขบถ รศ. 121) (Bangkok: The Foundation for the Promotion of Social Science and Humanities Textbook Project, 1981), 31, 43, 46–48.

<sup>218</sup> Many scholars specify that the appointment of the commissioner and the expansion of Siam into the northern regions was a direct consequence of the Second Chiang Mai Treaty in 1883. See, for example, Ratanaporn Sethakun, "Political, Social, and Economic Changes in the Northern States of Thailand Resulting from the Chiang Mai Treaties of 1874 and 1883," 186–195.

<sup>219</sup> For a full account of this political development and its consequences in the north from the second half of the nineteenth century until the first decade of the twentieth century, see Nigel J. Brailey, "The Origins of the Siamese Forward Movement in Western Laos, 1850–92," Ansil J. Ramsay, "The Development of a Bureaucratic

teak and political developments in the northern regions. The chapter consists of four sections. The first section starts with the problem of legal conflict in the teak business. It also investigates the homicide in regard to teak merchants in 1871 that led to new regulations in northern Siam. The second section examines the Siamese government's efforts to assert strict control over the Lan Na principalities. To achieve this, the government needed to balance the two major foreign powers involved in the teak industry, the British and the French. Specifically, this section will interrogate the two treaties signed with Great Britain. These are known as the First Chiang Mai Treaty in 1874 and the Second Chiang Mai Treaty in 1883 respectively. The third section discusses the establishment of the Royal Forest Department (hereafter the Forest Department) and its role under the command of the Ministry of Interior. A sequence of major events that affected the teak business are also included in this section. The third section also provides an in-depth investigation of the role of the Forest Department in the teak business.

### 3.1 The Teak Business before the Chiang Mai Treaty

After Great Britain's victory over Burma in the Second Anglo-Burmese War of 1852, the Irrawaddy Delta region was annexed to British India and renamed "Lower Burma". The new government introduced the *Pax Britannica* in Lower Burma and maintained the political order in that area. The stable conditions provided by the British imposed peace encouraged the expansion of the teak trade. As a result, British merchants and Burmese foresters moved into northern Siam. The result of the Second Anglo-Burmese War increased the number of investments in the teak business. It also brought the political problem. There was an autonomous and powerful eastern Karenni state<sup>220</sup> which was situated between the province Lower Burma of British India, Siam, and the Lan Na principalities. During this early period, the teak industry was widespread throughout the northern region. Permission to work in the forests was obtained in the form of verbal contracts. The merchants simply asked the local prince or a member of his family for permission to extract teak since the local rulers were the owners of the forest at this time. As the scale of the teak trade prior to the Bowring Treaty was rather small, the teak merchants normally just gave the prince's family a gift in exchange for permission to work in the teak forest.

---

Polity," Ratanaporn Sethakun, "Political, Social, and Economic Changes in the Northern States of Thailand Resulting from the Chiang Mai Treaties of 1874 and 1883," Tej Bunnag, *The Provincial Administration of Siam, 1892–1915*; Sarasawadee Ongsakul (สรวิสวัสดิ์ อึ้งสกุล), *The History Lan Na* (ประวัติศาสตร์ล้านนา).

<sup>220</sup> The eastern Karenni state is also known as Gantarawadi.

The demand of teak caused the migration of British subjects into Mae Hong Son where the eastern Karenni state and Chiang Mai claimed to be their territory. This led to the attack on foresters in Mae Hong Son and Salween area by the eastern Karenni force.<sup>221</sup> The Shan Gazetteer of Upper Burma and the Shan State, British colonial administrative gazette, tells that Salawbaw, the Myoza<sup>222</sup> of the eastern Karenni from 1866 to 1890, used to collect the timber duty on the Pai River<sup>223</sup> in Mae Hong Son. However, he never granted any teak forest concessions in the Salween region.

After the Second Anglo-Burmese War, the situation in the Karenni states was looming large with the internal conflict and quarrel between the Karen and Burmese, Karen and Shan, and amongst the Karen.<sup>224</sup> This type of conflict could be foreseen even before the Second Anglo-Burmese War. Hence, to reduce the problem in this area, the British commissioner of the Tenasserim province commissioned Dr. David Richardson in 1834 to encourage Chiang Mai to set up a patrol post on the both side of Thuangyin River (Moei River in Thai).<sup>225</sup> Later, British India and Siam decided to use the Thuangyin River as the borderline. However, it did not bear any good result. Constant raids on Shan settlements by forces from the eastern Karenni state after the Third Anglo-Burmese War played into the British hands. It drew British army into eastern Karenni in 1889 and it transformed eastern Karenni into the British tributary state by force.<sup>226</sup> Then it led to the border demarcate with Siam by the Anglo-Siamese Commission in 1890.<sup>227</sup> As a result, Siam withdrew outposts from the trans-Salween region.<sup>228</sup> The Salween River became the border between the British Shan States and the current area of northern Thailand.

The external threat from the eastern Karenni occurred temporarily and it was solved by the British's military strength. Internal problem within the Lan Na principalities was more complex because the Lan Na principalities region was entangled in the contestation between

---

<sup>221</sup> See an example of Maung She Gan in page 78–79.

<sup>222</sup> Myoza is literally translated as “town eater”. It is the appanage position in the pre-colonial Burma. See Donald M. Seekins, *Historical Dictionary of Burma (Myanmar)* (Lanham, Md.: Scarecrow Press, 2006), 315.

<sup>223</sup> James George Scott and J. P. Hardiman, *Gazetteer of Upper Burma and the Shan states Part 2 Volume 2* (New York: AMS Press, 1983), 292.

<sup>224</sup> James George Scott and J. P. Hardiman, *Gazetteer of Upper Burma and the Shan states Part 2 Volume 1*, (New York: AMS Press, 1983), 305.

<sup>225</sup> This is the Richardson's second mission in Chiang Mai and Lampang. His first mission was in 1829/1830 to connect Moulmein with Lan Na principalities and open the route for cattle trade. For the analysis on the cattle trade see Grabowsky and Turton, *The Gold and Silver Road of Trade and Friendship*, 78. For the accounts of the first and second Richardson Mission in Richardson, *Dr. Richardson's Missions to Siam, 1829–1839*, 1–108.

<sup>226</sup> James George Scott and J. P. Hardiman, *Gazetteer of Upper Burma and the Shan States Part 1 Volume 1*, (New York: AMS Press, 1983), 304.

<sup>227</sup> *ibid.*, 306.

<sup>228</sup> Scott and Hardiman, *Gazetteer of Upper Burma and the Shan states Part 2 Volume 2*, 259.

Great Britain, France, and Siam. Just after the Bowring Treaty, competition for teak concessions increased significantly. Teak merchants negotiated with owner of the forest in order to obtain concessions. Following successful negotiations, the concessionaire was required to pay a fee called a “forest opening fee” (ค่าเปิดป่า) to the prince or someone in his family, depending on who owned the forest. An increasingly higher demand for teak logs resulted in stiff competition for teak. This, in turn, meant that teak merchants were willing to offer bribes, either in the form of cash or gifts, in order to acquire forestry concessions. From the 1850s to the 1860s, the Prince of Chiang Mai, Kawilorot (กาวิโลรส) (ruled 1856–1870), was accused of granting overlapping concessions.<sup>229</sup> There were also cases of the ruling families and their subordinates unlawfully seizing elephants, teak logs, and even forcing some labourers into servitude.

The case of Maung She Gan and Captain R. C. Burn is one example of conflict resulting from overlapping concessions and the attack by Karenni in Mae Sariang (แม่สะเรียง) district in Mae Hong Son.<sup>230</sup> The denouement of this conflict resulted in homicide. Muang She Gan was granted a concession in 1858 by Kawilorot, but abandoned his forest area because the Karenni attacked Mae Hong Son in the same year. Later in 1861, Kawilorot granted the same concession area to Lenaine, a Eurasian British subject. When Maung She Gan returned to Mae Saraing, he claimed himself to be the rightful concessionaire. The situation became more confusing when a British teak merchant from Moulmein, Captain R. C. Burn, joined forces with Maung She Gan and filed a complaint about the Mae Sariang concession in 1865. In reply, Kawilorot complained about the rude manners of Burn and his followers. Kawilorot claimed that they had physically attacked the people working for Lenaine, burnt their huts, and stole animals from the nearby villages.<sup>231</sup> Burn’s response was to travel to Chiang Mai, threaten Kawilorot with a rude manner.<sup>232</sup>

Later, Captain Burn’s brother, Mr. F. A. Burn took over teak business, while he and his followers travelling en route from Mae Sariang to Moulmein, a group of armed men attacked and Mr. Burns’s party and several of his men had been killed.<sup>233</sup> This incident led to a hearing in the Siamese courts in Bangkok. Kawilorot visited Bangkok in person and denied

---

<sup>229</sup> Nigel J. Brailey, “The Origins of the Siamese Forward Movement in Western Laos, 1850–92,” 137.

<sup>230</sup> This area was called Hmineloongyee in the British document.

<sup>231</sup> *ibid.*, 131–132.

<sup>232</sup> *ibid.*, 137–138.

<sup>233</sup> *ibid.*, 140.

any involvement in the slaughter, although he nevertheless expressed his uneasiness regarding Burn's actions. As a result of the murders, George Knox the British Consul at that time, tried to pressure the Siamese government to allow the establishment of the new British Vice-Consulate in Chiang Mai, but his request was denied. After the long journey from Bangkok, Kawilorot and his entourage arrived back in Chiang Mai and he died shortly afterwards. The death of Kawilorot in 1870 made the investigation complicated and, ultimately, the case was left unresolved. The case of Maung She Gan and Captain R. C. Burn highlighted the ambiguity pertaining to the status of the northern regions as stipulated by the Bowring Treaty. In short, it was unclear what exact authority the Siamese government possessed in the northern region. Judicial disagreements between Bangkok and the Lan Na principalities put the teak industry in jeopardy. This vacuum of authority was an opportunity for Siam and British India to assert control over the teak trade.

In 1871, a new case of homicide stunned and perplexed the British Indian government. Specifically, the Inthawichayanon (RTGS - อินทวิชยานนท์) of Chiang Mai (ruled 1870–1897) ordered the murder of some individuals involved in the teak business. The news travelled to the British border and there was still no progress regarding the case of Maung She Gan and Captain Burn. The British Indian government<sup>234</sup> appointed Captain Thomas Lowndes, the Police Superintendent from Moulmein, to investigate the suspected teak-related murder of a Burmese headman, a British subject working in district of Maykadon – a territory under the control of Chiang Mai. Additionally, his mission was to investigate and settle a claim made by British subjects regarding the teak trade in Hmineloongyee Forest (in the Mae Sariang district) and collect as much information as possible from Chiang Mai.

The result of the investigation found that the headman was not a British subject, but rather a native of Chiang Mai. He had worked as a sub-contractor for a Burmese teak merchant. In fact, at the same time that he managed the teak extraction process for his Burmese client, he also extracted teak for himself. The story was initially spread anecdotally and full of confusion. He was authorised by a Burmese teak merchant in Moulmein to work as a headman in the Mae Sariang Forest. Lowndes discovered that the headman from Chiang Mai had stolen the identity of the Burmese contractor for the forest in Mae Hong Son. The investigation further clarified that the true owner of this identity was a Burmese teak

---

<sup>234</sup> The British government separated Burma from British India in 1932 after which it became known as British Burma.

merchant who lived in Moulmein. He possessed a forestry lease and sold teak to a British merchant.

While working on a teak concession in a territory claimed to be under the direct control of Chiang Mai, the headman unlawfully appropriated the status of a British subject and committed a crime. Chiang Mai claimed that the impostor had organised a criminal network, or gang of thieves, while working in the teak forest and that there were many complaints about him. In 1870, the Prince of Chiang Mai dispatched a band of armed men to investigate and subdue the impostor's activities. The armed men executed him and some of his subordinates on the site. Elephants and 1,327 teak logs in the forest were confiscated as punishment. The armed men strung up the bodies next to the thoroughfare as a public humiliation and a warning to others. In the end, the investigation confirmed the status of the victim as a native of Chiang Mai and that no British subjects had been harmed. The British police dropped the murder charges because the incident was considered an internal matter of Siam. After this, the tone of the debate changed from demanding better security for British subjects and their property to finding ways to prevent future problems in the teak business. Thereafter, Lowndes demanded payment for business damages. However, there was no answer from Chiang Mai. He then returned to Moulmein and reported the matter to the government of British India.<sup>235</sup>

During his mission, Lowndes collected the appeals of British subjects complaining about the abuse and misconduct of the prince of Chiang Mai and his family members. He compiled a list of forty-two claimants. Most of the cases were related to the teak business. Joint investigations between Siamese and British judges examined all of cases and thirty-one cases were dismissed as groundless.<sup>236</sup> The list was later submitted to Thomas Knox, the British Consul in Bangkok. In 1873, fifteen Burmese foresters submitted a petition to the British Consul in Bangkok, however, the documents gave no further details of their demands.<sup>237</sup> Knox took this occasion to file a complaint to Bangkok about the inability of the Siamese government to suppress criminality in Rahaeng (currently Tak province) and Chiang Mai.

---

<sup>235</sup> FO 69/55 Journal kept by Captain Lowndes, Superintendent of Police British Burma, whilst on a Mission to the Zimme Court.

<sup>236</sup> *East India (Treaty with the King of Siam). Copies of the Treaty between the Government of India and the King of Siam; and, of all Papers relating thereto, as far as those Documents can be made Public* (London: The House of Commons, 1874), 13.

<sup>237</sup> FO 69/60 Chiangmai Claims; relations between Mr. Knox and the Siamese Government.

This criminality was having a significant impact on the growth of the teak trade.<sup>238</sup> The Siamese government held grave concerns about the increasing influence of the British government in the northern region and the pressure being applied by the British Consul in Bangkok. The British Indian government nonetheless did not conform to Consul Knox's aggressiveness. Calcutta's determination to solve the problems of the teak business in northern Siam was abundantly clear. Internal documents of the British Indian government show that it demanded that the Siamese government become more directly involved the teak trade. This demand also extended to other related issues such as the safety of British subjects in northern Siam.

A series of diplomatic letters led to a meeting between Siamese envoys and the Viceroy of the British India in Calcutta. This communication led to the signing of a treaty between British India and Siam in 1874.<sup>239</sup> Its official name was East India (the Treaty with the King of Siam); unofficially, it was known as the Chiang Mai Treaty.<sup>240</sup> The agreement satisfied both parties but left room for future modification. After seven years, both parties could call for changes if they were dissatisfied with the terms of the treaty. The Viceroy of British India ordered the British officer negotiating the treaty in Burma to focus on border issues in the Salween area located between Siam and Burma. Criminality and the teak trade, in contrast, were accorded less importance. It is clear from the content of the treaty that the government in India did not try to assert direct control over the situation in northern Siam. Its priority was to maintain law and order in Lower Burma. It was also preoccupied by its unexpected conflict with the Amir of Afghanistan that led to the Second Anglo-Afghan War from 1878 to 1880.

Seven years after the First Chiang Mai Treaty, criminality in the teak business was still common, although it was not as violent as during the mid-to-late 1870s. Nevertheless, for example, three Burmese teak merchants, Maung To, Maung Guna, and Maung Baik, were harassed and robbed in different localities in northern Siam. All of them complained to the British authorities in Salween about their stolen cash and valuable objects.<sup>241</sup> The British Indian representative visited Bangkok to negotiate a solution, but the Siamese government was unable to solve the problem. Moreover, two contradictory reports from a Siamese

---

<sup>238</sup> *East India (Treaty with the King of Siam). Copies of the Treaty between the Government of India and the King of Siam; and, of all Papers relating thereto, as far as those Documents can be made Public.*

<sup>239</sup> The details and effects of the Treaty is discussed in section 3.2.2.

<sup>240</sup> Similar to other treaties, the unofficial name is more commonly used than its official name.

<sup>241</sup> Nigel J. Brailey, "The Origins of the Siamese Forward Movement in Western Laos, 1850–92," 219–221.



commissioner and a British officer regarding Maung Baik's case complicated the situation.<sup>242</sup> Consequently, the idea of installing a British Consul in Chiang Mai was brought up once more. The government of British India expected that the establishment of British Consul would immediately ameliorate the existing situation in the northern regions and ensure the enforcement of the treaty between Siam and Great Britain.

### 3.2 The Chiang Mai Treaties and their Consequences for the Teak Trade

The Chiang Mai Treaties were a series of agreements between Siam and British India. The First Treaty was signed in Calcutta in 1874. It was the outcome of numerous lawsuits and claims by British subjects against the prince of Chiang Mai and his family's arbitrary rule. This complaints included issues such as bribery, breach of contract, enslavement, embezzlement, and homicide.

The government of British India strong desired to solve two major problems in particular. First, there were a variety of problems relevant to the teak business and the large amount of debt owed by the prince of Chiang Mai. The latter problem of debt, however, was not included in the treaty. Instead, the Siamese government decided to give Chiang Mai a loan. Second, the government of British India was concerned about the safety of British subjects travelling in northern Siam. British subjects had permission to travel within the territories stipulated in the treaty by using a passport granted by British authorities. In practice, this meant that the British Indian government accepted the status of these principalities as vassal states under Siamese sovereignty.

As such, Siam was responsible for providing a police force and security patrols. Hence, the first article of the treaty delineated the borders between Siam and British territories and the duty of Chiang Mai to prevent criminal acts within its territories.<sup>243</sup> Therefore, Siam had to station an adequate amount of police and guard stations along the Salween River. The demarcation of the border was the major concern of the Indian Government. A clearly demarcated border and accurate maps would help both parties to perform surveillance on illegal activities and to ensure proper control of economic activities within the border area. Following the first treaty, the Siamese government began intensive surveying and

---

<sup>242</sup> Ratanaporn Sethakun, "Political, Social, and Economic Changes in the Northern States of Thailand Resulting from the Chiang Mai Treaties of 1874 and 1883," 220–221.

<sup>243</sup> *East India (Treaty with the King of Siam). Copies of the Treaty between the Government of India and the King of Siam; and, of all Papers relating thereto, as far as those Documents can be made Public*, 30.

mapping.<sup>244</sup> Beyond border controls, the treaty acknowledged the use of passports for the first time, as well as the extradition of criminals and fugitives between British India and Siam.<sup>245</sup> Subduing criminality in northern Siam was a major concern for both the British Indian and Siamese governments. In order to control and stabilise this area, they agreed to establish a court of law. The function of the court was to investigate and rule on cases involving British subjects. The court's jurisdiction incorporated the designated areas of Chiang Mai, Lampang, and Lamphun. The also treaty granted extraterritorial jurisdiction for British subjects. Nevertheless, British subjects were able to appeal the court's decision and request judgement from the British Consul in Bangkok or by a British Officer in Salween District if they believed that their case had been marred by incompetence or injustice.

Regarding the teak business, the first treaty ensured basic requirements and provided a framework for the forest owner and the concessionaire to sign a contract. All of the procedures accompanying these documents provided the necessary information for future investigations in the case of a lawsuit. The first treaty in 1874 tried to establish regulations regarding the way that teak concessions were leased. This took the form of a written contract that had been acknowledged by the Siamese commissioner in Chiang Mai. British subjects who intended to lease a forest needed to present their passports together with the written contract. The treaty stipulated that the forest owner and British subject were to provide two copies of the contract. After both parties had signed the contracts, the forest owner was obliged to send these to the judge of the newly established court. After the contracts were processed, they were transferred to the Prince of Chiang Mai to stamp his seal. The first copy of the contract was submitted to the British officer in the Salween District. The second stamped contract was kept by the Siamese Commissioner in Chiang Mai.<sup>246</sup> When a conflict or disagreement related to the concession occurred, the contract would be used by the judge to settle the case.<sup>247</sup>

The Siamese government usually appointed the government commissioner in Chiang Mai to function as a judge. The commissioner checked and ratified the validity of the contract. If the commissioner found any mistake, he had the authority to veto and revoke the contract. The commissioner system helped the Siamese government control both the judiciary and

---

<sup>244</sup> For details about the surveying project in northern Siam see McCarthy, *Surveying and Exploring in Siam*.

<sup>245</sup> *East India (Treaty with the King of Siam). Copies of the Treaty between the Government of India and the King of Siam; and, of all papers relating thereto, as far as those documents can be made public*, 30–31.

<sup>246</sup> *ibid.*, 32.

<sup>247</sup> Ratanaporn Sethakun, "Political, Social, and Economic Changes in the Northern States of Thailand Resulting from the Chiang Mai Treaties of 1874 and 1883," 183.

executive power in the northern region. During the period of the first treaty, there was only one case regarding contractual problems. Disputes related to forestry concessions still occurred, however. One case, for example, involved a concession in Lampang. Maung Guna, where a Burmese teak merchant worked an area granted by the Prince of Lampang. Notwithstanding this, the Prince of Lampang sent a group of armed-men to the concession area in 1875, threatened the employees, and seized Maung Guna's elephants. The prince claimed that Maung Guna owed him a large debt and that he had seized the elephants as payment.<sup>248</sup> These actions demonstrated the mentality of the prince and his family and their belief in their absolute ownership of the forest. However, the degree of violence that occurred during this time decreased quite significantly in comparison with the cases investigated by Captain Lowndes. During the transformation period, other problems continued to exist within the teak business incidents in which teak logs were stolen<sup>249</sup> and hammer marks destroyed.<sup>250</sup> These incidents led to disputes vis-à-vis ownership of the logs and high-level litigation, which even surprised the British diplomat who heard the case in Chang Mai.<sup>251</sup>

Politically, the treaty allowed the Siamese government to gain a foothold in the northern region. However, this did not yield substantial economic gains for the central government. Nevertheless, the resolution of political disorder and the unification of the fragmented political polities in the north under the control of the centralised state in Bangkok were the direct result of the first treaty.

Petty crime and robbery, however, still existed, and the case of Maung Baik led to the modification of the first treaty. In 1876, a Burmese merchant, Maung Baik, travelled from the Salween area to Mae Hong Son. During this trip, his Karenni employees attacked and robbed him.<sup>252</sup> Some of his employees were killed, but he escaped and reported the matter to the authorities. Siamese forces tried to pursue the robbers, but it was already too late as the robbers had escaped into the British Salween area. The Siamese officer in Chiang Mai claimed that the culprits got away because Maung Baik delayed reporting the matter. Conversely, a report from A. H. Hildebrand, a British authority in the Salween region,

---

<sup>248</sup> Nigel J. Brailey, "The Origins of the Siamese Forward Movement in Western Laos, 1850–92," 219–220.

<sup>249</sup> *Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1890 on the Trade of Siam* (London: HMSO, 1891), 13.

<sup>250</sup> *Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1891 on the Trade of Chiengmai* (London: HMSO, 1892), 3.

<sup>251</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1900), 10.

<sup>252</sup> Nigel J. Brailey, "The Origins of the Siamese Forward Movement in Western Laos, 1850–92," 220–221.

blamed the inefficiency and procrastination of Siamese authorities. According to Hildebrand, Maung Baik reported the matter to the Siamese authorities in Chiang Mai almost immediately after his group was attacked and robbed.

The assault and robbery of Maung Baik led to a discussion about the possibility of establishing a permanent police force in northern Siam. It also raised the issue of installing a British Vice-Consulate in Chiang Mai. Through the Vice-Consulate, the British Indian government expected an immediate reaction to urgent situations. The British Indian government also rationalised that this would lead to increased working efficiency within the teak industry and a drop in crime because the Vice-Consulate, as a representative of the British government, could cooperate with both the Siamese commissioner and the prince.<sup>253</sup>

In 1883, Siam and British India signed a modified version of the Chiang Mai Treaty. The new treaty appended the right of the British government to establish a Vice-Consulate in Chiang Mai. Its jurisdiction covered the areas stated in the official name of the treaty: “Treaty between Her Majesty and His majesty the King of Siam for the Prevention of Crime in the Territories of Chiengmai, Lakon, and Lamphoonchi, and for the Promotion of Commerce between British Burmah and the Territories aforesaid”.<sup>254</sup> Later, in 1885, Siam and British India extended the coverage of the treaty to Nan and Phrae.<sup>255</sup> The coverage was then extended once again in 1896 to incorporate Thoen, Tak, Sukhothai, Uttaradit, and Phichit.<sup>256</sup>

The Siamese government’s first task after the second treaty was to strengthen the police force. It was intended that enhanced patrolling techniques would subdue banditry in the northern region. The Siamese government constructed this police system with the aid of police staff from British India and members of the Danish gendarmerie. However, murder cases still occurred in remote areas between the border of Siam and Burma.<sup>257</sup> Nevertheless, there were not any murder cases in relation to the teak business. The success of the salaried police system satisfied both the Siamese government and the government of British India.

---

<sup>253</sup> The Maung Baik incident not only instigated conflict between Siam and British India, but it also reflected the conflict between King Rama V and the Bunnag faction. For details on the impact that the Maung Baik affair had on Siam’s internal politics see Nigel J. Brailey, “The Origins of the Siamese Forward Movement in Western Laos, 1850–92,” 222–227.

<sup>254</sup> *Treaty between Her Majesty and His Majesty the King of Siam for the Prevention of Crime in the Territories of Chiengmai, Lakon, and Lamphoonchi, and for the Promotion of Commerce between British Burman and the Territories Aforesaid.*

<sup>255</sup> *Treaty series. No. 9 1897. Notes exchanged between Great Britain and Siam extending the operation in Siam of the treaty of September 3, 1883* (London: HMSO, 1897), 2.

<sup>256</sup> *ibid.*, 3–4.

<sup>257</sup> “13614/9 (i) Report W. A. R. Wood 27 Dec. 1927 Northern Siam,” in Trotter, *British Documents on Foreign Affairs*, 359–365.

The second treaty did not change the core principles underpinning the teak industry: in short, the prince of each principality still maintained ownership over the forest. In the first treaty the concessionaire needed to submit two copies of the contract, whereas the second treaty stipulated that three copies of the contract were now required. The third copy of the contract needed the stamp of the British Vice-Consul in Chiang Mai and it was stored in the Vice-Consulate's office. When British subjects breached their contract, it was the duty of the Vice-Consulate to enforce the law and indemnity clause.<sup>258</sup> Prince Pichit (กรมหลวงพิชิตปรีชากร), the Chief Commissioner from 1884 to 1885, restricted the concession period to a maximum of three years.<sup>259</sup> He also ordered all forest owners to submit a list of forests and forestry concessions.<sup>260</sup> His second move was part of Bangkok's efforts to divert a larger percentage of revenue from the teak business to the central treasury. Twenty per cent of the income from teak was sent to Bangkok during this period.<sup>261</sup>

The International Court (ศาลต่างประเทศ) was a new legal institution founded as a joint initiative between British India and Siam. The intention of the International Court was to solve court cases between British subjects and native people. Both Siam and British India expected that general legal disputes could be settled in Chiang Mai in order to reduce the number of cases sent to Bangkok or Calcutta. Although it was called the "International Court", and the court's jurisdiction covered the territory of Chiang Mai, Lampang, Lamphun, and Nan – that is to say, the provinces under the British Consular District of Chiang Mai<sup>262</sup> – the judges hearing the cases were Siamese and the cases conducted in Thai. In short, the only international aspect of this International Court was the nationality of the plaintiff or defendant. When a British Subject was involved in a legal dispute, an investigation and judgement took place in the International Court. The treaty also detailed the legal processes for cases tried under this new framework combining the International Court and the involvement of the British Vice-Consulate. A representative from the Vice-Consulate attended all investigations and decision-

---

<sup>258</sup> Ratanaporn Sethakun, "Political, Social, and Economic Changes in the Northern States of Thailand Resulting from the Chiang Mai Treaties of 1874 and 1883," 218.

<sup>259</sup> Nigel J. Brailey, "The Origins of the Siamese Forward Movement in Western Laos, 1850–92," 268–269.

<sup>260</sup> Weerathep Srimongkol (วีระเทพ ศรีมงคล), "The Tax Collection in Lanna 1884–1902 (การจัดเก็บภาษีอากรในล้านนา พ.ศ. 2427–2445)," 33–34.

<sup>261</sup> Nigel J. Brailey, "The Origins of the Siamese Forward Movement in Western Laos, 1850–92," 271.

<sup>262</sup> Akiko Iijima, "The "International Court" System in the Colonial History of Siam," *Taiwan Journal of Southeast Asian Studies* vol. 5, no. 1 (2008): 39.

making processes. They were also able provide an opinion about the decisions made as a colleague.<sup>263</sup>

Although Ratanaporn Sethakun researched the impact of the Chiang Mai Treaty and pointed to five major changes, her research, surprisingly, did not investigate the role of the International Court as a major agent of change.<sup>264</sup> Indeed, control over the justice system helped the Siamese government maintain its influence over the northern region. New standardised procedures and regulations for the teak trade were also enforced by this court.

According to the statistical data kept by the British Consulate in Bangkok, the majority of cases heard in the International Court were civil cases and many of them involved the teak business. In 1890, for example, 78 of 90 cases were civil actions.<sup>265</sup> The ratio of cases in the International Court did not change much over time. Most of the timber legal cases conducted through the International Court were disputes over teak ownership and problems related to monetary payments for the product. Frequently, the case was a dispute involving a foreign company.<sup>266</sup>

The arrival of teak merchants from Burma in northern Siam caused a variety of other problems. Following the case of Maung Guna's debt, there was a case in which a Burmese forester defaulted on his loans. This occurred after Siam and British India had agreed upon the second treaty. Maung Hmoon Taw borrowed a large sum of money from an Indian Chettiar in Moulmein to invest in the teak business in the Mae Hong Son area. However, he failed to pay back the money and this consequently led to a legal dispute between Maung Hmoon Taw and his creditor in Moulmein.<sup>267</sup> After this, Prince Pichit preferred the investment of big British companies with strong financial support and systematic

---

<sup>263</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Bangkok* (London: HMSO, 1899), 9.

<sup>264</sup> These treaties emphasised five different aspects in northern Siam. First, the appointment of the *Kha Luang* (ข้าหลวง) position or the Royal Commissioner in Chiang Mai. This position was directly appointed from Bangkok to oversee and provide advice for the Prince of Chiang Mai. Second, the installation of the permanent police force in the Salween area that operated on a salary paid by the government. Third, any change in teak regulations needed the consent of the Siamese commissioner. Fourth, the introduction of a new taxation regime transferred more revenue from the northern region to the central treasury in Bangkok. Fifth, religious tolerance of newly converted Christians. For more details see Ratanaporn Sethakun, "Political, Social, and Economic Changes in the Northern States of Thailand Resulting from the Chiang Mai Treaties of 1874 and 1883," 195, 219, 229–231.

<sup>265</sup> *Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1890 on the Trade of Siam*, 13.

<sup>266</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiengmai*, 10.

<sup>267</sup> Hallett Holt Samuel, *A Thousand Miles on an Elephant in the Shan States* (Edinburgh: W. Blackwood, 1890), 28–29.

operations<sup>268</sup> as these did not require intervention by the British Consul over monetary disputes.

Through the International Court, both Siam and Britain went to great efforts to bring political stability to northern Siam and curb the unpredictable behavior of the local princes. This was a worthwhile investment according to the British Consul in Bangkok. Teak exported from Bangkok turned into the second most important export commodity of Siam in 1887.<sup>269</sup> This was just three years after the establishment of the International Court in Chiang Mai. The second treaty helped to set up the permanent police force, a court of law and law-enforcement, the British Vice-Consulate, and a system of written contract. The court's enforcement of the laws helped to guarantee the business operations of committed and loyal merchants, while, at the same time, it punished unlawful practices. This system of justice and associated new business practices limited the unruly behaviour of the princes and partially drew income to the Bangkok treasury.

The regulations imposed by the Chiang Mai Treaty reduced the business uncertainty caused by the unpredictable behaviour of the prince and his family members. The regulations alone, however, would not have been enough to promote the growth of the teak industry. A judicial system like the International Court was a prerequisite for the expansion of the teak business, even if the investment of British companies had been on the rise during the 1890s. However, new types of problem emerged in the teak business. Problems regarding debt, default, or a breach in contract were solved by the institutions created by the Chiang Mai Treaty. Indeed, parts of the treaty were specifically designed to settle legal cases in the teak business. However, small cases, such as the non-payment of salaries to workers in the forest, the failure to deliver teak logs to a designated point of delivery, and defaults on loans, increased in number.<sup>270</sup>

In the mid-to-late 1880s and from 1890s onwards, problems in the teak business became more industry specific. These included felling underage teak trees, cutting teak without girdling, damaging teak saplings, as well as issues regarding how to calculate the value of each stolen log, how to estimate the value of the whole forest area, and so forth. Moreover,

---

<sup>268</sup> Nigel J. Brailey, "The Origins of the Siamese Forward Movement in Western Laos, 1850–92," 269.

<sup>269</sup> *Diplomatic and Consular Reports on Trade and Finance: Report for the Year 1887 on the Trade of Siam* (London: HMSO, 1888), 1–2.

<sup>270</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiengmai*, 10.

there was an increasing amount of the direct investment by British and Danish companies in the teak business. This brought a new kind of conflict to northern Siam. A lack of knowledge pertaining to forestry, especially in comparison to foreign companies, limited the ability of the Siamese government to control the teak business.

Table 3.1 Statement of Cases tried in the International Court in Chiang Mai, 1895–1899

Year	Number of Cases	Amount Sued for	
		Value in Rupees	Value in Sterling
1895	135	725,744	48,385
1896	90	225,475	15,031
1897	206	119,049	7,937
1898	64	95,095	6,340
1899	97	281,329	18,755
Total	492	1,446,722	96,448

Source: Diplomatic and Consular Reports Siam. Report for the year 1899 on the Trade and Commerce of the Consular District of Chiengmai, p. 10.

### 3.3 Regulations of the Teak Business

One consequence of the teak business following the Chiang Mai treaties was deforestation. As such, the Siamese government assumed more authority regarding the granting of concessions in the forest. Despite the fact that the prince and his family in each principality held the hereditary rights to the forest area and freely granted concessions to British subjects, the Chiang Mai treaties prevented British subjects from exploiting the land too much. The problem of rapid deforestation resulting from the teak trade started during the 1880s because British subjects deliberately cut young trees. At the time, there were not any regulations prohibiting the harvest of small trees.<sup>271</sup> The large demand for teak brought a number of British subjects to northern Siam in search of forestry concessions. These concessionaires exploited the forest in a destructive manner. The overall business situation was chaotic. Teak in the Salween area was depleted and authorities had made no plans to plant young saplings to replace the trees harvested.<sup>272</sup>

Before the foundation of the Forest Department, there were neither any controls pertaining to the methods utilised for felling trees, nor regulations to ensure the ongoing conservation of

<sup>271</sup> *Siam. No. 2 (1883). Commercial Report by Her Majesty's Acting Agent and Consul-General in Siam for the Year 1882* (London: Harrison and Sons, 1883), 1.

<sup>272</sup> *Siam. No. 2 (1884). Commercial Report by Her Majesty's Acting Agent and Consul-General in Siam for the Year 1883* (London: Harrison and Sons, 1884), 1.



the forest. Several reports on teak and other marketable timbers showed concern for the future viability of the teak industry. British officers noted their unease over deforestation and the repeated destruction of young teak saplings which occurred with increasing frequency in the early 1890s. In 1891, for instance, the average size of teak logs arriving in Bangkok was smaller in the previous years.<sup>273</sup> In some major areas of teak extraction such as Chiang Mai and Lampang, there was a scarcity of big teak trees.<sup>274</sup> The effects of these problems were felt as far away as London. Teak trees located near the water transportation-network had already been harvested. As a result, the cost of extraction became higher because of the difficulties obtaining teak located far from the riverine network.<sup>275</sup> A feeling of uncertainty vis-à-vis the teak business loomed large in the minds of the British Foreign Office. Stewart Black, an Acting Vice-Consul in Bangkok, received a special commission to investigate the teak trade. He made a public report and his inquiry confirmed widespread deforestation related to the increasing number of the British teak companies operating in northern Siam.<sup>276</sup>

The Siamese government was also concerned about teak deforestation. Some foreign companies took over the concession areas of indebted British subjects. The increasing amount of direct British investment in the teak industry resulted in the involvement of the British Foreign Office.<sup>277</sup> Disputes over teak led to negotiations between the Siamese government and British diplomats. Wherever a problem arose about teak, the Siamese government was unable to make a firm decision to resolve the dispute because it lacked adequate knowledge of forestry sciences. Ernest Satow, the British Minister-Resident in Bangkok, criticised the lacklustre efforts of the Siamese to manage teak as an exploitable resource.<sup>278</sup> During the early 1890s, the Siamese government realised the necessity of founding a governmental organisation that specialised in forestry science.<sup>279</sup>

---

<sup>273</sup> *Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1891 on the Trade of Chiangmai*, 2.

<sup>274</sup> *ibid.*, 3.

<sup>275</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1893 on the Trade of the District of Her Majesty's Consulate-General at Bangkok*, 18.

<sup>276</sup> Black, *Siam*, 7.

<sup>277</sup> *Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1892 on the Trade of the District of Her Majesty's Consulate-General at Bangkok*, 9.

<sup>278</sup> Satow, *The Satow Siam Papers: the Private Diaries and Correspondence of Ernest Satow, C.M.G. H.B.M. Minister-Resident, Bangkok, 1885–1888*, 109.

<sup>279</sup> NAT Mor Ror 5 Mor 16.1/10 Letter from Mr. De Bunsen, British Consul-General about the Forest Contract in Monthon Lao Chiang (ม. ร. 5 ม 16.1/10 เรื่องมิสเตอร์เดอบุนเซนอุปทูตอังกฤษเตือนความตกลงเรื่องสัญญาป่าไม้มณฑลลาวเฉียง แลร่างสัญญามีอยู่ด้วย).

### 3.3.1 The Foundation of the Royal Forest Department

From the government's point of view, teak had dangerous political implications. By taking control of the teak resources, the central government in Bangkok was able to avoid the problems stemming from conflict between the Lan Na princes and British subjects. The Forest Department was established in 1897 when the Siamese government cottoned-on to their limited knowledge of forestry science. The aim of the government was to preserve teak as a precious natural resource, maximise profits, and regulate the teak industry. The Siamese government negotiated with the British Indian government about the issue and stated its intention to establish the Forest Department. In aid of this, the government of British India lent an individual experienced forester to Siam. In 1896, one year before the foundation of the Forest Department, Herbert Slade arrived in Siam and toured the northern region to prepare a report for the Siamese government. Having finished his tour that year, Slade proposed a long-term plan for the teak industry consisting of three themes:

1. Designing a new concession system. This entailed reforming the concession system, including financial aspects and contractual arrangements. He also proposed the creation of a conservation area in the forest.
2. Setting regulations regarding teak resources including: the girdling and extraction process, the minimum size of extractable teak, the process by which teak is selected, and the floating system.<sup>280</sup>
3. Training young native officers about forestry science and the establishment of a governmental organisation with specific charged with forestry.

The proposal of Slade was heavily based on the science of forestry to the extent that he even noted that the report would be very boring for a non-specialist.<sup>281</sup> Even so, it is not an exaggeration to consider this report as a revolution in terms of forestry management in Siam. It was unclear whether he intended to submit his report in order to further develop it into the first "Forestry Act" or he just provided the report as a policy suggestion. The report had a coherent structure and covered an important topic related to the forests in northern Siam.

---

<sup>280</sup> For details about the logging process, see chapter 4.

<sup>281</sup> Slade, *Slade's Report on the Forestry in Siam before the Establishment of Forest Department Ror Sor 114 (1896)*, 3.

The Siamese government subsequently established the Forest Department and appointed Slade as the first Conservator of Forests – the title proposed by Slade himself.<sup>282</sup> In addition to the position's name in the Forest Department, the model of the administrative system in Siam emulated the structure of the Imperial Forest Service in India and Burma.

The other aspects of Slade's proposal were also warmly accepted and eventually implemented. The Siamese government liked his suggestions pertaining to how teak concessions should be granted to merchants. Perhaps unsurprisingly, the government was also partial to altering the status of forests in order to redefine them as the property of the state. By claiming ownership of the forests, more profits would flow to state coffers. As Slade pointed out, state ownership of the forest would ensure proper management in the interests of the state.<sup>283</sup> Surprisingly, Slade was also deeply knowledgeable about potential political problems in northern Siam. In particular, the northern princes and their families feared French influence. Slade was likewise aware of the precarious status of Siam in international politics, especially regarding the ongoing triangular conflict between Siam, Great Britain, and France.<sup>284</sup>

After King Rama V authorised the plan and the regulations proposed by Slade, there was disagreement on how the Forest Department would be managed. Two vexing questions were discussed: the chain of command and the location of the Forest Department.

First, there was a debate about whether the Forest Department should belong to the Ministry of Agriculture or the Ministry of the Interior. The initial proposal favoured the Ministry of Agriculture because of its responsibility for many agricultural products and the connection between forestry and agricultural activities. However, King Rama V opposed the idea and chose the Ministry of the Interior. Slade agreed and supported the King's idea because the Ministry of the Interior, imbued with the authority of the central government, was designed to solve the urgent political situation in northern Siam.

The second issue was the location of the Forest Department. Slade proposed Chiang Mai because of its proximity to the teak forest and its centrality in the northern region. At first, Prince Damrong, the Minister of Interior, opposed the establishment of the Forest

---

<sup>282</sup> *ibid.*

<sup>283</sup> *ibid.*, 11–12, 39–41. The Forestry Report by Slade used in the dissertation was the version published by the Forest Department. This version was translated from the original English version to Thai and includes the comments and opinions of King Rama V vis-à-vis report.

<sup>284</sup> *ibid.*, 28.

Department's head office in Chiang Mai. He believed that the distance between Bangkok and Chang Mai would make it difficult to control the Department's activities. Without supervision from Bangkok, furthermore, Prince Damrong feared collusion between the Forest Department and British companies. However, when Slade threatened that he would not work for the Siamese government if his proposal was declined, Prince Damrong was forced to drop his opposition to locating the Department in Chang Mai.

Nevertheless, some of the changes caused limited dissent from the business community. Teak traders and teak companies, for instance, were dissatisfied with the relocation of the duty station northward from Chai Nat to Paknampho.<sup>285</sup> Some of them suspected a new forestry scheme devised by Slade. Many members of foreign community in Chiang Mai considered Slade a "theoretician" who lacked concrete knowledge about the actual situation in northern Siam. They also wondered how the princes and their families in northern Siam could renounce their ownership of the teak forest – their primary source of revenue – and give it to the Siamese government. There were all sorts of possible political consequences that might result from Slade's forestry scheme. In addition, given the new regulations and an extended concession period of six years, it was possible that Slade's recommendations could damage the Siamese government's income stream derived from teak rather than increasing it.<sup>286</sup> It transpired, however, that Slade's reforms proved to be more fruitful to Siam than the government had expected. The income from forests firmly increased and British companies agreed with the reforms because the Forest Department helped to preserve their interests.<sup>287</sup>

When the new forestry scheme came into effect, it became clear that Slade had been underestimated by foreign expatriates in Chiang Mai. The forestry scheme envisioned by Slade was not only a reformation of the forest, but also part of a grand strategy to integrate the fragmented vassal states in northern Siam and place them under the direct rule of the Ministry of the Interior. The negotiations with the northern princes vis-à-vis ownership of the forest was conducted through the appointed governor from Bangkok, not by the Forest Department. After negotiating with several ruling families for three years, Bangkok's representative, Phraya Srisahathep (พระยาศรีสัตตเทพ) finally concluded a forestry deal in 1900. The central government promised to share half of the income from the stump fees with

---

<sup>285</sup> Black, *Siam*, 8.

<sup>286</sup> *AGR I 184/418 Pierre Orts. Renseignements recueillis lors d'une mission au Laos siamois. 1897.*

<sup>287</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1897 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1898), 5.

them.<sup>288</sup> The first area transferred from private ownership to state ownership was the forest in Nan. The Prince of Nan voluntarily renounced his ownership of his forest because the annexation of the left bank of the Mekong River by French Indochina in 1893 endangered Nan. This was then followed by Lampang, Lamphun, Phrae,<sup>289</sup> and Chiang Mai.

The negotiations with Chiang Mai regarding ownership of forest was the most difficult. The commissioner from Bangkok alone was not enough to convince Inthawichayanon, the Prince of Chiang Mai, to relinquish his claims to the forest. In order to resolve the matter, King Rama V asked a favour from his concubine, Dararatsami (RTGS - ดารารัตน์), a daughter of Inthawichayanon, to mediate between Inthawichayanon and the Siamese commissioner. As a result of this personal intervention, the Siamese government was able to acquire ownership of the forest from Chiang Mai.<sup>290</sup>

### 3.3.2 New Regulations in the Teak Business 1897–1908

After the foundation of the Forest Department and the instalment of new regulations in 1897, the department turned its attention to the floating system and the duty gate system. The first reform concerned teak logs floated down through Moulmein via the Kado Gate on the Salween River. The British Vice-Consul in Chiang Mai praised the systematic management of this process. It also allowed the Siamese government to accumulate substantial revenue – the standard fee was set at eight Rupees per log – and enforce the proper regulations and procedures.<sup>291</sup> To strengthen its control over the teak floated down the Salween River, the Forest Department set up the Kado Duty Station in 1898.<sup>292</sup>

The next reform related to the future of the teak business. The Forest Department held grave concerns about the decreasing number of mature teak trees in the forest areas and the destruction of young saplings because of unplanned teak extraction. In 1898, the Forest

---

<sup>288</sup> NAT Mor Ror 5 Mor 16.1/19 Changing Forest Concession Contracts with Companies and the Lao Princes asking for more Money (ม. ร. 5 ม 16.1/19 จัดการแก้ไขเรื่องสัญญาป่าไม้ที่ขัดข้องกับบริษัทต่างๆแลเจ้านายเมืองลาวเรียกเงินแก่บริษัท); Chamaichom Sunthornwat (หม่อมจอม สุนทรสวัสดิ์), “A Historical Study of Forestry in northern Thailand from 1896 to 1932 (การศึกษาเชิงประวัติศาสตร์เกี่ยวกับกิจการป่าไม้ทางภาคเหนือของไทย ตั้งแต่ พ.ศ. 2439 ถึง พ.ศ. 2475),” 21, 23.

<sup>289</sup> The case of Phrae was different, Siam seized the forest ownership from the Prince of Phrae to punish him for the responsibility and conspiracy over his involvement in the Phrae Rebellion in 1902.

<sup>290</sup> Sarasawadee Ongsakul (สร้อยสวัสดิ์ อ่องสกุล), *The History Lan Na* (ประวัติศาสตร์ล้านนา), 448.

<sup>291</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1897 on the Trade and Commerce of the Consular District of Chiang Mai*, 5.

<sup>292</sup> NAT Mor 16.3/2 Collect the fee in Salween River (ม 16.3/2 เรื่องเก็บเงินค่าต่อไม้ทางลำน้ำคง).

Department announced plans to plant new saplings and stop destructive extraction processes, thereby sending a positive signal to the market.<sup>293</sup>

In its inaugural year, the Forest Department launched a new contract system. Forestry contracts would now last six years. The new concession system also fixed the value of the stump fee to 4.5 Rupees and stipulated new regulations vis-à-vis girdling and the planting of young saplings.<sup>294</sup> While the teak floating through the Chao Phraya River cost two Rupees duty fee,<sup>295</sup> the logs floated through the Salween River cost eight Rupees. The new regulations immediately resulted in a large increase in revenue for the Siamese government.

Anxiety, however, spread amongst the British business community: companies were uncertain what the changes would mean vis-à-vis their long term business plans.<sup>296</sup> After the central government in Bangkok took direct control of the northern forests, the Forest Department again modified teak regulations and the concession system. All forestry concessions were extended from six years to twelve years and each concession was divided into two parts. The concessionaire could extract teak from the first area for the first six years and the second during the latter six years. In the Chao Phraya River area, the royalty fee was increased to three Baht – the equivalent of ten Rupees – for large logs and six Rupees for small ones. In the Salween area the fee was increased from twelve to sixteen Rupees and six to eight Rupees for each big and small-sized log respectively.<sup>297</sup>

Slade introduced many regulations through the new organisation. In 1897, for instance, he proposed a new forestry regulation prohibiting people from cutting small teak trees for any purpose, such as building a raft or house, and set a minimum girth size for felling at 6'4.5''<sup>298</sup> (approximately 197 centimetres) at the breast height level of 4'6'' (approximately 140 centimetres).

---

<sup>293</sup> *The Straits Times*, "Siam Teak," May 8, 1898.

<sup>294</sup> Chamaichom Sunthornwat (ชัชชัย โฉม สุนทรสวัสดิ์), "A Historical Study of Forestry in northern Thailand from 1896 to 1932 (การศึกษาเชิงประวัติศาสตร์เกี่ยวกับกิจการป่าไม้ทางภาคเหนือของไทย ตั้งแต่ พ.ศ. 2439 ถึง พ.ศ. 2475)," 25.

<sup>295</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1898 on the Trade and Commerce of the Consular District of Chiangmai* (London: HMSO, 1899), 6.

<sup>296</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1897 on the Trade and Commerce of the Consular District of Chiangmai*, 5.

<sup>297</sup> Chamaichom Sunthornwat (ชัชชัย โฉม สุนทรสวัสดิ์), "A Historical Study of Forestry in northern Thailand from 1896 to 1932 (การศึกษาเชิงประวัติศาสตร์เกี่ยวกับกิจการป่าไม้ทางภาคเหนือของไทย ตั้งแต่ พ.ศ. 2439 ถึง พ.ศ. 2475)," 25.

<sup>298</sup> Royal Forest Department, *Siam: Forests* (Bangkok: Bangkok Times Press, 1926), 7.

The arrival of Slade in Siam encouraged the promulgation of laws related to forestry and the teak business. The Hammer Mark Act of 1896 (พระราชบัญญัติไม้ซุงและไม้ท่อนที่ดวงตราลบเลือน พ.ศ. 2439)<sup>299</sup> was the first and only law promulgated about teak before the foundation of the Forest Department. Amongst all of the problems in the teak business, the problem of protocol and unclear hammer marks was palpable. Even the staff of big British companies such as the Bombay Burmah Trading Corporation and the Borneo Company often mistook each other's teak logs. A clear regulation delineating proper practice was the correct method to solve this problem and required no extra investment. Slade made the decision to solve the problems relating to unclear hammer marks alone; that way he was able to avoid the complicated bureaucratic processes characteristic of governmental institutions. A British diplomat expressed a similar opinion in official correspondence a year before Slade's decision; in essence, the diplomat argued that clear directives regulating hammer marks would reduce the number of problems for everyone involved.<sup>300</sup> It would not be surprising if Slade had met someone from the British Vice-Consulate in Chiang Mai or in Bangkok to have a discussion about the matter.

Slade also advised the government that it would generate higher revenues from the forest if they successfully prevented the razing of underage teak. This could be achieved by enforcing the "Forest Conservation Act" (พระราชบัญญัติประกาศการรักษายป่าไม้),<sup>301</sup> and other new regulations promulgated in 1897 such as the "Teak Conservation Act" (พระราชบัญญัติรักษาด้านไม้สัก), and the "Proclamation on Using Teak for Charitable and Public work" (ประกาศอนุญาตให้ตัดฟันไม้ใช้การกุศลและสาธารณประโยชน์). In 1898 the second "Hammer Mark Act" came into effect (พระราชบัญญัติป้องกันลักลอบตีตราไม้) and 1899 marked the declaration of "The Protection of Teak Stealing and Teak Duty Fee Act" (พระราชบัญญัติป้องกันการลักลอบซักลากไม้สักที่ยังมิได้เสียค่าตอและภาษี).<sup>302</sup>

---

<sup>299</sup> NAT Mor Ror 5 Mor 16.1/12 Teak Logs and the defaced Hammer Mark. (ม. ร. 5 ม 16.1/12 เรื่องไม้ซุงสักตีตราลบเลือน); NAT Mor Ror 5 Mor 16.1/13 Proclamations and Acts related with the defaced Hammer Mark. (ม. ร. 5 ม 16.1/13 ประกาศพระราชบัญญัติ ข้อบังคับต่างๆ เรื่องไม้สักดวงตราลบเลือน).

<sup>300</sup> FO 881/6721 SIAM: Despatch Court held by Vice-Consul W. Beckett at Nakonsawan to try Robberies of Teak Timber. Notification and Report. (Mr. de Bunsen).

<sup>301</sup> NAT Mor Ror 5 Mor 16.1/12 Teak Logs and the defaced Hammer Mark. (ม. ร. 5 ม 16.1/12 เรื่องไม้ซุงสักตีตราลบเลือน).

<sup>302</sup> Chamaichom Sunthornwat (ชมัยโฉม สุนทรสวัสดิ์), "A Historical Study of Forestry in northern Thailand from 1896 to 1932 (การศึกษาเชิงประวัติศาสตร์เกี่ยวกับกิจการป่าไม้ทางภาคเหนือของไทย ตั้งแต่ พ.ศ. 2439 ถึง พ.ศ. 2475)," 27–28.

This series of regulations was instituted after many forest areas were destroyed in last three decades of the nineteenth century. The question was, though, whether or not the regulations were effective in conserving the forest. Therefore, it was necessary for the Forest Department to assign a surveying team and report back on the state of the forest. Without a doubt, the Forest Department must have surveyed all of the concession areas to implement their work plan in the early period following its foundation.

Nevertheless, there is only one scientific report available detailing the concession area of northern Siam. This is probably the only report left from the early years of the Forest Department. The report was the result of a surveying in 1901. Astonishingly, the report was published in the forestry magazine *The Indian Forester*, a journal focusing on the forestry science and other related information. It was reported by Mr. J. G. F. Marshall on his special duty to survey the teak population of the Mae Lan Forest (ป่าแม่ลาน) in Mae Hong Son province. The Mae Lan Forest was characterised by rough terrain that made transportation difficult. Moreover, the marketable teak trees naturally grew in different parts of the forest area.<sup>303</sup> The concessionaire, the Bombay Burmah Trading Corporation, worked very slowly because of the tough terrain. There were many steep hills and other obstacles, such as large boulders, that blocked the movement of elephants and impeded the transportation of teak,<sup>304</sup> but the company still expected their investment to be successful.<sup>305</sup>

Marshall's report hints at two developments in the teak business: severe deforestation and the high-level of expertise demonstrated by British companies in the teak industry. Indeed, it is important to recall that the Forest Department was created by the Siamese government to close the gap between local and foreign expertise with regard to teak. British innovation within the teak trade caused anxiety in Siam. Indeed, although British mastery of forestry science and novel engineering solutions helped them overcome transport problems, this increased efficiency and technical know-how also led to higher rates of deforestation. This report highlights the difficulties faced by the Forest Department when trying to conserve teak in the early period. Paradoxically perhaps, moreover, Slade needed a plan that would conserve teak without damaging the vital income stream that the industry provided to the Siamese government.

---

<sup>303</sup> J. G. F. Marshall, "The Maihongson Forests in Siam," *The Indian Forester* vol. 27 (1901): 479.

<sup>304</sup> *ibid.*, 483.

<sup>305</sup> *ibid.*, 476.



This was different from the situation in Burma. The Indian Imperial Forest Service worked with one specific objective in mind: to maximise profits from its commercial activities.<sup>306</sup> It did not take political matters into consideration. In contrast, Slade and the Forest Department were Siamese political agents. They worked under the executive power of the Ministry of the Interior. Nevertheless, the director and manager of the Bombay Burmah Trading Corporation often approached Slade for favours. Although these offers were turned down<sup>307</sup> for the sake of forestry conservation, the central government and Siamese elites did not trust Slade. They viewed Slade's contacts with British companies and the Foreign Office as suspicious. The Siamese government even suspected him of secretly working in aid of British interests. Slade only worked in Siam for four years, but the sentiments of distrust and suspicion prevalent amongst Siamese elites vis-à-vis British staff in the Forest Department, continued throughout the tenures of W. F. L. Tottenham (1901–1904) and W. F. Lloyd (1905–1923), the second and third British Forest Conservator respectively (Table 3.2).

Table 3.2 List of Director-Generals of the Royal Forest Department, 1897–1934

H. A. Slade	1897–1901
W. F. L. Tottenham	1901–1904
W. F. Lloyd	1905–1923
Daruphanphitak - Sanit Bukhamana (พระยาครุพันธ์พิทักษ์ - สนิท พุกกะมาน)	1924–1934

Source: The Royal Forest Department of Thailand

Scandals concerning the bribery of governmental personnel in the teak business quickly spread in Bangkok amongst all segments of society, regardless of social strata. Prince Damrong was angry about the gossip over his long-tenure as the Minister of Interior and the status of the Forest Department under his command. Even though the Forest Department brought large amounts of income to the state, people spread rumours about his purportedly large share of vested interests in the teak business and alleged that he had been bribed by British companies. Although there was no evidence to support these allegations, he requested

<sup>306</sup> Bryant, *The Political Ecology of Forestry in Burma: 1824–1994*, 43–44.

<sup>307</sup> Barton and Bennett, "Forestry as Foreign Policy," 77–80.

that the Ministry of Agriculture take over the Forest Department (this request, however, was denied).<sup>308</sup>

In the Siamese bureaucratic system, the role of the Forest Department was not only to preserve the forests, but also to engage in political dealings for the profit of Siam. The expertise, skills and proficiency of the Forest Department, however, was inferior to foreign teak companies and, therefore, at a clear disadvantage. Data from the Mae Lan Forest indicates that teak companies were well prepared. When Marshall arrived in the forest, the Bombay Burmah Trading Corporation had already begun construction of a dirt road with a sling system<sup>309</sup> in order to transport teak logs across the mountains and cliffs.<sup>310</sup> One major factor that put the Forest Department at a disadvantage was the limited number of departmental staff in comparison to teak companies. The Forest Department started operations in 1897, but it only had Slade.<sup>311</sup> He worked without any other staff in the department. The first group of staff arrived in 1898 and one of them resigned shortly after working for only one year. The Forest Department had to recruit new staff every year because one or two of them resigned after working for less than two years. From 1897 to 1919, the average number of staff for the whole department, excluding subordinate positions, was seven persons.<sup>312</sup> This was the total number of the staff who worked in Chiang Mai and Lampang, and, at specific points in time, in Bangkok. The situation worsened during the First World War: the Forest Department had only three staff members from 1915 to 1918 because some of staff went on leave during the War. In 1919, the Forest Department promoted Phra Daruphanphitak (พระครูพันพิทักษ์) to the head of the girdling team.<sup>313</sup> He was the first Siamese staff member promoted to an executive rank.

At the turn of the twentieth century, the situation regarding the conservation of the forest had not changed much. In brief, there was still widespread deforestation. Scientific reports in Europe – the main export market for the premium quality teak – also noted the decreasing quality of teak from Siam.<sup>314</sup> In an effort to both maintain productivity and improve the

---

<sup>308</sup> NAT Kor Sor 1/723 Prince Damrong asks the Ministry of Agriculture about the Forest Department (กศ 1/273 กรมหลวงดำรงขอให้กระทรวงเกษตรรับมอมกรมป่าไม้ตามพระบรมราชโองการ).

<sup>309</sup> For details of the adaptations of the Bombay Burmah Trading Corporation in the Mae Lan Forest see chapter 4.

<sup>310</sup> Marshall, “The Maihongson Forests in Siam,” 476–479.

<sup>311</sup> PUA A 19 David Fleming MacFie. *Chieng Mai Record* (1884–1919).

<sup>312</sup> The author calculated the number from PUA David F. MacFie, A19 *Chieng Mai Record* (1884–1919).

<sup>313</sup> *ibid.*

<sup>314</sup> Hosseus, “Kurzer Bericht über Vorkommen, Anbau und Gewinnung des Teakholzes in Siam,” 281.

quality of teak for export, the Forest Department started its first experiment with teak plantations in Phrae province in 1906. The experiment was adapted from the Taungya System<sup>315</sup> of the Imperial Forest Service in India and Burma.<sup>316</sup> The Forest Department subsequently experimented with teak plantations in other provinces of northern Siam.<sup>317</sup> An official publication of the Forest Department meant for a general audience reported that the overall experiment was evaluated as a “success” in terms of the number of teak trees grown through this plan.<sup>318</sup>

Conversely, a scientific survey and report written by the Forest Department during the 1920s found that the average girth of teak had declined in comparison to the period prior to the First World War. In other words, the average size of teak had become smaller during this period.<sup>319</sup> To be fair to the Forest Department, however, natural factors must be taken into account. Teak tree girth starts to extend at the age of five years. The girth of teak tree can extend very fast in the first twenty years then slow down after that.<sup>320</sup> Imported scientific knowledge about forestry<sup>321</sup> resulted in better forestry management in Siam with planned working systems and specific evaluations. This new system of forestry management – that is to say, scientific forestry – did not work very well, however, when it came to the conservation of the forest. Nonetheless, it did perform well in regard to future working plans for the forest and coordination between the government in Bangkok and the Forest Department in Chiang Mai.<sup>322</sup>

New regulations and the transfer of the forest ownership from the princes in the Lan Na principalities to the Siamese state dramatically changed relationships in the teak business. Despite the fact that the income from teak was considerable and generously supported the nation-building project of King Rama V, teak trees and their associated profits engendered

---

<sup>315</sup> The Taungya System or the Taungya Plantation is an agroforestry system. Dietrich Brandies introduced it to British India in 1890s. Brandies was a German forestry scientist who worked in the Indian Imperial Forest Service. The system allowed the farmer to raise a crop nearby the forest area, usually the degraded or the secondary forest. When the new crop bears fruit or emulates the primary forest, the farmers in the Taungya System will relocate to this new area.

<sup>316</sup> Chamaichom Sunthornwat (ชมัชโฉม สุนทรสวัสดิ์), “A Historical Study of Forestry in northern Thailand from 1896 to 1932 (การศึกษาเชิงประวัติศาสตร์เกี่ยวกับกิจการป่าไม้ทางภาคเหนือของไทย ตั้งแต่ พ.ศ. 2439 ถึง พ.ศ. 2475),” 35.

<sup>317</sup> NAT Or 7/2 Thai Forestry and the Teak Forest of Thailand (อื่นๆ 7/2 ป่าของไทยและป่าสักของไทย).

<sup>318</sup> *ibid.*

<sup>319</sup> Banasopit Mekvichai, “The Teak Industry in North Thailand: the Role of a Natural-resource-based Export Economy in Regional Development,” 165, 168, 180–184.

<sup>320</sup> NAT Or 7/2 Thai Forestry and the Teak Forest of Thailand (อื่นๆ 7/2 ป่าของไทยและป่าสักของไทย).

<sup>321</sup> For details about Scientific Forestry in Siam see, Ann Danaiya Usher, *Thai Forestry: a Critical History* (Chiang Mai: Silkworm Books, 2009), 37–88.

<sup>322</sup> The Forest Department was moved to Bangkok in 1910.

conflict between the state and business entities. Many complaints were directly aimed at the state as the owner of the forest. Unlike during the period when the forest belonged to the princes and their families, the Forest Department was employed as a buffer between the state and business interests. Moreover, the role of the Forest Department as a bureaucratic unit situated on the border was to assert Siamese authority over area and to generate wealth for the government. Indeed, according to Anthony Webster.<sup>323</sup>

“Increased British trade and investment in the country helped to furnish growing state revenues, which in turn financed the exertion of Bangkok’s authority over border territories and ensured the security of the regime.”<sup>324</sup>

In regard to the political development of northern Siam, the Forest Department played a significant role in the nation-building process because it was the first organisation to gain control over forestry resources. This paved the way for the revocation of the tributary state system in the northern regions in 1915. Even though the Ministry of the Interior had worked in the northern regions since 1892, it could not prevent the intrusion of external influences such as the government of British India and the British Foreign Office. The Chiang Mai Treaties in 1870s and 1880s are demonstrative of this. In brief, state ownership of forests facilitated the integration of the northern regions into the new Siamese state. If the central government in Bangkok had not requisitioned the forest and thereby undercut the power, economic independence, and influence of the northern princes, then it is questionable whether the northern region would have been integrated into the Siamese state at all.

### 3.3.3 Strict Control: Regulations from 1909–1932

The years between 1897 and 1908 marked first period of forestry reforms in Siam. The second period of reforms took place in 1909 when the concession period was extended from twelve to fifteen years. In order to complement this new time frame, the Forest Department instituted a system which merged the smaller concession areas together and transformed them into a larger concession area under a single concessionaire.

There was, moreover, another condition regarding the extraction process: all concession areas were divided into two parts. The concessionaire was allowed to extract teak in the first period of seven years and six months. Then the remainder of the forest was harvested during the second half of the concession while the first half of the forest recovered. The annual report by the British Consul in Bangkok explicitly welcomed this new initiative as business friendly:

---

<sup>323</sup> Anthony Webster is a British historian. His research focuses on British Imperialism in Asia from the eighteenth century to the twentieth century.

<sup>324</sup> Webster, *Gentlemen Capitalists*, 18.

“A rearrangement as regards the limits, and an extension as regards the tenure of forest leases by Europeans firms in Northern Siam, was effected in 1909, apparently to satisfaction of most of these concerned. By grouping the previously scattered holding of the various firms, and by extending the tenure of leases, the Siamese Government has facilitated greatly the work of extracting timber from the forests.”<sup>325</sup>

The new fifteen years concession scheme started in the year 1909 suggesting that character of the teak business was changing. Firstly, the government favoured large-scale investments by big companies. In the 1910s and the 1920s, the Siamese government needed the money to fund a new bureaucratic structure as well as the vital governmental infrastructure projects, namely a network of canals and a railway system. Granting concessions to big company avoided the potential pitfalls attendant on small entrepreneurs and the associated legal wrangling over such cases; cases, for instance, like those of the British subjects during the 1880s and 1890s detailed earlier in the chapter. Instances of failed investments by small teak merchants can be traced back to the period before the foundation of the Forest Department. In brief, small merchants faced many difficulties securing a loan with reasonable interests.<sup>326</sup> During the period between the 1890s and the eve of the First World War, all small companies and the minor teak merchants disappeared from the business directories in Siam (Table 3.3 and Table 3.4).

Global politics changed forestry policy in Siam. According to the “Entente Cordiale” in 1904,<sup>327</sup> Great Britain and France agreed to position Siam as a buffer state between British India and French Indochina. In consequence of this, the political strategy of the Siamese government changed. This is because France stopped threatening to take Siamese territory in the north and northeastern region. After the agreement was signed, the Siamese government granted a teak concession to a French company in the same year as the 1909 reform according to those new terms.<sup>328</sup> With the political risks emanating from France and Britain greatly reduced, Siam decided to increase the length of teak concessions in order to maximise the revenue flowing into the state’s treasury.

In 1925, foreign companies with a secure financial backing held the lion’s share of teak concessions. There was only one exception: Kim Seng Lee. Kim Seng Lee was the largest

---

<sup>325</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1909 on the Trade and Commerce of the Consular District of Chiangmai* (London: HMSO, 1910), 6–7.

<sup>326</sup> Black, *Siam*, 2–3.

<sup>327</sup> *France No. 1 Despatch to His Majesty Ambassador at Paris forwarding Agreements between Great Britain and France of April 8, 1904*, 26.

<sup>328</sup> Suphawatt Laohachaiboon and Takeda, “Teak Logging in a Trans-Boundary Watershed: an Historical Case Study of the Ing River Basin in northern Thailand,” 134.

Chinese company in the teak business in Siam (for details see chapter 6), but it declared bankruptcy in 1918 because of its failed investments in the shipping business.<sup>329</sup>

Table 3.3 List of Companies and Merchants in the Teak Business in 1894

Borneo Company Limited  
Bombay Burmah Trading Corporation  
Clarke & Co.  
M.A. Cheek  
Grassi Bros. & Co.  
P.B. Smith  
Siam Forest

Source: The 1894 Directory for Bangkok and Siam, pp. 154–156, 161.

After the end of the First World War, Siam experienced a shift in commercial relations with Great Britain and the demand for teak started to decline on the global market. In 1921, there was a mutual decision taken by Siam and Britain to revise all previous bilateral trade agreements - known as “the Revision of the Anglo-Siamese Commercial Treaties” - which covered twenty products and services. Teak, as a major export item, was included in the negotiations. While the teak business had operated under the framework of the Second Chiang Mai Treaty of 1883, the British government considered it a *fait accompli* that the treaty no longer applied in 1921. This was because Siam no longer restricted foreign companies from entering into the domestic market. Accordingly, the British government intended to reduce its political role in the Siamese economic system.

“While clauses 11 and 12 of the treaty of the 3rd September, 1883, no longer apply, the future right of British participation in the development of timber is confirmed.”<sup>330</sup>

Therefore, they agreed to revoke the Bowring Treaty and the Second Chiang Mai Treaty, both of which had previously benefited Great Britain. By the 1920s, both British diplomats and the Foreign Office agreed that it was no longer necessary to aid British companies. In response, British representatives of the teak business unanimously demanded that the British Legation in Bangkok retain its role and influence over the decision-making of the Siamese government – at least until the renewal of the leases expiring in 1939/1940, which would otherwise be negotiated shortly after the revocation of the Bowring and Second Chiang Mai

---

<sup>329</sup> For details about each individual company, see Chapter 6.

<sup>330</sup> “12545/2 Despatch Marquess of Curzon 25 Jan. 1923 Commercial treaty: transmits Doc. 146,” in Trotter, *British Documents on Foreign Affairs*, 184–185.

Treaty.<sup>331</sup> After series of correspondence between British companies and the Foreign Office, these companies were informed by the British Legation in Bangkok of its final decision: from 1924 onwards British diplomats would no longer become involved in negotiations between the Siamese government and British teak companies. This decision was in accordance with British foreign policy in general. Following the First World War, it became British government policy to reduce the role of the Foreign Office in commercial activities abroad. The Board of Trade was the real mastermind behind the negotiation and planning of the new treaty.<sup>332</sup> Consequently, the teak companies expressed their concerns regarding the issue in a letter to the Foreign Office and cited the difficulties faced by the teak industry as a result of the First World War.<sup>333</sup>

Siam and Great Britain spent two years negotiating the new agreement. All previous trade agreements were revoked in order to validate the new “Anglo-Siamese General Treaty” in 1925.<sup>334</sup> The Foreign Office in London was satisfied by Siam’s promise not to increase the royalty fees on teak logs for a period of ten years. In 1925, the Siamese government and the Forest Department finally succeeded in asserting control over forestry resources, especially teak. All concessions for the extraction of teak in northern Siam dating from prior to 1909 were ended. Before the expiration of the concessions, British companies repeatedly requested assistance from the British Legation. They expected to secure better conditions through the influence of the legation.

The Forest Department also inaugurated four comparatively strict regulations in 1925. First, the Forest Department abolished its involvement in the girdling process and each teak company had to invest in a girdling unit. Second, 6 per cent of the best quality teak trees must be reserved and the girth size of an extractable teak tree was increased from 6’ to 8.5’’ (approximately 209 or 210 centimetres). It was stipulated that foreign companies from

---

<sup>331</sup> “11850/16 Memorandum Foreign Office 10 Mar. 1921 Notes on revision of Anglo-Siamese Commercial Treaties,” in Trotter, *British Documents on Foreign Affairs*, 105.

<sup>332</sup> “12545/3 Letter B. C. Newton 26 Jan. 1923 Commercial treaty,” in *British Documents on Foreign Affairs: Reports and Papers from the Foreign Office Confidential Print*, ed. Ann Trotter, Series E Pt. 2: From the First to the Second World War Vol. 49 Siam and South-East Asia, 1914–1929 (Frederick, Maryland: University Publications of America, 1997), 186–187.

<sup>333</sup> “11850/8 Despatch R. Seymour 30 Dec.1920 Tariff revision,” in Trotter, *British Documents on Foreign Affairs*, 85.

<sup>334</sup> “12957/20 Treaty British and Siamese Governments 14 July 1925 Anglo-Siamese general treaty,” in *British Documents on Foreign Affairs: Reports and Papers from the Foreign Office Confidential Print*, ed. Ann Trotter, Series E Pt. 2: From the First to the Second World War Vol. 49 Siam and South-East Asia, 1914–1929 (Frederick, Maryland: University Publications of America, 1997), 265–269; “12957/21 Treaty British and Siamese Governments 14 July 1925 Anglo-Siamese Treaty of Commerce and Navigation,” in Trotter, *British Documents on Foreign Affairs*, 269–277.

Europe must follow this regulation. Third, the measurement system was changed from the traditional system called “Pikat” to the metric system. Fourth, it was forbidden to extract teak trees near ground level – a height of 140 centimetres above ground level was required. Utilising an axe during the extraction process was strictly forbidden; only a saw was permitted.<sup>335</sup>

Of these regulations, British companies were only satisfied with the implementation of the metric system, a measure which they had previously proposed and argued for with the Forest Department.<sup>336</sup> The implantation of the metric system helped to improve communication with their clients and reduce the confusion of utilising different systems of measurement. The new regulations introduced in 1925 underscored the victory won by the Forest Department regarding control over the forest. As a result, political tensions between Siam and Great Britain which stemmed from forestry were finally resolved. Subsequently, the only concerns of the Siamese government related to the control of natural resources and business.

Not only did this change in British policy have a positive effect on the Siamese government’s control over teak, but it also led to a structural change within the Siamese bureaucratic system. Specifically, it dramatically reduced the influence of British officers within the Forest Department. In 1921, the Siamese government transferred the Forest Department from the Ministry of the Interior to the Ministry of Agriculture. Although this alteration did not affect the function or the policy of the department, it officially expanded the coverage of the Forest Department from an emphasis solely on northern Siam to the entire country. As a result, W. F. Lloyd the third Conservator of Forests introduced new administrative structures pertaining to all of the forests in Siam. This new administrative structure took effect in 1925. The forests of Siam were categorised into three circles: the Northern Circle Forest, the East and Northeast Circle Forest, and the Southern Circle Forest. Each zone was managed by the head of the forest division (ป่าไม้ภาค) appointed by the Ministry of Agriculture in Bangkok.<sup>337</sup> Furthermore, the reform created a specific area for teak controlled by six teak forest divisions. Each division consisted of Controlling Staff, Subordinate Staff, Clerical Staff, and Menials.<sup>338</sup> The number of staff in northern Siam in 1927 was as follows:

---

<sup>335</sup> Royal Forest Department, *Siam: Forests*, 9.

<sup>336</sup> Department of Overseas Trade, *Report on the Commercial Situation in Siam at the Close of the Third Quarter, 1923* (London: HMSO, 1924), 11.

<sup>337</sup> NAT Kasert 5/5 Appoint the head of Forest Division (กษ 5/5 เรื่องแต่งตั้งผู้บำรุงป่าไม้).

<sup>338</sup> Royal Forest Department, *Siam: Forests*, 10.



Controlling staff	30
Subordinate staff	120
Clerical staff	21
Messengers, Servants, &. (Menials)	20
Total	191 <sup>339</sup>

Until the 1932 revolution, the administrative system managing teak remained the same through successive governments. The decline of the teak business, however, had political consequences vis-à-vis the autonomy of the Forest Department. This started with the appointment of native staff to executive positions in the 1920s. Minutes of a meeting of the Supreme Council of State of Siam<sup>340</sup> (อภิรัฐมนตรีสภา) on 14<sup>th</sup> May 1931 show that the Council demanded that the Forest Department inform it of the identity of potential concessionaires before granting any teak concessions.<sup>341</sup> This change reflected the government's growing control over the forest.

---

<sup>339</sup> D. R. S. Bourke-Borrowes, *The Teak Industry of Siam* (Bangkok: Ministry of Commerce and Communications, 1927), 23.

<sup>340</sup> The Supreme Council of State of Siam was formed in 1925. It had five members and functioned as an advisor for King Rama VII and a legislative assembly.

<sup>341</sup> NAT Mor Ror 7 Kor Sor 5/17/11 The Forest granting of forest concession needs the approval from the Supreme Council of State (มร 7 กษ 5/17/11 วากระเบียบเรื่องอนุญาตการทำป่าไม้ต้องให้เสนอเสนาบดีสภา).

Table 3.4 Details of Teak Company Operation in 1914

	Bombay Burmah Trading Corporation	Borneo Company Limited	Det Østasiatiske Kompagni	Louis T. Leonowens Limited	Siam Forest	Est Asiatique Francais
Branch(es) in Siam	Bangkok	Bangkok and Chiang Mai	Bangkok	Bangkok and Lampang	Bangkok	Chaing Khong (Chiang Rai)
Total staff in main branch	14	19	29	7	8	4
Forest related station	Chiang Mai, Lampang, Phrae, Tak, Paknampho	Chiang Mai, Lampang, Tak, Paknampho	Ban Don (Phrae)	Sukhothai, Paknampho, Tak	Lampang	Chaing Khong (Chiang Rai)
Number of staff outside the main branch	21	14	10	10	9	4
Sawmill	Bangkok	Bangkok	Bangkok	Bangkok	Bangkok	No sawmill in Siam

Source: Directory for Bangkok and Siam 1914, pp. 322–323, 331, 339.

### 3.4 Conclusion

The relationship between Siam and the Lan Na principalities before the 1900s was based on a tributary relationship. The Lan Na principalities was located in the current area of northern Thailand where most teak grows. During that time, the role of teak in the Siamese economic system was rather small and the relationship between Siam and its vassal state was peaceful. However, the increasing demand for teak instigated conflict between Siam and Lan Na and between Siam and British India. The expansion of the teak business started in Burma and later spilled into northern Siam in the 1870s. However, the concessionary system whereby the prince who owned the granted forest concessions to teak merchants led to a variety of problems.

To solve these seemingly endless problems and to reduce the pressure from the government of the British India, Siam and British India signed the Chiang Mai Treaty in 1874. This reduced a numbers of problems in the teak trade by regulating the granting of concessions. Small-scale problems, however, continued to emerge within the industry. Consequently, both Siam and British India signed a revised version of the treaty known as the Second Chiang Mai Treaty in 1884. The treaty further regulated the granting of concessions and established the International Court to adjudicate legal cases between British subjects and the native peoples. Moreover, the second treaty permitted the establishment of a British Vice-Consulate in Chiang Mai. Siam also appointed a commissioner in Chiang Mai. Hence, these two treaties successfully allowed the Siamese government to project authority into northern Siam.

Siamese authority over the forests reached its zenith in 1890s when it established the Forest Department in 1897 and nationalised all of the forest in 1899. In a single decade, the princes lost control over forest, their political authority deteriorated, and northern Siam was incorporated under the direct administrative control of the central government in Bangkok.

The Forest Department introduced various reforms that delivered large amounts of income to the central government. However, the Forest Department remained under the control of British foresters until the 1920s when the Siamese government attempted to reduce British influence within the Department. At around about the same time, the British Foreign Office concurrently reduced its involvement in the teak trade as well. The end result was that the government was able to exercise the authority to regulate and set forestry policy without pressure from external influences.

## Chapter 4 Teak Logging and the Manufacturing Process

In order to understand the teak business as a major source of income of the Siamese government, it is important to provide some basic information regarding the natural characteristics of teak and the geography that is suitable for its cultivation. In brief, the teak “business system” greatly contributed to the change of Siam’s economic structures from the late nineteenth century. For this reason the production and consumption of teak will be examined. Siam’s changing economic system and the industrial nature of teak production explains why foreign companies dominated the teak industry in Siam.

The production process included the extraction and transportation of teak, as well as its associated marketing strategies. The first phase of production started with girdling. This was then followed by the harvest of teak trees and the transportation of the logs to buyers and/or sawmills. Sawmills completed the process and produced the finished product. In terms of consumption, there are varieties of different uses for teak. This depended on the quality of the teak. Teak companies had their own standards to categorise teak logs for export. According to these categorisations, the teak-export market can be divided into two major categories: the luxury grade – which the companies called European class – and the lower grade, or Indian class. Both production and consumption depended on adequate access to finance, the key to capitalism and the development of the teak business in Siam.

### 4.1 Geography, the Natural Characteristics, and Utilisation of Teak

Tectona wächst bekanntlich sehr schnell, noch mehr in geschlossenem Bestand, in dem sei bei größer Höhe schlanker bleibt, während sie bei Einzelgedeihen stärker verästelt ist.<sup>342</sup>

A German botanist who visited northern Siam once noted that one of the natural characteristics of teak is that it grows very fast. In general, teak is considered the best tropical hardwood because of its beauty and durability. The scientific name of teak is *Tectona grandis*. The major locations of teak are the eastern part of India, Myanmar, and northern Siam. A small amount of teak can also be found in Malaysia and Indonesia.

Paul Cohen and Ross Pearson described the geographic character of northern Siam as follows:

---

<sup>342</sup> Hosseus, “Kurzer Bericht über Vorkommen, Anbau und Gewinnung des Teakholzes in Siam,” 280.

“Northern Thailand is a distinct ecological region. About two-thirds of the total area comprises hills and mountains. These highlands are dissected by four large rivers: the Ping, Wang, Yom and Nan and their tributaries.”<sup>343</sup>

Northern Siam had a high density of teak trees. Bourke-Borrowes, then an advisor of the Forest Department, further explains:

“The Northern Siamese teak zone is situated mainly between latitude 17° N and the northern boundary of the country, which ranges from latitude 19° 40’ to 20° 30’ N, and between longitudes 97° 30’ and 101° 20’ E.”<sup>344</sup>

From north to south, it covers the area stretching from Tak to parts of Chiang Rai. From east to west, it covers the area between Mae Hong Son and Phetchabun.

The botanical sciences categorise teak as a deciduous tree which develops in deciduous forests. Teak usually grows alongside other deciduous trees such as Paduak (*Pterocarpus indicus*), Daeng (*Xylia xylocarpa*),<sup>345</sup> Du (*Pterocarpus macrocarpus*), Tabek (*Lagerstraeimicalyculata*), and so forth.<sup>346</sup> Although some documents about the teak industry refer to areas of teak extraction or concessions as teak forests, in reality, there are no forest areas that contain only teak. Indeed, as the manager of the Bombay Burmah pointed out, each area comprised a mix of various types of deciduous trees:

“The teak tree grows best on hilly ground and it is a mistake to think, when speaking of teak forests, that the trees are all teak; in fact when one gets into the forests, the difficulty is to find the teak, which grows with many other trees but in the great minority.”<sup>347</sup>

According to the estimates of the Forest Department in the 1920s, about a quarter of northern Siam was covered in deciduous forests.<sup>348</sup> In contrast, deciduous forests are completely absent in the southern part of the country.<sup>349</sup> In Siam/Thailand, deciduous forests grow at elevations of 250 metres to 2,500 metres above the sea level.<sup>350</sup> However, this kind of forest rarely grows at an altitude above 1,000 metres.<sup>351</sup> Teak-bearing areas are predominantly found between 200 to 750 metres above sea level.<sup>352</sup> The deciduous forest area is divided into two categories: “Upper Mixed Forest” and “Lower Mixed Forests”. In the Upper Mixed

---

<sup>343</sup> Paul T. Cohen and Ross E. Pearson, “Communal Irrigation, State, and Capital in the Chiang Mai Valley (Northern Thailand): Twentieth-Century Transformations,” *Journal of Southeast Asian Studies* vol. 29, no. 1 (1998): 86.

<sup>344</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 1.

<sup>345</sup> *Importers and Exporters Directory for Siam* (Bangkok: Ministry of Commerce, 1924), 34.

<sup>346</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 8.

<sup>347</sup> Alfred Macdonald, *My Experiences in Burma and Siam, 1881–1900* (London, 1935), 30.

<sup>348</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 1.

<sup>349</sup> Royal Forest Department, *Type of Forests of Thailand* (Bangkok: Ministry of Agriculture, 1962), 5.

<sup>350</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 7.

<sup>351</sup> Royal Forest Department, *Type of Forests of Thailand*, 5.

<sup>352</sup> Royal Forest Department, *Siam: Forests*, 3.

Forest, in which teak tree grows straighter and taller than the ones at a lower elevation, teak is located on hills with other commercial timbers. In contrast, the Lower Mixed Forest, is used to describe the lower areas of elevation attached to alluvial plains or the exit to the bank of a larger river. Lower Mixed Forests usually have a lower slope that connects two different types of mixed forest. Teak trees are scattered throughout these areas and are of a smaller size than those at higher altitudes.<sup>353</sup> The small size of the logs make the teak found here more difficult to mill.<sup>354</sup>

Theoretically, the premium marketable teak trees are located in the Upper Mixed Forest. In favourable conditions teak trees grow with a tall and straight cylindrical bole. Sometimes teak tree reach forty metres in height and possess a girth of seven or eight metres.<sup>355</sup> However, the description of the above two types of forest is not a clear cut definition. Geographical configurations vary from place to place and depend on many factors, for instance: the formation of rock and soil; elevation; the level of moisture; and the degree of the slope. Research in forestry science has also found that the presence of bamboo and undershrubs constrains the ability of teak to flourish.<sup>356</sup> Geographical considerations also affect the cost and method of how teak companies transported logs from the extraction area to the meeting point for the duty payment. In general, teak trees located near riverine networks were cheaper to extract and transport.

The most important characteristic of teak is the silica in the wood,<sup>357</sup> which helps to protect it from termites. This special characteristic makes teak a popular material for furniture, the construction of buildings, and decorative artefacts for everyday life. Nevertheless, teak wood is vulnerable to the woodpeckers, moths (*Duomitus ceramicus*) and worms (*Teredo navalis*), which reside in tropical rain forests, especially before and during the floating phase.<sup>358</sup>

The threat of birds and insects was generally only known amongst people engaged in the teak business and the staff of the Forest Department. Consumers only tended to be familiar with the threat of termites, which is one of the reasons that they think teak is superior to other woods. Teak logs damaged by insects were classified as “rejections”. After teak logs were

---

<sup>353</sup> *Importers and Exporters Directory for Siam*, 35.

<sup>354</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 1.

<sup>355</sup> Royal Forest Department, *Type of Forests of Thailand*, 6.

<sup>356</sup> *ibid.*, 5.

<sup>357</sup> R. W. Wood, “Of Teak and Elephants: a Teak-Wallah Reminisces,” *Journal of the Siam Society* vol. 68, no. 2 (1980): 91.

<sup>358</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 13.

transported to central Siam, the teak owner removed the poor quality logs and sold them in bulk through a public auction in Nakon Sawan.<sup>359</sup> In Siam, teak is categorised into three categories: Sak Thong (สักทอง - Golden Teak), Sak On (สักอ่อน - Soft Teak), and Sak Hin (สักหิน - Stone Teak). Each group contains the following characteristics:

Sak Thong is the best quality. It has a dark yellow colour similar to the colour of gold. Sak On is the lowest quality teak timber and has a pale colour. The average weight of Sak On is around 720 kilogrammes per cubic metre. The weight of Sak Thong is approximately 780 kilogrammes per cubic metre. Sak Hin is the heaviest with a weight of around 830 kilogrammes per cubic metre. The lowest weight for marketable teak is 533 kilogrammes per cubic metre.<sup>360</sup>

Carl Curt Hosseus, a German biologist who toured Siam for his botanical mission in 1905, commented that teak was mainly found on Siam territory, while in the area of southern China and the left bank of the Mekong (that is, the territory of French Indochina), teak was scattered and uncommon.<sup>361</sup> Hosseus evaluated the role of teak from a non-economic perspective. He asserted that teak played a major role in supporting European political power across the globe during the twentieth century. In particular, teak was vital to the ship-building industry, both in terms of military uses and civilian purposes, such as commerce and travel. Hosseus's remarks are quite important because during the first twenty years of the twentieth century the amount of international trade between Europe and Asia increased. The Danish East Asiatic Company is just one example which demonstrates that the expansion of international trade relied on teak as a raw material for the ship-building industry in Denmark. This, in turn, had implications regarding the strength of the German navy. This article was part of a failed attempt by Hosseus to persuade a German company to invest in the Siamese teak business arguing that this would help to provide Germany with a secure supply of teak. Although European countries imported a substantial amount of teak from Siam, there was never any German company engaged in the business as advocated by Hosseus.

---

<sup>359</sup> NAT Kor Sor 17/22 The Report of Public Auction at Pak Nampho Duty Station (1924) (กศ 17/22 กรมป่าไม้ รายงานการขายทอดตลาดไม้ขนสัก ที่ด่านภาษีไม้ปากน้ำโพ); NAT Kor Sor 17/108 Report from the Forest Department on the Public Auction in 1931 with a Satisfaction Result (กศ 1/108 อธิบดีกรมป่าไม้ รายงานชี้แจงการขายทอดตลาดไม้ของรัฐบาล ใน พ.ศ. 2474 ว่าได้ผลดีมาก).

<sup>360</sup> Rudolph Götte, *Notes on Siamese Timber Suitable for Building Purposes* (Bangkok, 1908), 3.

<sup>361</sup> Hosseus, "Kurzer Bericht über Vorkommen, Anbau und Gewinnung des Teakholzes in Siam," 279.

Teak was famous for its strength and durability amongst shipbuilders in Asia and Europe. This reputation drove the demand for teak in the nineteenth century and the twentieth century corresponding to the expansion of the shipping and construction businesses. An arms race between the Great Powers, furthermore, also increased the global demand for teak. During the “Belle Isle Experiment” in 1899, the United States Navy conducted trials burning various kinds of timbers and found that teak was the most resistant to fire.<sup>362</sup> This experiment completely changed the policy of the United States Navy. In contrast, the British Royal Navy forbid the use of Siamese teak in their ship-building.<sup>363</sup> This might have been because they needed to protect their teak exports from Burma, an administrative province of British India. In addition to being used for the decks of ocean-going vessels, a smaller amount of teak from Siam was utilised for flooring and the construction of furniture prior to 1932. The fact that teak is not only durable but also easy to saw made it a popular choice.<sup>364</sup>

Apart from its durability ranking it above other hardwoods, teak contains an oil which protects it from most wood-eating insects, with the exception of “*Duomitus ceramicus*”<sup>365</sup> and “*Teredo navalis*”. The oils from other hardwoods which helped to prevent insect damage tended to cause rusting. When assembled with iron or steel, for instance during the construction of railway tracks or the structure of a ship, hardwood oils had a propensity to rust these metals; teak oil, however, did not. Indeed, the United States Forest Service found that teak oil produced less acid than other timbers; that is to say, in brief, it does not corrode iron and steel.<sup>366</sup>

---

<sup>362</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Bangkok*, 6.

<sup>363</sup> *ibid.*

<sup>364</sup> Wood, “Of Teak and Elephants,” 91.

<sup>365</sup> D. R. S. Bourke-Borrowes, “The Teak Industry of Siam,” in *Siam: Nature and Industry*, ed. Ministry of Commerce and Communications (Bangkok: Ministry of Commerce and Communications, 1930), 138.

<sup>366</sup> Smith, *Teak in Siam and Indo-China*, 7.



## 4.2 From Forest to Market: the Processing of Teak

### 4.2.1 Girdling

The extraction of teak logs in northern Siam started in summer. A small team of between five to ten labourers camped in the concession area between March and April. All of the necessary equipment and coolies were then transported to the extraction area. The major task during this period was girdling and felling the girdled teak trees that were left over from previous years. The girdling process was a fundamental part of teak extraction and played a significant role in the teak business. Scientifically, teak was different from another commercial timbers in Siam. The total mass of each teak log contains a high density of carbohydrate accumulated within the wood content. Due to the unique scientific character of teak, it was difficult to transport teak logs through rivers and canals because the weight of an ungirdled log was too heavy to float.<sup>367</sup>

The method known as girdling was the solution to the above mentioned problem. People involved in the teak business colloquially referred to this as “teak killing”. In short, the girdling process killed the tree by stopping its ability to feed itself. In terms of forestry science, the term girdling is used interchangeably with the term “ring barking”.<sup>368</sup> The term girdling was more popular throughout the teak industry in Siam.

This first hand report of a British diplomat describes the girdling process as follows:

“This is done by making an incision 8 inches broad by 4 inches deep all round the trunk at a height of 4 feet from the ground, generally when the tree is in flower. The sap is most abundant at that time of the year and the tree dies sooner. A tree to dry properly should be allowed to stand 3 years after girdling, but after some days the tree is again cut into the heart by a deep incision on each side, and in a period of 6 months to a year the tree is fairly dry and is cut down.”<sup>369</sup>

The girdling process started by using a sharp blade, such as an axe or other cutting implement, which is strong enough to penetrate the bark of the teak tree. The girdling process cut a ring shape on the surface of the tree. The incision was of a width of at least three to five centimetres to a depth of ten to twelve centimetres.<sup>370</sup> The average width and depth of the girdling incision depended on each different species of tree. After girdling, a teak merchant

---

<sup>367</sup> Wood, “Of Teak and Elephants,” 91.

<sup>368</sup> *ibid.*

<sup>369</sup> Black, *Siam*, 3.

<sup>370</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 30.

needed to wait for a minimum of one year for each tree die; however, the process could sometimes last for up to two or three years.<sup>371</sup>

Image 4.1 Girdling the Teak Tree



Source: Hans Andersen. *Tilbageblik*, p. 40.

Records exist detailing both ungirdled, or “green”, teak logs and ungirdled teaks trees being destroyed by fire.<sup>372</sup> Indeed, forest fires are very common in deciduous forests. Nevertheless, there are reports about forest fires that differentiated between the destruction of girdled and ungirdled teak trees.

A change in girdling regulations during the first era of forestry reformation in Siam led to a general industry-wide problem. The Forest Department negotiated with the concession owners and the latter surrendered the right to girdle teak trees. This duty was transferred to the Forest Department without advance notice. For two years, the Forest Department could not cope with the total area of concessions meaning that less than half of this area was girdled

---

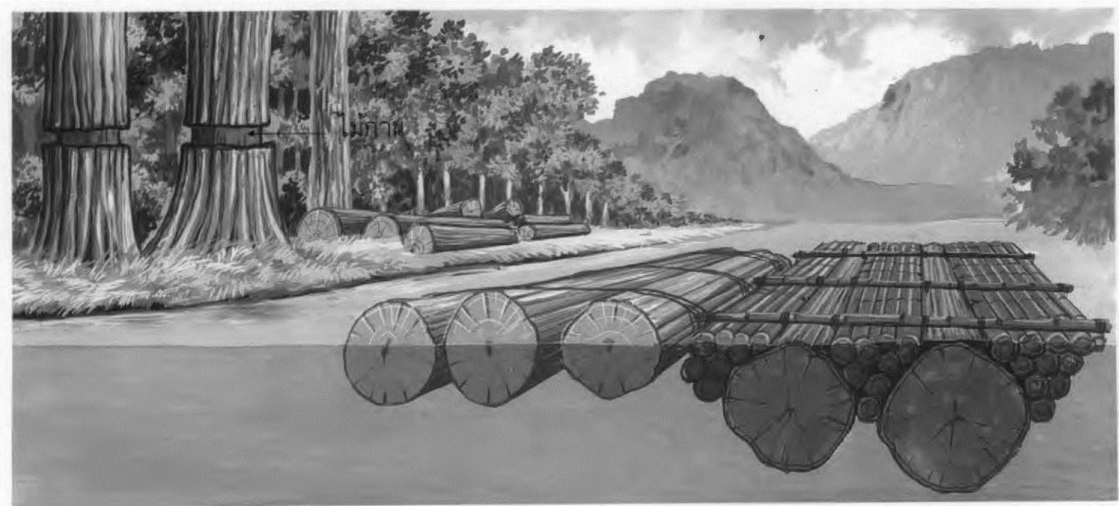
<sup>371</sup> *ibid.*

<sup>372</sup> *ibid.*

during this time. All of this was the Forest Department's fault; the department had planned to girdle all of the trees in the concession areas within four years.

First, the girdling team would travel to the appointed forest. The team leader would then assess the teak trees in accordance with the regulations set down by the Forest Department and mark those which met these conditions. Although the girdling team was supposed to girdle each marked tree, this operation became quite delayed. With very strict controls in place, girdling was a job that demanded the close supervision of an officer appropriately knowledgeable about forestry science. As a result of poor planning, it was not until the seventh year that the Forest Department managed to finish this first comprehensive girdling operation covering all concession areas.<sup>373</sup> Consequently, the number of teak logs being floated to Bangkok had significantly declined. Instead of profiting from the new reforms, 1902 resulted in big losses for many companies.<sup>374</sup> In brief, a shortage of staff in the Forest Department's girdling teams damaged the supply of teak to the global market. The Shan Rebellion in 1902 made the problem worse as many forest areas were left ungirdled.<sup>375</sup> The ongoing rebellion affected teak supplies for at least two or three years.

Image 4.2 Girdling the Teak Tree and the Rafting Process



Source: Thai Encyclopaedia for Children Vol. 3, p. 214.

<sup>373</sup> NAT FA 0301.1.10/8 Scheme of Departmental Girdling. (1918–1919) (2461–2468).

<sup>374</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1902 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1904), 8.

<sup>375</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1902 on the Trade and Commerce of the Consular District of Chiengmai*, 6; *Diplomatic and Consular Reports. Siam. Report for the Year 1903 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1904), 5.

In 1918, the Forest Department developed a proposal for a girdling unit. W. F. Lloyd, the head of the Forest Department, requested funding for a new sub-department. He wanted to form a girdling unit to train departmental staff properly and prevent the destruction of young teak trees. It proposed the establishment of twenty girdling teams with the aim of girdling 240,000 teak trees per year. The goal was to girdle 1,000,000 teak trees within four or five years. The Forest Department argued that all girdling operations needed to be completed before awarding new concessions in 1925/1926. The proposal itself was aware of overall budgetary issues. The estimated total annual budget accounting for all girdling teams was 75,000 Baht. The Forest Department planned to charge a service fee of one Baht for each girdled teak tree.<sup>376</sup> It is clear that the Forest Department profited from this scheme, not only through girdling fee, but also because companies were immediately able to extract teak as soon as they established their operations in the concession area.

The department appointed Phra Daruphanphithak and posted him in Chiang Mai as a “Deputy Conservator”<sup>377</sup> in charge of the girdling operations in 1919.<sup>378</sup> He commanded four “Assistant Conservators”; three of these were in charge of girdling parties, whereas the fourth position allowed for rotation and sick leave. These executive level staff members commanded twenty girdling teams. Each girdling team consisted of two clerks and one assistant clerk. Each assistant clerk was in training and would temporarily substitute for clerks when someone was away or sick. Finally, each team consisted of 25 Khmu labourers.

W. F. Lloyd also divided the forest area into three divisions. The first division covered Chiang Mai, Lamphun, and Tak. The second division covered Chiang Rai and Lampang. The third division covered Nan, Phrae, and Phitsanulok. While the first division required six girdling teams, the second and third division required seven girdling teams each.<sup>379</sup> However, some concessions in Tak and the whole of the Salween area were girdled by companies.<sup>380</sup>

The Siamese government largely agreed with the proposal for a girdling unit, but the Ministry of Finance voiced several concerns. Specifically, the Ministry of Finance argued that the proposal was hastily constructed and possessed no concrete plan regarding when and how to collect girdling fees from the teak companies. The Ministry of Finance accepted the girdling

---

<sup>376</sup> NAT FA 0301.1.10/8 Scheme of Departmental Girdling. (1918–1919) (2461–2468).

<sup>377</sup> *ibid.*

<sup>378</sup> PUA A 19 David Fleming MacFie. *Chiang Mai Record* (1884–1919).

<sup>379</sup> NAT FA 0301.1.10/8 Scheme of Departmental Girdling. (1918–1919) (2461–2468).

<sup>380</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 21.

scheme on the condition that the government and the Ministry of the Interior would take responsibility and allocate special funding to cover expenditure of the girdling teams for the first two years. From the third year, the Forest Department must rely on their own budget and the revenue raised by girdling fees would be saved to fund future girdling operations.<sup>381</sup> In 1919, more than twenty years after the foundation of the Forest Department, their dream of having a girdling unit came true.

W. F. Lloyd retired from his position in 1921 and Daruphanphitak took charge as the first Siamese Forest Conservator. The position's name was then changed to the "Head of the Forest Department". Daruphanphitak's previous role overseeing girdling operations was transferred to Mr. D. R. S. Bourke-Borrowes. In 1924, five years after the project was approved, the Office of the Financial Adviser reviewed the girdling scheme. Many of findings cast a negative light on the Forest Department's girdling scheme. Although the Forest Department had finished the girdling operation according to the schedule, this backfired on the teak business. Many girdled teak trees had been left standing in the forest for many years before the new concession period began in 1925/1926. The report suggested that some advanced-girdled trees had been destroyed by forest fire or had split during years with strong monsoons. Without any certainty of future concessions and extraction, advanced-girdled-trees died and stopped growing. This was a lost opportunity for the Siamese government because the teak trees would have probably developed further in that period of four to five years.

In addition, the amount of revenue raised from royalty fees was lower than expected. A confidential memoir written during the investigation even suspected the Forest Department of embezzling government funding.<sup>382</sup> Reginald Campbell, a forest assistant manager of the Siam Forest Company, however, provided a different perspective on the government's girdling program. He wrote about the company's efforts to check the accuracy of the girdling team in order to avoid any mistakes made by the Forest Department.<sup>383</sup>

The Forest Department asked the Ministry of Finance for a new operating budget. The problem was exacerbated because of alterations in the chain of command. The Forest Department was then transferred from the Ministry of Interior to the Ministry of Agriculture.

---

<sup>381</sup> NAT FA 0301.1.10/8 Scheme of Departmental Girdling. (1918–1919) (2461–2468).

<sup>382</sup> NAT FA 0301.1.10/9 Departmental Girdling 2468. (2467–2469).

<sup>383</sup> Reginald Campbell, *Teak-Wallah: The Adventures of a Young Englishman in Thailand in the 1920s* (Singapore: Oxford University Press, 1986), 39–42.

The Ministry of Agriculture did not know about the previous girdling operation under the Ministry of the Interior and declined to acknowledge it.<sup>384</sup>

Maintaining girdling teams in this manner drained resources from the government without contributing much in the way of profits in the near future. Due to the limited budget and the austerity policies of the Siamese government,<sup>385</sup> the Office of the Financial Adviser recommended that the Forest Department revise its girdling procedures. Rather than girdling the tree itself, the Office of the Financial Adviser instructed the Forest Department to just mark the trees ready for girdling and allow the teak companies to do this when they deemed it an appropriate time. The fee for each girdled tree was included in the new royalty fee for the concessions issued in 1925. The Siamese government approved of this idea and put an end to the Forest Department's girdling operations.<sup>386</sup> However, the Forest Department still expressed their willingness to girdle the teak trees in forestry conservation areas.<sup>387</sup>

#### 4.2.2 Felling

In this phase, the felling process started in the summer season and carried on until the rainy season.<sup>388</sup> It gradually ground to a halt during winter because of fears of forest fires. The felling of teak trees was very simple: a coolie used a locally manufactured axe to cut down the tree. The axe used for felling teak had an iron head. From the 1890s, some axes utilised in the teak business were imported from England.<sup>389</sup> Later, both the company and the Forest Department discouraged the use of axes for felling teak trees, albeit for different reasons. The Forest Department forbid the using an axe because the falling tree could damage a young tree or sapling nearby.<sup>390</sup> Conversely, the teak companies wanted to preserve the quality of teak logs as much as possible. Thus, the use of a saw was encouraged instead of an axe. Here, an experienced company staff member refers to his experiences while supervising the felling process: "The native is a wonderful axeman, and hates the saw, but to avoid waste of timber, the saw must mainly be used. Except in special circumstances [...]"<sup>391</sup> Accordingly, a pair of

---

<sup>384</sup> NAT FA 0301.1.10/9 Departmental Girdling 2468. (2467–2469).

<sup>385</sup> Pornpen Hantrakool (พรเพ็ญ ฮั่นตระกูล), "The Government Spending during the Reign of King Rama the Sixth (A.D. 1910–25) (การใช้จ่ายเงินแผ่นดิน ในรัชสมัยพระบาทสมเด็จพระมงกุฎเกล้าเจ้าอยู่หัว (พ.ศ. 2453–68))," 137–161.

<sup>386</sup> NAT FA 0301.1.10/9 Departmental Girdling 2468. (2467–2469).

<sup>387</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 22.

<sup>388</sup> *ibid.*, 31.

<sup>389</sup> *Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1891 on the Trade of Chiangmai*, 4.

<sup>390</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 37.

<sup>391</sup> Wood, "Of Teak and Elephants," 94.

labourers working together would fell teak trees utilising a double crosscut saw. It is estimated that a working pair would fell between three to five teak trees per day<sup>392</sup> including travel time from the camp to the location of the trees and back again.

The 1897 regulation affected British companies the most and changed how these companies felled and extracted teak from the forest area. Before the foundation of the Forest Department, there were no regulations pertaining to the teak extraction process. The contractor or company decided how to extract trees. During the 1890s, most companies commissioned contractors to conduct the extraction process. Commencing in 1897, the Forest Department fined companies from any mistakes made by their contractors. As a result, it became inevitable that company staff would frequently commute from the city office to the concession area in the forest in order to oversee the extraction process. Consequently, the supervision of workers in the forest changed from a short-term temporary assignment to a permanent position whereby the supervisor was required to dwell in the immediate locale.<sup>393</sup>

#### 4.2.3 Measuring

An understanding of how each teak log was measured was a foundational skill for teak traders. This method was also used by the Forest Department to inspect and charge the duty for each teak log felled and floated through the duty station. This section explains how teak was measured. Measurement of teak consisted of a mixture of the two types of measurement: international standards (in essence, metric and imperial) and the local standard or “Pikat” (พิกัด) system.

Before the universal adoption of the metric system in the Siamese teak business in 1923,<sup>394</sup> three measuring systems existed within the industry: the metric system, Imperial units or the imperial system, and the “Pikat Nuea – Northern Tariff” (พิกัดเหนือ) – or, in short, the Pikat rate. As a result, the governmental organisations in charge of economics and development – for example, the Ministry of Commerce and Communication – found the measurement of teak very confusing. It reported the amount of teak exported from Bangkok using the metric

---

<sup>392</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 31.

<sup>393</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1900 on the Trade and Commerce of the Consular District of Chiangmai* (London: HMSO, 1901), 6; *Diplomatic and Consular Reports. Siam. Report for the Year 1903 on the Trade and Commerce of the Consular District of Chiangmai*.

<sup>394</sup> Siam adopted the metric system on 17 December 1923.

system to calculate these measurements.<sup>395</sup> It recorded the export of teak by the metric tonne and measured the volume of teak per cubic metre. To promote the metric system, the Ministry of Commerce published its statistical data according to this system.

The second standard, the imperial unit, was utilised by the British government and British staff employed in the Siamese government. Every report on the teak business and forestry used this unit of measurement. Although it reported the weight of teak in metric tonnes,<sup>396</sup> the length of teak was measured in foot (ft). The Forest Department relied on this system until the 1920s before switching to the metric system in 1924.<sup>397</sup> In fact, however, publications emanating from the Forest Department did not adopt the metric system wholeheartedly. The official booklet of the Forest Department in Siam, “Forest in Siam”, mixed imperial units<sup>398</sup> (foot,<sup>399</sup> inch,<sup>400</sup> mile,<sup>401</sup> cubic foot,<sup>402</sup> pound,<sup>403</sup> and acre<sup>404</sup>) and the metric system (millimetre,<sup>405</sup> centimetre,<sup>406</sup> kilometre,<sup>407</sup> and cubic metre<sup>408</sup>). Another example of the Forest Department’s dual use of units of measurement can be found in two documents written by D. R. S. Bourke-Borrowes which employed both imperial and metric units. Paradoxically, the Ministry of Commerce, who promoted the use of the metric system in Siam published both of these documents entitled “The Teak Industry in Siam” and a chapter on “Forestry” in 1927 and 1930 respectively. Although in this second publication the numerical data in imperial units was accompanied with the converted metric value or it mixed both units together,<sup>409</sup> the measurement of volume only appeared in cubic feet – that is to say, the unit of the imperial standard.<sup>410</sup>

---

<sup>395</sup> Now, the metric system is regulated under *Système International d' Unités* or SI (International standard of Units, in English). It comprises the measurement for seven physical quantities: Mass (M) Length (L) Time (T) Temperature (°) Amount of substance (N) Current (I) Luminous intensity (J). They have the unit name and symbol as follow Kilogramme (kg) Metre (m) Second (s) Kelvin (K) Mole (mol) Ampere (A) Candela (cd).

<sup>396</sup> The “tonne” is a non-SI standard unit from the imperial system. However, it was accepted by the SI standard and known widely as a “metric tonne”.

<sup>397</sup> Ernest Andrews, *The Bombay Burmah Trading Corporation Limited in Burmah, Siam and Java: Teak, the Cutting and Marketing*, 3 vols. vol. 2, (London: s.n, n.d), 110.

<sup>398</sup> Royal Forest Department, *Siam: Forests*, 1–3, 28, 30, 32–34.

<sup>399</sup> *ibid.*, 4–6, 19–20, 27, 31, 37, 39.

<sup>400</sup> *ibid.*, 18.

<sup>401</sup> *ibid.*, 12–14, 41.

<sup>402</sup> *ibid.*, 26.

<sup>403</sup> *ibid.*, 27, 30.

<sup>404</sup> *ibid.*, 32.

<sup>405</sup> *ibid.*, 14.

<sup>406</sup> *ibid.*, 30.

<sup>407</sup> *ibid.*, 25.

<sup>408</sup> *ibid.*, 35.

<sup>409</sup> Bourke-Borrowes, “The Teak Industry of Siam,” 120–124, 132–134, 138, 147–153, 156–158, 160.

<sup>410</sup> *ibid.*, 127, 139, 145.



The teak measurement system in Siam confused both businesses and government organisations. Nevertheless, converting metric to imperial units was easy because these two standards have fixed values for each unit.

The local system of measurement for teak, however, was different. The standard local measurement for teak in Siam was the Pikat. No one has been able to clarify the origin of this system of measurement, but it is theorised that it was invented by a monk in Burma<sup>411</sup> and imported to Siam by Burmese and Shan teak merchants. This system has only two basic units to measure teak logs: Kam (กำ) and Wah (วา). Kam was used to measure the semi-girth size of the teak log and it is equal to 4.25 inches or 10.79 centimetres. Kam literally translates into English as “Fist”. As a result, Kam and Fist were used interchangeably in some English documents. Wah was the measurement unit for the length of teak log. Each Wah varied between 78 inches<sup>412</sup> (198.12 centimetres)<sup>413</sup> to 80 inches (203.2 centimetres) depending on the locality and the agreement between the buyer and seller.<sup>414</sup> For consistency and ease of use, the big companies standardised each Wah at 80 inches. With each Wah the approximate equivalent of two metres, foreign companies found it convenient to switch to the metric system.<sup>415</sup> Although these two units of measurement differed between northern and central Siam<sup>416</sup> – and also when applied to other timbers<sup>417</sup> – the sale of teak merchants in Bangkok was negotiated according to the Pikat rate used in northern Siam. The teak merchant sold the log by multiplying the price of the Pikat rate and usually opened up sales in the following manner: “I will sell the log at 2, 3, 4 or 5 times the Northern tariff per log”.<sup>418</sup> The rates did not differ whether the customer to bought either a whole raft or a single log.<sup>419</sup> Nevertheless, conflict often occurred as both the seller and buyer would present their own measuring stick for Wah. Unsurprisingly, arguments over the stick’s precision and whose stick was the correct scale were very common during such negotiations.<sup>420</sup>

---

<sup>411</sup> Andrews, *The Bombay Burmah Trading Corporation Limited in Burmah, Siam and Java: Teak, the Cutting and Marketing*, vol. 2, 110.

<sup>412</sup> *The 1894 Directory for Bangkok and Siam* (Bangkok: Bangkok Times Office, 1894), 28.

<sup>413</sup> Black, *Siam*, 9.

<sup>414</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 29.

<sup>415</sup> Andrews, *The Bombay Burmah Trading Corporation Limited in Burmah, Siam and Java: Teak, the Cutting and Marketing*, vol. 2, 110.

<sup>416</sup> *ibid.*

<sup>417</sup> *The 1894 Directory for Bangkok and Siam*, 27.

<sup>418</sup> *ibid.*

<sup>419</sup> *ibid.*

<sup>420</sup> *ibid.*, 28.

The Forest Department acknowledged this measurement unit. The Pikat rate was utilised to calculate both the royalty fees for teak logs before floating, and the payment of the duty fee when the raft arrived at the duty station. The duty fee designated the price of each teak log floated through the duty gate according to its size. The Pikat rate was important because the price of the teak in the Bangkok market was based on this system (Table 4.1). People had been using the Pikat rate for many years before the Forest Department discontinued this system in 1925. After this, all communication between the staff of the Forest Department was exclusively conducted in the metric system.

The main advantage of using the metric system was the simplification of commercial activities, especially when it came to discussion about units of transaction and transportation. It avoided the process of reconvertng from local measurements into metric units, all of which would inevitably lead to numbers with many decimals. Although the metric system was mostly used in government publications, the sale of teak in the domestic market in Bangkok, however, still relied on the Pikat rate vis-à-vis the pricing process. The use of the Pikat continued to exist within the confines of the domestic market until at least the end of 1920s.<sup>421</sup>

---

<sup>421</sup> Bourke-Borrowes, "The Teak Industry of Siam," 129.

Table 4.1 Sale Price and Duty Fees according to the Pikat Rate in 1895

Kam	3 Wahs Baht	Duty Baht	4Wahs Baht	Duty Baht	5 Wahs Baht	Duty Baht	6 Wahs Baht	Duty Baht	7 Wahs Baht	Duty Baht	8Wahs Baht	Duty Baht	9 Wahs Baht	Duty Baht
5	0,5	0,4	1	0,5	1,5	0,75	2	1	4	1,25	6	1,65	8	2,5
6	1	0,5	2	0,75	3	1	4	1,25	6	1,65	8	2,5	10	3,5
7	2	1	3	1,4	4	2	6	2,65	8	3,15	10	4,4	13	5,15
8	3	1,4	4	2	6	2,5	8	3,75	12	4,4	14	5,15	16	5,5
9	4	2,00	6	2,65	8	3,65	10	4,4	16	5,5	20	6,75	22	7,65
10	5	2,65	8	3,5	10	4,4	12	5,55	20	6,75	24	7,65	26	8,75
11	6	3,5	10	4,4	12	4,75	18	6,4	24	8	28	9,5	32	10,15
12	7	4	16	4,75	16	6,4	22	8	28	9,5	32	10,15	38	11,25
13	8	4,75	20	5,65	20	7,65	26	8,48	32	10,4	36	12	44	13,5
14	12	5,65	24	7,65	24	8,75	30	10,4	36	12	42	13	50	16
15	16	7,75	28	8,75	28	10,4	34	12	40	10,4	48	16	60	17,65

Source: J. S. Black. Siam: Report on the Teak Trade in Siam, p. 9.

## 4.3 Transporting

### 4.3.1 From Extraction to the Floating Point

The transportation of teak logs from the felling point to the floating point was mainly done during the rainy season and winter. The monsoon usually arrives in northern Siam/Thailand in September and lasts until November. During the monsoon period, the teak transportation system focused on moving teak to the floating point at the nearest stream. After the teak was felled, the mahout took his elephant to the felling point and moved the teak log from the stump area to the floating point. During this stage one or more elephants would haul each single log for 900 metres.<sup>422</sup> They preferred to finish this transportation process as soon as possible because elephants could work longer hours during the rainy season. The rainy season further facilitated these endeavours as it was easier to drag logs through the slippery mud.<sup>423</sup> In general, the weight of a single teak log was between two and three metric tons. An elephant could move a log with a maximum weight of five metric tons.<sup>424</sup> All of logs were placed in the stream lying parallel to its banks. After this process it was necessary to wait for the water to rise so that the teak logs could float downstream.<sup>425</sup>

Only elephants could move teak logs to the stream as fast as the teak companies desired. After the teak was transferred to the streams, the companies were then able to transfer their hired coolies to the girdled trees waiting to be extracted during the winter season. At the same time, the forest manager travelled along the streams, canals, and rivers monitoring the floating process until the logs reached the rafting station. In the winters of northern Siam, work in the teak business focused on the pulling and hauling logs from the felling point to the riverine networks for onward transportation. Elephant could work longer hours during winter because there was a lower risk of heat stroke than in the summer time.<sup>426</sup> W. A. R. Wood, a British Vice-Consul in Chiang Mai and noted admirer of elephants, explained:

“Elephants are rather delicate creatures. [...] and their condition has to be carefully watched when they are continuously employed on hard work. Moreover, they bear extreme heat very badly, and are often attacked by sunstroke or heat apoplexy. In their natural state they travel and feed mostly by night, and during the heat of the day they loiter about in some shady spot, smearing themselves with nice cool mud, or powdering themselves with dust. Compel them to work in hot sunshine for any long period of days, and their health is certain to suffer.”

---

<sup>422</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 31–32.

<sup>423</sup> *ibid.*, 31.

<sup>424</sup> Wood, “Of Teak and Elephants,” 94.

<sup>425</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 34.

<sup>426</sup> Wood, “Of Teak and Elephants,” 95.

and

“When an elephant is attacked by sunstroke it shows great sign of distress, trembling all over in a manner very painful to behold, and finally lying down.”<sup>427</sup>

In short, the winter season is better for elephant working efficiency. In addition, the surface condition of soil is more solid meaning that elephants find it easier to keep their footing. However, the water levels of rivers and canals decreases or dry up during winter so that it was sometimes necessary to wait until the next year in order to transport the teak logs to Bangkok. If possible, however, they tried to move and float all of teak logs within the same year of felling. This helped to avoid potential damages resulting from forest fires when teak logs were left in the forest. Accumulated teak logs left in the forest were the source of tinder for forest fires and could easily be destroyed over winter.

After the winter tasks were finished, all of the elephants working in the teak business had a long summer holiday while waiting for the next working cycle. An effort to transport teak logs during summer eventually prevailed after experimentation with other types of animals succeeded in the late 1920s. Indeed, a report by Bourke-Burrowes revealed that the “local Lao population have become very adept in carting all sizes of logs; for the heaviest logs they sometimes use eight to ten pairs of buffaloes or ten to fifteen pairs of bullocks”.<sup>428</sup>

#### 4.3.2 Technological Changes in the Transport System

Forest concessions in the proximity of the tributary system of the Chao Phraya River or the Salween River possessed natural advantages in regard to the floating process. There were, however, exceptions to this rule in some concession areas. There are three examples of British companies in the teak business experimenting with different technology when faced with difficulties moving teak logs from the felling point to the floating point. These examples are the Mae Lan Forest in Mae Hong Son province, the Fang Forest in Chiang Rai province, and the Chun Forest in Phayao province. In these instances, the felling point was located far away from the expected floating point. As the geographical settings of these three examples were varied, each company employed different types of technology in order to solve the problem of teak transportation.

---

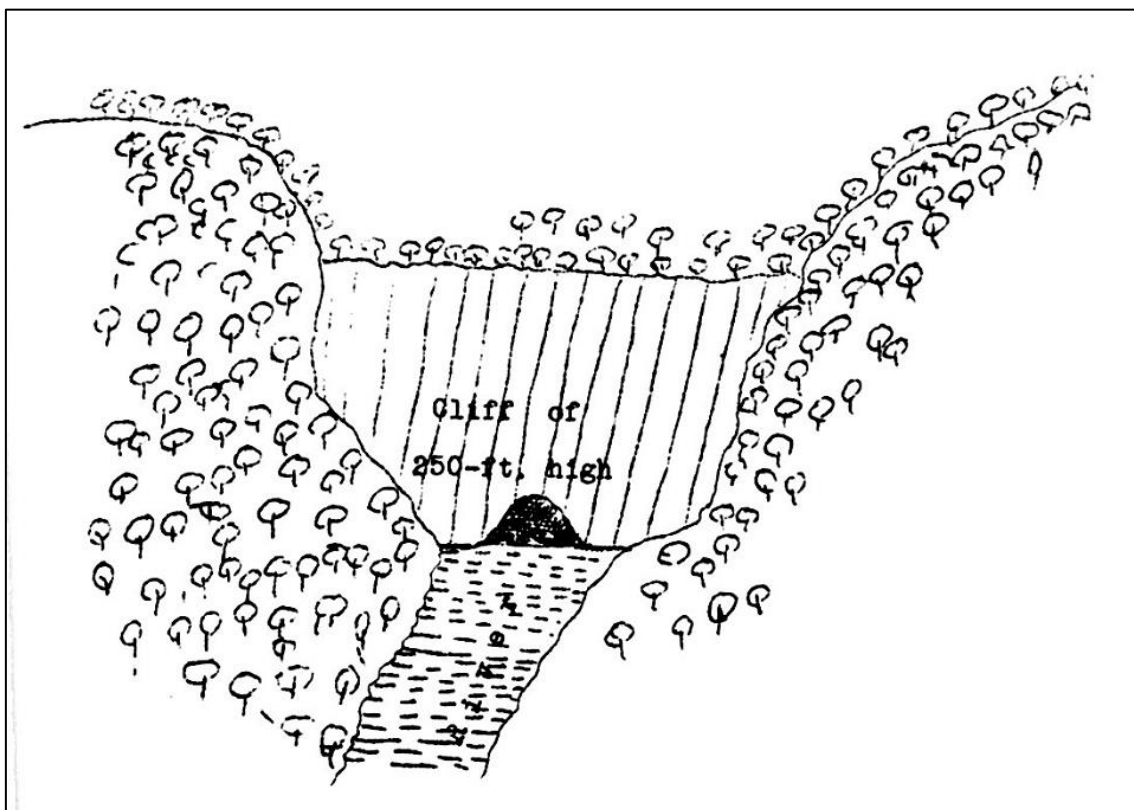
<sup>427</sup> Wood, W. A. R, *Consul in Paradise: Sixty-Nine Years in Siam* (London: Souvenir Press, 1969), 127–128.

<sup>428</sup> Bourke-Burrowes, “The Teak Industry of Siam,” 132.

#### 4.3.2.1 Mae Lan Forest

The Mae Lan Forest (แม่ลาน) provides a good example of a forest area that encountered difficulties when transporting teak logs. The Mae Lan Forest was located in Mae Hong Son province next to the border between Siam and Burma. The difficult terrain of Mae Lan was acknowledged in *The Indian Forester* in 1901. With ridges, high slopes, and cliffs, conventional transport systems based on elephant power were impossible. Also, some streams located nearby could not be used for teak transportation because they ran through caves and underground water networks.<sup>429</sup> The company branch had experienced similar problems in Burma. There, Alfred Macdonald, the manager of the Burmese branch of Bombay Burmah, made a proposal to the Forest Department in Burma which entailed blowing up the cliff. The Indian Government did not agree with this idea, however, and declined the company's proposal. Consequently, the company was forced to rely on elephant haulage.<sup>430</sup>

Image 4.3 River Disappearing into the Hillside in Burma



Source: Alfred Macdonald. *My Experiences in Burma and Siam, 1881–1900*, p. 37.

<sup>429</sup> Marshall, "The Maihongson Forests in Siam," 478.

<sup>430</sup> Macdonald, *My Experiences in Burma and Siam, 1881–1900*, 38.

Instead of giving up on the teak trees that were located in the difficult to access areas of the Mae Lan Forest, the company girdled 10,000 trees in 1897 and another 10,000 trees in 1898. The Bombay Burmah also experimented with slings to hoist the teak logs from the hill area to the landing zone, but there was insufficient infrastructure available at the time. In other words, it would be necessary to construct more infrastructures in Mae Lan. The company could not handle the engineering task by itself, so it contracted an outside company to undertake surveying and construction.<sup>431</sup>

Certainly, the construction took time. A road was built to facilitate both construction and haulage, the length of which was almost thirteen kilometres and it possessed many roundabouts.<sup>432</sup> The road reached all of the way to the centre of the Mae Lan Basin. The first machine was installed in the basin. The construction continued by clearing a nearby hill area thereby turning it into landing ground for teak logs from the basin area. Then, a second machine was installed on the hill, where it was easily accessible to elephants. The interval between the basin and the landing ground – that is to say, the locations of the two machines – was 1.2 kilometres.<sup>433</sup> Thus, the method still relied on elephants. When teak logs arrived at the station from the basin to the high ground by the sling, the elephants took charge of further transportation and hauled the teak logs to the floating point at the Salween River.

This experiment was the first one in Siam that did not use animal power to transport teak logs. Consequent to the difficult geographical configurations and the construction of necessary infrastructure, the extraction process was comparatively slow in comparison to the forestry concessions characterised by average terrain. Due to work delays, however, the company was able to successfully negotiate with the Siamese government and received special permission to work in the Mae Lan area longer than the normal concession period. Government records clarify Bangkok's perceptions on the project. The government made a special exception for Bombay Burmah's operations in Mae Lan and extended its concession because the government considered its investment in infrastructure to be a major development in the teak business. In 1925, the Siamese Government dissolved the special status of the Mae Lan forest and merged it into a new concession in the same year.<sup>434</sup> After

---

<sup>431</sup> Marshall, "The Maihongson Forests in Siam," 479, 484.

<sup>432</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1902 on the Trade and Commerce of the Consular District of Chiangmai*, 6.

<sup>433</sup> *ibid.*

<sup>434</sup> NAT Kor Sor 17/20 Contract between Agricultural Ministry and Bombay Burmah in Mah Hong Son for 15 years. (กส 17/20 กระทรวงเกษตรทำสัญญาป่าไม้กับบริษัทบอมเบเบอร์มา ป่าแม่ฮ่องสอนเป็นเวลา 15 ปี).

the non-stop extraction of teak trees the number of logs harvested started to decline in 1930s.<sup>435</sup>

#### 4.3.2.2 Fang Forest

The second example of new technology used in teak transportation was the case of the Fang Forest (ป่าฝาง). The concession area belonged to the Borneo Company. Fang was previously a district in Chiang Rai province but it is now located in the administrative district of Chiang Mai province. The company faced transport difficulties in this area in 1913. The company possessed a teak concession near the city of Fang. The Fang concession area, however, was surrounded by mountains. As an intermountain area, the whole concession area was very small at around just 365 square kilometres, the smallest concession of the Borneo Company.<sup>436</sup> The nearest river to Fang is the Mae Kok River, a tributary of the Mekong River which flows to Saigon. The company encountered difficulties floating logs down to the Ping River and so it diverted the logs to the Chao Phraya River. To solve the problem, a land route was established and two chute tunnels were installed to connect the concession area with the Ping River drainage area situated to the west. The company also constructed a cart road from Fang along the foot of the hills where the Kok River and the Ping River met.<sup>437</sup> It also constructed two narrow gauge (750 mm) tracks<sup>438</sup> that helped to transport logs.

---

<sup>435</sup> NAT Mor Ror 7 Kor Sor 5/17/4 Forest Survey, Name list, Size, Number of total logs, and the name of the concessionaires. (มร 7 กษ 5/17/4 บัญชีสำรวจรายชื่อป่าไม้, ขนาดป่า, จำนวนไม้, กับชื่อนุคคลหรือบริษัทที่ได้รับทำป่าไม้สัก).

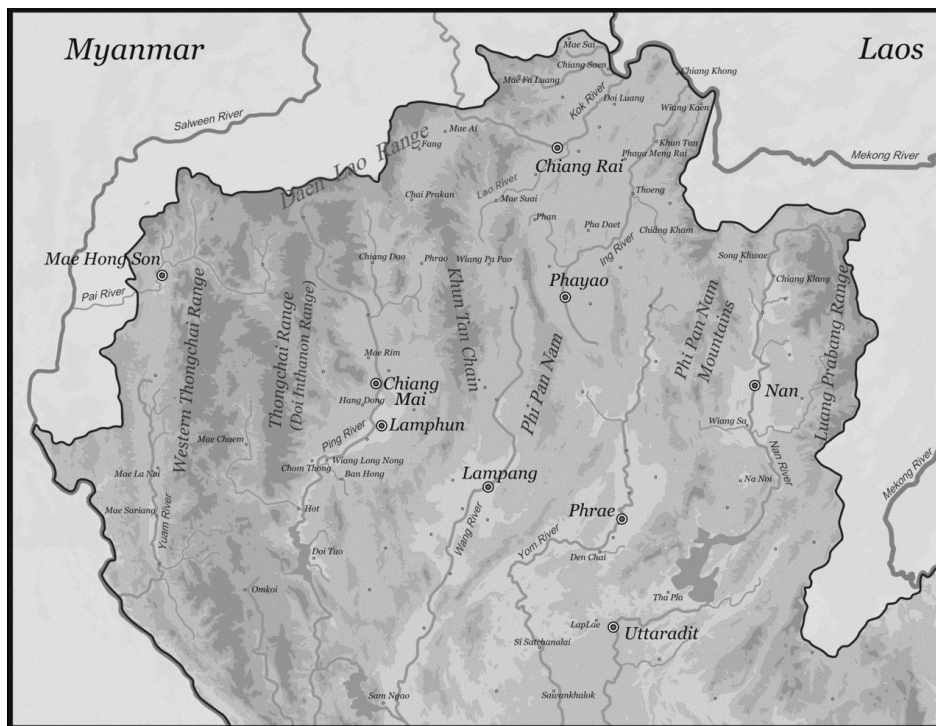
<sup>436</sup> *ibid.*

<sup>437</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1913 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1915), 8.

<sup>438</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 40.



Map 4.1 Topography of Northern Thailand



Source: Wikimedia

Twenty teak logs were transported daily<sup>439</sup> by light railway on steep terrain until it reached the top of the Ping watershed – this was a distance of five kilometres.<sup>440</sup> The task of loading logs onto the rail system still depended on elephants. The susceptibility of elephants to the summer heat compelled the loading process to stop immediately from February each year.<sup>441</sup> When the logs were unloaded, the last phase of the transportation process was a dirt road. Here, the company depended on buffalos and oxen instead. They helped to haul teak logs to the final point. When teak logs reached the top at the end of cart road, a second chute of 800 metres in length was installed.<sup>442</sup> The company staff floated each log from this high elevation down through the chute tunnel to the ground level, where an elephant waited to load logs onto a second light railway. There was a telephone system for signalling the release of teak logs to prevent elephants from being injured. The second track was 7.3 kilometres in length but the second chute was shorter than the first one.<sup>443</sup>

<sup>439</sup> *ibid.*, 41.

<sup>440</sup> *ibid.*, 40.

<sup>441</sup> *ibid.*, 40–41.

<sup>442</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1913 on the Trade and Commerce of the Consular District of Chiengmai*, 8.

<sup>443</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 41.

Image 4.4 Teak-Logging in Siam: Hauling by Mechanical Power on Rails



Source: W. A. Graham. Siam: a Handbook of Practical Commercial and Political Information vol. 2, p. 14.

Finally, each teak log was put in a second chute tunnel that directly connected the hilltop to the Ping River. With this method, all of the logs were transported through the Fang Forest towards the Mekong River and, eventually, to Bangkok.

#### 4.3.2.3 The Mae Chun Forest

The third technological experiment with teak transportation was the case of the Siam Forest Company's concession in Phayao province. The Siam Forest experiment took place in The Mae Chun Forest (ป่าแม่จูน). It was located near the Mae Chun stream (currently known as Nam Chun น้ำจูน) in Chun district (อำเภอจูน). Nam Chun is a stream connected with the Ing River, a tributary of the Mekong River. The Siam Forest Company had a similar problem to the Borneo Company. Their concession area was connected with a tributary of the Mekong River instead of a tributary of the Chao Phraya River. Specifically, the Siam Forest Company had trouble floating teak logs down the Nam Chun stream because its canal-like size could not accommodate a large number of logs, especially considering uncertain water levels each year. Floating logs down the Mekong River might drastically reduce supply to the company's sawmill in Bangkok.

Given the location of the forest, company staff surveyed the location in 1912. It conducted a study exploring the feasibility of floating teak logs through the Yom River, where the logs would then be diverted to the Chao Phraya River.<sup>444</sup> This method required a cart road and railway to aid in the transportation of teak logs. This system needed to be bigger than the one used in the Fang Forest by the Borneo Company. The plan to construct a railway worried the London office and there were few supporters. Nevertheless, the plan was finally approved by the London office.<sup>445</sup> The company constructed a metre gauge railway,<sup>446</sup> which was similar to track sizes in Burma, British Malaya, and Siam.

The construction began with the cart road; this started from the area of the Ing River watershed to the northern area of Phayao province along the Yom River. The construction of this was finished in 1912 at Pong (ปง) district. Here, the company established a station to connect it to the terminus in the Mae Chun Forest area. In 1913, shortly after the cart road was finished, the company started to build the railway to connect the concession from the Ing River with the Yom River.<sup>447</sup> From the Mae Chun Forest, the company transported teak logs

---

<sup>444</sup> Campbell, *Teak-Wallah*, 173.

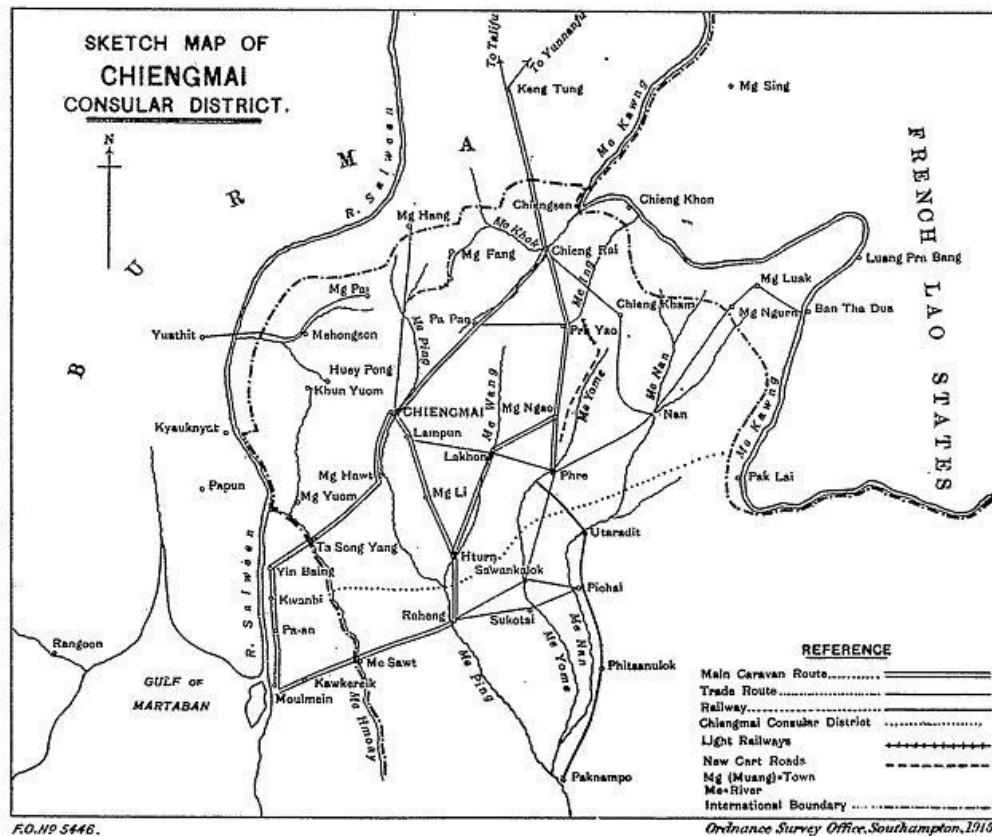
<sup>445</sup> *ibid.*

<sup>446</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 40. A metre gauge railway is the system of railway with a track gauge of 1,000 millimetres.

<sup>447</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1913 on the Trade and Commerce of the Consular District of Chiangmai*, 18–19.

by railway to Pong district.<sup>448</sup> The total distance from the forest to the floating point was 78.8 kilometres.<sup>449</sup> From Pong district, the logs were transported via the cart road and reached the floating point near the city of Phrae.

Map 4.2 The Chiangmai Consular District and the Siam Forest's Railway Network



Source: Diplomatic and Consular Reports. Report for the Year 1913 on the Trade and Commerce of the Consular District of Chiangmai, p. 5.

The total expense of construction was 100,000 Pound Sterling,<sup>450</sup> excluding the construction costs for a repair station, workshop, and a temporary dam that held water to facilitate floating during winter.<sup>451</sup> This investment allowed the company to transport between 30<sup>452</sup> and 56

<sup>448</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1912 on the Trade and Commerce of the Consular District of Chiangmai* (London: HMSO, 1913), 17.

<sup>449</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 40.

<sup>450</sup> Andrews, *The Bombay Burmah Trading Corporation Limited in Burmah, Siam and Java: Teak, the Cutting and Marketing*, vol. 2, 112.

<sup>451</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 40.

<sup>452</sup> Department of Overseas Trade, *Report on the Commercial Situation in Siam at the Close of the Third Quarter, 1924* (London: HMSO, 1925), 41.

logs every day, except on Sundays.<sup>453</sup> With the assistance of the railway, all of the logs reached Bangkok within two years.<sup>454</sup>

A massive investment in the Mae Chun Forest apparently showed that the company did not expand its business outside of Phayao for more than a decade. From 1902 to 1927, the number of teak concessions held by the Siam Forest Company increased from just a single concession to two concessions. However, it is also important to consider the estimated number of teak logs extracted by the Siam Forest Company. It was possible for the company's sawmill to rely on just one forest. According to a report submitted to King Rama VII in 1927, it seems that there were only three forests with a yield of more than hundred-thousand teak logs. The concession of the Siam Forest Company in Mae Ngao was one of them. Although Mae Chun yielded 92,715 logs, a smaller amount compared to Mae Ngao, it was still higher than the average yield for a concession throughout the whole industry.<sup>455</sup>

#### 4.3.4 Hammering

The inspection of teak logs began when the logs arrived at the floating point. Usually, there were two or three parties working together: the company agent or the owner of the logs, the staff of the Forest Department, and the contractor if they had one. When the logs arrived at the floating point, the teak owner measured all of the logs and paid the contractor for their services based on the amount and size of the logs. The currency paid to the sub-contractor depended on the contract, but they were normally paid in Rupee because contractors tended to prefer Rupee over Baht. After the first payment to the sub-contractor, the company paid a “stump fee” – or the price of the teak – to the Forest Department according to the size of each log. In the early years of the Forest Department, the payment could be in Rupee or Baht. A change of regulations in 1924, however, meant it was compulsory for the companies to pay the duty fee in Baht. There was only one exception: companies could pay in Pound Sterling for teak logs floated down the Salween River.<sup>456</sup>

After the payment, they proceeded to the hammering process. Before the foundation of the Forest Department, only three hammers were used when a company or teak merchant bought

---

<sup>453</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 40.

<sup>454</sup> Department of Overseas Trade, *Report on the Commercial Situation in Siam at the Close of the Third Quarter, 1924*, 41.

<sup>455</sup> NAT Mor Ror 7 Kor Sor 5/17/4 Forest Survey, Name list, Size, Number of total logs, and the name of the concessionaires. (มร 7 กษ 5/17/4 บัญชีสำรวจรายชื่อป่าไม้, ขนาดป่า, จำนวนไม้, กับชื่อนุคคลดหรือบริษัทที่ได้รับทำป่าไม้สัก).

<sup>456</sup> NAT FA 0301.1.10/4 Payment of Royalty by timber firms in sterling. (2451–2461).

teak from a Shan or Burmese forester. The first hammer, the “Forester’s hammer mark”, bore Burmese letters. The second hammer was the “Forester’s selling hammer mark”. This type of hammer mark was sometimes cut or engraved in various forms on the timber surface. The individual seller had many designs or symbols for the second hammer to detail the area and quality of the forest. The third hammer was the “Purchaser’s hammer mark”. This type was the company hammer or the buyer’s hammer. It bore the initials of the company such as “B.C.L.” for the Borneo Company Limited or “B.B.C.” for the Bombay Burmah Trading Corporation.<sup>457</sup>

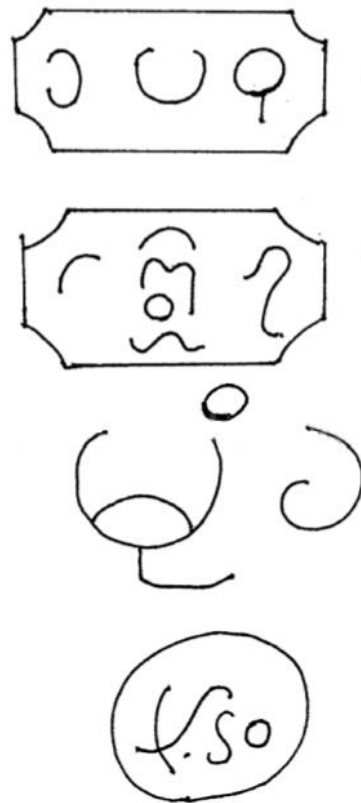
After the foundation of the Forest Department, at a time when teak companies did not buy teak logs but rather preferred to invest directly in forestry concessions, the number of hammers increased from three to four. According to Campbell, the employee of Siam Forest, the hammers “had to be imprinted on every single log. Firstly, the one bearing initials of the company; secondly, the one giving the year number; thirdly, the one giving the assistant’s number; and, lastly, the one denoting the classification”<sup>458</sup> After the teak logs had been documented and the stump fee paid, they were moved into a canal or river by elephant. It was required that the company representative and the Forest Department were present to witness all of these processes. These steps were the necessary protocol set-down by the Forest Department.

---

<sup>457</sup> Black, *Siam*, 3.

<sup>458</sup> Campbell, *Teak-Wallah*, 25.

Image 4.5 The Hammer Mark of a Burmese Merchant: the Hammer Mark of Phraya Uttakan Koson (พระยาอุดรการโกศล)



Source: The National Archives of Thailand. Ror 5 Mor 16.1/7 Hammer mark (ร 5 ม 16.1/7 ตราประทับไม้)

#### 4.4 From the Floating Point to the Duty Station

This work schedule of the teak business remained consistent because the floating process could only take place during the rainy season of northern Siam. During this season, the water level increases and rises high enough to facilitate the floating process.

Table 4.2 Average Distribution of Rainfall 1907–1927

January	11.1 Millimetres
February	4.4 Millimetres
March	33.8 Millimetres
April	45.8 Millimetres
May	154.7 Millimetres
June	147.6 Millimetres
July	171.1 Millimetres
August	223.4 Millimetres
September	229.6 Millimetres
October	115.8 Millimetres
November	49.6 Millimetres
December	9.1 Millimetres

Source: D. R. S. Bourke-Borrowes. *The Teak Industry of Siam*, p. 4.

In the absence of much solid information prior to the Chiang Mai Treaty, it is difficult to describe the floating process. All of the information available refers to the process after 1884. This was when the British Vice-Consul was established in Chiang Mai and it started to report back to London about the teak industry. The first volume of reports was published in 1891.<sup>459</sup>

In the first decade of the twentieth century, the total amount of logs floating through Bangkok and Moulmein decreased significantly because of new regulations controlling the size of an extractable teak tree and forbidding the harvest of teak saplings. The plan of the Forest Department was to preserve teak for long-term extraction and increase both the duty and royalty fees for teak logs. These measures reduced the average value of teak logs delivered in 1902 to under a 100,000 Pound Sterling.<sup>460</sup> Conversely, the number of logs floating down the Chao Phraya River increased significantly. The annual amount of teak logs that arrived in Bangkok reached 100,000 in 1903.<sup>461</sup>

---

<sup>459</sup> *Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1891 on the Trade of Chiengmai.*

<sup>460</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1905 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1906), 4.

<sup>461</sup> *ibid.*, 5.



#### 4.4.1 Floating and Rafting

The average travelling time for each teak log from the floating point in northern Siam to Bangkok via the Chao Phraya River and its tributaries was usually five to eight years. In some extraordinary cases, teak logs took twelve years to complete this journey because of low rainfall and inadequate water levels.<sup>462</sup> It took a very long time to float teak to Bangkok because of the extraordinary length of the river and low water levels in some years. The main rivers used for teak transportation before the logs reached the Chao Phraya River were the Ping River (600 kilometres), the Wang River (300 kilometres), the Yom River 550 (kilometres), and the Nan River 740 (kilometres).<sup>463</sup> If the length of the stream/s was included, the distance for floating was longer. For example, the Ping River has six small tributaries: Mae Chaem (แม่แจ่ม) (35 kilometres) Mae Tha (แม่ทา) (90 kilometres), Li (ลี่) (130 kilometres), Guang (กวัง) (105 kilometres), Mae Taeng (แม่แตง) (135 kilometres), and Tunc (ต๋น) (150 kilometres).<sup>464</sup>

Map 4.3 The Chao Phraya River and its Tributaries



Source: Wikimedia

<sup>462</sup> *Financial Times*, "Siam's Teak Industry: reduced export in 1899 from a deficient rainfall," September 1, 1900.

<sup>463</sup> Chusit Chuchat (ชูสิทธิ์ ชูชาติ), *Scorpion Ship Merchants of the Ping River (1296–1961 Ad.)* (พ่อค้าเรือหางแมลงป่อง นายฮ้อยหลวง ลุ่มแม่น้ำปิง (พ.ศ. 1839–2504)), Second Edition (Chiang Mai: Lanna Printing, 2006), 7.

<sup>464</sup> *ibid.*, 7–8.

The floating period for the forest in Salween area consumed less time because the tributaries here were shorter than the tributary rivers of the Chao Phraya. The rivers used for transporting logs in the Salween area were the Pai River (แม่น้ำปาย) and the Yuam River (แม่น้ำยวม), which were 180 kilometres and 251 kilometres respectively.<sup>465</sup>

Some forests also possessed complex geographical configurations that altered the time it took to transport teak logs. If the time taken moving teak from the felling position to the floating point is considered, the transportation of teak in forests such as the Mae Lan Forest consumed more time than the overall average. For forests without any irregularities or complexity, teak logs frequently became stuck and piled up because of low water levels and/or the configuration of the stream. These piles blocked the passage of new floating logs and caused collisions.<sup>466</sup> Not only did piles of logs delay the floating process, but these collisions also damaged the logs and reduced their quality, sometimes to the point that these would be rejected by the sawmill.<sup>467</sup>

Moreover, some teak logs became stranded on the riverbank.<sup>468</sup> As such, it was necessary for the owner to send people to monitor the progress of the logs, either to count the number of the stranded logs or to disentangle piles of teak logs stuck in the river. The disentanglement process required the use of elephants.<sup>469</sup> Floating teak logs were also at risk of being stolen because there was not any single police force patrolling the river. In particular, there was a chance of losing teak logs when they strayed into rice-fields or uninhabited areas. In such areas, teak thieves were able to steal logs and hide them from both the company and the Siamese authorities. As a result, the Siamese government instituted collaborative initiatives with villagers, who reported or returned the missing teak logs to their owner. The owner paid the salvage price of two Baht for a small log and four Baht for a big log<sup>470</sup> to the villager who reported or returned these logs. The result was positive: every year the companies paid

---

<sup>465</sup> Chusit Chuchat (ชูสิทธิ์ ชูชาติ), *Cow Caravan Merchant: The Pioneer of Trading in northern Thai village 1855–1960* (พ่อค้าวัวต่าง: ผู้บุกเบิกการค้าขายในหมู่บ้านภาคเหนือของประเทศไทย (พ.ศ. 2398–2503)) (Chiang Mai: Lanna Printing, 2002), 8.

<sup>466</sup> Black, *Siam*, 3.

<sup>467</sup> LMA CLC/B/123/MS27473 Bangkok branch, Siam: collected extracts from correspondence and reports concerning up-country timber deliveries (ie classification, selection and logging of teak), for the guidance of forest assistants. Compiled 1922.

<sup>468</sup> Black, *Siam*, 3; Campbell, *Teak-Wallah*, 66, 70.

<sup>469</sup> Black, *Siam*, 3–4.

<sup>470</sup> NAT Mor Ror 5 Mor 16.1/19 Changing Forest Concession Contracts with Companies and the Lao Princes asking for more Money (ม. ร. 5 ม 16.1/19 จัดการแก้ไขเรื่องสัญญาป่าไม้ที่ขัดข้องกับบริษัทต่างๆแลเจ้านายเมืองลาวเรียกเงินแก่บริษัท).

salvage money to villagers who brought the logs back.<sup>471</sup> Some critics, however, suspected the motives of the villagers; that is, they suspected that the villagers first stole the log and then later reported it for the salvage reward.<sup>472</sup> British diplomats disagreed with these criticisms after conducting some court investigations and a hearing regarding the theft of teak. The potential profit that a thief could make from the theft of teak was large enough to risk being captured and fined.<sup>473</sup> Some of the villagers who reported the whereabouts of missing logs were also hired by teak companies to work in rafting stations.<sup>474</sup>

During the 1890s, low rainfall in some years reduced the effectiveness of the teak floating process and profoundly changed the direction of the teak business. Low rainfall and consequent low water levels delayed the floating process and reduced the number of logs arriving in Bangkok in the years 1890, 1891, 1896, and 1897<sup>475</sup> (see Table 4.3).

The majority of teak merchants in the 1890s were Shan and Burmese who depended on credit from the British companies in Bangkok and Moulmein. The largesse of European companies and traders provided hope to these teak merchants. British companies financed extraction operations to ensure an adequate supply of teak. As investors, they could not wait too long for their investment to yield results. Furthermore, many of these companies had invested in sawmills<sup>476</sup> and, as such, needed a steady supply of teak logs for manufacturing. The late arrival of logs damaged their financial status, especially when one considers the costs sunk in prior investments. If these delays hurt the big companies, the consequences for small entrepreneurs were much more severe. Without a steady supply of logs, sawmills were forced to stop milling operations and the machines stood idle. Some British companies advanced financial credit to Burmese foresters for teak extraction,<sup>477</sup> but the result was unsatisfactory because of low water levels which, in turn, impeded the transportation of teak to Bangkok. To ensure a stable supply of teak, big companies like Bombay Burmah and the Borneo Company

---

<sup>471</sup> Campbell, *Teak-Wallah*, 59.

<sup>472</sup> NAT Mor Ror 5 Mor 16.1/19 Changing Forest Concession Contracts with Companies and the Lao Princes asking for more Money (ม. ร. 5 ม 16.1/19 จัดการแก้ไขเรื่องสัญญาป่าไม้ที่ขัดข้องกับบริษัทต่างๆแลเข้านายเมืองลาวเรียกเงินแก่บริษัท).

<sup>473</sup> FO 881/6721 SIAM: Despatch Court held by Vice-Consul W. Beckett at Nakonsawan to try Robberies of Teak Timber. Notification and Report. (Mr. de Bunsen).

<sup>474</sup> Campbell, *Teak-Wallah*, 59.

<sup>475</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiangmai*, 4.

<sup>476</sup> A. J. C. Dickson, "The Teak Industry," in *Twentieth Century Impressions of Siam: its History, People, Commerce, Industries, and Resources, with which is incorporated an Abridged Edition of Twentieth Century Impressions of British Malaya*, ed. Arnold. Wright and Oliver T. Breakspear (London: Lloyds Greater Britain Publishing Company, Ltd, 1908), 171.

<sup>477</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1900 on the Trade and Commerce of the Consular District of Chiangmai*, 8.

changed their business models in the 1890s. Instead of financing the extraction process and buying the teak logs from merchants in northern Siam, they took over the teak concessions of indebted teak merchants and directly approached the owners of the forest to obtain forestry concessions.<sup>478</sup>

Table 4.3 Full-Sized Teak Logs Arrivals in Bangkok, 1890–1897

Year	Number
1890	31,000
1891	11,000
1892	72,000
1893	73,000
1894	72,000
1895	65,000
1896	59,000
1897	31,000

Source: Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiangmai, p 4.

In the teak business, the floating season annually began around May or the final phase of summer in Siam. It ended in February or March of the next year. The floating system started when all teak logs were collected on the shore or bank of the water network between May and July.<sup>479</sup> It depended on the rainy season and amount of rainfall each year to provide adequate water levels to float the logs southward into the main rivers. Normally, the rainy season of Siam starts in the middle or the end of May and lasts until September.

However, the head offices of companies in Bangkok did not have fixed schedules for their concession areas in northern Siam. The forest managers in each area possessed a certain level of autonomy to manage resources within their territory. They also independently decided how to work their areas albeit with one condition; that is, to fell as many teak trees as possible and float them to Bangkok. The flexibility and adaptability of the working system in the private sector was a key factor of success. The decentralisation of administrative structures has been widely praised by studies in the field of business.<sup>480</sup>

<sup>478</sup> Pointon, *The Bombay Burmah Trading Corporation Limited, 1863–1963*, 34.

<sup>479</sup> Dickson, “The Teak Industry,” 172.

<sup>480</sup> Howard Cox and Stuart Metcalfe, “The Borneo Company Limited: Origins of a Nineteenth-Century Networked Multinational,” *Asia Pacific Business Review* vol. 4, no. 4 (1998): 61–62, 64–65; Stuart Metcalfe, “The Structure and Evolution of an Operational Network: The Borneo Company Ltd, 1850–1919,” *Asia Pacific Business Review* vol. 7, no. 2 (2000): 26–31.

#### 4.4.2 Teak Log Larceny

For the business community of Siam, the theft of teak was a familiar story. While the annual number of elephants stolen and recovered was meticulously kept by the British Vice-Consulate in Chiang Mai and published in an annual report by the British government, there was not even a rough estimate of the number of teak logs stolen during the floating phase. This was because teak logs were worth less than elephants and could be easily stolen.

Reports of systematic theft were publicly exposed by the pen of C. E. W. Stringer, a British diplomat travelling to Nan in 1888. During his travels, Stringer came across a large building in Chai Nat province. The building was equipped with a steam-powered sawmill. The owner was the son of a tax-farmer in Chai Nat. The theft of teak had damaged the sawmill's business activities and forced the owner to halt milling operations. In his report, Stringer states,

“[...] a large steam saw-shed there, and the engine and machinery were still in position, and appeared to be good, but no work had been done for some time, probably in consequence of orders from Bangkok, as the presence of saw-sheds along the banks tends to injure the trade by affording facilities for the sale of stolen logs.”<sup>481</sup>

Although there is no data regarding business investments in 1880s, a steam sawmill outside of Bangkok would have been very expensive endeavour. The frequent theft of teak logs certainly damaged small entrepreneurs such as this example from Chai Nat. Additionally, the same report found stolen teak logs in Chinese hand sawmills located in the nearby area.<sup>482</sup> The failure of the Siamese government to solve the problem of teak theft<sup>483</sup> demoralised people who had invested faithfully.

The theft of logs was the most common crime that occurred in the teak industry and it happened frequently during the floating period. However, the frequency and number of stolen logs varied depending on the rivers. It occurred often in the Ping River and the Yom River area above Pak Nampho. Similarly, in Tak province, the area next to the Ping River, many large-scale heists occurred. The sudden rise of water levels in just a single night could cause the logs to float away to an unknown location and it was impossible to secure all of the missing logs. Some stolen logs were sold to sawmills in the same area or cut by the thieves

---

<sup>481</sup> Stringer, C. E. W., *Report: By Mr. C.E.W. Stringer of a Journey to the Laos State of Nan, Siam. Presented to both Houses of Parliament by Command of Her Majesty, April, 1888*, 2.

<sup>482</sup> *ibid.*, 3.

<sup>483</sup> FO 881/6721 SIAM: Despatch Court held by Vice-Consul W. Beckett at Nakonsawan to try Robberies of Teak Timber. Notification and Report. (Mr. de Bunsen).

themselves. Other stolen teak logs were made into rafts and resold in the Pak Nampho area.<sup>484</sup> A sophisticated thief would burn or destroy the hammer mark and hide the teak deep in the forest. This method was popular amongst thieves in the Yom River area before the teak logs reached Sawankhalok (สวรรคโลก). The thieves then used kerosene to burn the hammer mark.<sup>485</sup> After one or two years, these teak logs were then made into a raft and floated down to Pak Nampho or Chai Nat for sale; the delay between the theft and sale meant that there was less chance of being intercepted by the teak owner.<sup>486</sup>

Organised bands of thieves also stole teak on a regular basis. They even had a designated gang member who was in charge of sales and distributing small amounts of logs to middlemen. For example, a report in 1896 states that Chin Cheng, a Chinese teak merchant, purchased a stolen log from three Siamese subjects in Tak province.<sup>487</sup> Arresting the middleman was common enough, but opportunities to catch the whole gang were few and far between. The inability of Siamese authorities to curtail the theft of teak demonstrates that the mere introduction of a law specifically related to the matter was not effective in itself. There were two factors accounting for the inability of the Siamese authorities to subdue the theft of teak. First, the preferred method of transportation rendered the product inherently vulnerable to theft. In essence, teak logs were left to float down a river for many hundreds of kilometres unsupervised, so it is unsurprising that the temptation to steal proved too much for many. This was especially the case during the floating period when there was an abundance of teak in the rivers. Second, stolen logs could easily be hidden somewhere in dry zones while awaiting further transportation.

The theft of teak in Tak province was not only notorious, but somewhat unusual as it directly involved a Siamese corrections officer. The 1928 British Consular Travel Report by H. N. Newman describes how the prison superintendent in Tak province made use of the penal labourers to steal teak logs during the floating phase. The superintendent of prison used the stolen logs as raw material and convicts as labour in order to manufacture furniture.<sup>488</sup> Prisoners were used to saw teak logs into timber boards.<sup>489</sup> Nevertheless, this case was

---

<sup>484</sup> Black, *Siam*, 5.

<sup>485</sup> *Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1891 on the Trade of Chiangmai*, 3.

<sup>486</sup> Black, *Siam*, 5.

<sup>487</sup> FO 881/6721 SIAM: Despatch Court held by Vice-Consul W. Beckett at Nakonsawan to try Robberies of Teak Timber. Notification and Report. (Mr. de Bunsen).

<sup>488</sup> FO 371/13264 Siam. Code 40 Files 849 - 5768.

<sup>489</sup> Jacob T. Child, *The Pearl of Asia* (Chicago: Donohue, Henneberry and Co., 1892), 136.

beyond the limit because of the systemic theft of teak logs owned by a private company. These products were sold in the local market in Tak province. It was unclear where the profit from this furniture business went. A junior officer from the Forest Department in Tak discovered the prison manufacturing scheme, as well as logs bearing the hammer stamp of a teak company. He delivered the information to the company in question and asked them to inspect the logs to ascertain ownership. The situation then changed in an unexpected way. The provincial governor was party to the scheme and took a cut of the profit. The governor ordered the junior officer in the Forest Department to be whipped as a punishment.

It was no coincidence that the theft of teak logs occurred more often in the Ping River and the Yom River than in any other area of northern Siam. These two rivers were the most important rivers for teak floating and rafting operations.<sup>490</sup> The high density of teak trees with a large girth floating in the Yom River area was another reason for this increased rate of theft (Table 4.4). The theft of teak in the Ping River area of Tak province, however, differed from the Yom River. It was not related to the density of teak within the region, but the existence of criminality in Tak province. In addition, teak rafts floated through the Ping River frequently broke into individual logs,<sup>491</sup> which then became targets for thieves.

Table 4.4 Estimated Numbers of Teak Trees with five Inches Girth and above in five River Drainage Areas per square mile

Yom River	361 trees
Wang River	173 trees
Ping River	86 trees
Mekong River	85 trees
Nan River	26 trees

Source: D. R. S. Bourke-Borrowes. *The Teak Industry of Siam*, p. 10.

The theft of teak not only affected the owner of the stolen logs, but it also diminished the ability of Siam to support small-sized businesses outside of Bangkok. In order to retrieve lost or stolen teak logs, British companies employed search teams twice a year in Tak and Chai Nat consisting of staff members and elephants. This type of procedure recouping teak logs was impossible for small teak merchants because of their limited budgets.<sup>492</sup>

However, it was difficult to retrieve stolen logs without the presence of foreign diplomats. A case of theft in 1893 is illustrative of this. An Indian French subject, Madeen Picha, and his

<sup>490</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 35.

<sup>491</sup> *ibid.*, 43.

<sup>492</sup> Black, *Siam*, 5.

subordinates stole some teak logs from the Borneo Company. To enforce the law and prove the accusations against the French subject, British and French diplomats inspected Madeen Picha's house. They found the teak logs of the Borneo Company in the courtyard and indicted Madeen Picha for theft. Although the French diplomat accepted the Borneo Company's claims, Madeen Picha strongly denied the accusation and claimed ownership of the logs. However, the story ended in a very tragic way. Madeen Picha attacked the Borneo Company's agent, then the Borneo Company's bodyguard struck back and stabbed Madeen Picha to death.<sup>493</sup>

Correspondence to the Foreign Office in London expressed the opinion that the Siamese legal system was ineffective when it came to the issue of stolen teak because it lacked the proper mechanisms to handle the problem. The Siamese governors hesitated to sentence the thieves to prison. Instead, they frequently preferred to fine the culprit double the price of each stolen teak log. As mentioned above, the theft of teak was often conducted by several gang members rather than an individual. In other words, they usually stole as many logs as possible, but often they were caught with just one log. Although many buyers recognised the culprits, the Siamese courts decided the cases based on the evidence of a single log. The profits from undetected logs, concealed in the gang's courtship that the Siamese legal fees and fines. The dysfunction of the Siamese courts drew British diplomats into the courtroom. The presence of a British diplomat alongside the Siamese governor in a mixed court proved advantageous to British companies. British diplomats recommended imprisonment in some cases because they felt that such sentences reduced the prevalence of theft.<sup>494</sup>

Before teak logs entered the duty gate for measurement and counting at the Pak Nampho Duty Station, each company collected their logs at a designated rafting station. Independent rafting men were available for hire in vicinity of the station. An oversupply of labour was common during the rafting season and it was necessary for the raft men to compete for the jobs offered by the teak companies.<sup>495</sup> The rafting process included making the raft and the task was completed when each raft passed through the duty station. There were four rafting stations covering four rivers where teak logs were collected and made into rafts: the Uttaradit

---

<sup>493</sup> *Straits Times Weekly Issue*, "Dispute over Logs in Siam," December 19, 1893.

<sup>494</sup> FO 881/6721 SIAM: Despatch Court held by Vice-Consul W. Beckett at Nakonsawan to try Robberies of Teak Timber. Notification and Report. (Mr. de Bunsen).

<sup>495</sup> Campbell, *Teak-Wallah*, 59.



station for the Nan River, the Sawankhalok station for the Yom River, the Banna station for the Ping River, and the Tak station for the Wang River.<sup>496</sup>

The rafting season normally began in June and the water level increased in July and August. The raft men temporarily stopped rafting activities in September because the high speed of the water could endanger their lives and the water in some areas was too deep to fathom. They resumed their activities again during the last three months of the year as water levels gradually subsided.<sup>497</sup>

When teak logs reached the rafting station, teak logs had holes punched out at each end. People involved in the teak business called these holes the “Wood Nose”. The raft men tied 150 logs together; this was both the minimum and standard amount for a single raft.<sup>498</sup> However, rafts comprising of 160 logs were also common.<sup>499</sup> The total number of log utilised for a raft depended on the size of the logs. Some raft made of small logs contained as many as 350 logs.<sup>500</sup> Sometimes in the Ping River area rafts constructed of small logs consisted of as many as 400 or 450 logs.<sup>501</sup> The staff at Pak Nampho expected the rafts to reach the duty station from some time in winter until the middle of summer, and then from September until March of following year. The company and the Forest Department waited for the final wave of logs to arrive between the 20<sup>th</sup> of January and the 17<sup>th</sup> of March each year.<sup>502</sup>

The most important factor for success during the floating process was the water level. As such, annual rainfall was a major factor that correlated with the number of logs that arrived each year. According to the available data, rainfall could predict the number of teak logs delivered to Bangkok. For example, the year 1897 was considered a good year because there

---

<sup>496</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1902 on the Trade and Commerce of the Consular District of Chiangmai*, 7.

<sup>497</sup> Black, *Siam*, 4.

<sup>498</sup> NAT Mis 6/7 Dusit Panichphan. Lecture on Royal Forest Department and Thai Forest (บ 6/7 ดุสิต ปานิชพัฒน์. คำบรรยายเกี่ยวกับกรมป่าไม้และป่าไม้ของไทย).

<sup>499</sup> Campbell, *Teak-Wallah*, 59.

<sup>500</sup> NAT Mis 6/7 Dusit Panichphan. Lecture on Royal Forest Department and Thai Forest (บ 6/7 ดุสิต ปานิชพัฒน์. คำบรรยายเกี่ยวกับกรมป่าไม้และป่าไม้ของไทย).

<sup>501</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 36.

<sup>502</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiangmai*, 4.

was a sufficient amount of rainfall. It floated the logs accumulated from 1892 to the duty station.<sup>503</sup>

Table 4.5 Rainfall and the Number of Teak Logs that arrived in Bangkok

Year	Rainfall (Inches)	Teak Logs arrived in Bangkok
1903	53.77	108,530
1904	59.38	135,140
1905	62.16	146,753
1906	30.90	86,066
1907	53.11	108,398

Source: Diplomatic and Consular Reports. Report for the Year 1913 on the Trade and Commerce of the Consular District of Chiangmai, p. 4.

One drawback of the floating method is that it affected the quality of teak, especially on the surface of the wood. When teak logs arrived in Bangkok, the wood surface was damaged for many reasons. The average time for transportation was five to eight years. As such, the logs were exposed to a variety of different environmental conditions oscillating between being very wet and very dry. This, in turn, could damage the logs before they arrived at the sawmills in Bangkok. Some defects could be easily spotted. These were fixed by either trimming the log or cutting out the defects. However, the main reason that teak logs were degraded during the floating process was because of shipworm infestations (*Teredo navalis*). This worm is prevalent in some areas of the Chao Phraya River.<sup>504</sup> The people who worked in teak companies in Bangkok called the shipworm attacks on teak logs “the skeleton in the cupboard” or “the teredo in the coffin, floating up and down the river.”<sup>505</sup> These expressions allude to the fact that the insects destroyed the logs while living inside them. Andrew Ernest, a staff of Bombay Burmah Trading Corporation in Bangkok, lamented the destruction wrought by the shipworms here:

“Bangkok itself does not offer safe storage for logs, except quite temporarily, owing to their vulnerability to attack of the teredo which finds its way upriver as far as Pakret, about 5 miles above Bangkok, and even farther in years when there is an absence of heavy floods from rises in the Upper reaches of the Meenam. There are three fairly common kinds of the mollusc, two of which thrive in brackish water and one in fresh water. The teredo is the most destructive and the holes which it bores into Logs, although small on the outside, increase considerably towards the heart of Logs.”<sup>506</sup>

<sup>503</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1897 on the Trade and Commerce of the Consular District of Chiangmai*, 4.

<sup>504</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 47.

<sup>505</sup> Andrews, *The Bombay Burmah Trading Corporation Limited in Burmah, Siam and Java: Teak, the Cutting and Marketing*, vol. 2, 106.

<sup>506</sup> *ibid.*

The Forest Department used five years as the standard mean time for teak logs travelling from the floating point to the duty station in Pak Nampho.<sup>507</sup> In other words, the teak extraction and floating process took many years before the teak logs reached sawmills and were converted into the final product. An average of five years was just an estimate of the time that it took teak logs to reach the duty station; that is to say, teak was a long-term investment as investors could not hope to make a profit immediately.

All of the logs that arrived in Bangkok needed to be inspected before the milling process. After the latter process, the finished produced was exported to global markets. In short, the drawn out nature of producing finished teak demanded that a large amount of capital be tied up throughout the process. These financial demands were a formidable barrier to entry into the teak industry. In practice, these barriers impeded the ability of the small entrepreneurs to compete within the industry. As Dickson surmises, those “[...] who engage in the business, more especially in the forestry branch, especially require to be the possessors of very long purses”.<sup>508</sup>

Nonetheless, the mode of transportation from the extraction point to the floating point developed from using only elephants to a combination of modern technologies such as chutes, motor vehicles, railways, and animal haulage systems, such as elephants or water buffalos. The utilisation of novel techniques like these increased the efficiency of work in the forest by increasing the speed and number of teak logs transported to sawmills for processing. The transportation of teak logs over long distances between the forest and the floating point was made possible by the adaptation of new technology. Despite the vagaries and inconsistency of rainfall and the nuisance of theft, however, these methods never substituted the floating method. The floating method was the most economical mode of transportation to move teak from the forestry concessions to Bangkok. The teak floating method remained unchanged for the whole period of the teak business. There were no efforts to improve or substitute the floating process with new methods. Thus, the floating season occurred every year until the construction of the Bhumibol Dam (เขื่อนภูมิพล formerly Yanhi Dam) on the Ping River in Tak province in 1958. This permanently stopped the decades-old floating process.

The expansion of railways from Bangkok to northern Siam was completed when it reached Chiang Mai in 1922. Research shows that the railways significantly changed the economic

---

<sup>507</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 23.

<sup>508</sup> Dickson, “The Teak Industry,” 172.

character of northern Siam and drastically changed the politico-economic relation between the core and the northern region. The data suggests that railways increased the volume of transportation of some specific commodities, for instance rice and salt, in bulk numbers. The majority of timber transported by railway was non-teak timber.<sup>509</sup> The traditional system of trading caravans was overtaken by railways,<sup>510</sup> whereas ship merchants completely disappeared.<sup>511</sup> The new railway played a small part vis-à-vis the transportation of teak because of the service fees. While the railway stations were located in urban areas, the extraction sites were in the forests. The increasing speed of transportation did not compensate for the freight paid by the company. For example, the concession area in Lamphun was located near the railway station, teak logs were loaded onto the railways and unloaded at the Lamphun train station. There are no records concerning the long distance transportation of teak on railways so it seems that it was just a complementary mode of transportation, while the floating method remained predominant.<sup>512</sup>

#### 4.5 Teak Floating in the Salween River

Teak transportation in the Salween River was the simplest way because of the fast speed of its current. During the rainy season, the navigable area of the Salween River is shorter in length than the Chao Phraya River, but it has many dangerous rapids because of its shape. In 1863 and 1864, a British military expedition led by Lieutenant Gideon Colquhoun Sconce described the general character of the Salween River as rapid and deep. From his writings, most merchants avoided water transportation and relied on the caravan trading system. His expedition similarly decided to follow the land route.<sup>513</sup> Although merchants avoided journeying along the Salween River, it was suitable for floating teak logs.

Teak concessions in Mae Hong Son province used the Salween River for the floating process. The river is straighter than the Chao Phraya River and its tributary system. The Salween River flows very fast and strong because there are fewer riverbanks. Therefore, it was crucial to reduce the speed at which teak travelled. During the teak floating season, there was a rope

---

<sup>509</sup> Ichiro Kakizaki, *Laying the Tracks*, 198–203.

<sup>510</sup> Chusit Chuchat (ชูสิทธิ์ ชูชาติ), *Cow Caravan Merchant*, 69–74.

<sup>511</sup> Chusit Chuchat (ชูสิทธิ์ ชูชาติ), *Scorpion Ship Merchants of the Ping River (1296–1961 Ad.)* (พ่อค้าเรือหางแมลงปอง นายฮ้อยหลวง กลุ่มแม่น้ำปิง (พ.ศ. 1839–2504)), 83–84.

<sup>512</sup> Ichiro Kakizaki, *Laying the Tracks*, 199.

<sup>513</sup> Gideon Colquhoun Sconce, *Journal of the Salween Surveying Expedition* (Calcutta: Military Orphan Press, 1865), 5.

station in Kyodan, a place about 110 kilometres north of Moulmein.<sup>514</sup> At Kyodan, a layer of bamboo or rattan nets was installed across the river<sup>515</sup> which served as a teak depot. Reducing the floating speed was not the main intention of this installation but, rather, it was to prevent logs floating into the Gulf of Martaban. Kyodan also functioned as a raft station. Teak logs were collected in Kyodan and made into rafts. Rafts constructed from teak logs then travelled further to Kado.<sup>516</sup> For teak extracted from Siamese territory and delivered through the Salween River, the company paid the duty at the Kado Duty Station. Kado is located in Amherst district near the city of Moulmein. There were three Deputy-Conservators of Forests in Amherst district in Ataran, Thaungyin, and Kado.<sup>517</sup>

The practices of the Siamese government were complicated. The Forest Department assigned selected English speaking officers to work at the Kado Station – the government of Siam sent the letter to ask for the permission from the British Indian government. The representative from the Forest Department was expected to cooperate with the Forest Service in Burma. This appointment also represented the Siamese government in court matters pertaining to teak. Not only was the representative assigned by the Siamese government, but financial practices were different. After the representative of the Forest Department at Kado Station counted the total number and calculated the total value of the teak logs, the Siamese government required the company to pay the duty to the government's account through HSBC in Rangoon or Calcutta. HSBC provided a special service for the Siamese government: after the company paid the duty, HSBC would then submit a report of payment to the Siamese government in Bangkok.<sup>518</sup>

During the early periods of teak production, the origin and status of the teak logs that reached the Kado Duty Station were unclear. No one knows the exact origin of these teak logs. Regardless of the true point of origin, Siamese and British subjects working as sub-contractors simply reported it as Zimme (the Burmese phonetic reckoning of Chiang Mai). This was because they obtained their concessions from the Prince of Chiang Mai. All of the logs at Kado were registered as coming from Chiang Mai, though one piece of evidence

---

<sup>514</sup> Dietrich Brandis and James S. Gamble, "Teak," in Hugh Chisholm, *The Encyclopædia Britannica*, vol. 26:485. *Directory for Bangkok and Siam* (Bangkok: Bangkok Times Press, 1914), 131.

<sup>515</sup> George John Younghusband, *Eighteen hundred miles on a Burmese tat: through Burmah, Siam, and the eastern Shan States* (London: Allen & Co., 1888), 8.

<sup>516</sup> James George Scott, "Salween River," in Hugh Chisholm, *The Encyclopædia Britannica*, Vol. 24:104.

<sup>517</sup> *The Imperial Gazetteer of India, Vol. 5 Abazi to Arcot* (Oxford: Clarendon Press, 1908), 301.

<sup>518</sup> NAT FA 0301.1.10/7 Payments of Royalty by Bombay Burma Trading Corporation at Rangoon.

suggests that some of these logs were felled in Tak, Mae Hong Son, and Thaungyin.<sup>519</sup> The Forest Department considered this practice incorrect and tried to solve the problem. The Forest Department did not have the correct statistics for each concession area because of ambiguities of the hammering process. The Forest Department planned to solve the problem of unsystematic reporting as soon as possible. The problem was easier than the Forest Department expected; the department simply provided the hammer for each concession and this denoted the log's origin.<sup>520</sup>

#### 4.6 Teak Floating in the Mekong River

The French Asiatic Company, the only French company in the teak business, encountered problems while floating teak logs. It was more severe than that faced by British companies because the company's concession was located in Chiang Khong district.<sup>521</sup> The company planned to float an average amount of 5,000 teak logs from Chiang Khong to Saigon every year. The British India government was nervous about a rumour that the French Royal Navy was trying to control the supply of teak logs for the purpose of ship-building.<sup>522</sup> A British diplomat from Bangkok conducted an inspection mission in French Indochina to ascertain the situation. An anonymous reporter sent a report back to London and Calcutta stating:

“It is said that about 5,000 logs of teak annually reach Saigon, but I am inclined to believe the estimate is exaggerated. It is impossible to trace how much teak, if any, is exported annually from Saigon as the statistics for all kinds of timber are, in the annual return of the Custom of Indo-China, are given under the same heading.”<sup>523</sup>

He also reported about the difficulty of floating as follows:

“Logs, I was told, are not released except along the stretch of calm water between Wiengchan and Kemmarat. From the point to Phnompenh some 200 miles further south, they have to be followed up singly and freed from the numerous rocky obstacles in their path. As to the danger of damage and loss I cannot speak. I descended the river in the dry season, and did not see a single log of teak until far below Khong, where of course the rapids and cataracts have ceased.”<sup>524</sup>

While the report from the Indian Office Record estimated the number of teak logs that were floated by the French company through the Mekong River, statistics from the Forest

---

<sup>519</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1897 on the Trade and Commerce of the Consular District of Chiengmai*, 4.

<sup>520</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 32.

<sup>521</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1913 on the Trade and Commerce of the Consular District of Chiengmai*, 8.

<sup>522</sup> Smith, *Teak in Siam and Indo-China*, 20.

<sup>523</sup> IOR/L/PS/11/57 P2563/1913 Siam: transport of teak to French Indo-China.

<sup>524</sup> *ibid.*

Department corresponded with those planned by the French Asiatic Company. In 1912/1913, French Asiatic successfully floated 4,864 teak logs to Saigon. Similarly, in 1913/1914, the company floated 5,037 teak logs to the same destination<sup>525</sup> (See Table 4.6 below).

---

<sup>525</sup> Bourke-Borrowes, *The Teak Industry of Siam*, 26.

Table 4.6 Number of Teak logs extracted floating from northern Siam to Bangkok, Moulmein, and Saigon from, 1896–1926 (excluding rejections)

Year	Number of teak logs floated down the Chao Phraya River to Bangkok	Number of teak logs floated down the Salween River to Moulmein (Burma)	Number of teak logs floated down the Mekong River to Saigon (Indochina)
1896		48,882	-
1897	67,932 (the total sum for 3 years)		-
1898		31,698	-
1898–99	107,459	17,018	-
1899–00	78,880	16,627	-
1900–01	118,691	31,645	-
1901–02	75,876	22,015	-
1902–03	91,315	26,671	-
1903–04	107,967	11,352	-
1904–05	13,514	14,143	-
1905–06	146,753	14,336	-
1906–07	86,304	7,052	-
1907–08	108,406	16,562	-
1908–09	121,367	24,360	-
1909–10	99,371	22,559	-
1910–11	107,802	22,276	-
1911–12	94,549	12,165	291
1912–13	80,502	13,076	4,864
1913–14	104,897	12,382	5,037
1914–15	60,397	10,147	1,969
1915–16	76,126	13,709	4,946
1916–17	87,142	10,609	4,482
1917–18	105,081	1,659	5,061
1918–19	87,988	20,763	7,109
1919–20	89,449	16,548	17,445
1920–21	102,715	19,387	7,044
1921–22	76,476	22,396	8,183
1922–23	77,544	13,975	7,726
1923–24	10,085	25,575	14,503
1924–25	96,084	13,340	6,948
1925–26	96,448	16,950	4,997
Total Number	2,789,511	564,808	100,605

Source: D. R. S. Bourke-Borrowes. *The Teak Industry of Siam*, p. 26.



## 4.7 The Teak Manufacturing Process

### 4.7.1 The Sawmill

After paying at the duty station, the owner took the logs to the designated destination: the sawmill. Here, teak logs were classified and then refined into the finished product before being exported to global markets. Although the milling process and sawmill were important parts of the teak business, the exact nature of this work has not been documented in Thai documents. Most of this information is business documents such as company reports or business directories, and memoirs. The function of sawmills and the major roles that these played in the teak business will be explained in the following section.

When the teak logs arrived at the sawmill in Bangkok, staff categorised these according to quality, size, length, and shape. This began with the hammer mark with which each teak log was branded before the floating process commenced. The mark on each log was the preliminary tool utilised during the classification process. Forest staff recorded each log as:

“[...] first, second or third class. Thus, on a log reaching Bangkok, those in the saw-mill could tell at a glance its quality, the name of the forest assistant who had classified it, and the year it had been put into the jungle stream.”<sup>526</sup>

In other words, the hammer mark was selected by the staff who supervised the felling process and this judgement was based on the outside appearance of each log.<sup>527</sup> However, staff in the forest sometimes lacked the necessary expertise to classify teak logs accurately. Thus, the final decision regarding the classification of teak logs was the responsibility of the sawmill staff; that is to say, ultimately, it was their responsibility to identify the best quality logs and categorise the rest of those comprising the raft according to quality. This task required a special skill as “[...] the allocation of which to their proper classes for conversion in order to facilitate and expedite the work of the sawyer calls for not a little expert knowledge and practical judgement”<sup>528</sup>

The sawmill, as an intermediary node in the teak business, helped to connect Southeast Asia’s hinterlands with global markets. Since the 1880s, smaller Chinese hand-mills had existed in

---

<sup>526</sup> Campbell, *Teak-Wallah*, 25.

<sup>527</sup> LMA CLC/B/123/MS27473 Bangkok branch, Siam: collected extracts from correspondence and reports concerning up-country timber deliveries (ie classification, selection and logging of teak), for the guidance of forest assistants. Compiled 1922.

<sup>528</sup> Dickson, “The Teak Industry,” 173.

northern Siam, which supplied the domestic market with their products.<sup>529</sup> The foreign-owned sawmills were located in Bangkok following investments from foreign companies in the 1880s and 1890s. In 1880, the Borneo Company was the only foreign company that operated its own sawmill.<sup>530</sup> Although no specific dates are available, most sawmills in Bangkok were erected in the 1890s. Besides those of the Borneo Company, there were also the sawmills operated by Kim Seng Lee, S. Cardu & Co.,<sup>531</sup> and the Bombay Burmah Trading Corporation.<sup>532</sup> The youngest sawmill focused on the teak business was built in 1898<sup>533</sup> and registered as the Denny, Mott & Dickson, Ltd (hereafter DMD).<sup>534</sup> This sawmill was the joint-venture between Louis T. Leonowens, Ltd and DMD. While Louis T. Leonowens, Ltd handled the extraction and the floating of teak logs, including sales and marketing, DMD managed work at the sawmill.<sup>535</sup> There were nine sawmills in Bangkok in 1914<sup>536</sup> (see Table 4.7). An inspection tour by Franklin Smith, a United States Commercial Agent in 1915, however, only reported on seven sawmills in Bangkok.<sup>537</sup> Nevertheless, Smith did not provide the names of these sawmills, so it is likely that he only inspected the sawmills possessing the capability to export their products to foreign markets.

All of these sawmills possessed similar attributes in terms of location and the technology used in the mill. First, they were located on the Chao Phraya River network because teak rafts demanded a spacious area or wide waterway for transportation purposes. Second, each sawmill had its own wharf with a crane installed for unloading teak logs and moving them into the mill.<sup>538</sup> Third, all of the sawmills employed modern machinery, European engineers, and up to a thousand labourers.<sup>539</sup>

In 1914 six sawmills were specifically located on the Chao Phraya River, of which five of were European owned. The other three sawmills were located on the Samsen Canal

---

<sup>529</sup> Ingram, *Economic Change in Thailand, 1850–1970*, 105.

<sup>530</sup> *Siam Directory 1880* (Bangkok, 1880), 94–96.

<sup>531</sup> *The 1894 Directory for Bangkok and Siam*, 146, 154–56.

<sup>532</sup> Pointon, *The Bombay Burmah Trading Corporation Limited, 1863–1963*, 32.

<sup>533</sup> Dickson, “The Teak Industry,” 175.

<sup>534</sup> *The Siam Directory, 1912*, 2nd (reprinted) (Bangkok: White Lotus, 2005), 138.

<sup>535</sup> Smith, *Teak in Siam and Indo-China*, 13.

<sup>536</sup> *Directory for Bangkok and Siam*, 316.

<sup>537</sup> Smith, *Teak in Siam and Indo-China*, 10.

<sup>538</sup> Dickson, “The Teak Industry,” 173.

<sup>539</sup> W. A. Graham, *Siam: a Handbook of Practical Commercial and Political Information*, 3rd ed., 2 vols. 2 (London: Morning, 1924), 90.

(คลองสามเสน) which was connected to the Chao Phraya River and had a port to unload teak logs.<sup>540</sup> These latter three sawmills were owned by Chinese merchants.

Table 4.7 Sawmills in Bangkok in 1914 and their Locations.

West side of the Chao Phraya River	East side of the Chao Phraya River	Samsen Area (the Samsen Canal)
Bombay Burmah Trading Corporation	Borneo Co., Ltd. East Asiatic Co.,	Kim Seng Lee & Co. Guan Huat & Co.
Louis T. Leonowens, Ltd. Wing Seng Long & Co.	Siam Forest Co. Ltd.	Lam Sam

Source: Directory for Bangkok and Siam 1914, p. 316.

The number of sawmills in Bangkok did not change for almost three decades until the end of the First World War. During this time, only the Siam Forest Company temporarily halted its milling activities in 1912 and 1913, while the company was constructing a system of railways in the Mae Chun Forest. The company sold all of its teak logs to Louis T. Leonowens Ltd. at this time. However, the company decided to restart sawmill operations in 1915<sup>541</sup> due to a wartime surge in demand for teak and following the completion of the railway project in the concession area. The most prominent change in the sawmill business during the 1910s was the bankruptcy of Kim Seng Lee in 1918, but this did not affect the teak business in general (for details see chapter 6).

The First World War not only affected the operation of sawmills in Bangkok, but also the flow of teak to the global market. During the 1920s, the major sawmills processed more than 100,000 tons per annum accounting for every type of teak timber product. 85 per cent of processed teak was exported, with the remaining 15 per cent sold in the domestic market.<sup>542</sup> The number of sawmills by nationality changed a little following the end of the Great War as

<sup>540</sup> Pranee Klam-som (ปราณี กล้าส้ม), *Bangkok's Old Quarters Vol. 2* (ย่านเก่าในกรุงเทพฯ เล่ม 2) (Bangkok: Maung Boran, 2006), 167.

<sup>541</sup> Smith, *Teak in Siam and Indo-China*, 13–14.

<sup>542</sup> Graham, *Siam*, 90.

one French company invested in a sawmill in 1924. This is not the first sawmill registered as French, however; Lam Sam was the first sawmill that operated as a “French subject”.

#### 4.7.2 Sawmill Technology, Adaptability, and the Finished Product

A report written by a United States agent on the machinery market in Siam, provides insight regarding the overall picture of how industrial machinery was employed and, more specifically, the machinery used in the timber business. The industries in which machines played an integral role were the rice industry, the timber industry, and the tin industry. However, there were several types of machine used for specific purposes. The dredging machine employed in the tin mining industry, for instance, was more sophisticated than the traditional approaches to mining and helped to increase productivity. In comparison the most important export commodity of Siam, rice, did not rely on any machines during the harvest phase. Nonetheless, during the processing stage the rice-milling machine played a significant role in optimising the industry’s export sector.

Indeed, it was difficult to compete in the export market without rice-milling machines. In the rice industry, Chinese merchants who had access to such modern machinery gained a competitive advantage. By end of the First World War, non-European merchants faced difficulties accessing rice-milling machines; in short, not all Chinese ricemills could afford to invest in steam mill machines. Shortly after the First World War, a report from the United States Department of Commerce documented that Chinese workshops in Bangkok had the ability to construct rice-milling machines with simple structures. However, there are no available records detailing the actual number of rice-milling manufactured by the Chinese mechanics in Bangkok.<sup>543</sup> The technology used to control the rice trade, which had previously been monopolised by European merchants, thus became widely available to small rice merchants. This development changed the dynamics of Siamese rice trade as Chinese entrepreneurs were able to compete on par with European merchants. As a result, European rice merchants disappeared from the business less than a decade after the First World War.

---

<sup>543</sup> Don Carroll Bliss, *Industrial Machinery Market in Siam* (Washington: United States Government Printing Office, 1930), 16.

Indicatively, while there were 47 ricemills in Bangkok before the First World War in 1912,<sup>544</sup> this number rose to 66 in 1919 and jumped to 128 in 1929.<sup>545</sup>

The development and adaptation of machinery in the teak industry did not follow the same direction as the rice trade. Kim Seng Lee, the most important Chinese company in the teak business, appeared in 1894.<sup>546</sup> Kim Seng Lee was the only Chinese company that operated both rice and saw mills<sup>547</sup> before the Siamese government established the Forest Department in 1897. The other two Chinese sawmills, Lam Sam and Wing Seng Long, had access to machines similar to their European counterparts as early as the 1900s. These companies erected sawmills in 1901 and 1905 respectively.<sup>548</sup> Technological barriers were not a major problem in the teak industry as by the 1920s all sawmills possessed similar kinds of milling machines.<sup>549</sup>

Thus, each company offered similar products in terms of pattern and quality. These companies categorised their products according to teak quality. The companies divided the product into two main classes: the European Class for premium quality and the Indian Class for lower quality. These two classes existed in all five European companies, although a mid-range level of quality existed also, it was less common. The Siam Forest Company and the Bombay Burmah Trading Corporation named this mid-range product Crown quality. The Siam Forest Company and Danish East Asiatic labelled Indian Class teak as “Eastern quality” (see Table 4.8).

---

<sup>544</sup> *The Siam Directory, 1912*, 137–138.

<sup>545</sup> There were many factors that contributed to the collapse of European rice-mill businesses. The accessibility to the modern rice-mill machine was only one factor that precipitated this. See Pannee Bualek (พรรณณี บัวเล็ก), *The Characteristics of Thai Capitalists between 1914–1939*, 112. Thanom Tana (ถนอม ตนะนา), “Rice Mills operation in Central Thailand, 1858–1938 (กิจการโรงสีข้าวในที่ราบภาคกลางของประเทศไทย พ.ศ. 2401–2481)” (Master of Arts, Silpakorn University, 1984), 112–119.

<sup>546</sup> *The 1894 Directory for Bangkok and Siam*, 146.

<sup>547</sup> *ibid.*, 145–147.

<sup>548</sup> Dickson, “The Teak Industry,” 179–181.

<sup>549</sup> Pointon, *The Bombay Burmah Trading Corporation Limited, 1863–1963*, 72.

Table 4.8 The Standard Teak Products offered by European Companies

Siam Forest Company Ltd.	Louis T. Leonowens Ltd.	Borneo Company Ltd.	East Asiatic Company	Bombay Burma Trading Corporation
No. 1 square Called Europe quality. [Intermediate] square Called Crown quality. No. 2 square Called selected India. No. 3 square Called No. 1 India. No. 4 square Called No. 2 India. No. 1 plank Called Europe quality. No. 2 plank Called Eastern quality.	No. 1 square Called 1st-class Europe squares. No. 2 square Called 2d-class Europe squares. No. 3 square Called 1st-class India. No. 1 plank Called ordinary 1st class. No. 2 plank Called 2d class.	No. 1 square Called Europe squares. No. 2 square Called No. 1 India. No. 3 square Called No. 2 India. No. 4 square Called No. 3 India. No. 1 plank Called Europe quality. No. 2 plank Called No. 1 India.	No. 1 square Called Europe quality. No. 2 square Called selected India. No. 3 square Called ordinary India. No. 1 plank Called Europe quality. No. 2 plank Called Eastern quality.	No. 1 square Called Europe quality. [Intermediate] square Called Crown quality. No. 2 square Called selects. No. 3 square Called 1st India. No. 4 square Called 2d India. No. 1 plank Called No. 1 India. No. 2 plank Called No. 2 India.

Source: Franklin Smith. Teak in Siam and Indo-China, p. 10.

The milling of teak logs was a complicated task because teak trees naturally grow in unpredictable forms. The importance of the sawmill was to mill each teak log so that it would fetch the highest price and therefore profit for the teak company.

The technique used in sawmills was to cut out the damaged parts of the log. This helped turn what may have started as an Indian Class log into a European Class product or transforming a middle-range European Class product into a beautiful, more expensive and premium European Class product. The problem, however, was how to identify the right log and/or avoid damaging others. Nonetheless, sometimes the damaged parts were sold as a

firewood.<sup>550</sup> The Borneo Company, for example, established a set of criteria to categorise the company's products. The company differentiated between its premium product, known as "Bai Poh" (literally: Bodhi Leaf or ใบโพธิ์), and its ordinary European Class, "Red". A log designated as "Bai Poh" quality was supposed to be devoid of any obvious outside defects.<sup>551</sup>

The company also had two hammers for ordinary logs: the first one for "White" logs with the hammer mark "s", and the second one for "Black" logs with the hammer mark "B". These logs were similar in quality and possessed few defects, but the "Black" class had more bee holes. The lowest acceptable grade of teak log was called "Crook". These logs were heavily damaged and rejected due to bad quality. As such, the company placed these logs in the "Mill Rejections" category. "Mill Rejections" contained the following defects: deep fissures, riddled with bee holes, bird holed, cracked or split, and big hollows. However, the Chiang Mai branch of the Borneo Company, whose job was to oversee the extraction and floating process, had a different system for grading teak logs in order to economise the duty fee. They specified all logs based on the appearance by rejecting all teak logs with even minimal defects or cutting the crook part out according to a lack of classification skill.<sup>552</sup>

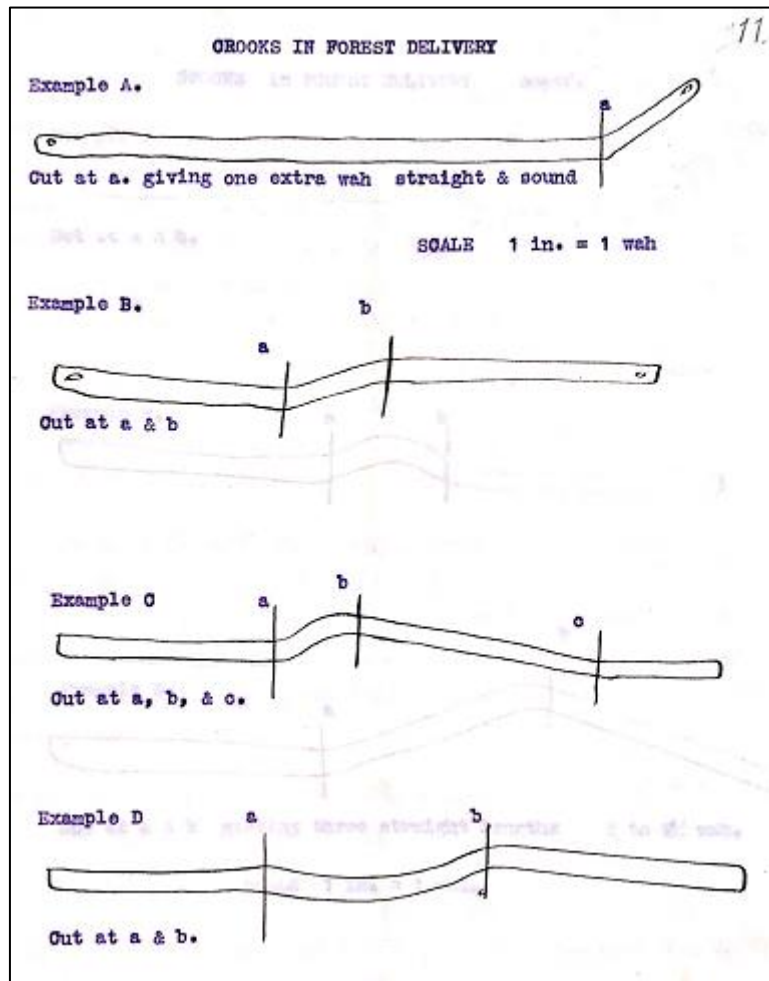
---

<sup>550</sup> *ibid.*

<sup>551</sup> LMA CLC/B/123/MS27473 Bangkok branch, Siam: collected extracts from correspondence and reports concerning up-country timber deliveries (ie classification, selection and logging of teak), for the guidance of forest assistants. Compiled 1922.

<sup>552</sup> *ibid.*

Image 4.6 Example of how to cut out a defect or crooked Teak Log



Source: The London Metropolitan Archives. CLC-B-123-MS27473 Bangkok branch, Siam: collected extracts from correspondence and reports concerning up-country timber deliveries (ie classification, selection and logging of teak), for the guidance of forest assistants. Compiled 1922, p. 11.



Table 4.9 Ratio of Teak Exports from Siam to European Markets: a Comparison of the Bombay Burmah Trading Corporation and other Companies

Date	Bombay Burmah Trading Corporation	Percentage	Other Companies	Percentage	Total
1883–1889	2,405	3.3	71,605	96.7	74,010
1890–1899	31,440	24.6	96,395	75.4	127,835
1900–1909	51,140	38.4	82,189	61.6	133,835
1910–1919	43,845	42.3	59,768	57.7	133,329
1920–1929	23,959	31.6	51,695	68.4	75,654
Total	132,759	29.7	361,652	70.3	515,441

Table 4.10 Ratio of Teak Exports from Siam to non-Europeans Markets: a Comparison of the Bombay Burmah Trading Corporation and other Companies

Date	Bombay Burmah Trading Corporation	Percentage	other Companies	Percentage	Total
1883–1889	2,713	3.6	71,649	96.4	74,362
1890–1899	47,463	22.2	165,888	77.8	213,351
1900–1909	300,757	50.5	294,924	49.5	595,681
1910–1919	283,149	60.4	185,324	39.6	468,473
1920–1929	206,658	37.5	343,352	62.5	54,941
Total	84,014	44.1	1,061,137	55.9	1,901,277

The unit of export is in metric ton.

Source: Ernest Andrews. *The Bombay Burmah Trading Corporation Limited in Burmah, Siam and Java: Teak, the Cutting and Marketing*, vol. 2, pp. 131 and 133.

#### 4.8 Teak Export and the Global Market

In the first half of 1883, the year of the Second Chiang Mai Treaty, the value of teak exported from Bangkok reached the significant value of 630,000 Baht for the first time.<sup>560</sup> Teak became Siam's second largest export item in terms of value in 1887,<sup>561</sup> albeit the ratio of teak exported from Siam was small compared to the total amount of teak logs arriving in Bangkok. Approximately 20 per cent or 25 per cent of those teak logs were deemed to be appropriate for foreign markets measured in terms of size and wood quality.<sup>562</sup> The standard size of an unprocessed teak log for export measured between 21' (approximately 640 centimetres) and 22' (approximately 670 centimetres) around the girth.<sup>563</sup>

Before 1910, the export of teak products was difficult for both companies and clients because there was not any systematic communications network between the head offices in Bangkok and the branches in northern Siam. Meanwhile, company offices in Bangkok were able to evaluate their current stock, but they lacked data detailing the annual extraction and floating of teak logs. As a result, the Bangkok offices could not plan their sales in a long term fashion due to supply uncertainties. A regular communications system between the offices in Bangkok and the branches in Chiang Mai was built in 1911. "Letters are continually being received from firms at home requesting information as to outlets and agents for their particular products."<sup>564</sup> This connection provided supply information from the branches in northern Siam to the Bangkok offices. This, in turn, allowed Bangkok offices to plan ahead, inform their clients of the future availability of stock, and take orders.

"The few European firms in the north are almost exclusively interested in the teak trade and all have offices in Bangkok. For these reasons it would appear that it would serve a more useful purpose were these inquiries addressed to His Britannic Majesty's Consul at Bangkok, as this gentleman could put the inquirers into communication with the actual import merchants from whom the up-country trader buys his year's supply of goods direct on his annual trip down river."<sup>565</sup>

---

<sup>560</sup> Ingram, *Economic Change in Thailand, 1850–1970*, 105.

<sup>561</sup> *Diplomatic and Consular Reports on Trade and Finance: Report for the Year 1887 on the Trade of Siam*, 1–2.

<sup>562</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1902 on the Trade and Commerce of the Consular District of Chiengmai*, 10.

<sup>563</sup> Black, *Siam*, 7.

<sup>564</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1911 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1912), 5.

<sup>565</sup> *ibid.*

As a luxurious and high-demand item, the average price in Europe prior to the twentieth-century was ten pounds sterling per metric ton.<sup>566</sup> All of the teak products for the European markets were monopolised by European companies, of which 30 per cent were transported via the ships of Danish East Asiatic.<sup>567</sup>

Only European merchants could charter cargo ships to transport teak to foreign markets; and this was a necessary process within the industry. In Siam, Chinese merchants were limited to chartering steamships over short-distances.<sup>568</sup> The German and British monopoly of the shipping industry in Siam<sup>569</sup> prompted Chinese merchants to found their own shipping company (for details see Kim Seng Lee in chapter 6). The new company was set up with two objectives: a) reducing the cost of transportation and, b) fulfilling the ambition of the Chinese trading community in Bangkok to become independent from Western merchants. The investment of Chinese merchants in this shipping company was directly associated with the teak business.

The success of foreign companies – and in particular the large investments of British companies and Danish East Asiatic in the teak business – and their dominance in regard to teak exports pointed to their increasing influence in Siam. This corresponded to the privileges granted to them by the concession system of the Siamese government. With respect to the eleventh and twelfth articles of the Second Chiang Mai Treaty, foreign companies were permitted to invest directly in northern Siam.<sup>570</sup> Meanwhile, the authorities in British Burma decided to close some parts of the forest in 1885.<sup>571</sup>

As noted, there were two classes of teak wood for export: the European Class, or premium product, and the Indian Class, which possessed some flaws such as wood texture. Franklin Smith, an agent of the United States Department of Commerce, visited Bangkok during the First World War to investigate the teak trade because of an increasing demand for teak in global markets. In order to obtain in-depth information, Franklin Smith interviewed the

---

<sup>566</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiangmai*, 4.

<sup>567</sup> *ibid.*, 5.

<sup>568</sup> *Siam. No. 1 (1871) Commercial Report from Her Majesty's Consul-General in Siam for the Year 1870* (London: Harrison and Sons, 1871), 2.

<sup>569</sup> Photjana Luang-aroon (พจนนา เหลืองอรุณ), “Commercial Shipping and Thai Economy 1855–1925 A.D. (กรณีเรือพาณิชย์กับเศรษฐกิจไทย พ.ศ. 2398–2468)” (Master of Arts, Silpakorn University, 1980), 74–83.

<sup>570</sup> *Treaty between Her Majesty and His Majesty the King of Siam for the Prevention of Crime in the Territories of Chiangmai, Lakon, and Lamphoonchi, and for the Promotion of Commerce between British Burman and the Territories Aforesaid.*

<sup>571</sup> Ingram, *Economic Change in Thailand, 1850–1970*, 106.

managers of five European companies namely: H. Hendrick (Siam Forest Co., Ltd), J. M. Mills and G. Roland (Louis T. Leonowens, Ltd.), W. E. Adams and W. T. Collis-Cooke (Borneo Co., Ltd.), I. C. Christensen (Danish East Asiatic), and Hamilton Price (Bombay Burma Trading Corporation).<sup>572</sup> He also refers to two Chinese companies, Kim Seng Lee and Wing Seng Long, in his report, but there is no available information documenting the conversations that took place between them.

The differences between European Class and Indian Class teak were determined by Western companies by reference to a system of grading and marketing. The companies made basic recommendations to prospective buyers depending on the intended usage or purpose of the teak. European Class teak, for instance, was suitable for household furniture and interior decorations, while Indian Class teak was recommended for construction work and other such uses that did not require aesthetic features. In short, the two classes of teak were aimed at different markets and customers.

It was inconvenient to ship commodities directly from Siam to global markets. In particular, Siamese foreign trade was hindered by its dependency on the port at Si Chang Island<sup>573</sup> (เกาะสีชัง), located in the Gulf of Thailand. Large ocean-going vessels could not enter the Chao Phraya River because the river is rather shallow.<sup>574</sup> In addition, there was no port facility to accommodate big ships. In brief, the port was underdeveloped and, as such, unpopular for shipping lines. It was not until 1934 that the Siamese government started to survey the Chao Phraya to ascertain the feasibility of dredging the river.<sup>575</sup>

Hence, all export products were transported from Bangkok to Si Chang Island to be loaded onto ocean-going vessels en route to their destination. The island is located near Chon Buri province (ชลบุรี) and it is only 12 kilometres from the mainland. The island, however, is very small and only accounts for 17.3 square kilometres. Due to limited space on the Si Chang, the government did not develop the port facility for international trade. In 1893, the French Navy blockaded traffic between Bangkok and Si Chang Island and jeopardised Siam's economy.

---

<sup>572</sup> Smith, *Teak in Siam and Indo-China*, 10.

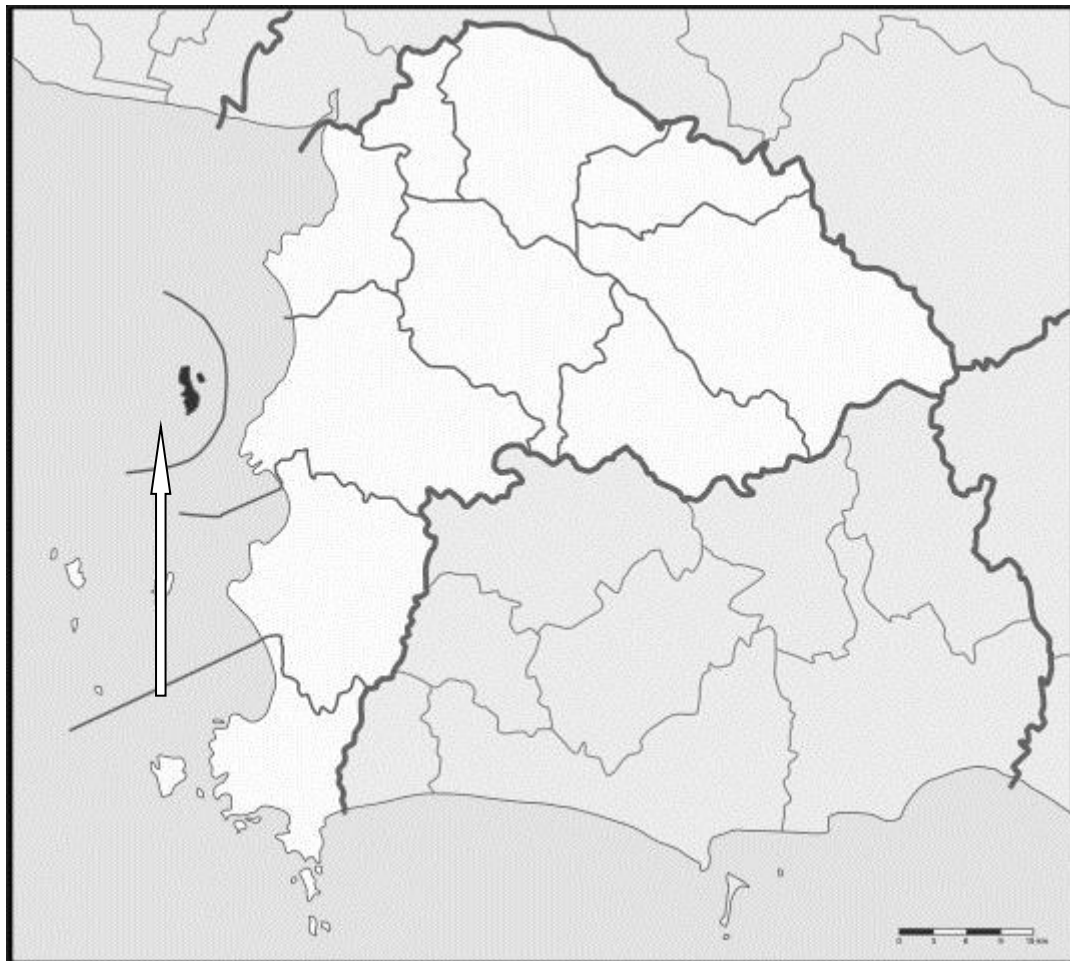
<sup>573</sup> *ibid.*, 15.

<sup>574</sup> Pannee Bualek (พรณี บัวเล็ก), *The Characteristics of Thai Capitalists between 1914–1939*, 121.

<sup>575</sup> Sumalee Sukdanont (สุมาลี สุขदानนท์), *Bangkok Port* (ท่าเรือกรุงเทพ) (2011), accessed 24<sup>th</sup> November 2015, <http://www.tri.chula.ac.th/triresearch/bangkokport/bangkokport.html>.

The French government even planned to seize the island in order to paralyse Siam.<sup>576</sup> If this had happened, the Siamese economy would have collapsed accordingly.

Map 4.4 Si Chang Island and Chon Buri Province



Source: Wikimedia

Another method of the transportation was to ship products on smaller steamships to either the Swettenham port in Penang (renamed Port Klang in 1972) or the port in Singapore then transfer the products to larger ocean-going vessels. Shipping providers to/from Bangkok were able to provide services to nearby ports such as Penang, Singapore, or Saigon by hugging the coastline. From these connecting ports, Siamese products were then transported to the global market. Siamese teak, for example, passed through Saigon and then Hong Kong<sup>577</sup> en route to

<sup>576</sup> Tuck, *The French Wolf and the Siamese Lamb*, 122.

<sup>577</sup> Smith, *Teak in Siam and Indo-China*, 21.

its destination in the United States. Sometimes teak was exported via Manila to the United States.<sup>578</sup>

Major exporters chartered steamships for their clients, whilst teak exports to Europe depended on forward cargo. The term “forward cargo” is currently more commonly known as “forward freight”. It is a service in the logistics business which includes every means of transportation: air, land, and sea. These service providers manage every process involved, for instance, providing legal documentation for export, clearing and handling customs protocol, preparing insurance, picking up the product from its origin, and delivering the products to their assigned destinations. Due to a lack of port development in Siam, export items had to transit through many ports to reach their destination. Forward cargo service provided the fastest connections in terms of unloading and reloading these items.

#### 4.8.1 The Export of Luxury Grade - European Class Teak

The market for luxury-grade teak was mostly concentrated in European markets because there was high demand for teak suitable to make furniture and ships. However, the amount of European Class teak exported to European markets fluctuated on a year-to-year. The demand of teak was not continuous either. The buying order occasionally took place and the export destinations varied each year. The unstable demand for teak in Europe, combined with the low number of regular shipping services (there was only one direct shipping line from Europe to Siam) meant that teak exporters had to rely on agency companies. As a result, teak companies usually chartered ships to carry their products to Europe.

In addition to European markets, there is also a report detailing the export of European Class teak to an Asian country. The history of exporting Siamese teak to Japan started in 1888, but only in small amounts.<sup>579</sup> Furniture manufacturers in Japan ordered teak from Siam and converted this into finished products. Japanese artisans usually required premium grade teak with a beautiful wooden surface; indeed, the Siamese commercial officer recorded the teak

---

<sup>578</sup> *ibid.*, 15.

<sup>579</sup> *Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1889 on the Trade of Bangkok* (London: HMSO, 1890), 2.

exported to Japan as “above average”.<sup>580</sup> With different designs and functions, most Japanese furniture was custom made for the domestic market.<sup>581</sup>

Following the First World War, Japanese merchants depended less on the services provided by British agencies due to the efforts of two Japanese shipping companies: the Osaka Shosen Kaisha (OSK, now Mitsui O.S.K. Lines) and the Yamashita Kisen Kaisha (now Kawasaki Kisen Kaisha or K Line). These two companies tried to establish shipping connections between Siam and India.<sup>582</sup> OSK set up the operations in Siam during the early 1920s, which provided regular shipping services to the ports of Java, Hong Kong, Singapore, and Saigon. The OSK company was represented by the Anglo-Siam Corporation (previously Siam Forest), a British teak company, during the 1920s.<sup>583</sup> From this time on, the shipping network between Siam and Japan started to grow. The Japanese companies later established their own branches in Bangkok and abandoned the services provided by the British agencies. The entry of these new Japanese competitors caused the British shipping giant, the British India Steam Navigation Company (BI), to feel threatened.<sup>584</sup>

Meanwhile, luxury-class teak was being exported by trading firms to South Africa. Teak timber was also transported through many northern European shipping companies (Sweden, Norway, and Finland), as well as companies from Canada and the United States. The total number of teak furniture in 1920 was 110,782 cubic feet and 34,113.97 cubic feet in 1921. With reference to these numbers, the market share of Siamese teak dropped significantly within one year from 27.77 per cent in 1920 to 9.32 per cent in 1921 respectively.<sup>585</sup> The demand for teak furniture in the South African market was simply not foreseeable. In 1922, South Africa imported 90,617.44 cubic feet of teak furniture from India, Madagascar, Japan, and so forth. In fact, “British India, Siam, and Dutch East Indies” were the origins of teak consumed in the South African market.

---

<sup>580</sup> Council of Commercial Promotion, Ministry of Commerce, *The Record* 22 (จดหมายเหตุดูสภาเผยแผ่พาณิชย์ เล่ม 22). (Bangkok: Ministry of Commerce, 1926), 103.

<sup>581</sup> Kenneth Miller Hill, *Furniture Markets of the Far East. Compile from Reports of Consular Officers of the Department of State and Oversea Representatives of the Department of Commerce* (Washington: Government Print Office, 1926), 5.

<sup>582</sup> *Report on the Commercial Situation in Siam at the Close of the Year 1919* (London: His Majesty's Stationary Office, 1920), 13.

<sup>583</sup> Ministry of Commerce, *Importers and Exporters Directory for Siam, 1924*, 22.

<sup>584</sup> Stephanie Jones, *Trade and shipping: Lord Inchcape, 1852–1932* (Manchester: Manchester University Press, 1989), 55.

<sup>585</sup> Perry Judson Stevenson, *Methods of Handling Lumber Imports in Africa* (Washington: Government Print Office, 1923), 2, 4–5.

The reason why teak furniture was so popular there is because teak is able to withstand sudden sharp changes in temperature, such as those that occur between day and night in South Africa. However, the high price of such furniture meant that sales were limited.<sup>586</sup> The total amount of 423.78 cubic feet of teak furniture imported from Japan<sup>587</sup> supported the opinion in *The Record*<sup>588</sup> that there was a growing demand for European Class teak in the Japanese market. This teak was used for the manufacture and export of home furniture.<sup>589</sup> A French special commercial report of teak in 1905 details the small percentage of premium teak grade exported from Bangkok. An estimated 20 to 25 per cent of teak transported from the northern region to Bangkok was qualified as the premium grade product. The report reads as follows:

“Il n’est pas possible de juger d’avance ce que content on trone de teck et de graves défauts se révèlent souvent à l’intérieur de bois de la plus belle apparence, ce qui ne permet d’ailleurs de tirer du bois amené a Bangkok que 20 à 25 0/0 [per cent symbol the author] de la première qualité, dite d’Europe.”<sup>590</sup>

Corresponding with this assessment, the Dutch timber laboratory in Buitenzorg (Bogor) published a report about the quality of teak from Southeast Asia. The report found that Siamese and Burmese teak were similar in quality.<sup>591</sup> Siamese teak, especially teak from the Salween region, was acknowledged by people in the forestry industry as premium quality<sup>592</sup> and, as such, it fetched a higher price. It is likely that an insubstantial amount of European Class teak from Siam was floated down the Salween River and then exported from Moulmein as Burmese logs.<sup>593</sup>

It difficult to overstate the significance of the role played by British agency houses in exporting teak. Indeed, these agencies collectively functioned as a de facto oligarchy within

---

<sup>586</sup> Hill, *Furniture Markets of the Far East. Compile from Reports of Consular Officers of the Department of State and Oversea Representatives of the Department of Commerce*, 23.

<sup>587</sup> Stevenson, *Methods of Handling Lumber Imports in Africa*, 2.

<sup>588</sup> *The Record* is the trade journal published quarterly by the Board of the Commercial Development as a sub-organisation of the Ministry of Commerce.

<sup>589</sup> Council of Commercial Promotion, Ministry of Commerce, *The Record* 22 (จดหมายเหตุดุสิตสภาเผยแผ่พาณิชย์ เล่ม 22), 103.

<sup>590</sup> Ministère du commerce, *Rapports commerciaux des agents diplomatiques et consulaires de France: Commerce extérieur du Siam en 1903. Exploitation des forêts au Siam* (Paris: Office National du Commerce Extérieur, 1905), 41.

<sup>591</sup> A.T.I. Bianchi, *De Mechanische Eigenschappen Van Java-, Siam- en Burma-djati*, Korte Mededeelingen van het Boschbouwproefstation 60 (Buitenzorg: Archipel Drukkerij, 1937), 333–340. The experiment by the Dutch laboratory put teak from Siam as the lowest quality in every test category. However, the testing sample from Siam was bought from the Danish East Asiatic, this is quite problematic because the company had only one concession and represented a very small proportion of teak from Siam.

<sup>592</sup> Marshall, “The Maihongson Forests in Siam,” 477. However, the average girth of teak clearly declined in 1890s because of over extraction.

<sup>593</sup> Teruko Saito and Lee Kin Kiong, *Statistics on the Burmese Economy: the 19th and 20th Centuries* (Singapore: Institute of Southeast Asian Studies, 1999), 107–110.



the teak industry. The potential buyer could place an order through any agent in the world or any company office in Europe. The price of teak including shipment was then sent via telegraph system to the buyer.<sup>594</sup> For Bombay Burmah, the location of the warehouse was taken under consideration when taking and fulfilling orders. Unlike other companies, Bombay Burmah had two branches dealing with teak in Southeast Asia: Moulmein and Bangkok. At least one business correspondence confirmed that an order from a prospective client taken through the Bangkok branch was transferred to the Moulmein branch because of availability of stock and the fact that a ship had docked there. After the order was placed through the Bangkok branch, the client could receive teak from Moulmein or vice versa.<sup>595</sup> Whilst there is no available information explaining how French companies handled their teak exports, Danish East Asiatic followed the same procedures as British companies.<sup>596</sup> Their clients could place an order at any branch of the company, then the order was passed through the head office in Copenhagen. After that, the head office quoted the price of teak and shipping. When the order was confirmed, the head office sent a telegram to the Bangkok branch to organise the delivery. The Bangkok branch facilitated the delivery of teak from Bangkok to any shipment destination.<sup>597</sup>

#### 4.8.2 The Export of the Lower Grade – Indian Class Teak

Lesser-quality or Indian Class teak exported from Siam was mainly delivered to locations in the Indian Ocean and the Asia-Pacific region. The export amount of Indian Class teak accounted for a larger proportion of total teak exports from Siam than European Class because the quality was of a lower grade. The amount of Indian Class teak exported grew for two consecutive decades in the 1920s and the 1930s. This increase in the export of Indian Class teak was a result of the deteriorating quality of teak in Siam. Furthermore, efforts to plant new saplings and create a system of teak plantation system were not as successful as envisioned. To be precise, the quality of the teak produced by both experiments was lower than the average quality of that growing naturally in the forest.

---

<sup>594</sup> Council of Commercial Promotion, Ministry of Commerce, *The Record 22* (จดหมายเหตุดูสภาเผยแผ่พาณิชย์ เล่ม 22), 103.

<sup>595</sup> NAT Kor Tor 65.11/14 Italian Government Proposes for the Best and the Cheapest Teak Timber (กต 65.11/14 รัฐบาลอิตาลีขอซื้อไม้สักอย่างดีและถูกที่สุด พ.ศ. 2460).

<sup>596</sup> *ibid.*

<sup>597</sup> Smith, *Teak in Siam and Indo-China*, 13.

When the Bombay government imposed a 15 per cent tariff on Siamese teak in 1923, the volume of export to British India, including British Ceylon, dramatically decreased.<sup>598</sup> The export of Siamese teak to markets in British India, Sri Lanka, and Burma faced a formidable hurdle and dropped further.<sup>599</sup> In addition, the export of Indian Class teak to China occasionally faced difficulties because of internal political conflict.<sup>600</sup> More than half of the Indian Class teak and the products made from this category were sold through middleman and Asian merchants in general. In effect, teak owners exported their products to local merchants who stored them in local shops for sale. However, there is no information available regarding how teak owners and middleman shared the net profit. The middleman system in the teak business was widely used only in Asia. India, China, and Hong Kong were the largest export markets employing this method, although exports to Japan also accounted for a small proportion of this system.<sup>601</sup> The demand for lower-quality teak in the Chinese market stemmed from the need for teak furniture in public institutions like schools or religious places. In contrast, teak was mainly used for general construction purposes in India.<sup>602</sup>

#### 4.9 The Teak Economy: the Financial System in the Teak Business

It is important to understand how the teak business operated and how the industry changed the financial system of northern Siam. This is particularly the case vis-à-vis the government's policy of mandating the use of Baht in teak trade. This section accordingly demonstrates the significance of financial factors in teak. It contends that financial support and networking, especially that external to Siam, played a crucial role in facilitating success in the industry. The section has three sub-sections: The first examines the role of finance in the teak business. The second investigates the development of the banking sector. Finally, the third section explores the role of the Indian Rupee in northern Siam and its effect on the teak trade.

---

<sup>598</sup> Department of Overseas Trade, *Report on the Commercial Situation in Siam at the Close of the Third Quarter, 1923*, 13; Council of Commercial Promotion, Ministry of Commerce, *The Record 22* (จดหมายเทศสภาเผยแพร่พาณิชย์ เล่ม 22), 105–106.

<sup>599</sup> Council of Commercial Promotion, Ministry of Commerce, *The Record 41* (จดหมายเทศสภาเผยแพร่พาณิชย์ เล่ม 41). (Bangkok: Ministry of Commerce, 1932), 31–33.

<sup>600</sup> Department of Overseas Trade, *Report on the Commercial Situation in Siam at the Close of the Third Quarter, 1923*, 12.

<sup>601</sup> Council of Commercial Promotion, Ministry of Commerce, *The Record 22* (จดหมายเทศสภาเผยแพร่พาณิชย์ เล่ม 22), 103.

<sup>602</sup> Hill, *Furniture Markets of the Far East. Compile from Reports of Consular Officers of the Department of State and Oversea Representatives of the Department of Commerce*, 10.

#### 4.9.1 The Role of Finance and Liquidity in the Teak Business

British companies exercised strong control over the production and marketing systems of the teak business for the whole period covered in this dissertation. This conclusion is drawn from the number of teak concessions that British companies were able to obtain and their domination of the export market. The number of concessions that the British were able to obtain was directly related to financial aspects of the business.

In brief, financial endowments were necessary to carry out the extraction process. Business expenses included concession fees, royalty fees, duty fees, salaries for staff, payment of contractors, and miscellaneous expenses. After the company made all of these payments for each log as stipulated by the Forest Department, it still took five years for it to arrive in Pak Nampho. And this does not even take into account the danger of larceny during the transportation process. As a result, there were no guarantees of short-term profits from sales. This phenomenon was compounded by stiff competition within the industry.

As such, there were several cases of failed financial investments in the teak business. The case of Dr. Marian Cheek is one such example highlighting the need for finance in the industry. Cheek was a former missionary and physician in Chiang Mai who gave up his preaching job and tried his luck in the teak trade. He went bankrupt in the early 1890s and passed away in 1895.

A dispute over Marian Cheek's debt demonstrated a problem vis-à-vis fiscal regulations. Marian Cheek borrowed money from Prince Naradhip Prabbhandhbhongse (นราธิปประพัน์พงษ์ศักดิ์), the Siamese prince, in 1889 and invested this money in the teak business. Cheek mortgaged his property to the prince as security for the loan.<sup>603</sup> It went well until 1891 but deficient rainwater in 1892 and 1893 left him high and dry. His logs did not reach Bangkok as planned. As a result, he became severely indebted and died in 1895. The prince asked the Siamese government to seize Cheek's property and his teak logs floating in the river. The government obliged. Consequently, the United States Consulate in Bangkok accused the Siamese government of a breach of contract because the seizure of teak logs was not mentioned in Cheek's mortgage contract. The United States government delegated E. V. Kellett, the United States Vice-Consul from Bangkok, to protect Cheek's property in Chiang Mai. However, a

---

<sup>603</sup> *Papers relating to the Foreign Relations of the United States, with the Annual Messages of the President transmitted to Congress. December 6, 1897* (Washington: Government Print Office, 1898), 463.

Siamese army officer in Chiang Mai committed a grave mistake when he assaulted Kellett and made him fall to the ground. The seizure of Cheek's property and the assault of a United States diplomat was thus brought to the hearing of an international arbitration committee. Later, in 1897, the international arbitration committee ruled in favour of the Cheek family and the United States.<sup>604</sup>

The failure of Cheek's business highlights a key characteristic of the teak business; in essence, not only is a large reserve of financial investment required, but so is the patience for long-term returns. The lack of fiscal expertise exhibited by the Siamese government caused many financial problems within the industry, especially given its complexity.

The total value of investments in the teak business highlights the significant role of finance. The first estimate of the teak industry's value in 1895 – that is, two years before the foundation of the Forest Department, – approximated that the capital investments were worth 900,000 Pound Sterling.<sup>605</sup> Just two years after the establishment of the Forest Department, the British Vice-Consul in Chiang Mai calculated the total value of British investments at 2,000,000 Pound Sterling in 1899.<sup>606</sup> Another report in 1908 estimated that 2,000,000 Pound Sterling was invested in the teak business.<sup>607</sup> However, the economist concerned later recalculated the total value of investments in the teak business and suggested that these amounted to around 2,500,000 Pound Sterling for the first two decades of the twentieth century.<sup>608</sup> The total value of investment peaked to 3,000,000 Pound Sterling in 1924, including French investments.<sup>609</sup>

Research on direct foreign investment in Siam, however, has been sceptical about the aggregate value of British investments in the teak business because these estimations were always based on the calculations of the British Vice-Consulate in Chiang Mai. Moreover, the method used to estimate the total value of the teak industry seemed limited to appraising only the value of the teak logs floated to Bangkok. The real value of the industry, including investments in equipment, salary, property, infrastructure, etc. are incalculable due to

---

<sup>604</sup> Alexander Marie Stuyt, *Survey of International Arbitrations 1794–1938* (The Hague: Martinus Nijhoff, 1939), 214, 224.

<sup>605</sup> Ingram, *Economic Change in Thailand, 1850–1970*, 106.

<sup>606</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiengmai*, 7.

<sup>607</sup> Dickson, "The Teak Industry," 172.

<sup>608</sup> Ingram, *Economic Change in Thailand, 1850–1970*, 107.

<sup>609</sup> Graham, *Siam*, 68.

inadequate documentary records.<sup>610</sup> Furthermore, these estimations did not take into account the fact that all of companies in the teak industry conducted several kinds of business. In addition, the estimates of various authors produced similar values and it could be assumed that it is necessary for all investors to wait until the realisation of long-term profits to calculate the value of the industry as a whole.

The Siamese government also failed to provide financial support to local entrepreneurs which forced them to take loans with high interest rates. In 1885, Ernest Satow, a British Consul-General in Bangkok, found that interest rates for teak merchants in northern Siam were as high as 36-48 per cent per annum.<sup>611</sup> However, these rates were limited to merchants from northern Siam, who loaned large sums of money from the business community in Bangkok to invest in teak. Following Satow's report about the financial situation in the teak business, the role of finance greatly increased over the next decade. Such high interest rates forced the concessionaire to extract all sizes of teak trees without any concerns for saplings in order to repay their loan and avoid default.

Regulations issued by the Forest Department undercut this business model relying on loans from Bangkok or Moulmein. Protocols disseminated and enforced by the Forest Department changed business practices; in particular, the selection and extraction processes of teak trees were strictly regulated. As a result, investment in the teak business demanded more financial support because teak logs did not reach Bangkok as fast as during the period prior to the creation of the Forest Department.

The foundation of the Forest Department and the changes this entailed made teak a risky business venture. Only successful merchants could generate large profits. With so many uncertainties within business, local merchants became indebted during 1890s and lost concessionary rights to European companies. Only foreign companies with links to financial institutions survived in the teak business. The demand for financial support increased after the foundation of the Forest Department due to new regulations. These regulations also drove the demand for labour and elephants. For example, the price of a fine quality elephant was

---

<sup>610</sup> Malcolm Falkus, "Early British Business in Thailand," in Davenport-Hines, R. P. T; Jones, *British Business in Asia since 1860*, 127.

<sup>611</sup> Satow, *Diplomat in Siam*, 35.

between 2,000 and 3,000 Rupees in 1896<sup>612</sup> and rose to 7,000 Rupees in 1914. In 1914, the price of a moderate quality elephant was between 5,500 to 5,700 Rupees.<sup>613</sup> Working in a teak forest required fifty or more elephants. Advance payment for all labour was necessary as well. The amount of payment was tied to the duration of the contract, which usually lasted for three years or four years, except on very rare occasions.<sup>614</sup>

The ability to access and maintain financial support was important. In the absence of adequate financial support, even the Chinese merchants who enjoyed the political patronage of the Siamese government lost much of their share in the teak business during the 1900s. Conversely, the share of Chinese merchants in major export commodities such as rice and tin substantially increased because of the support from the government and an access to technology. The case of Kim Seng Lee proved that neither political patronage nor access of technology played a decisive role in the teak business. Success in teak depended on financial support.

Prior to the 1897 regulations, the goal of teak merchants was to deliver the largest quantity of teak logs possible with little concern for the logs' size or quality. The unrestrained extraction of young trees was usually conducted by small ethnic Burmese or Shan merchants. These merchants needed to deliver as many logs as possible because the capital invested in their business came from creditors in Moulmein.<sup>615</sup>

The 1897 regulations added many new protocols and demanded all concessionaires to strictly follow these. Destructive extraction was forbidden and teak extraction was changed from a short-term to a long-term business venture. Merchants operating on short-term loans with high interest rates lost the ability to compete when extracting teak under the new regulations. Neither Shan nor Burmese foresters could compete with British companies which had proper financial connections in the United Kingdom. The new regulations resulted in many ethnic merchants, such as the Shan and the Burmese, becoming contractors or sub-contractors for European companies. In addition, some local foresters went bankrupt because of a lack of

---

<sup>612</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1896 on the Trade of Chiengmai* (London: HMSO, 1897), 12. However, this was the price for the elephants suitable for work in forestry. The price for elephants used in general transportation was less because this type of work required less strength.

<sup>613</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1914 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1916), 6.

<sup>614</sup> Black, *Siam*, 2, 4.

<sup>615</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1900 on the Trade and Commerce of the Consular District of Chiengmai*, 6.

managerial skills; skills were now required to operate according to the regulations institutionalised by the Forest Department.

Only a single case of bankruptcy can be found in the National Archives of Thailand. This might be because it involved a member of the local ruling family, Chao Rajabhut (เจ้าราชบุตร), who later became the last prince of Lampang. He was involved in the teak business as a subcontractor for Bombay Burmah and had a small concession area in Lampang. He borrowed money from the Siamese government to repay his debt to Bombay Burmah, but it was suspected that he spent the money on his own private pleasure rather than business operations. Fong Lee, a Chinese company in operating in the teak business in Lampang, declared bankruptcy by court order in 1922.<sup>616</sup> The bankruptcy of Fong Lee was the result of Chao Rajabhut's inability to deliver teak logs as promised; in short, the company had also advanced him money and expected teak logs in return.<sup>617</sup> For a provincial level company that did not have the backing of a financial institution, advancing money to extract teak was a risky decision and damaged its business interests.

---

<sup>616</sup> Kanokwan Uthongsap, "The Economic Roles of the Sino-Thai Community in the Northern Region of Thailand from 1900 to 1960," 136–137.

<sup>617</sup> LMA CLC/B/207/MS40304 Bombay Burmah Trading Corporation Limited: "Upcountry Advances".

#### 4.9.2 The Banking System and the Teak Business

“It is a curious anomaly, and one that ought soon to be removed by the postal authorities, that while money orders can be obtained from the Chiengmai post office on distant countries such as Erythrea and Morrocco, which have no trade with Northern Siam, orders on Burma cannot be obtained, although that country is Siam’s next-door neighbour and does a considerable trade with this district.”<sup>618</sup>

Demand for the financial services increased in Siam due to the expansion of the teak business. This section demonstrates the development of the financial sector and its role in the Siamese economic system.

Before 1880, there were agents of the European banks that operated in Bangkok which provided services to European clientele. In other words, while the banks did not open actual branches in Siam, they did provide services through agent companies. It is clear that they neither intended to seek new customers nor new markets. Instead, the agents provided very simple services, such as money transfers for the import and export business, or playing a role of guarantor. Hans Andersen once used the service of the The Hongkong and Shanghai Banking Corporation (hereafter HSBC) to export teak to the Great Britain in 1883.<sup>619</sup>

European banks have a long history of operating in Siam. HSBC commenced business in Bangkok in 1865; it was the first modern bank in Siam and was represented by the German and Swiss agencies.<sup>620</sup> Later, in 1888, HSBC opened a branch in Bangkok and withdrew from the agent system. The other banks that opened branches in Bangkok were The Chartered Bank of India, Australia and China, and the French bank, Banque de L’Indo-Chine, which set-up branches in Bangkok in 1893 and 1897 respectively. These banks provided services for foreign trading. Before the twentieth century, only HSBC and the Chartered Bank accepted deposits for customers in Siam.<sup>621</sup>

European companies in the teak business had a comparative advantage over their competitors because of their ability to access financial services. The foundation of the Danish company, Danish East Asiatic, was possible because of financial support from the Danish *Landmandsbank* (the Agricultural Bank).<sup>622</sup> Another example was Bombay Burmah; however, the company was not involved with financial tasks but rather focused solely on

---

<sup>618</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1905 on the Trade and Commerce of the Consular District of Chiengmai*, 7.

<sup>619</sup> Andersen, *Tilbageblik*, 11–12. See section 6.4.2 for more detail.

<sup>620</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Bangkok*, 14.

<sup>621</sup> U.S. Office of the Comptroller, *Annual Report of the Comptroller of the Currency 1895* (Washington: Government Print Office, 1895), 102–103.

<sup>622</sup> See section 6.4.2 for more detail.



extraction and marketing operations. All financial dealings and decisions were handled by the senior manager of the Wallace Brothers (Wallace Brothers & Co. Ltd. in 1911 and Wallace Brothers & Co. (Holding) Ltd in 1954), Bombay Burmah's mother company in London.<sup>623</sup> The division of labour between these two companies permitted Bombay Burmah to extract, process, and export teak efficiently without worrying about financial issues. Regardless of Bombay Burmah's property and business performance in Asia, the mother company also obtained profits from financial investments such as commissions and annual dividends.<sup>624</sup>

British financial successes prompted a desire within the Siamese government to balance British influence in the banking sector. Moreover, the foreign banks did not recognise non-Western business customers. It was publicly known in Bangkok that bank clerks often suffered from communication problems when dealing with Chinese or Siamese merchants.<sup>625</sup> During the 1890s, the Siamese government opened its first state-owned bank in Bangkok. With the cooperation of the Danish, German, French, and Russian banking interest group, the government formed the Siam Commercial Bank (SCB). The Siam Commercial Bank was registered by royal charter in 1906 and opened to the public in 1907.<sup>626</sup> It possessed a registered capital of 3,000,000 Baht at the time.<sup>627</sup> However, the new bank did not involve itself with foreign trade but, rather, handled government finances and provided loans at a domestic level.

Conversely, Chinese merchants could borrow money from within their own communities. In Southeast Asia and East Asia, networks of overseas Chinese, based on dialect or family name, were already well-established. These networks facilitated access to financial assistance with lower interest rates and flexible repayment procedures.<sup>628</sup> Nevertheless, it was common for the Chinese in Southeast Asia to establish commercial banks to aid their business interests. A Chinese effort to form a private bank in Bangkok was successful in 1909 when the Chino-Siam Bank was established by Chinese merchants, Siamese aristocrats, and the

---

<sup>623</sup> A. C. Pointon, *Wallace Brothers* (Oxford: Oxford University Press, 1974), 31.

<sup>624</sup> *ibid.*, 53.

<sup>625</sup> Stephen Lowy, *Century of Growth: the First 100 Years of Siam Commercial Bank* (Singapore: Editions Didier Millet, 2007), 54.

<sup>626</sup> Aldo Eggers-Lura, "The Danes in Siam: their Involvement in establishing the Siam Commercial Bank Ltd. at the End of Last Century," *Journal of the Siam Society* vol. 81, no. 2 (1993): 135, 139.

<sup>627</sup> Rajeswary A. Brown, "Chinese Business and Banking in South-East Asia since 1870," in *Banks as Multinationals*, ed. Geoffrey Jones (London, New York: Routledge, 2012), 174.

<sup>628</sup> Barton, "Credit and Commercial Control the Strategies and Methods of Chinese Businessmen in South Vietnam," 282, 342.

Deutsche Asiatische Bank, with a registered capital of 2,000,000 Baht.<sup>629</sup> However, this bank lasted for only four years because Chinese members of the board siphoned money away from the bank in order to finance their private rice export business.

The collapse of Chino-Siam Bank damaged the rice business and the financial market in Siam, especially the Siam Commercial Bank. The two largest shareholders of the Chino-Siam Bank also held positions on the board of directors of Siam Commercial Bank. The incident had profound consequences because siphoned money came from Siam Commercial Bank, even if it was officially granted as a 'loan' to Chinese merchants from the Chino-Siam Bank. The Siam Commercial Bank had no choice but to refinance the debt of Chino-Siam Bank using public funds.<sup>630</sup> Many shareholders of Chino-Siam Bank were merchants in the retail-trade and rice industry, both of which suffered from the incident.<sup>631</sup> In contrast, the teak business was not affected by the crisis because it did not rely on financial support in Bangkok.

After the collapse of the Chino-Siam Bank, there was no local attempt to open a new bank in Bangkok again until 1920s, The Bank of Taiwan, a Japanese bank, was established in an unknown year but it closed its Bangkok branch in 1927. Two banks from India, the Mercantile Bank of India and Oriental Mercantile Bank were also established in an unknown year. In the same period, some Chinese banks from Hong Kong and Singapore opened branches in Bangkok, notably the Bank of Canton (1919), and Sze Hai Tong Bank (1909). There were also some banks operated by Chinese merchants, but only Soon Hok Seng Bank was officially recorded in the database of the Ministry of Commerce.<sup>632</sup> At a regional level, nevertheless, several major Chinese banks in Southeast Asia were established during the first two decades of the twentieth century. For instance, Kwong Yik Bank (1903), Sze Hai Tong Bank (1907), China Commercial Bank (1912), Ho Hong Bank (1917), Overseas-Chinese Bank (1919), and Lee Wah Bank (1920) were established in Malaya. In the Dutch East Indies, there were N. V. Bankvereeniging Oei Tiong Ham (1906) and Batavia Bank (1918); whereas the Philippines had the China Banking Corporation (1920).<sup>633</sup> These Chinese banks provided accounts for deposit, currency exchange, money remittances, and clearing services

---

<sup>629</sup> Brown, "Chinese Business and Banking in South-East Asia since 1870," 174.

<sup>630</sup> Lowy, *Century of Growth*, 58–60.

<sup>631</sup> *Diplomatic and Consular Reports. Siam. Report for the Siamese Official Year April 1, 1913 to March 31, 1914, on the Trade of the Consular District of Bangkok* (London: HMSO, 1915), 13.

<sup>632</sup> Ministry of Commerce, *Importers and Exporters Directory for Siam, 1924*, 15.

<sup>633</sup> Kunio Yoshihara, *The Rise of Ersatz Capitalism in South-East Asia*, 43. Brown, "Chinese Business and Banking in South-East Asia since 1870," 177.

for foreign trade.<sup>634</sup> The Chinese banking sector prior to the 1932 did not compete with European banks, but rather focused on the commercial activities of Chinese merchants. Their operations were based on interpersonal relations and were concentrated on shareholders activities or an individual dialect group. The teak business was excluded from the accounts of these banks.

Nevertheless, a British bank attempted to establish a branch or a banking agency in Chiang Mai in 1904,<sup>635</sup> but the idea was abandoned in 1905.<sup>636</sup> If the branch had been successfully established in Chiang Mai, it would have certainly changed the teak business in an unimaginable way. Indeed, there were no banking facilities in Chiang Mai and other provinces in northern Siam until the first half of 1920s.<sup>637</sup> It was not until the completion of the railway to Chiang Mai in 1922 that the idea of establishing a bank in northern Siam was rejuvenated. However, this new effort was to accommodate the interests of the mercantile community rather than teak-related operations.<sup>638</sup>

From the 1890s to the 1920s, an increasing number of banks in Bangkok dealt with the business operations of Western, Chinese, and, later, Japanese companies. As clearly indicated above, however, the banking sector did not finance the operations of Chinese merchants in the teak business. This leads to a significant question – how did the banking system facilitate the dominance of European companies in the teak business? The answer lies in the use of bank drafts (or draft).<sup>639</sup> For high value payments, European companies paid their contractors through drafts. Lacking a branch in Chiang Mai, the draft service was provided by foreign banks in Bangkok. As the recipient, the contractor could withdraw cash from any bank in Rangoon or elsewhere. Normally, the draft recipient could simply sell drafts to the merchants in Moulmein, albeit with a service charge deducted from its total value. From 1907, however,

---

<sup>634</sup> Pannee Bualek (พรรณิ บัวเล็ก), *The Characteristics of Thai Capitalists between 1914–1939*, 145.

<sup>635</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1904 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1905), 5.

<sup>636</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1905 on the Trade and Commerce of the Consular District of Chiengmai*, 7.

<sup>637</sup> Department of Overseas Trade, *Report on the Commercial Situation in Siam at the Close of the Third Quarter, 1922* (London: HMSO, 1923), 41.

<sup>638</sup> *ibid.*

<sup>639</sup> A bank draft is used for the purpose of payment or remittance from one bank to another bank. The bank sets aside the amount of money designated in the draft and a draft recipient was given a guarantee by the bank that issued the draft that it would not bounce.

the popularity of drafts declined when companies and merchants in Rangoon and Moulmein charged a one per cent premium for the use of this service.<sup>640</sup>

Drafts were unavailable for small merchants who traded on a modest scale, despite the fact that many of them were British subjects or Chinese whose commercial activities bound northern Siam to Burma. They were excluded from using the draft because there was no draft issuer in northern Siam. Moreover, commercial banks were unwilling to issue drafts of small value, effectively disqualifying small traders. In 1909, a new postal remittance service operating between Chiang Mai and British India (including British Ceylon) was introduced and all transmissions from this neighbouring area could be obtained at the post offices. Prior to 1909, the British Vice-Consul in Chiang Mai had complained about the incompetence of the postal remittance service system in northern Siam which able to transfer money as far as Africa, but could not transfer money to a major trading partner like neighbouring Burma.<sup>641</sup> The maximum amount that was allowed to be sent by postal remittance was 600 Rupees. The service charge for money transfers from northern Siam to the whole of British India was 12 Satang (1 Baht is equal to 100 Satang) for every 10 Baht, or 0.12 per cent.<sup>642</sup> Drafts and postal remittances, however, both suffered from different limitations meaning that these were unable to replace cash as the dominant method of payment. The dominance of cash meant that the transportation of Indian Rupee to northern Siam was inescapable until the end of the First World War, although this gradually decreased in 1920s.

#### 4.9.3 Currency in the Teak Business: the Role of the Rupee and Baht

Until the end of the First World War, the Indian Rupee dominated the economy of northern Siam and was a part of everyday life for ordinary people. In chapter 3, the dissertation explained how northern Siam was integrated into Siam proper. Before the First Chiang Mai Treaty was signed in 1874, the Rupee was the dominant currency in northern Siam.<sup>643</sup> Commercial activities between northern Siam and Burma were a major reason for the flow of Rupee between these two regions. The increasing role of Rupee coincided with the expansion of the teak business. People involved in the teak preferred Rupee because it dominated

---

<sup>640</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1907 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1908), 5.

<sup>641</sup> *ibid.*, 7.

<sup>642</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1909 on the Trade and Commerce of the Consular District of Chiengmai*, 4.

<sup>643</sup> *Siam. No. 1 (1875). Commercial Report from Her Majesty's Consul-General in Siam for the Year 1874* (London: HMSO, 1875), 12.

transactions in the industry consequent to the participation of both British subjects and European companies. Rupee was the common currency accepted by traders everywhere in northern Siam. An understanding of the role played by the Rupee helps to explain the development of the teak trade. This section explains two major characteristics of the teak business in northern Siam. First, this section explains the role of Rupee in the industry and vice versa. Second, this section explains how Rupee flowed into northern Siam in the absence of bank branches and bank agencies.

From the beginning of the 1890s, the use of the Rupee as a major currency spread as far as the Sipsong Panna area in Yunnan, and it was the common currency in Luang Prabang city.<sup>644</sup> Before the 1890s, the Siamese currency “Baht” only existed in Tak and could not be found in the northernmost area.<sup>645</sup> The political establishment of Siam as a nation-state during the 1890s, however, did not result in the Baht replacing the Rupee as the region’s common currency. The popularity of the Rupee in the teak industry dictated that everything was paid for in this currency. When Slade came to Siam and formed the Forest Department he and his successors did not to alter the status of the Rupee in the teak trade.

The decision to rely on Rupee rather Baht was based on the economic rationality of the teak companies. Siam tied Baht to the price of silver. Due to a global decline in the price of silver from the 1870s, the Baht depreciated quite substantially vis-a-vis the Pound Sterling as the latter was based on the gold standard. As a result, the use of Rupee as a major trading currency in Siam was inevitable. This caused problems for foreign traders, both in terms of imports and exports.<sup>646</sup> An unstable exchange rate persisted and, consequently, it was difficult to formulate a long-term business plan. Eventually, however, the Indian Rupee pegged its value to the silver standard and this made the exchange rate between Baht and Rupee more stable.

The depreciation of Baht against the Rupee started in the 1900s after the Government of British India adopted the gold standard in 1898. However, an especially strong swing toward the Baht occurred in 1906. In January, the exchange rate in Bangkok was 109.50 Baht per 100 Rupees, where by November of the same year, the value of Baht had increased to 95.25

---

<sup>644</sup> Archer, *Report on a Journey in the Mě-kong Valley*, 7, 14.

<sup>645</sup> *Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1889 on the Trade of Bangkok*, 14.

<sup>646</sup> Brown, “British Financial Advisers in Siam in the Reign of King Chulalongkorn,” 214.

Baht per 100 Rupees. In Chiang Mai the exchange rate swung from 114 Baht per 100 Rupees in January to 96 Baht in November.<sup>647</sup>

Nevertheless, the Rupee still functioned as the standard currency for commercial purposes in northern Siam until the middle of 1920s because the Baht exchange rate was so unstable. In Chiang Mai the exchange rate was 105 Rupee to 100 Baht in January in 1907, yet by December the Rupee had slightly decreased to 113 Rupees per 100 Baht. The buying rates at banks in Bangkok also demonstrated this similar trend towards Baht. In January 1907, the value of the Rupee and Baht was almost balanced at 101 Rupee to 100 Baht; however the value of Rupee dropped to 112.25 Rupee per 100 Baht by December.<sup>648</sup>

On the other hand, in other provinces like Lampang, the value of Rupee increased because local traders bought products from caravan traders from Yunnan province in southern China. The exchange rate between Rupee and Baht in Lampang between December 1906 and January 1907 was 102–103 Rupees per 100 Baht.<sup>649</sup> This trend persisted until 1908. In January, the exchange rate in Bangkok was 111 Rupees per 100 Baht. By December it was 114.75 Rupees per 100 Baht. Rupee in Chiang Mai was cheaper than in Bangkok. The exchange rate was 112.50 Rupees per 100 Baht in January compared to 116 Rupees per 100 Baht in December.<sup>650</sup>

However, prospective buyers sometimes found that the market rate for the Rupee was higher than official rates. Speculation on the Rupee by Chinese merchants exacerbated the situation by driving up the demand for the currency. In the Lampang market area, Baht was valued at only 75 per cent of the legal tender set by the government.<sup>651</sup> It created a treasury problem for the Siamese government because the government tried to export Rupee as much as possible, even as foreign companies imported Rupee for commercial purposes.<sup>652</sup> Exchange rate instability and concerns about Baht lessened, not by replacing Rupee with Baht, but after

---

<sup>647</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1906 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1907), 6.

<sup>648</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1907 on the Trade and Commerce of the Consular District of Chiengmai*, 6.

<sup>649</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1906 on the Trade and Commerce of the Consular District of Chiengmai*, 9.

<sup>650</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1908 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1909), 7.

<sup>651</sup> NAT Mor Ror 5 Mor 2.14/95 Lampang Inspection Tour (มร 5 ม 2.14/95 รายงานตรวจราชการเมืองลำปาง).

<sup>652</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1913 on the Trade and Commerce of the Consular District of Chiengmai*, 10.

Siam adopted the gold standard in 1908.<sup>653</sup> Adopting the gold standard instantly stabilised exchange rates between these two currencies for two whole years. As a result, the flow of Rupee significantly increased in 1909 and 1910. In 1909, the average exchange rate in Chiang Mai was 115.75 Rupees per 100 Baht<sup>654</sup> and 114.75 Rupees per 100 Baht in 1910.<sup>655</sup>

Under normal circumstances, the exchange rate for the Rupee in northern Siam was cheaper than in Bangkok. This was due to the stable flow of Rupee from Burma to northern Siam. However, the exchange value of Rupee per Baht annually increased during winter (December–March) when merchants and trading caravans from southern China traversed northern Siam en route to Moulmein.<sup>656</sup> As a result, an inadequate supply of Rupee was common. In some specific years, the Siamese government bought opium from merchants from Chiang Tung in Baht. Instead of taking Baht back to Chiang Tung, however, the merchants needed to change this Baht into Rupee somewhere in northern Siam before returning home. Every year opium merchants exchanged between 400,000 and 500,000 Rupees.<sup>657</sup> In a year with an adequate supply of Rupee, this did not cause any problems relating to cash shortages. However, during years when there were insufficient amounts of Rupee in northern Siam, the competition for Rupee between teak companies and Chinese merchants greatly affected the local economy. For example, in year 1911, opium merchants exchanged as much as 500,000 Rupees in northern Siam.<sup>658</sup> Consequently, teak companies faced difficulties because the amount of Rupee available in 1911 was less than in 1909 and 1910. In short, the opium merchants depleted the amount of Rupee available in northern Siam and there was not enough cash to cover the annual expenses of the teak companies.<sup>659</sup>

To cope with unstable exchange rates and an inadequate supply of Rupee in northern Siam, British companies imported Rupee from India and delivered it to the concession areas. Around 3,000,000 Rupees was imported from India to Bangkok annually plus 40,000 Rupees from Burma. During years when the company needed to pay for a new concession area, the

---

<sup>653</sup> Ian Brown, "Siam and the Gold Standard, 1902–1908," *Journal of Southeast Asian Studies* vol. 10, no. 2 (1979): 396.

<sup>654</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1909 on the Trade and Commerce of the Consular District of Chiengmai*, 5.

<sup>655</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1910 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1911), 7.

<sup>656</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1906 on the Trade and Commerce of the Consular District of Chiengmai*, 9.

<sup>657</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1902 on the Trade and Commerce of the Consular District of Chiengmai*, 14.

<sup>658</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1911 on the Trade and Commerce of the Consular District of Chiengmai*, 11–12.

<sup>659</sup> *ibid.*, 12.

amount of money imported to northern Siam was excessively high. Big companies needed to import approximately 20,000,000 Rupees, whereas smaller companies required 10,000,000 Rupees.<sup>660</sup> This was due to the limitations of the Siamese financial system. Notably, there was no bank in northern Siam. In this context, draft could not perform its function because nobody in northern Siam had the ability to supply large amounts of cash. British companies employed a primitive style of money transportation to fulfil this demand. To be precise, they simply worked in cash. Transportation started in Bangkok. Along with other kinds of goods, a portion of cash was then transported to Pak Nampho. For further transport of Rupee to teak working areas, each elephant carried 10,000 Rupees. There is no specific data for the total number of elephants used to do this. Nevertheless, the estimate for the largest elephant caravan ever recorded was four hundred elephants.<sup>661</sup> After the whole amount reached Chiang Mai, a small amount of Rupee was distributed and transported to the forest areas by a caravan or pack mule.<sup>662</sup>

Besides the millions of Rupees circulated in northern Siam's economic system, around 300,000 Pound Sterling from abroad was annually distributed amongst the Bangkok office of teak companies and their branches in northern Siam. This was to maintain company liquidity, especially in regard to meeting the cost of labour cost and paying the royalty fee for teak logs.<sup>663</sup> This amount converted to 6,000,000 Baht. This value was calculated from the rate fixed by the Siamese government for foreign banks operating in Siam.<sup>664</sup>

From the estimates of the British Vice-Consul, a minimum amount of a million Rupees imported for the teak business was for the payment of British subjects.<sup>665</sup> The rest, or 75 per cent, of the Rupee imported annually circulated in northern Siam. In addition, a small amount might have travelled further to Yunnan, Sichuan, and Tibet through inland caravan

---

<sup>660</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1898 on the Trade and Commerce of the Consular District of Chiengmai*, 4.

<sup>661</sup> *ibid.*

<sup>662</sup> Hugh Nisbet, *Experiences of a Jungle-Wallah* (St. Albans: Fisher, Knight and Co., 1910), 90.

<sup>663</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1902 on the Trade and Commerce of the Consular District of Chiengmai*, 3.

<sup>664</sup> *ibid.*, 12–13. Reports from the British Vice-Consul often switched between Pound Sterling and the Indian Rupee. The value of Baht was calculated from the rate fixed by the Siamese government. Although the exchange rate for Pound Sterling reached its highest rate in 1902 at 32 Baht per Pound Sterling and the Siamese government tried to adjust it to 17 Baht per Pound Sterling, the Siamese government reached an agreement with the foreign banks at 20 Baht per Pound Sterling.

<sup>665</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1898 on the Trade and Commerce of the Consular District of Chiengmai*, 4.



networks.<sup>666</sup> The amount of Rupee left was enough to dominate the economic system in northern Siam. On some occasions, Rupee was sent back from northern Siam to Bangkok. Then it was shipped to India where it was used to pay for merchandise exported from India to Siam.<sup>667</sup> Nevertheless, an evaluation by W. R. D. Beckett, the British Vice-Consul in Chiang Mai, in 1902 believed that the real value of Rupee in northern economic system was much higher. In a prosperous year, the value that was reported might only account for 20 per cent to 25 per cent of the total Rupee being circulated in the northern economy.<sup>668</sup>

As indicated above, a certain amount of Rupee was for British teak companies to pay their contractors and Burmese employees. Unlike the inward flow of cash, the information regarding its outward flow is very limited. In addition, the data in the various volumes of the British Vice-Consul's annual reports on the outward flow of Rupee from northern Siam to Burma was probably inaccurate. The information for these reports was taken from toll gates in the border area between northern Siam and Burma. However, the real amount of Rupee being transferred through formal financial institutions and informal intermediaries like Indian moneylender<sup>669</sup> is untraceable. Thus, it is possible to claim that the real value of Rupee exported from Siam until the end of the First World War was much higher than the value given by the Chiang Mai Vice-Consul's annual reports.

It is not important how much the Rupee in the annual report deviated from the real amount that circulated in northern Siam. What is important is that the dominance of Rupee became a serious hindrance to government efforts to control both the teak business and the economic system of northern Siam. An attempt to replace the existing Rupee with Baht appeared early in the twentieth century. The Office of the Financial Adviser was the first governmental body to consider the large circulation of Rupee in northern Siam to be an economic problem. This was because it caused financial instability in northern Siam.<sup>670</sup> From a political perspective, a large circulation of Rupee increased British influence and control over the Siamese economic

---

<sup>666</sup> Henry Rudolph Davies, *Yuen-Nan: The Link between Indian and the Yangtze* (Cambridge: Cambridge University Press, 1909), 279.

<sup>667</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1897 on the Trade and Commerce of the Consular District of Bangkok* (London: HMSO, 1898), 5.

<sup>668</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1902 on the Trade and Commerce of the Consular District of Chiengmai*, 14.

<sup>669</sup> The information about Indian moneylenders in northern Siam is very fragmented and there are no documents that comprehensively detail their activities or location. Therefore, it is not possible to measure their activities in northern Siam. Comparatively, in southern Siam, the role of Indian moneylenders was significant; for example, they financed the Chinese tin-mining operation and financially assisted them in competition with foreign companies. See Brown, "Chinese Business and Banking in South-East Asia since 1870," 176–177.

<sup>670</sup> NAT FA 0301.1.23/7 Currency in Monthon Phayab. (1903–1925).

system. Nevertheless, the development of economy in northern Siam had strong ties with the Rupee. The teak industry created a strong demand for Rupee and no-one in the Siamese government had the courage to disturb the growth of this business.

The endeavours of Siamese government to replace Rupee as the main currency with Baht were not successful for almost four decades from the 1880s to the 1920s. The status of Rupee in northern Siam's economic system was supreme because of the teak business. From 1894, Baht started to circulate in the northern region when the Siamese government required the entire male population aged between 18 to 60 years old to pay a poll or head tax in Baht.<sup>671</sup> This system was intended to replace the *corvée* system and release the labour into higher productivity activities. The government expected them to work in the production and export of items that contributed to the Siamese economy.<sup>672</sup>

In 1902, five years after the establishment of the Forest Department, the Siamese government planned to collect the royalty fees for teak logs in Baht. The government also expressed its intention that all transactions between the government and the teak companies would be conducted in Baht. The companies welcomed the government's decisions on the grounds that it would lessen the burden on transportation.<sup>673</sup> However, the Siamese government could not provide enough Baht to northern Siam. It failed to implement the necessary steps to supply Baht to the economy of northern Siam, for instance, the establishment of a bank in Chiang Mai.

The Office of the Financial Adviser in Bangkok estimated that a minimum of 4,000,000 Baht would have needed to be injected into northern Siam annually in order to substitute Rupee.<sup>674</sup> They believed that if the Siamese government had been able to supply this money to northern Siam, it would have reduced the influence of Indian Rupee within Siamese territory. Nevertheless, this amount was too high for the Siamese government. Indeed, in 1902, the

---

<sup>671</sup> Weerathep Srimongkol (วีระเทพ ศรีมงคล), "The Tax Collection in Lanna 1884–1902 (การจัดเก็บภาษีอากรในล้านนา พ.ศ. 2427–2445)," 73–80; Sarasawadee Ongsakul (สรวิชาติ อ่องสกุล), *The History Lan Na* (ประวัติศาสตร์ล้านนา), 506–509.

<sup>672</sup> Nidhi Eoseewong (นิตติ เอื้อยศรีวงศ์), *Pen and Sail: Literature and history in early Bangkok including the history of Bangkok in the chronicles of Ayutthaya* (ปากไต้และใบเรือ รวมความเรียงว่าด้วยวรรณกรรมและประวัติศาสตร์ต้นรัตนโกสินทร์) (Nonthaburi: Samesky, 2012), 69.

<sup>673</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1902 on the Trade and Commerce of the Consular District of Chiangmai*, 15.

<sup>674</sup> NAT FA 0301.1.23/7 Currency in Monthon Phayab. (1903–1925).

government only had 4,945,525 Baht in the form of bank notes for the entire country.<sup>675</sup> Moreover, most merchants in northern Siam from 1900 to 1910 refused to take Siamese banknotes as legal tender.

There was also no attempt by the Siamese government to establish an agency or bank in northern Siam. The necessity of establishing a formal institution to supply Baht for the local market was urgent. British companies could provide draft services between Chiang Mai and Moulmein to facilitate British commercial activities<sup>676</sup> and interests. Bank drafts issued by British banks or agents in Bangkok became the standard for financial transactions and sped up the transfer of money to/from British companies in northern Siam.<sup>677</sup> Without a bank or agent supplying Baht in northern Siam, it is unsurprising that northern Siam was recognised as part of British India's economic sphere.

Shortly before the First World War, Baht slowly emerged as the standard currency in some areas, especially in the western part of northern Siam. Indeed, the Rupee disappeared in Nan and Phrae before the First World War. The British Vice-Consul in Chiang Mai predicted the decline of Rupee due to the increasing role of the railway system.<sup>678</sup> However, the railway system alone does not explain the decreasing role of Rupee. Chinese immigration to northern Siam was the real factor that brought Baht into northern Siam. They substituted the role of Shan or Burmese merchants who previously linked northern Siam and British India. Similarly, Chinese commercial networks connected northern Siam with Bangkok. Chinese merchants not only helped to adjust the commercial relationship with Bangkok, but they came to northern Siam through the railway system as the teak business waned. The increasing number of Chinese merchants in northern Siam transformed the region's economy from being focused on the teak extraction to the export of cash-crops such as tobacco and rice.

---

<sup>675</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1902 on the Trade of Bangkok* (London: HMSO, 1903), 12. This means that the amount of banknotes issued by the government was the equivalent to the amount of silver held in the government treasury.

<sup>676</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1903 on the Trade and Commerce of the Consular District of Chiengmai*, 5, 8.

<sup>677</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1907 on the Trade and Commerce of the Consular District of Chiengmai*, 6.

<sup>678</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1913 on the Trade and Commerce of the Consular District of Chiengmai*, 10.

#### 4.10 Conclusion

Teak logging and manufacturing was a complex process that not only involved extraction and transportation under the auspices of the Forest Department from 1897, but also entailed sawmill operations in Bangkok. After the 1897 foundation of the Forest Department, every aspect of teak extraction became regulated. The new regulations strictly controlled the extraction methods used by concessionaires, with other regulations ranging from the conservation of young saplings in the forest, to procedural matters during the final stages when teak logs reached the duty station.

In some forest areas, geographical factors hindered transportation. Thus, concessionaires overcame these obstacles by investing in infrastructure that facilitated the transportation of teak logs to the floating point. At the floating point, the logs were hammered and inspected by the owner and the Forest Department. When the water level rose during the rainy season, the teak logs would then float downriver to Bangkok. However, teak logs sometimes became damaged during the floating process because of insects in the Chao Phraya River. Moreover, the theft of teak was common as the logs travelled to Bangkok.

Additional regulations regarding extraction, and increased protection for teak logs from theft, created advantages for big companies which could afford rafting staff and teams to salvage logs, especially in comparison to their smaller rivals. The investments of big companies increased during this period and as the number of investments by small concessionaires declined.

After the logs arrived in Bangkok, sawmills played a significance role in the industry as these often transformed normal-looking or even “crook” teak into export products. Sawmills milled the logs according to the quality of teak sourced from northern Siam. Later, the finished products were transported to markets in Africa, Asia, and Europe.

Another aspect of the teak business in northern Siam was the role of Rupee (the currency of British India) within the industry. There were two major factors that enhanced the role of Rupee: first, was the unstable exchange rate of the Baht and, second, most of the companies and individuals involved in the teak trade came from British India. Rupee dominated the teak business until the end of the First World War and continued to decline in prominence as railways fully connected northern Siam to Bangkok in the 1920s.

## Chapter 5 Ethnicity and Elephants: Division of Labour in the Teak Industry

“The forests called for a special type. Physical fitness and mental resilience were vital. Ambition must needs be irrelevant, for the jungle, normally, did not lead to the boardroom. The forester lived too near to the soil and too far from the market place. Yet, of all, have were the men who really had the opportunity of knowing the land they lived and worked in; of speaking the language of the country; of becoming naturalists, artists, philosophers and counsellors of simple people who had nowhere else to turn for lack of means or the education.”

H. E. W. Braund<sup>679</sup>

For the purposes of this dissertation, the expression ‘division of labour’ refers to how work in teak business was distributed amongst the different ethnicities/groups of people in northern Siam. As the dissertation describes the teak business through the lens of “business systems” and “political economy”, this chapter includes people working in the Royal Forest Department. This chapter provides a full picture of the division of labour in the teak industry, including an investigation into the interconnections between centres of political power and the business world in Siam.

Teak was one of Siam’s major export commodities and it relied on the multi-ethnic division of labour. This chapter, therefore, explains the role played by each individual ethnic group involved in the teak business. It also details how each group performed this role within the socio-economic context of northern Siam from the 1880s to the 1930s. Specifically, this chapter challenges the idea that the Chinese were the dominant ethnic group in the Siamese economy. The multi-ethnic division of labour in the teak trade made it different from other businesses in Siam wherein the Chinese generally played a major role.

Finally, the dissertation considers the use of elephants as a source of labour in the teak business. In previous studies on teak, the utilisation of elephants within the industry has rarely been mentioned or positioned within a business context. In brief, elephants were crucial sources of labour for the teak industry. Specially, elephants were the property of teak companies and in some cases of their sub-contractors. The role of elephants is explained in a separate section in order to show the unique context and uses of elephants in the teak trade.

### 5.1 Living and Working in the Forest

In general, working in the forest was more dangerous than jobs in urban areas. Consequently, many young officers tended to stay less than five years in the forest. There were two main

---

<sup>679</sup> Braund, H. E. W., *Calling to Mind: Being Some Account of the First Hundred Years (1870 to 1970) of Steel Brothers and Company Limited* (Oxford: Pergamon Press, 1975), 46.

reasons why they resigned after working for a period as a forester. First, there was the risk of dying from tropical diseases, such as malaria and dysentery. The statistics from the first rural survey in 1930–1931 indicates that a large number of malaria and malaria-related diseases were commonly found in northern Siam. A government report documented that 43.9 per cent of mortalities were caused by malaria, whereas a survey conducted in 1930 and 1931 by Zimmerman found that malaria caused 62.7 per cent of deaths in the surveyed districts.<sup>680</sup> For some years, dangerous epidemics like cholera, malaria, small-pox, and beriberi emerged together.<sup>681</sup> Many fatalities of people working in the teak sector were a result of these diseases. Herbert Slade, the founder of the Forest Department, passed away in 1905 after contracting cholera while working in Akyab (now Sittwe) the capital city of Arakan (now Rakhine) province, Burma.<sup>682</sup> Indeed, tropical contagions were so common amongst company staff that they regularly rotated employees to and from Bangkok. For emergency cases, company staff were sent to Europe for full medical examinations and treatment.<sup>683</sup>

Crime along the borders and in the forest areas was the second reason that dissuaded people from working in the teak business. Although the number of deaths caused by violent crime was much lower than the mortality rate resulting from disease, some foreign foresters were murdered in the forest.<sup>684</sup> Throughout the history of teak business in northern Siam, only two Bombay Burmah officers were murdered in the forest area. The first case occurred in 1910.<sup>685</sup> The second case followed in 1929 in the Salween area.<sup>686</sup> Both deaths were the result of armed robbery. Furthermore, reports by the police of British India detailed that foreign staff were shot at various times and suffered from other frequent injuries from working in forestry and the teak business.<sup>687</sup>

The theft of money and robbery were regular occurrences for people involved in teak business. Serious robberies often ended in the loss of life because salaries and expenses in the forest areas were paid in cash. Money was always transported in a lockable metal box. Thus,

---

<sup>680</sup> Carle Clark Zimmerman, *Siam: Rural Economic Survey 1930–31* (Bangkok: Bangkok Times Press, 1931), 247, 264, 266.

<sup>681</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1910 on the Trade and Commerce of the Consular District of Chiangmai*, 4.

<sup>682</sup> “Herbert Slade, O. U. S. E.,” *The Indian Forester* 31 (1905): 320–321.

<sup>683</sup> Campbell, *Teak-Wallah*, 113–114. The author of the book was hospitalised and examined by a tropical disease specialist in London.

<sup>684</sup> R. W. Wood, *De Mortuis: The Story of Chiang Mai Foreign Cemetery*, 5th (Bangkok: Craftsman Press, 1999).

<sup>685</sup> *ibid.*

<sup>686</sup> IOR/L/PJ/6/1974, File 364 Attack on an employee named ‘Upton’ of the Bombay Burmah Trading Corporation: Report Issued by Telegram.

<sup>687</sup> *The Straits Times*, “Shooting in Siam: European Attacked and Wounded at Paknampho,” June 22, 1908

carrying any object made of eye-catching material, such as metal or aluminium, could easily create the wrong impression that there were valuables at hand. In 1923, for instance, the typewriter of a messenger for Bombay Burmah was robbed by armed men because of such a misunderstanding.<sup>688</sup> According to the report written by a British diplomat, the confrontation was with an ordinary looking guy carrying a gun – that is to say, a common enough sight in northern Siam.<sup>689</sup> Another example can be found in a memo penned by Alfred Macdonald, the first Bangkok manager of the Bombay Burmah in Siam from 1897 to 1900; it details the story of an unsolved case of the murder of a Bombay Burmah doorkeeper. Macdonald was of the opinion that the system of law enforcement in northern Siam was weak and ineffective; and, as such, there were frequent instances of theft and robbery.<sup>690</sup>

Working in the forest was a collaboration between the teak companies and staff of the Forest Department. There were three processes which required cooperation from the Forest Department: 1) surveying and registering teak trees, 2) the girdling procedure, and 3) payment of fees for each log transported through the teak gate in the designated area.<sup>691</sup>

To fulfil everyday tasks in the forest, the position of forest manager or forest assistant manager required good physical conditioning<sup>692</sup> because they worked from 5 a.m. in the morning until the evening – that is to say, sunset – when necessary. They were stationed mainly in the concession areas, which was usually located far away from urban areas. Although they were entitled to annual leave, it was quite difficult to fill positions in the forest because many foreigners died of tropical disease. Also, there were repeated stories of encounters with dangerous animals like wild elephants and tigers. Notwithstanding that there are no official records confirming the stories of forest officers being attacked by a tiger or a bear,<sup>693</sup> a young graduate from a university in England noted these reasons when explaining

---

<sup>688</sup> “12545/17 (i) Despatch W. A. R. Wood 9 May 1923 Crime in Chiangmai consular district and Despatch H.Fitzmaurice 8 May 1923 Crime in northern Siam,” in Trotter, *British Documents on Foreign Affairs*, 206–207.

<sup>689</sup> Reginald LeMay, *An Asian Arcady: The Land and Peoples of Northern Siam* (Cambridge: Heffer, 1926), 71, 255.

<sup>690</sup> Macdonald, *My Experiences in Burma and Siam, 1881–1900*, 65–66.

<sup>691</sup> See chapter 4 for details.

<sup>692</sup> An assistant forester worked as a head of each teak forest assigned by the company. An assistant forester reported to a manager. The manager was usually stationed in a branch office located in the city or district area.

<sup>693</sup> Campbell, *Teak-Wallah*, 44–45.

why he preferred not to work in a remote area.<sup>694</sup> Nevertheless, the deaths of most officers in the forest were mostly a result of typhoid and pneumonia.<sup>695</sup>

Coolie labour, conversely, was easily filled by Karen and Khmu workers, who travelled from Burma and Laos respectively. They had different skills and served different functions in the teak business. Specifically, the Karen specialised in controlling and training elephants, whereas the Khmu were famous for their hard work as unskilled labourers.

In contrast to records about foreign staff members, there is less information available from either government or company sources detailing the different ethnic groups or peoples who worked as labourers in the teak industry. The only exception is the Khmu who were of interest to British diplomats because of their ubiquity in the teak trade. Moreover, there was a persistent story that the Khmu were naturally immune to forest diseases. Although there was not any scientific evidence to support this idea, this belief was generally accepted and emphasised in British reports. Similarities in climate and environment of the forest areas in northern Siam and the home district of the Khmu were the most reasonable answer explaining this apparent phenomenon. The reputed physical strength of the Khmu also ensured a strong demand for Khmu labour in the teak industry. Other putative Khmu qualities highlighted by people in teak business included that they were hard-working, humble, and loyal.

In summary, living and working in the forest was a dangerous endeavour filled with risks to life and limb; however, with great risk comes the potential for great rewards, and the teak trade was a large industry that provided many opportunities for prosperity and advancement. Indeed, the teak industry employed a large amount of people during the period covered in this dissertation. For the people who lived and worked in the forest, however, forestry was not only their specialisation, but it was also their passion.

## 5.2 Working in the Teak Business: Khmu, Chinese, and Thai

“Certainly its Lao inhabitants lead something of an Arcadian existence. If they work for two or three months in the year in the paddy fields, which one sees here and there wherever there is a clearing in the jungle, they earn enough to live in easy contentment for the remainder of the year on their chickens and with what they find around them.”

Cecil Dormer<sup>696</sup>

---

<sup>694</sup> Pointon, *The Bombay Burmah Trading Corporation Limited, 1863–1963*, 44.

<sup>695</sup> Wood, *De Mortuis*, 15–16, 34.

<sup>696</sup> “13999/5 Despatch C.F. Dormer 26 Jan. 1931,” in Trotter, *British Documents on Foreign Affairs*, 18–19.



This correspondence from Cecil Dormer, a British Minister Resident in Bangkok from 1929 to 1934, demonstrates his misunderstanding of work and livelihood in northern Siam. It was partially true that the native people preferred to be employed in some agricultural sectors. In fact, however, this decision was based on economic rationales rather than laziness. This section further details the roles played in the teak industry by different groups of people, namely the Khmu, the Chinese, and the Thai. It also provides an explanation why some specific groups chose to participate in teak business, while other groups such as the native Thai and the Chinese chose to play minor roles.

### 5.2.1 Labour in the Teak Business: the Case of the Khmu

The content in this section covers the Khmu, the most important ethnic group who worked as a labour in the teak industry. The Khmu is a Mon-Khmer speaking ethnic minority which dwells mainly in Laos and Vietnam. Before the Second World War, their livelihood depended on shifting cultivation.<sup>697</sup> Many of them also worked in the teak trade during its boom period.

Siam's ability to provide a continuous supply of teak depended on labour working in the forest. The teak site was usually located far away from urban areas. It was rice, however, dominated the economic structures and the livelihood of the people in the northern region. Rice producing areas were densely concentrated in the valleys between the mountains alongside meandering rivers. The basic geographical character of northern Siam forced the lowland people who depended on wet-rice cultivation to settle in the valleys, whereas other various ethnic minorities were scattered in the mountainous areas. Scientific information about teak indicates that, geographically, the foothills of mountainous areas located at 750 metres above sea level favour the cultivation of teak. At those heights, however, it was free from neither the lowland Lao (Tai) nor the hill tribes. In order to carry out the operation, teak companies needed to mobilise an enormous amount of labour.

The total number of Khmu who worked in the forestry industry in northern Siam peaked between 1901 and 1902. From the statistical data collected by the British Vice-Consulate in Chiang Mai from 1891–1914, the total number of Khmu labours working in forestry during these years was around 5,700. However, the consulate did not record this information after

---

<sup>697</sup> Jean Michaud, *Historical Dictionary of the Peoples of the Southeast Asian Massif* (Lanham Md.: Scarecrow Press, 2006), 124–125.

the outbreak of the First World War. The first year of the data collection was 1891, in which the number of Khmu was 4,000.

W. J. Archer, the British Vice-Consul in Chiang Mai, reported that, in 1879–1880, a large rebellion of Khmu took place against the lowland Laos in the Nam Ou area near Luang Prabang. The rebellion resulted in many deaths amongst both the Laos and the Khmu without resulting a decisive victory for either side. Both parties finally stopped the conflict and then peace returned to the area. After this, there was a constant stream of Khmu migration to Chiang Mai and its adjacent areas.<sup>698</sup> Besides the political conflict, the livelihood of the Khmu was harsh due to their dependence on dry rice. The amount of dry rice produced each year was barely enough for domestic consumption.<sup>699</sup> Lacking trading skills and established commercial activities, the Khmu faced difficult circumstances, especially during bad harvest years. In normal contexts, this economic hardship alone might not have forced the Khmu to migrate from their traditional areas. In fact, it was politico-economic factors which forced the Khmu to migrate westward and take up employment within the teak business. Teak companies guaranteed for every labourer.

It is quite common to find that people became confused between two different ethnic groups: the Khmu and the Lamet. The latter group was also known for working as labourers in the teak business, but probably in smaller numbers. William Archer explained the confusion, thus: “The Lamets differ from the Khamus in language, but not much in appearance”.<sup>700</sup> Since even people working in the teak business could not differentiate them based on their languages and appearance, the term Khmu will be used in this chapter to avoid confusion.

The large surplus number of Khmu shifted into the growing teak industry. A report by the British Consulate in 1893 confirmed that Nam Ou and Luang Prabang were the hometowns of the Khmu who travelled to northern Siam to work in the teak business. They travelled from Laos in a group headed by a Khmu headman, and they provided labour for teak companies or merchants in northern Siam. Normally each group of Khmu consisted of five to fifty members.<sup>701</sup>

---

<sup>698</sup> Archer, *Report on a Journey in the Mě-kong Valley*, 10.

<sup>699</sup> William J. Archer, *The Truth about the Mekong Valley* (Bangkok: Bangkok Times, 1891), 10.

<sup>700</sup> William J. Archer, *Report by Mr. W. J. Archer of a Journey in the Vice-Consular District of Chiengmai, Siam* (London: HMSO, 1888), 6.

<sup>701</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1893 on the Trade of the District of Her Majesty's Consulate-General at Bangkok*, 18.

Major economic developments in Southeast Asia from the nineteenth century until the Second World War saw large-scale industry employing cheap, unskilled labour, and profiting from exporting commodities to the global market. This pattern was common in Southeast Asia. Many companies, owned either by foreigners or natives, relied on a prevalence of cheap labour. Similarly, the teak business relied on a large number of unskilled Khmu workers from the towns of Nam Ou and Luang Prabang in western Laos. The system for recruiting Khmu labour was similar to the one used to recruit Chinese for southern Siam. In brief, agents located in China charged a fee to supply labourers. Although the movement of ethnic Chinese into Southeast Asia was done through many channels – for example, the kinship system, village membership and/or dialect – the supply of Khmu workers, an ethnic group dwelling in a mountainous and landlocked area, was achieved via different processes.

Pierre Orts, a Belgian employed by the Siamese government, visited Chiang Mai in 1897 to deal with a legal dispute related to the teak trade, specifically a case of libel between Siam and the United States. From his journal diary, he explained that the system for enlisting Khmu labour for teak companies was centred on a recruiting agent. The agent was a Lao nobleman from Luang Prabang. He lived in Chiang Mai and held the position of honorary consul appointed by the French government. He arranged the recruiting service via the headmen of Khmu tribes. The working contracts usually lasted for one or two years.<sup>702</sup> His service was very popular amongst teak businesses because he charged the companies a very small fee. Indeed, later he charged the Khmu labourers money instead.<sup>703</sup>

---

<sup>702</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Bangkok*, 6.

<sup>703</sup> *AGR I 184/418 Pierre Orts. Renseignements recueillis lors d'une mission au Laos siamois. 1897.*

Table 5.1 Total Number of Khmu Labour and Annual Salaries 1890–1914

Year	Wage Rupee	Tical or Baht	Number of Khmu Labourers	Labour cost ('000 baht)
1890	50	38		
1891				
1892				
1893	70	58		
1894	80	72		
1895	120	109		
1896	83	79	4000	316
1897	83	102	4000	408
1898	180			
1899	120	212	4000	848
1900	85	137		
1901		97	5700	553
1902		97	5700	553
1903		97	4060	394
1904		97	4100	398
1905		97	4140	402
1906		97	4180	405
1907		97	4220	409
1908		97	4260	413
1909		97		
1910		97	4340	421
1911	95	83	4380	364
1912	95	86	4420	380
1913	95	83	4460	370
1914	105	90	4500	405

Source: Sompop Manarangsan. *Economic Development of Thailand, 1850–1950: Response to the Challenge of the World Economy*, p. 133.

His position as a French honorary consul meant that he could bring labour from Laos to northern Siam without too much hassle from the Government of French-Indochina. Moreover, the Khmu were French subjects under the protection of the government in Indochina. Consequently, on various occasions, the French government use trivial accidents as a pretext to intervene in northern Siam. For instance, although this did not actually eventuate, a rumour was spread in northern Siam about the efforts of the Government of French-Indochina to raise the annual salary of their subjects. There were two explanations for this given at the time. First, the French government might have considered that the salaries paid to the Khmu were unreasonably low. Second, it was suspected that the French authorities intended to damage the teak trade because it was monopolised by the British government. However, these anxieties were groundless despite being entertained by various people in Siam. Using the services of the honorary consul appointed by the French authorities guaranteed that teak companies had access to Khmu labour.

During the early-to-mid 1890s, the annual salary for Khmu was between 30 to 50 Rupees.<sup>704</sup> However, the French authorities then intervened on behalf of the Khmu. Parallel to the establishment of the Forest Department in 1897, the French agency charged five Rupees for each Khmu per annum. The payment scale for Khmu was changed as well and the minimum wage for Khmu increased from 50 to 60 Rupees per annum in 1896. Although 60 Rupees was the annual salary for the first year, the company had to pay 70 Rupees in the second year. However, some Khmus received up to 80 or 90 Rupees per annum during their second year.<sup>705</sup> The control French authorities exerted over their Khmu subjects further tightened in 1899; teak companies now needed to guarantee a consumption cost of five Rupees per month for each Khmu worker. The consumption cost covered rice, tobacco, and curry-related ingredients. The French-Consul in Siam established an employment section for taking care of Khmu workers in the teak business and handling legal cases when the employer breached their hiring contracts.<sup>706</sup> These new regulations instituted by the French authorities, combined with the first series of regulations from the Forest Department, obstructed the ability of local entrepreneurs to invest in the teak business. These regulations forced companies in the teak industry to invest on a large scale. As a result, small entrepreneurs without adequate funding were excluded from the action.

---

<sup>704</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiangmai*, 6.

<sup>705</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1896 on the Trade of Chiangmai*, 13.

<sup>706</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiangmai*, 6.

This new scheme forced companies to expand their workforce in order to produce economies of a large enough scale to succeed in the teak trade. As a result, the demand and subsequent race for Khmu labourers were intense. In 1899, this demand had pushed up the minimum salary for non-skilled Khmu labour to 120 Rupees per year plus meals and clothing.<sup>707</sup> A capable and experienced mahout, or elephant handler, called for 240 Rupees per annum – an increase from 110 Rupees per annum in the previous year. Most companies managed to pay the new salary at 210 Rupees per annum.<sup>708</sup> Nevertheless, the annual salary for non-skilled Khmu dropped in 1901 from 110 or 120 Rupees to 80 or 90 Rupees.<sup>709</sup> The situation improved after a French company received its first forestry concession in Siam in 1909.<sup>710</sup> As a result, the French authorities relaxed its policies on the migration of Khmu. Consequently, a large amount of Khmu from Luang Prabang suddenly came to look for work in northern Siam in 1910. Subsequently, annual salaries sank to 80 or 90 Rupees for labour in forestry works and 90 to 110 Rupees for a mahout.<sup>711</sup> However, salaries increased again in 1911 to between 90 to 100 Rupees for labour and between 100 to 120 Rupees for mahout.

Contracts were usually valid for two years and not more than three years except in exceptional circumstances. Avoiding a labour shortage was a major concern at an operational level in the forest. The example of the Salween area suggested that labour shortages could easily affect the productivity of the whole area. However, the scarcity of labour at many extraction sites in the Salween area increased the bargaining power of labourers in forestry areas. Furthermore, the company was required to satisfy the labourers' by supplying opium as an extra item of employment.<sup>712</sup> In some cases, groups of Khmu searching for work in the teak business travelled to Siam and were hired without the assistance of an agent. They did this in order to avoid being charged a fee. Some of these groups included growing boys and even small children. In order to avoid labour shortages, teak companies needed to hire as many labourers as possible, even if, technically, only adults could legally be put to work.<sup>713</sup>

---

<sup>707</sup> A monthly estimation for the spending on food per worker in the forest was approximately three Rupees. See Holt Samuel, *A Thousand Miles on an Elephant in the Shan States*, 215.

<sup>708</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiengmai*, 6.

<sup>709</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1901 on the Trade and Commerce of the Consular District of Chiengmai* (London: HMSO, 1903), 6.

<sup>710</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1909 on the Trade and Commerce of the Consular District of Chiengmai*, 10.

<sup>711</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1910 on the Trade and Commerce of the Consular District of Chiengmai*, 9.

<sup>712</sup> *ibid.*, 8.

<sup>713</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1911 on the Trade and Commerce of the Consular District of Chiengmai*, 11.

In short, it was rare to see an oversupply of labour in the teak business in northern Siam. However, some provinces proximate to Laos – Nan for example – had plentiful supply of Khmu labour for the industry.<sup>714</sup> Conversely, concessions located far from Laos - for instance, the Salween area – often faced problems related to labour scarcity because of their distance from the Khmu heartlands.

According to the regulations stipulated by the French Consulate, a working contract covered a minimum of two years. The teak company and an individual Khmu could then renew this for another two years on a voluntary basis. Although there is no data detailing the number of Khmu who renewed their contracts, it can be assumed that the number was quite low. The French government in Indochina used this contract system to prevent the emigration of too many Khmu to northern Siam. The government wanted to prevent too much emigration because of low population density in the Khmu areas of Laos.<sup>715</sup> The French government's efforts to control the migration of Khmu eventually failed however.

### 5.2.2 The Chinese: Intermediaries and Sawmill Workers

Amongst the ethnic groups who worked in teak business, the role of the Chinese has not been discussed at any great length in the existing academic literature. The first limitation in understanding the role of Chinese in the teak industry is a lack of adequate information. Compared to central and southern Siam, knowledge of the Chinese living and working in northern Siam is limited. Even the first census of Siam carried out in 1904 does not provide a comprehensive or complete figure because many areas of northern Siam were excluded.<sup>716</sup>

The role of the Chinese in the teak business can be divided into two groups. First of all, ethnic Chinese in the teak trade acted as intermediaries or resellers of low quality teak intended for domestic consumption. Second, the mass migration of Chinese into Siam provided some Chinese labour to sawmills in Bangkok, major cities like Chiang Mai and Lampang, and to a lesser extent, the smaller provinces.

---

<sup>714</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1912 on the Trade and Commerce of the Consular District of Chiangmai*, 19.

<sup>715</sup> Olivier Evrad, "Highlanders' Mobility and Colonial Anxieties: A Political History of the Khmu Migrants in Siam," in *Scholarship and Engagement in Mainland Southeast Asia*, ed. Oscar Salemink (Chiang Mai: Silkworm Books, Forthcoming).

<sup>716</sup> Volker Grabowsky, "The Thai Census of 1904: Translation and Analysis," *Journal of the Siam Society* 84, no. 1 (1996): 52.

In general, Chinese intermediaries played an important role within the domestic market in Siam. The teak business was no exception, but Chinese intermediaries in the teak industry performed different functions to those in the rice trade. This was because the barriers to entry into the teak business were very high and required strong financial backing.

However, there is insufficient information pertaining to the exact functions of ethnic Chinese involved in the domestic teak trade. In the nineteenth century, for instance, there is only one set of statistical data vis-à-vis ethnic Chinese in the teak business. Nevertheless, the Chinese dominated the domestic teak market. These were divided into two groups: Chinese registered as subjects of Siam, and Chinese registered as French subjects. The Chinese registered as Siamese subjects had a 48 per cent share of the whole market, while the Chinese registered as French subjects had a 10 per cent share. In total, the market share of Chinese actively buying teak in the domestic market was as high as 58 per cent, with British companies accounted for the remaining 42 per cent.<sup>717</sup> The total percentage of market control by the Chinese continually declined from start of the twentieth century until the 1930s. The high financial costs required to succeed in the teak industry prevented Chinese entrepreneurs from competing for teak in northern Siam. In other words, the opportunities to participate as an industrial entrepreneur in teak was extremely limited. In this context, ethnic Chinese could neither compete with Western companies as entrepreneurs, nor with the Khmu as unskilled labour. The only job available for Chinese in teak business was semi-skilled labour in the sawmills.

Initially, there were no spaces for ethnic Chinese to participate as industrialists in the cutting and exporting process. However, Chinese merchants penetrated the domestic market by focusing on lower quality or rejected teaks, whereas foreign companies targeted premium export items. The cycle of this secondary business started annually in the teak floating season. Teak logs floated down the Chao Phraya River and passed through the duty gate at Pak Nampho in Nakhon Sawan province. Chinese intermediaries would then wait for the teak to be examined by company representatives stationed in the same province. The Chinese competed with other groups for the rejected teak logs that were then put up for auction. The Forest Department sold rejected or low quality teak logs at a lower price, either by public auction, or through negotiations between the prospective buyer and company representatives. Rejected logs were usually acquired at a flat rate based on bulk amounts.

---

<sup>717</sup> Black, *Siam*, 6.



Chinese labour was also employed in the furniture industry and worked in sawmills. The skills of Chinese artisans in woodworking, notably in shipbuilding, had long been recognised in Siam. During a diplomatic mission to Siam during 1821 and 1822, John Crawfurd recorded that all of the foremen in shipbuilding industry prior to the Bowring Treaty were Chinese.<sup>718</sup>

Besides highly skilled labour required in the shipbuilding business, there were also non-skilled and semi-skilled labourers working in small-sized sawmills. In general, male adults could saw any kind of timber. A sawyer, who is a non-skilled labourer, for example, used a handsaw to saw teak logs into small pieces as ordered. Workers in the non-skilled category received 3.25 to 4 Baht per each small size, 4 to 5 Baht for each medium size, and 5 Baht for each bigger piece. On the other hand, a semi-skilled labour, who could saw big teak logs into smaller pieces without damaging the wood, received a higher salary based on negotiations.<sup>719</sup> In contrast to other jobs in the teak business, each individual unskilled worker could develop their skills and reach the semi-skilled level without specific training and education.

Due to a lack of the statistical numbers regarding Chinese labourers in sawmills, it is difficult to explain the position and development of the labour working at such sawmills. What is clear, though, is that sawmills which used human labourers tended to be small operations. The teak timbers which came from these small sawmills were then supplied to the local market. From the 1900s, however, an increase in the number of steam-powered sawmills, with their increased quality and speed, reduced and replaced the role of Chinese labourers in sawmills located in the major cities.

Chinese business prowess in Southeast Asia was largely based on institutional or cultural factors such as surnames and dialect groups. Many cultural preferences were later invented to help members of these group to gain competitive advantages and economic benefits. Informal institution and other organisations (for instance, a professional association or shrine association) were aimed at overcoming unfavourable business conditions. These associations helped their members to compete with foreign business rivals and other Chinese from outside of their social group. As a result, ethnic Chinese had a competitive advantage derived from social capital, both in terms of financial and non-financial aid, especially in comparison to native peoples. It is important to mention here that, amongst the Chinese, each dialect group

---

<sup>718</sup> John Crawfurd, *Journal of an Embassy from the Governor-General of India to the Courts of Siam and Cochin China: Exhibiting a View of the Actual State of those Kingdoms*, 2nd ed, 2 vols. (London: H. Colburn and R. Bentley, 1830), 159.

<sup>719</sup> *The 1894 Directory for Bangkok and Siam*, 29.

controlled and had access different levels of social capital in a variety of economic sectors. In the teak business, for example, most small-sized sawmill proprietors were Hainanese. Their business interests were concentrated in sawmills, shipbuilding, and fishery. In the north, the Hainanese<sup>720</sup> were the first ethnic Chinese pioneers in the teak business. However, due to their small investments, it was more difficult for Hainanese, in comparison to other dialect groups, such as the Teochew and the Hokkien. These latter two dialect groups possessed vast social, business, and cultural networks which resulted in stable business connections and affluence.<sup>721</sup>

The Siamese government attempted to reduce the influence of British companies by supporting the Chinese who registered as Siamese subjects in the teak business. The government tried to provide selected Chinese companies and local merchants a competitive advantage by giving them priority during the tender process for teak concessions. A similar tactic had been successfully employed in southern Siam in the tin industry. The case of the Na Ranong family in the southern region is a case study on how such state patronage led to success in the south. The family controlled politico-economic power and became an agent of the Siamese government in the south.<sup>722</sup>

Governmental ignorance regarding the specific characteristics of different industries was the main reason for failure in the teak business. Although the teak trade required less technology and modern equipment than tin, the managerial system pertaining to teak in the northern region was more complicated. As such, providing favourable business conditions did not lead to the success of Chinese merchants in teak. Rather than preferential treatment, Chinese entrepreneurs needed financial resources. A lack of financial assistance in Siam was their real handicap. Moreover, mismanagement, combined with an inability to adapt to economic conditions following the First World War, are additional reasons why Chinese merchants failed in teak business. Two Chinese companies involved in the teak industry, Kim Seng Lee and Fong Lee, for example, went bankrupt in 1918 and 1922 respectively.

---

<sup>720</sup> Hainanese is a dialect group from Hainan Island of China. The island is located in the South China Sea.

<sup>721</sup> George William Skinner, *Chinese Society in Thailand: an Analytical History* (Ithaca, N.Y.: Cornell University Press, 1957), 86–87.

<sup>722</sup> Cushman, *Family and State*.

### 5.2.3 The Lao, the Natives of the North: neither Workers nor Officers

The term Lao utilised in this section refers to the Tai-speaking group – a native population of northern Siam, which lives in lowland areas. The native peoples were usually referred to as Lao in government documents until the 1950s. The term conveys a derogatory meaning and was usually employed by Siamese people from the central plain, Chao Phraya, or by the Siamese government. The native population, in contrast, designate themselves as Khon Müang (คนเมือง). From the information available, it appears that only a small number of Lao people participated in the teak business.

There are three factors explaining why Lao people did not work in the teak business. First and foremost, an overlap of working times was a major constraint. Both wet-rice cultivation and the teak business required labourers during the rainy season. Second, the salaries paid to labourers in the teak trade were insufficient to persuade native people to transfer from the agricultural sector given that the latter tended to be more lucrative for individual workers. Finally, a policy of forced migration promoted by the state and the occasional state-imposed corvée system discouraged people from working in the teak industry.

Nevertheless, teak companies attempted to employ native people during the 1890s. At the time, Siam had instituted a number of major reforms, including the establishment of the Forest Department. Furthermore, French authorities took a number of measures to protect the Khmu – French subjects who worked in the teak industry. An increase in the annual salary of the Khmu – a result of regulations instituted by the French Consul in northern Siam – and a labour scarcity affected teak productivity from 1899 to 1905. It was not until the year 1900, however, that attempts to employ Lao<sup>723</sup> workers yielded a positive result. Prior to 1900, there existed a widespread prejudice that the Lao were a “lazy race” and inefficient workers. Nonetheless, the employment of Lao people in the teak industry started in 1902. Small amounts of native people were employed and received an average annual salary similar to that paid to Khmu. British companies found little difference between the working capabilities of Lao and Khmu so there were no negative effects in terms of productivity.<sup>724</sup> Nevertheless, finding native Lao willing to work in the industrial sector was difficult prior to the Second World War. Lacking access to modern education, native people preferred to work in

---

<sup>723</sup> A lowland native people of northern Siam.

<sup>724</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1900 on the Trade and Commerce of the Consular District of Chiangmai*, 8.

agricultural sectors and maintain their living standards through farming activities. They also produced handicrafts as a side occupation to supplement their incomes.<sup>725</sup> As mentioned earlier, farming activities generated higher incomes than working as a wage labourer in the industrial sector.<sup>726</sup>

In rural areas during the 1930s, the use of non-family members as manual labour in non-rice cultivation industries<sup>727</sup> was more prevalent than in rice cultivation operations.<sup>728</sup> This reflected the labour needs of agriculture and the fact that people could earn a higher income here than working in other sectors. Therefore, family relatives were given priority to work in these more lucrative positions. In contrast, teak companies never tried to increase salaries or improve working conditions for labourers. In short, the poor working conditions and low pay characteristic of the teak industry meant that native people chose to remain in agriculture without any hesitation.

However, wage was not the sole factor which informed the career choices of the native Siamese in the northern region. Similarly, the teak working season, which followed the wet-rice cultivation season, was not the main factor stopping the Siamese from working in the teak business. In fact, since the early nineteenth century the government had implemented a policy of forced migration to northern Siam resulting in a large influx of new settlers to the region.<sup>729</sup> This policy of forced migration implemented by the state continued intensively until the mid-nineteenth century and then started to slow.<sup>730</sup> As a result, land needed to be cleared in order to provide space for new settlements. The government expected these settlers to work near these clearings rather than work far away from the settlements. Incentives, such as tax exemptions, were traditionally used to farm uncultivated land in the northern region.

Forced migration by the state during the second half of the nineteenth century coerced the population into previously uninhabited areas. Villagers were required to move and work

---

<sup>725</sup> James Madison Andrews, *Siam. 2nd Rural Economic Survey, 1934–1935* (Bangkok: Bangkok Times Press, 1935); Katherine A. Bowie, “Unraveling the Myth of the Subsistence Economy: Textile Production in Nineteenth-Century Northern Thailand,” *The Journal of Asian Studies* vol. 51, no. 4 (1992); Konrad Kingshill, *Ku Daeng, the Red Tomb: a Village Study in northern Thailand*, 3rd (Bangkok: Suriyaban Publisher, 1974), 57–58.

<sup>726</sup> Porphant Ouyyanont (พอพันธ์ อุยยานนท์), “Wage in Thai Economic History (ค่าจ้างแรงงานในประวัติศาสตร์เศรษฐกิจไทย),” *Thammasat Economics Journal* 14, no. 1 (1996): 51, 54–60.

<sup>727</sup> Northern Siam In the 1930s experienced the demand for labour in tobacco and orchard.

<sup>728</sup> Andrews, *Siam. 2nd Rural Economic Survey, 1934–1935*, 21–22.

<sup>729</sup> Volker Grabowsky, “Forced Resettlement Campaigns in northern Thailand during the early Bangkok Period,” *Journal of the Siam Society* vol. 87, 1 & 2 (1999): 69.

<sup>730</sup> Grabowsky, *Bevölkerung und Staat in Lan Na*, 300–312, 321–323.

depending on their own resources and manpower without any support from the state. Reports detail the miserable nature of their living conditions and the high mortality rate in these areas: “The hardships which these poor people have to undergo during the first year of their settlement are so severe, that few of them have emigrated to the province of their own free will [...]”.<sup>731</sup> Only one of these settlements developed into a small town with a city-wall and a Buddhist monastery.<sup>732</sup> It is arguable, however, that this one case of forced migration only succeeded because it was located near a trade route in an area with rich natural resources.<sup>733</sup>

Adapting to a new settlement area was difficult so the decision to switch from the agricultural sector to work as a wage labourer was unlikely to happen. Importantly, each family member had an obligation to work in the newly opened rice fields. Forced migration denied villagers the opportunity not only to participate in commercial agriculture, but also put the pressure on people to survive in the new settlement areas.

There are no records detailing how these migrations to the north affected their original hometowns. Nevertheless, it is logical to assume that the demographic structures of their original hometown were altered. The town’s loss of manpower would have had economic implications. A similar problem faced by both new and old settlements was how to maintain the balance between livelihood and demographic change. The demand for new male members reflected on the matrilocality character of northern Siam. In northern Siam, it was common practice for the bridegroom to live with the bride’s family and provide labour for the extended family.<sup>734</sup>

Favourable incomes derived from cash crops and the necessity to maintain labour within the family and community were influential factors accounting for people’s decision to continue working in the agricultural sector. The proportion of employment in agricultural sector overshadowed other sectors until the interwar period. Data from 1930 and 1931 suggests that the percentage of income derived from rice was higher than any other product. It shows that agricultural products accounted for 85.23 per cent of household income.<sup>735</sup> Also, population

---

<sup>731</sup> Archer, *Report by Mr. W. J. Archer of a Journey in the Vice-Consular District of Chiangmai, Siam*, 7.

<sup>732</sup> *ibid.*, 3.

<sup>733</sup> *ibid.*, 9–10.

<sup>734</sup> Chatthip Nartsupha (ฉัตรทิพย์ นาถสุภา), *The Thai Village Economy in the Past* (เศรษฐกิจชุมชนหมู่บ้านไทยในอดีต) (Bangkok: Sangsan, 1990), 61.

<sup>735</sup> Andrews, *Siam. 2nd Rural Economic Survey, 1934–1935*, 62.

density was high proportional to the amount of arable land available in northern Siam.<sup>736</sup> It is thus not surprising why a family with a large or middle-sized plot of land decided to choose agricultural activities. In the 1920s, the expansion of road and railway networks helped to connect Bangkok and northern Siam. As a result, the paddy price in Bangkok was high enough to persuade native people to cultivate wet-rice.<sup>737</sup>

Furthermore, working as an officer for the government gained popularity amongst young natives. This is unsurprising considering the above average wages attached to such positions.<sup>738</sup> Conversely, working in the teak business was one of the only choices available for landless farmers and villagers living in remote areas far from trading centres or communications networks.<sup>739</sup>

Teak companies were not unique in suffering from labour shortages, however. Railway construction in northern Siam also encountered the same problem. Even with assistance provided by local government officers in aid of recruiting new labourers, efforts to entice local people into the railway project definitively failed. It was reported that the construction company paid much higher wages in its efforts to retain local employees in comparison to other non-agricultural occupations, but it was still difficult to recruit the necessary workers required to ensure the efficient completion of the project.<sup>740</sup>

### 5.3 Working in the Teak Business: British Subjects, Company Officers, and Government Positions

#### 5.3.1 British Subjects

Apropos to the history of the teak business in northern Siam, British subjects should be praised for their role as industry pioneers. Nevertheless, it is first important to discuss the definition of “British subjects”. It refers to any person from an area under British colonial rule in South and Southeast Asia. However, this section limits the explanation to the ethnic

---

<sup>736</sup> Paul T. Cohen, “Problems of Tenancy and Landlessness in Northern Thailand,” *The Developing Economies* vol. 21, no. 3 (1983): 245–246.

<sup>737</sup> Department of Overseas Trade, *Report on the Commercial Situation in Siam at the Close of the Third Quarter, 1922*, 40.

<sup>738</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1914 on the Trade and Commerce of the Consular District of Chiangmai*, 8.

<sup>739</sup> Ratanaporn Sethakun, *Economic and Cultural History of the Chiang Mai and Lamphun Basin* (ประวัติศาสตร์เศรษฐกิจวัฒนธรรม เชียงใหม่-ลำพูน) (Chiang Mai: Silkworm Books, 2009), 282.

<sup>740</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1913 on the Trade and Commerce of the Consular District of Chiangmai*, 9.

groups – for instance, the Burmese, Karen, Shan, and Tongsoo – which were involved in teak business. While some of these were born on Siamese territory, others originally came from Burma when it was part of British India. This dissertation uses “British subjects” to avoid the ambiguities and inaccuracies vis-à-vis different ethnic groups which feature in both Thai and British documents. Thus, the focus of this section is different from the previous discussion on ethnicity. It uses the legal definition of a group of people comprised of various ethnicities rather than a single ethnic group. Usually, documents about teak ambiguously identify specific ethnicities as Shan or Burmese. Sometimes the document avoids this ethnic uncertainty by simply referring to people from Burma as British subjects. To circumvent this ambiguity, the term “British subjects” is used when referring to ethnic groups from either Burma or Siam who were registered under the protection of the British government and engaged in teak extraction activities.

In 1909, a population survey found that about 10,000 Asian British subjects lived in northern Siam. The majority were Shan and Tongsoo. The Shan was the largest group of British subjects involved in the teak business; they consisted of 70 per cent of British subjects working within the industry. In contrast, the number of Burmese involved in the teak business comprised of only ten per cent.<sup>741</sup> The ethnic composition of British subjects, however, varied in different localities. In 1902, for example, an inspection tour of the Siamese government in Lampang province found a large number of Shan immigrants. In some small villages, there were over 200 Shan families.<sup>742</sup>

The investments of Burmese merchants in the teak business were rather small. There are two factors for this: first, teak was unregulated. As such, the decision to grant forestry concessions and the duration of leases depended on local chiefs. Arbitrary behaviour could thus result in misery for teak investors. An investigation conducted by Captain Thomas Lowndes clearly supports this line of argument.<sup>743</sup> Second, small investments resulted from a lack of accumulated capital amongst Burmese merchants and an absence of formal financial institutions. This lack of capital hindered the ability of Burmese merchants to expand their business operations. In addition, the profits derived from Burmese businesses were often spent on private endeavours rather than reinvested into business operations. These private

---

<sup>741</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1911 on the Trade and Commerce of the Consular District of Chiangmai*, 4.

<sup>742</sup> NAT Mor Ror 5 Mor 2.14/95 Lampang Inspection Tour (มร 5 ม 2.14/95 รายงานตรวจราชการเมืองลำปาง).

<sup>743</sup> FO 69/55 Journal kept by Captain Lowndes, Superintendent of Police British Burma, whilst on a Mission to the Zimme Court.

expenses tended to be divided into two opposite purposes: personal pleasure and religious donations. The use of capital gains for personal pleasure and merit-making highlights the ignorance of Burmese merchants regarding the value of reinvesting profits, especially when combined with their inability to access alternative financial support.<sup>744</sup> Before the beginning of commercial banking in Siam, access to credit was usually based on informal relationships between a creditor and a debtor. After the foundation of the Forest Department in 1897, British subjects who operated as teak merchants lost the capability to compete because forestry concessions required a minimum amount of funds to be held in reserve.

As British subjects, many Burmese and Shan were familiar with their corporate employers and the English language. This social capital and knowledge gave them a huge advantage over other ethnic groups working within the industry. As a result, the Burmese typically worked as foremen coordinating between British officers and Khmu workers. Some of them failed to receive forestry concessions and became subcontractors for foreign companies.

The Karen, conversely, were famous for their elephant-related skills, and were in charge of elephant training and handling. They received a higher salary than the Khmu. In 1897, the salaries for Burmese working in British teak companies were recorded in a report about the teak industry. A young employee without any experiences usually earned a starting base salary of only 20 Rupees per month. However, the range of monthly salary which Burmese employees received was between 100 to 200 Rupees. Furthermore, there were some extraordinary cases which paid some 250 Rupees per month.<sup>745</sup> A diversity of occupations accounted for these differences in income and the opportunities available to British subjects in the teak business. One Burmese subject who decided to work in northern Siam during the growth of teak business was Joseph Augustus Maung Gyi. He arrived in Chiang Mai in 1904 and lived there until 1914.<sup>746</sup> He was a barrister for Gray's Inn. He practised law and specialised in forestry issues.

---

<sup>744</sup> Satow, *Diplomat in Siam*, 159. Ernest Satow is the only person who referred to the difficult financial situation of Burmese entrepreneurs and their mismanagement. Samuel Holt Hallett, a British railway engineer in British India, during his surveying duty in the Salween area, also reported on the extravagant spending behaviour of Burmese foresters in the Salween area, see Holt Samuel, *A Thousand Miles on an Elephant in the Shan States*, 123.

<sup>745</sup> AGR I 184/418 Pierre Orts. *Renseignements recueillis lors d'une mission au Laos siamois. 1897.*

<sup>746</sup> PUA A 19 David Fleming MacFie. *Chiang Mai Record (1884–1919).*



### 5.3.2 Officers in the Teak Business

The history of white-collar workers is almost unrecorded in Thai history. A possible reason for this is that the development of business and industry in Siam predominantly relied on labour-intensive strategies. Information about lucrative industries such as rice, teak, and tin confirm this assumption. From a business perspective, however, it would be remiss to study the condition of each designated business without an understanding of the role of white-collar workers, especially their role in the development of industry during the nineteenth and twentieth centuries. As such, this section details the specific role played by white-collar in the teak business during this time.

The general perception of white-collar workers is that they occupy the position between the executive and manual labour. White-collar workers could be defined as a skilled workforce whose job duties are necessary to run day-to-day tasks in a modern business environment. Fundamentally, the position is based on two skills: literacy skills for reading and writing, and mathematical skills for accounting purposes. In short, literacy is the most important skill for office work and business communications.

On many occasions in the teak industry, however, managerial tasks were part of job as well. Young British officers in the teak business, for instance, were required to perform clerical tasks, as well as act as a manager or assistant manager in the forest during the cutting and floating seasons.<sup>747</sup> Most officers were required to work independently in this environment with little supervision. The head office of Bombay Burmah in London had a clear policy of non-intervention regarding how staff in different forests managed their duties. Company headquarters in London mostly handled financial issues, staff recruitment, and pricing.<sup>748</sup> Living deep in forest without telecommunication equipment, young Western foresters were frequently required to make swift but critical decisions regarding such issues as staff sickness or an angry musth elephant.<sup>749</sup>

It also seems that certain company practices blurred the line between white-collar and blue-collar workers. For example, a technical position in a Bangkok steam mill held the title of

---

<sup>747</sup> Without the company register, it is difficult to correctly estimate their average age. However, from another source like Chieng Mai Record and De Mortuis, these officers tend to be in their twenties. Please see PUA David Fleming MacFie, A 19 Chieng Mai Record (1884–1919); R. W. Wood, *De Mortuis: The Story of Chiang Mai Foreign Cemetery*, 5th (Bangkok: Craftsman Press, 1999).

<sup>748</sup> Pointon, *The Bombay Burmah Trading Corporation Limited, 1863–1963*, 44. Pointon, *Wallace Brothers*, 31.

<sup>749</sup> Campbell, *Teak-Wallah*, 85–97; Wood, “Of Teak and Elephants,” 95.

“engineer”. However, this was not an engineering position as understood by contemporary definitions, but rather a mechanic stationed in each sawmill. Thus, a blue-collar position in a steam mill was listed as an “engineer” in a business directory prior to the First World War, even though this does not correspond to contemporary definitions of engineering as a white-collar vocation.<sup>750</sup> Certainly, however, all of these workers were positioned above the native (including Chinese) clerks.

The functions performed by young officers in teak companies were important for business development. Their main task was to oversee the cutting of teak logs in the forest and their transport to the duty station in Pak Nampho, or the Kado duty gate on Salween River near Moulmein in present day Myanmar. Being an officer in the teak forest required a strong mentality and good physical conditioning, much more so than working in the rice or tin industries. In a nutshell, their job duties were to coordinate the various processes of teak production, collect field data, and report this back to both their company and the Forest Department. In brief, these young officers ensured that the teak production in the forest proceeded smoothly.

### 5.3.3 Foresters in the Royal Forest Department

This section discusses the migration of foreign staff working for the Forest Department. It explains the efforts of the Siamese state to regulate and control the teak industry in order to maximise state profits while concomitantly preserving the teak forests. It is important to examine the actions of the government through the Forest department. Epistemologically and methodologically, it would be negligent to explain the history of the teak industry based only on the notion of “market mechanisms” without reference to interactions between the state and business sectors. Therefore, this section focuses on the role of Western foresters working in the Forest Department.

Both teak companies and the Forest Department used the term “forester”. For teak companies, the term “forester” was often used interchangeably with “company officer” – that is to say, it had the same meaning as the position explained in the previous section. Conversely, in the Siamese bureaucratic system the term forester was used to describe as a non-managerial position for both Westerners and local staff members alike. Consequently, this term confused people working in the Siamese bureaucracy. As part of administrative

---

<sup>750</sup> *The 1894 Directory for Bangkok and Siam; the Siam Directory, 1912*, 142–143, 163; *Directory for Bangkok and Siam*, 322–323.

reforms in 1901, the Department later defined and regulated the term of each position by putting each one onto a different pay scale. According to the new regulation, the “forester” is the lowest non-administrative position above “forest guards” (คนเฝ้าป่า). However, the term forester was sometimes referred to by the Siamese government as “forester” (พนักงานป่าไม้ – literary Forest Civil Service officer), including native Siamese and foreign officers working in the Forest Department.

The establishment of the Forest Department massively affected the teak business in Siam. Previous studies, however, have only paid attention to the Forest Department’s political control of teak.<sup>751</sup> Conversely, this section argues that the Department’s efforts to regulate and control teak were concomitantly intended to maximise state revenue and maintain the future sustainability of the teak industry. The ideology of the Forest Department was similar to that of the Forest Department in India and Burma.<sup>752</sup> The notion of “scientific forestry” was imported to Siam by the suggestion of Herbert Slade in 1896.<sup>753</sup> The major contributions of foreign staff members to the state’s control of forestry is indisputable. Accordingly, their success brought uneasiness to the Siamese ruling-elites in Bangkok who had great concerns about the increasing influence of British officers in both the Forest Department and teak business in general.

Before 1932, the government was heavily dependent on foreign civil servants because there was no established educational institutions in Siam that taught modern subjects such as botany, forest mapping, surveying, and so forth. This dependency on foreign staff was not only a matter of education and technical expertise, but also a result of language barriers and lack of local management experience. In 1901, King Rama V expressed his concerns about the dominant role of British foresters in the Forest Department. As a result, he flagged the possibility of filling high-ranking positions within the department with Siamese officers, but this proved difficult.<sup>754</sup> In spite of the government’s efforts to reduce the number of foreigners in the Department, the plan was not successful. Almost three decades later in 1926,

---

<sup>751</sup> Chamaichom Sunthornwat (ชมัชโฉม สุนทรสวัสดิ์), “A Historical Study of Forestry in northern Thailand from 1896 to 1932 (การศึกษาเชิงประวัติศาสตร์เกี่ยวกับกิจการป่าไม้ทางภาคเหนือของไทย ตั้งแต่ พ.ศ. 2439 ถึง พ.ศ. 2475),” Salairat Dolarom (ไสลรัตน์ คลออารมย์), “Development of Teak Logging in Thailand 1896–1960 (พัฒนาการของการทำป่าไม้สักในประเทศไทย พ.ศ. 2439–2503).”

<sup>752</sup> Bryant, *The Political Ecology of Forestry in Burma: 1824–1994*; Usher, *Thai Forestry*.

<sup>753</sup> Slade, *Slade’s Report on the Forestry in Siam before the Establishment of Forest Department Ror Sor 114 (1896)*.

<sup>754</sup> NAT Mor Ror 5 Mor 41/2 Forest Management (ม ร 5 ม 41/2 จัดการป่าไม้).

documents from the Office of the Financial Adviser once again highlighted the ongoing lack of management experience amongst Siamese officers. In brief, the departure of an experienced foreign forester led to the gradual decline of the Siamese economy because his local replacement was not up to the task of fulfilling this managerial role. The Office of the Financial Adviser even proposed a pension scheme and higher salaries for foreign foresters to encourage them to stay.<sup>755</sup>

In some cases, the behaviour of high-ranking officers was suspicious. For example, small businesses made a complaint about Herbert Slade for his alleged favouritism towards Bombay Burmah, the biggest British teak company. The main problem, though, emerged when concessions expired. At this time there tended to be many teak logs left in the forest waiting for transportation and girdled teak trees waiting to be harvested. The Siamese government and the Ministry of Interior had a very compromise policy for every concessionaire, in particular for native merchants. Also, for small-sized concessions a short-term extension was allowed for transportation.

Theoretically, after the contract expired, teak logs left in the forest belonged to the government, but Slade did not follow this rule. A government auction for these logs should have been held between 1901 and 1902, but an inspection in Lampang found that no public auction took place. It was later revealed that most of teak logs were confiscated after the expiry of the concession and were finally sold to Bombay Burmah. Moreover, Slade sold teak logs to Bombay Burmah at below the market price because the company promised to pay on site. The company, however, broke this promise and postponed the payment. The situation cast much suspicion on Slade and caused the government to worry about favouritism and corruption. Only on one exceptional occasion was a small amount of teak logs sold to Lam Sam (ลำซำ), a Chinese merchant registered as a French subject.<sup>756</sup> Another example of suspicious behaviour was reported by a Siamese forester in 1902 regarding correspondence between a British forester in the Forest Department and a British company. The report claimed that native officers were, in effect, prohibited from accessing those letters despite the fact that these were official correspondence. All of the document shelves were locked and only British officers had access to the keys.<sup>757</sup>

---

<sup>755</sup> NAT FA 0301.1.10/6 Gratuities and Pensions for European Forest Officers. 1914.

<sup>756</sup> NAT Mor Ror 5 Mor 2.14/95 Lampang Inspection Tour (มร 5 ม 2.14/95 รายงานตรวจราชการเมืองลำปาง).

<sup>757</sup> NAT Mor Ror 5 Mor 2.14/46 Phrae Inspection Tour (มร 5 ม 2.14/46 รายงานตรวจราชการเมืองแพร่).

However, the influence of British foresters gradually declined after the First World War. After many young native foresters graduated from the Forestry School in India, they had accumulated enough experience to start working in middle-level management. Nevertheless, the substitution process was quite slow. Although the status of teak as an important export item had declined by the 1920s, foreign foresters still played a dominant role in the Forest Department. The watershed moment came in 1924 when the first native Siamese was appointed as the head of department. Nevertheless, many supervisory positions continued to be held by foreigners. The final trace of British foresters appeared in a promotional volume created by the Siamese government in 1930 to encourage investment in Siamese trade and industry during the Great Depression.<sup>758</sup> After this, the role of Western foresters completely disappears from the records of the Forest Department.

#### 5.4 Elephants in the Teak Business

“For what the camel is in the desert, and the dog upon the ice-floe, that is the elephant in the forests of Nan. For hauling teak, for collecting rattans or jungle grass, for carrying tobacco, rice, or cotton, and for any journeying away from home, he is indispensable to his master.”

Herbert Warington Smyth<sup>759</sup>

The story about the teak business was popularised because of the exotic portrayal of elephants in various media outlets. Majestic images of elephants were frequently recounted by foreigners who travelled in the remote hinterlands of Southeast Asia. Many book titles magnify the adventurous and exotic character of the elephants in the east. *A Thousand Miles on the Elephant in the Shan State* by Holt Samuel Hallett<sup>760</sup> and *Temples and Elephants: the Narrative of a Journey of Exploration through upper Siam and Lao*<sup>761</sup> by Carl Bock are classic examples of the books in this category. There are also several less famous books with elephants in their titles.<sup>762</sup> However, these books do not provide pertinent information regarding the relationship between elephants and the teak business.

---

<sup>758</sup> Bourke-Borrowes, “The Teak Industry of Siam,”

<sup>759</sup> Herbert Warington Smyth, *Five Years in Siam from 1891 to 1896*, 2 vols. (London: J. Murray, 1898), Volume 1, 106.

<sup>760</sup> Holt Samuel, *A Thousand Miles on an Elephant in the Shan States*.

<sup>761</sup> Carl Bock, *Temples and Elephants: The Narrative of a Journey of Exploration through Upper Siam and Lao* (London: Samson Low, Marston, Searle & Rivington, 1884).

<sup>762</sup> Frank Vincent, *The Land of the White Elephant: Sights and Scenes in Southeastern Asia. A Personal Narrative of Travel and Adventure in Farther India, Embracing the Countries Elephant of Burma, Siam, Cambodia, and Cochin-China. (1871–2)* (New York: Harper & brothers, 1874); George Bacon, *Siam: The Land of the White Elephant, as it was and is* (New York: Scribner, Armstrong, 1892); John Heughan, *By Canoe and Elephant: Adventures in the Burma-Siam Jungle* (Sydney: Angus and Robertson Limited, 1942); R. M.

In contrast, the memoirs written by foreign residents in northern Siam extensively detail their experiences with elephants. W. A. R. Wood, the former British Vice-Consul in Chiang Mai, recounts a variety of stories about elephants in his book. In Wood's view, working with elephants was a tough, demanding, and sometimes dangerous job. His description of elephants makes us think about the individual character of an elephant based on his or her experience with their mahout during the training period. To prevent the elephant from becoming sick and weak due to overwork, the company or elephant owner would set a three month summer break from March to May so that the elephant could regain its strength and energy.<sup>763</sup>

In fact, an elephant is a weak animal with a big body. In the teak business, elephants started work when they turned 25 years old and retired at the age of 60. However, elephants older than 50 years worked leniently with smaller-sized logs and transported loads weighing less than 100 kilograms. In contrast, a mature elephant could haul a single log weighing up to two metric tons or use its tusks to lift teak logs of less than 700 kilograms in weight. On average an elephant could move 450 cubic metres of teak for a distance of one kilometre in terrain of average difficulty.<sup>764</sup> Hiring an elephant to transport agricultural products was a common practice in northern Siam, but the owners generally preferred employment in the teak business.<sup>765</sup>

Following the establishment of the Forest Department in 1897, the forestry reforms made by Slade opening up the teak business for a competition, drove up both the demand for and price of elephants in northern Siam. The example of Nan helps to explain this boom in the teak business. Since the 1893, elephant trading almost completely disappeared because of strict controls exercised by the French authorities on the left bank of Mekong River (the area that is present day Laos).<sup>766</sup> However, just one year after the establishment of the Forest Department, the price of elephants from the outer provinces like Nan was near that in Chiang Mai<sup>767</sup> and reached parity in 1898.<sup>768</sup> After this, the price of elephants inflated three-fold in

---

Rickover, *Pepper, Rice, and Elephants: a Southeast Asian Journey from Celebes to Siam* (Annapolis: Naval Institute Press, 1975).

<sup>763</sup> Wood, W. A. R., *Consul in Paradise*, 127.

<sup>764</sup> *Thai Encyclopaedia for Children Volume 3* (สารานุกรมไทยสำหรับเด็ก เล่มที่ 3) (Bangkok: Khrusapha, 1977), 303.

<sup>765</sup> Andrews, *Siam. 2nd Rural Economic Survey, 1934–1935*, 22.

<sup>766</sup> The area on the left bank of Mekong in 1893 is the present day Lao People's Democratic Republic. *Diplomatic and Consular Reports. Siam. Report for the Year 1896 on the Trade of Chiengmai*, 17.

<sup>767</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1898 on the Trade and Commerce of the Consular District of Chiengmai*, 15.

1899<sup>769</sup> due to the high demand of teak companies. As a result, elephants from Nan were sold for the teak extraction in Chiang Mai, Lampang, and Phrae. Additionally, large scale investment in teak drove up the price of elephants because of the increasing number of teak concessions granted to foreign companies. Although Nan was a small province possessing a limited number of elephants, it nevertheless sold 32 elephants in 1900 alone. This demand not only increased the market price of elephants, but also affected the overall price of food and other related equipment.<sup>770</sup>

A French commercial agent stationed in Bangkok estimated that teak extraction required between 100 and 125 elephants for a coverage area of 3,000 hectares.<sup>771</sup> Each working camp possessed six elephants. These had a work cycle of three days on and two days off.<sup>772</sup> After the French annexation of the Siamese territories on the left bank of Mekong in 1893, the supply of elephants from the left bank was blocked by French authorities. When combined with the increasing price of elephants in the eastern part of northern Siam, the British business community became convinced that French were trying to undermine British influence in the teak business. Furthermore, a Chinese company was forced to look for a supply of elephants in the Malay Peninsula.<sup>773</sup>

The major factor that reduced the number of stolen elephants was the new regulations regarding forestry lease in 1909. Before the new regulations, a forestry lease was divided into many smaller areas meaning that more elephants were needed to cover these areas. The new regulations annexed smaller areas and combined them into one large concession. As a result, companies were able to use less elephants. This was because elephants could work more

---

<sup>768</sup> *ibid.*, 14.

<sup>769</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiangmai*, 5.

<sup>770</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1900 on the Trade of Nan* (London: HMSO, 1901), 4. In fact, Nan is resource rich and was a powerful principality of the Lan Na Kingdom. However, its power declined in 1890s, especially in 1893 when France took control over the left bank of Mekong River. Thus, it comes as no surprise that British commercial report in 1900 described Nan as small and in possession of limited resources. See details on the development of Nan in Grabowsky, *Bevölkerung und Staat in Lan Na*, 224–230, 299–300, 368–371; Sarasawadee Ongsakul (สร้อยศักดิ์ อึ้งสกุล), *The History Lan Na* (ประวัติศาสตร์ล้านนา), 103–114.

<sup>771</sup> Ministère du commerce, *Rapports commerciaux des agents diplomatiques et consulaires de France*, 39.

<sup>772</sup> Wood, “Of Teak and Elephants,” 93.

<sup>773</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Bangkok*, 6.

efficiently in bigger concessions than those granted before 1909. Consequently, the demand of elephant decreased sharply in 1910-1911.<sup>774</sup>

This fall in the market price of elephants also decreased incidents of elephant theft. In short, as the price of elephants in Burma decreased, so did the number of thefts.<sup>775</sup> The theft of elephants from the forest was a serious problem which lasted for almost two decades without any really effective measures being taken by Siamese authorities. In the absence of governmental preventative measures, some elephant owners took matters into their own hands. Indeed, W. A. R. Wood wrote an anecdote about the killing of an elephant thief by professional hunters. The owner of the stolen elephant hired professional hunters to follow its trail and when the hunters caught up with the thief it ended in the latter's death.<sup>776</sup>

Preventing the theft of elephants became a central concern for each company or sub-contractor that owned elephants. Elephants were often stolen while roaming freely after work while grazing on food in the evergreen forest. Preventative measures taken by teak companies helped to reduce the number of thefts. The later development of a regional policing system and the institution of branding also helped to decrease the number of stolen elephants.<sup>777</sup> As a result, between 1913 and 1914, more than 90 per cent of stolen or strayed elephants were recovered.<sup>778</sup>

Customarily, the Siamese government had reserved elephants for governmental functions, especially warfare. However, when the British Army captured Mandalay in 1885, the state's demand for elephants declined significantly. The latest record detailing company complaints over the annual elephant fee levied by the Siamese government can be found in a letter written by De Bunsen to the Siamese government in 1896. Traditionally, the government charged ten Rupees per annum for elephants that were not being used for warfare. This

---

<sup>774</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1911 on the Trade and Commerce of the Consular District of Chiangmai*, 11.

<sup>775</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1910 on the Trade and Commerce of the Consular District of Chiangmai*, 8.

<sup>776</sup> Wood, W. A. R., *Consul in Paradise*, 135.

<sup>777</sup> *ibid.*

<sup>778</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1913 on the Trade and Commerce of the Consular District of Chiangmai*, 10.



should have only been charged in years of war but, in practice, the British companies complained that they were charged every year during peacetime as well.<sup>779</sup>

Following the First World War, the role of elephants in the teak business declined because of their long-term costs. The expansion of the railways, machinery and mechanical equipment like hauling machines were used to access and harvest new areas of the forest. The decision to replace elephants with machines was influenced by at least two concrete factors: first, the high price of elephant due to an unstable supply; and second, the weakness of elephants after a severe heat wave. The development of the railway network also reduced the time and cost for necessities to reach specific forestry stations. Moreover, machines can work for long hours and do not require summer breaks like an elephant. Another important factor was the declining cost and maintenance of machines after the First World War.

During the 1920s, the use of elephants in the teak business gradually declined for these reasons. From the photos taken from the 1920s onward, oxen-carts and motor vehicles appeared to be used more often for long distance transportation outside the forest area. The number of elephants controlled by teak companies during this period also supports this argument. In 1922, Bombay Burmah had 3,028 elephants in both Salween and Siam – the highest number recorded in the company’s history.<sup>780</sup> After this, the number of elephants owned by Bombay Burmah dramatically declined.

Nevertheless, certain duties like transporting teak from the extraction site in the forest still required elephant hauling power. Working in the teak forest without elephants became inevitable as companies shifted to water transport and log floating methods. However, when a log became stuck and blocked the movement of other logs, only an elephant could freely move into the water and remove this obstruction from the riverine traffic network.<sup>781</sup>

## 5.5 Conclusion

The working system in teak business was different from the working system for other major export products of the same era such as rice and tin. It was dangerous because of the disease and banditry could occur at any moment. The teak industry also demanded the relocation of

---

<sup>779</sup> NAT Mor Ror 5 Mor 16.1/10 Letter from Mr. De Bunsen, British Consul-General about the Forest Contract in Monthon Lao Chiang (ม. ร. 5 ม 16.1/10 เรื่องมิสเตอร์เดอบุนเซนอุปทูตอังกฤษเดือนความตกลงเรื่องสัญญาป่าไม้มณฑลลาวเฉียง แล ร่างสัญญาที่มีอยู่ด้วย).

<sup>780</sup> Pointon, *The Bombay Burmah Trading Corporation Limited, 1863–1963*, 45.

<sup>781</sup> Graham, *Siam*, 68.

labour deep into the forest and work was conducted intensively during the rainy season when the local people were busy in wet-rice cultivation. Moreover, working as a coolie in the teak business commanded a small salary.

This character of the teak business thus encouraged the import of labour from outside of Siam. The migration of ethnic groups from British India and French-Indochina certainly had a big impact on the teak industry. Indeed, the growth of the teak trade occurred in tandem with intensive migration during the 1890s.

This chapter counters preconceptions regarding Chinese economic success in Siam, as well as negative attitudes vis-à-vis the work ethic of native Thai peoples. Both their level of participation and business successes related to politico-economic structures and the extended networks of each individual ethnic group. The teak business provided many ethnic groups with access to employment. However, the division of labour in the teak business was arranged according to ethnicity. The Khmu worked as non-skilled labourers. British subjects such as the Burmese, Shan, and Karen also worked as unskilled labour, but some of were also employed as skilled or semi-skilled labour. This put them in a higher position than the Khmu. Moreover, relying on ethnic ties within mainland Southeast Asia was not enough to succeed in the teak industry. Many European staff members were worked in a managerial position both in teak companies and in the Forest Department.

Last but not least, the working system in the teak business demanded the employment of elephants. The use of elephants was very important in the teak trade. Elephants were used to transport teak and move logs blocking canals and rivers.

The migration of for ethnic groups to northern Siam, the managerial expertise of European staff, and the role elephants, constituted the three points of a tripod which underpinned the teak industry in Siam. This system eventually started to decline in 1920s, however, when mechanised transport and local staff members started to substitute for elephants and European experts in the management positions.

## Chapter 6 The Teak Business: Companies, Management, and Networking

“The similarity of the races under British and Siamese rule on the Burmah-Shan States and Siam frontiers, the constant intercourse between these races having its origin in native trade, and the presence of powerful British Companies leasing large extents of country from the Siamese Government, or from Chiefs subject to the Siamese Government, have tend to produce somewhat special conditions in the north of Siam.”

British Foreign Office<sup>782</sup>

This chapter explains the character of the teak industry and the companies that were involved in it. It investigates the development of various companies and how they operated within the industry. This chapter also explores how teak companies with different business structures adapted to both the domestic conditions of Siam and the international economic environment.

Moreover, this chapter argues that the idea of a company was a new form of economic organisation based on the economic development in Europe. The business prowess of the company model was able to surmount political difficulties. This chapter will show how the foreign companies operated successfully in territories outside their business world and profited from its associated networks. To demonstrate this, this chapter examines how teak companies recruited local staff within northern Siam.

The last section discusses the impact that the teak industry had on the development of capitalism in northern Siam. It addresses how teak contributed to Siam’s economic system and tracks the decline of teak as a major export item in 1920s.

This chapter, however, does not cover all of the companies involved in teak due to a lack of available information about a variety of companies and individuals working within the industry. For example, there is a dearth of substantive information regarding L. T. Leonowens. Ltd. This is despite the fact that Leonowens is a famous figure, having been childhood friend of Rama V, and the son of Anna Leonowens, whose life story was adapted into the novel *Anna and the King*. Indeed, his early life as a child and his career as a military officer serving in the Siamese army is well documented.<sup>783</sup> Nevertheless, the author of this dissertation found only fragmented information pertaining to his company. Specifically, the company L. T. Leonowens Ltd. was controlled by Denny, Mott & Dickson (hereafter DMD)

---

<sup>782</sup> FO 881/9006 SIAM: Report. General Report for 1906.

<sup>783</sup> W. S. Bristowe, *Louis and the King of Siam* (London: Chatto & Windus, 1976).

in London.<sup>784</sup> It is also known that DMD focused on premium quality teak for European markets<sup>785</sup> and possessed no forestry concession in Siam. Similarly, another two companies and two individuals involved in teak, but which left relatively few records, include A. Pialet & Co., The Siracha Company, Ltd., Mr. F. V. De Jesus,<sup>786</sup> and Dr. Marian Cheek. As a result, this dissertation does not investigate these companies in any substantive fashion due to a lack of relevant information.

### 6.1 The Character of Company and their Competition

The Siamese government collected records about the teak business from 1897, the year it established the Forest Department. Most of the data about the teak business prior to the twentieth century does not detail much about the character of the industry or the way that is changed over time. The data is also fragmented.

The most accurate statistics of total forestry concessions per company were recorded in 1902 (Table 6.1). In this year, the total number of the forestry concessions permitted by the government for extraction was 83. The largest percentage of teak investment was conducted by British companies and British subjects. This grouping consisted of 59 out of 83 concessions. This consisted of 71 per cent of the total business. Within these 59 concessions, British companies controlled 39 concessions, while 21 concessions were operated by British subjects (that is, Burmese or Chinese entrepreneurs). Collectively, Siamese subjects made the second largest investment in teak. This statistical data included Chinese who registered in Siam within the same category. The third category is a Danish company, followed by another unknown Dutch company, both of which received a forestry concession.<sup>787</sup>

---

<sup>784</sup> Andrews, *The Bombay Burmah Trading Corporation Limited in Burmah, Siam and Java: Teak, the Cutting and Marketing*, vol. 2, 113.

<sup>785</sup> Dickson, "The Teak Industry," 175.

<sup>786</sup> *ibid.*

<sup>787</sup> Chusit Chuchat (ชูสิทธิ์ ชูชาติ), "The Origin of Capitalism and the Impact on Peasant Society in the northern Region 1855–1932 (การดำเนินระบบเศรษฐกิจทุนนิยมกับผลกระทบที่มีต่อสังคมชาวนาในภาคเหนือ พ.ศ. 2398–2475)," *Social Science Journal* vol. 5, no. 1 (1981): 43.

Table 6.1 Division of Teak Concessions in 1902

Concessions calculated by nationality	Number of concessions
Britain	59
Siamese or Chinese in Siam	22
Danish (East Asiatic Company)	1
Dutch	1
Total	83

Source: Chusit Chuchat (ชูสิทธิ์ ชูชาติ). *The Origins of Economic Capitalism and the Impact of Peasant Society in Northern Thailand 1855–1932* (การดำเนินระบบเศรษฐกิจทุนนิยมกับผลกระทบที่มีต่อสังคมชาวนาในภาคเหนือ พ.ศ. 2398–2475), p. 43.

A complete list of teak forest concessions appears again in 1927. It covers 47 concessions (Table 6.2). Since 1902, the percentage of concessions held by each company declined significantly. For British companies, Bombay Burmah only possessed eight concessions and Borneo Company, the second largest company in the teak business, only possessed four. The number of teak concessions managed by ethnic Chinese business-people in Siam was reduced to four concessions.<sup>788</sup> This declining number of forestry concessions was a result of the Forest Department's desire to reduce the number of small and scattered concessions, instead combining several concessions into a single territory.

The changing proportion of teak concessions for ethnic Chinese producers was also related to the bankruptcy of Kim Seng Lee, as well as the withdrawal of the northern princes and their family members from the politico-economic stage. Their concessions were reduced from thirteen in 1902 to just five in 1927. It is likely that these Chinese-owned entities extracted teak on a very small scale. A letter of appeal found in government records explains that these entities gained access to teak concessions from the government because of the necessity to

<sup>788</sup> NAT Mor Ror 7 Kor Sor 5/17/4 Forest Survey, Name list, Size, Number of total logs, and the name of the concessionaires. (มร 7 กษ 5/17/4 บัญชีสำรวจรายชื่อป่าไม้, ขนาดป่า, จำนวนไม้, กับชื่อบุคคลหรือบริษัทที่ได้รับทำป่าไม้สัก).

maintain their level of livelihood and dignity. It also details that some concessions were declined by the government.<sup>789</sup>

Government data from 1902 and 1927 suggests a near monopoly of the teak industry by British companies, especially by Bombay Burmah. Bombay Burmah possessed a large share of the teak forests in northern Siam. The percentage of teak forests held by Bombay Burmah increased further prior to the First World War when it took over the forests of Kim Seng Lee in Nan province in 1905.<sup>790</sup>

---

<sup>789</sup> NAT Kor Sor 17/55 Petition of Chao Ratchawong on the Mae Pheun and Mae It Forest – Petition Denied (1926) (กส 17/55 ขกฏีกาเจ้าราชวงศ์เช่าทำป่าไม้แม่เดือนและแม่อิฐ); NAT Kor Sor 17/94 Chao Keo Nawarat requests to extract teak in Mae Ta Maung Long (กส 17/49 เจ้าแก้วนวรรคน์ฎีกาขอรับเหมาป่าไม้แม่ต้าเมืองลอง).

<sup>790</sup> Andrews, *The Bombay Burmah Trading Corporation Limited in Burmah, Siam and Java: Teak, the Cutting and Marketing*, vol. 2, 112.

Table 6.2 List of Teak Concessions in 1927

Number	Forest Name	Province	Concessionaire	Duration of Contract	
				From	Until
1	Mae Pai	Mae Hong Song	Bombay Burmah Trading Corporation	01.03.1924	30.02.1939
2	Mae Yuam Mae Meoi	Mae Hong Song	Bombay Burmah Trading Corporation	01.03.1924	30.02.1939
3	Klong Suan Mark	Kamphaeng Phet	Lamsam Company	15.08.1923	14.04.1938
4	Mae Ngow	Lampang	Anglo-Siam Corporation	01.03.1924	30.02.1939
5	East Mae Yom	Phrae	Danish East Asiatic Company	01.03.1924	30.02.1939
6	Mae Kor	Tak	Bombay Burmah Trading Corporation	01.03.1924	30.04.1939
7	Maung Long	Lampang	Chao Ratchabut Lampang	01.03.1924	30.04.1939
8	Mae Tah	Lampang	Chao Ratchabut Lampang	01.03.1924	30.04.1939
9	Huai Luang	Lampang	Luang Prasarn Mairichit	15.08.1923	30.04.1939
10	Huai Bo Thong	Phrae	Chao Chankham	01.03.1924	31.02.1941
11	Mae Kok	Chiang Rai	French East Asiatic	01.03.1924	31.02.1942
12	East Mae Ping	Chiang Mai and Lamphun	Bombay Burmah Trading Corporation	01.03.1924	31.02.1941
13	Mae Jang and Mae Ang	Lampang	Bombay Burmah Trading Corporation	01.03.1924	31.02.1941
14	Mae Saroy	Lampang	Bombay Burmah Trading Corporation	01.03.1924	31.02.1941
15	Nam Sah*	Nan	Bombay Burmah Trading Corporation	01.03.1924	31.02.1941
16	West Mae Ping	Chiang Mai	Borneo Company Limited	01.03.1924	31.02.1941
17	Mae Tui	Lampang	Borneo Company Limited	01.03.1924	31.02.1941
18	Mae Tuen	Tak and Chiang Mai	Borneo Company Limited	01.03.1924	31.02.1941
19	East Mae Wang	Lampang	Leonowen	01.03.1924	31.02.1941
20	Mae Mok	Lampang and Phitsanulok	Leonowen	01.03.1924	31.02.1941
21	East Mae Yom	Phrae	Leonowen	01.03.1924	31.02.1941
22	Huai Yae	Phrae	Lamsam Company	01.03.1924	31.02.1941
23	Mae Saikam	Lampang	Chao Ratsamphanthawong	01.03.1924	31.02.1941
24	Klong Tron	Uttaradit	Mr. Yong Lim	15.04.1924	14.09.1941
25	Mae TaelaeKoKoh	Mae Hong Song	Chao Chantharangsri	01.03.1924	31.02.1941
26	Mae Jaem	Chiang Mai	French East Asiatic	01.03.1924	31.02.1941
27	Mae Pai	Lampang	French East Asiatic	01.03.1924	31.02.1941

28	Phayao Mae Chun	Chiang Rai and Nan	Anglo-Siam Corporation	No data	30.04.1935
36	Maung Fang	Chiang Rai	Borneo Company Limited	No data	31.01.1938
44	Klong Khalung	Kamphaeng Phet	Lamsam Company	01.07.1914	30.06.1929
45	Nam Wah and Mae Jarim	Nan	Chao Upparat Nan	No data	31.01.1933
46	Huai Luang Huai Phian	Lampang	Bombay Burmah Trading Corporation	No data	No data

Source: NAT Mor Ror 7 Kor Sor 5/17/4 Forest Survey, Name list, Size, Number of total logs, and the name of the concessionaires. (มร 7 กษ 5/17/4 บัญชีสำรวจรายชื่อป่าไม้, ขนาดป่า, จำนวนไม้, กับชื่อบุคคลหรือบริษัทที่ได้รับทำป่าไม้สัก). \*The document's condition is not good – the information the size of the forest and the total logs extracted from each forest could not be read.



French Asiatic succeeded in acquiring a teak concession in Chiang Rai province in 1905. Later in 1927, it had three concessions, located in Chiang Rai, Chiang Mai, and Lampang. However, the number and percentage of the forest controlled by each company does show their percentage of total productivity. For example, Danish East Asiatic never had more than one concession of teak forest, which was located in Phrae province. However, despite fact that in 1902 the Danish East Asiatic held only 1.2 per cent of the total forest area granted by the government, it nevertheless produced between two to five per cent of the teak exported from Siam.<sup>791</sup> Although there is no accurate data pertaining to total productivity, the proportion of productivity of Danish East Asiatic dropped dramatically to less than one per cent of total teak logs in 1927.<sup>792</sup>

It is difficult to understand competition amongst teak companies due to the lack of data for the period between 1903 and 1926. As such, it is unenviable task to attempt to analyse and understand company characters and the manners of competition without comprehensive data recording development during that 25 years period. The major question, though, is: how did Western companies control not only large scale extraction, but also the export of teak to global markets as well? This dissertation contends that two specific factors played a decisive role in the teak business, namely financial configuration and the structure of the agency company.

Financial capability and access to funding played an important part in ensuring success in the teak business (as discussed in Chapter 4). However, finance was not the only factor in business competition. The business model of an “agency company” is also a key element. The type of commercial organisation known as a “company” dates back to the year 1880 in the Thai economic system,<sup>793</sup> but the details and the operation of ‘agency company’ is under researched within the Thai context.<sup>794</sup>

---

<sup>791</sup> Pensak C. Howitz, *Thai-Danish Relations: 30 Cycles of Friendship* (Copenhagen: Royal Danish Ministry of Education, 1980), 87.

<sup>792</sup> NAT Mor Ror 7 Kor Sor 5/17/4 Forest Survey, Name list, Size, Number of total logs, and the name of the concessionaires. (มร 7 กษ 5/17/4 บัญชีสำรวจรายชื่อป่าไม้, ขนาดป่า, จำนวนไม้, กับชื่อบุคคลหรือบริษัทที่ได้รับทำป่าไม้สัก).

<sup>793</sup> *Siam Directory 1880*, 93–96.

<sup>794</sup> The most famous agency company is Jardine, Matheson and Co. The company was founded in Canton in 1832 to provide services for money remittances and the opium trade. However, the company has an infamous history because it was the major cause of the Opium War. The character of the company was adapted into “Noble House” a novel by James Clavell. For an example of a British agency business in Southeast Asia see, J. H. Drabble and P. J. Drake, “The British Agency Houses in Malaysia: Survival in a Changing World,” *Journal of Southeast Asian Studies* vol. 12, no. 2 (1981).

The number of companies specialising in teak increased significantly during the 1890s. Their business activities usually covered the export of Siamese products and the import of European products. These companies focused on trading activities. Due to limited business investment in Asia in the nineteenth and the early twentieth century, many non-commercial centres in Asia lacked essential services in banking and finance, as well as shipping and insurance.

The basic concept of an agency business is that companies faced difficulties when trying to open branches in remote parts of the world. A lack of knowledge regarding local politico-economic conditions and the expensive cost of maintaining a branch and staff members in a foreign country were major problems. The size of the Siamese economy was so small that many service companies refused to establish a branch in Bangkok. This lack of investment in the service sector created a business opportunity for trading companies in Siam to operate as an agency representing the major service companies for insurance and transportation. Major companies in the teak business such as Bombay Burmah and Borneo Company operated as agency businesses from the 1890s, whereas the Siam Forest expanded its activities from teak to trading and the agency business in 1908.<sup>795</sup>

These agency companies also provided services for both native and foreign merchants, such as shipping and insurance. In this circumstance, these companies not only gained benefits from teak, but also made profits from the services offered to their clients. Surprisingly, every Western company in the teak business offered shipping services. As a result, they easily triumphed over Siamese or Chinese merchants who tried to export teak to foreign markets. For example, Bombay Burmah was an agency of the British-India Steam Navigation Company. As such, it was not necessary for Bombay Burmah to invest in shipping infrastructure in Bangkok. The company used the wharf and facilities owned by the British-India Steam Navigation Company located near the Bombay Burmah office.<sup>796</sup> Consequently, Bombay Burmah economised a large amount of money and expedited the time it took to load teak logs, because it did not need to transport their products from the company warehouse to the port.

---

<sup>795</sup> Malcolm Falkus, "Early British Business in Thailand," in Davenport-Hines, R. P. T; Jones, *British Business in Asia since 1860*, 146.

<sup>796</sup> Andrews, *The Bombay Burmah Trading Corporation Limited in Burmah, Siam and Java: Teak, the Cutting and Marketing*, vol. 2, 104.

Danish East Asiatic had a similar business model. However, its main business was shipping, whereas teak extraction was only a small part of company activities. Before the First World War, Danish East Asiatic was the first shipping company that successfully sailed a steam ship from Copenhagen to Vladivostok, thereby connecting Europe and Asia.<sup>797</sup> The purpose was to profit from the Asian economy, not just to transport teak from the forest in Phrae province to Europe. The company invested in many industries in Asia. Owning a shipping line helped the company to increase its competitive edge and gave it an advantage in the teak business. This success also stemmed from the invention of the diesel engine<sup>798</sup> and the expansion of global trade.

As an agency of the Siamese government, Danish East Asiatic managed the Siam Steam Navigation Corporation from 1908 until the eruption of the Second World War in 1941. The Siam Steam Navigation Corporation operated a regular mail service between Bangkok and Singapore. It also covered ports in southern Siam, British Malaya, and the Straits Settlements. Likewise, Danish East Asiatic offered several other services; for instance, it procured western products for the Siamese government. Unlike Danish East Asiatic, British teak businesses did not own or directly operate shipping lines, but they functioned as agencies for insurance and shipping services. This was one of the keys to their superiority in the teak business.

To overcome transportation problems, Kim Seng Lee invested 3,000,000 Baht of registered capital in a new company, the Chino-Siam Steam Navigation Ltd, in 1908. In the first year, the company bought five steam ships and company shares were sold to twenty Chinese merchants in Siam. Business expansion during the first two years was a success. The company negotiated with a Norwegian shipping company to share five chartered ships between Kim Seng Lee and the Norwegian company.<sup>799</sup>

Chinese and Siamese merchants were unable to compete with Western companies because access to these services was more expensive for them. Although, for example, Kim Seng Lee was an influential Chinese company, it had difficulty exporting products to foreign markets.

---

<sup>797</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1897 on the Trade and Commerce of the Consular District of Bangkok*, 5. This service known as Japan–China Line stopped at many ports: Copenhagen – Oslo – Gothenburg – Antwerp – Rotterdam – Hamburg – Suez – Hong Kong – Shanghai – Yokohama – Kobe – Dalny (currently Dalian) – Vladivostok. See the detail of the Danish East Asiatic’s Japan-China Line in Roger W. Jordan, *The World’s Merchant Fleets, 1939: the Particulars and Wartime Fates of 6,000 Ships* (London: Chatham Publishing, 1999), 18.

<sup>798</sup> Danish East Asiatic was the first company to utilise the diesel engine. The company installed the new engine in the “Selandia” ocean-going ship for the Bangkok Line.

<sup>799</sup> *Diplomatic and Consular Reports. Siam. Report for the Siamese Official Year April 1, 1913 to March 31, 1914, on the Trade of the Consular District of Bangkok*, 15.

Kim Seng Lee had no shipping department or any established connections with foreign shipping companies so it frequently depended on Western shipping services. In the first year of business, the company used a pricing strategy to attract customers from foreign shipping companies. British consular reports considered their operation a success because the company reduced the market share of Lloyd's, a German's shipping business, and the most prominent shipping business in Siam.<sup>800</sup> However, the company returned a budget deficit every month for the first four consecutive years because of its low price strategy. In the fourth year, the nationalistic tone of some Chinese merchants, who had initially supported the company, waned and they became more suspicious of the director and its partners. Due to the ongoing loss of capital, shareholders decided to sell the company to the Cantonese government in 1912.<sup>801</sup> After a series of lawsuits, the story of Kim Seng Lee disappeared from the official record in the Siamese economic system.

The agency system model provided many advantages in the teak business. This was not only limited to the shipping business. Another example of how a forestry company operated and profited from the agency business is the Siam Forest Company, which supplied opium to the Siamese government from India. In 1917, the Siamese government decided to acquire opium from India instead of Singapore because of the expensive auction price quoted by the government agency in Singapore. The Siamese government decided to buy from Meyer, an opium seller in Calcutta, and the company was represented by the Siam Forest. The Siamese government paid the price in Sterling Pounds, which included the price of the opium, as well as insurance, shipping, and a commission for Siam Forest.<sup>802</sup>

The business category represented by Bombay Burmah, Borneo Company, Louis T. Leonowens Limited, and Siam Forest varied. By comparing the number of services offered as an agency in the business directories of 1894 and 1914, it is evident that the number of services represented by Borneo Company increased substantially during this time. In contrast, Bombay Burmah only provided agency services related to company's main activity: the export of teak. Therefore, Bombay Burmah, as an agency, provided a very small range of services compared to other companies. After two decades, the number of companies

---

<sup>800</sup> *ibid.*

<sup>801</sup> Thanom Tana (ถนอม ตระนา), "Rice Mills operation in Central Thailand, 1858–1938 (กิจการโรงสีข้าวในที่ราบภาคกลางของประเทศไทย พ.ศ. 2401–2481)," 102–105.

<sup>802</sup> Bongkoch Nantiwat (บงกช นันทิวัดน์), "Burmese chedis in Lampang during the reign of King Rama V (เจดีย์แบบพม่าสมัยรัชกาลที่ 5 ในเมืองลำปาง)" (Master of Arts, Silpakorn University, 2007), 125.

represented by Bombay Burmah only increased slightly from just three to five companies<sup>803</sup> (see Table 6.3 and Table 6.4).

Table 6.3 Agent Business represented by Teak Companies in 1894

Bombay Burmah Trading Corporation	Borneo Company Limited	Clarke & Co.
North British and Mercantile Insurance Company	Lloyd's	New Oriental Bank Corp. Limited (in liquidate)
Imperial Insurance Company, Ltd.	North China Insurance Co.	National Bank of China LTD.
Yang-tsze Insurance Assn.,Ltd.	Northern Assurance Co., Fire and Life	Com. Union Assurance Co. Ld.
	Hongkong Fire Insurance Co., Ld,	Siam Forest Co. Ld.*
	Singapore Insurance Co., Ld.	Kabin Syndicate of Siam Ld.
	New York Life Insurance Co.	Raneegunge Fire Clay Potter Work (Sub-agency)
		Indian Patent Stone (Sub-agency)

Source: The 1894 Directory for Bangkok and Siam, pp. 143, 154–155.

---

<sup>803</sup> *The 1894 Directory for Bangkok and Siam; Directory for Bangkok and Siam* Please see the tables below.

Table 6.4 List of Business represented by Teak Companies in 1914

Bombay Burmah Trading Corporation	Borneo Company Limited	Louis T. Leonowens Limited	Siam Forest Company Ltd.
<p>The British India Steam Nav. Co. Ltd.</p> <p>The Alliance Assurance Co. Ltd.</p> <p>The Yangtze Insurance Assn. Ltd.</p> <p>W.H. Harton &amp; Co., Calcutta.</p>	<p>Lloyd's</p> <p>Asiatic Petroleum Company Limited.</p> <p>Anglo-Saxon Petroleum Co., Ltd.</p> <p>Burmah Oil Co., Ltd.</p> <p>Nobel's Explosives Company Limited.</p> <p>James Buchanan &amp; Co.'s Whiskies.</p> <p>Dunlop Cycle Tyres.</p> <p>St. Pauli Breweries ("Girl" Brand Beer)</p> <p>W.A. Ross &amp; Sons, (Belfast Ginger Ale)</p> <p>Eastern Insurance Co. Ltd., (Fire)</p> <p>Federal Life Assurance Co. of Canada.</p> <p>Hongkong Fire Insurance Co. Ltd,</p> <p>North China Ins. Co. Ltd. (Fire and Life)</p> <p>Norwich Union Fire Insce. Society.</p> <p>Ocean Marine Insurance Co. Ltd.</p> <p>Royal Insce. Co. (Liverpool) (Fire and Life)</p> <p>Tokio Marine Insurance Co. Ltd.</p> <p>Triton Insurance Co. Ltd. (Marine)</p> <p>Peninsular and oriental Steam Navigation Co.</p> <p>Nippon Yusen Kaisha (Japan Line).</p> <p>"Shire" Line of Steamers.</p> <p>The "Bank" Line Ltd.</p> <p>Davies Turner and Co., Ltd.</p> <p>Van Oppen &amp; Co., Ltd., Forwarding Agents</p>	<p>Siamese Trading Corporation Ltd.</p> <p>Renong Tin Dredging Co. Ltd.</p>	<p>Commercial Union Assurance Co. Ltd. (Fire, Life and Marine.)</p> <p>Guardian Assurance Co., Ltd.</p> <p>Phoenix Assurance Company, Ltd.</p> <p>Chubb &amp; Sons Lock and Safe Co., Ltd.</p> <p>Pacific Mail Steamship Company.</p> <p>Toyo Kissen Kaisha.</p> <p>Lever Bros. Ltd.</p> <p>D.M. Horne &amp; Co., Rice Merchant.</p> <p>Sir W.G. Armstrong, Whitworth &amp; Co. Ltd.</p>

Source: Directory for Bangkok and Siam 1914, pp. 322–323, 331, 339.

In Siam, British companies involved in teak extraction also acted as service agents for many other companies. All British teak companies acting as an agent similarly represented business and financial services, as well as insurance and shipping lines. There is no further data that demonstrates the exact value of the agency business in the whole system, but it is clear that every British company in the teak business used their position as an agent to create a competitive advantage. Beside financial issues,<sup>804</sup> the services provided as an agency in finance and shipping limited the chance for Chinese and Siam merchants to compete with British companies. From the nineteenth century, many British companies operated as an agent or agency house in Asia. This was common in British colonial possessions such as British India (including British Ceylon and British Burma), British Malaya (including the Straits Settlements) and British Hong Kong. The agency business model finally declined after the Second World War because many companies started to invest directly in Asia. At the same time, the development of local companies with experience at an international level made the agency model outdated. The agency model ended in the 1970s when local Chinese and Indian merchants started to take over British agencies in Asia.<sup>805</sup>

## 6.2 Major Teak Companies and Management

This section investigates the individual companies operating in the teak business. To be precise, it details the distinctive character and management systems of each company. Specifically, it explains the extent to which each company succeeded or failed in the teak business and why.

This dissertation examines a select group of major teak companies operating in Siam from the 1880s namely: Bombay Burmah Trading Corporation, Borneo Company Limited, Siam Forest Company Limited (later Anglo-Siam), the Danish East Asiatic Company (Det Østasiatiske Kompagni), French East Asiatic (La Compagnie Est Asiatique Française), Indische Hout Import Maatschappij, and Kim Seng Lee. It also interrogates two cases of failures, the French merchants, M. G. Wartenau and Albert A. Giard.

---

<sup>804</sup> Please see the detail in the section 4.5 of the Chapter 4.

<sup>805</sup> Davenport-Hines, R. P. T and Geoffrey Jones, "British business in Asia since 1860," in Davenport-Hines, R. P. T; Jones, *British Business in Asia since 1860*, 19.

### 6.2.1 Bombay Burmah Trading Corporation

Before the annexation of Burma as a provincial unit of British India, there was a marked decline in the quantity and quality of teak sourced from Burma. As a result, Bombay Burmah, a major and influential company in the teak business, searched for a new source of teak. A rumour about the abundant quantity and excellent quality of Siamese teak soon spread amongst company staff. Accordingly, the company ordered some teak from Siam for inspection. The first order from Siam arrived in London in 1882. After the inspection process, the company was satisfied with the quality of teak from Siam. The company commissioned a survey team under the direction of the main office in Bombay. The first team arrived in Siam in 1884 after receiving official permission from the Siamese Legation in London. The team sailed from India and disembarked at Moulmein. The content of the first report sent back to London covered the possibility of erecting a sawmill and the prospect exporting Siamese teak.<sup>806</sup> The mission took place in 1884, just one year before the Third Anglo-Burmese War. The decision of the mother company, Wallace Bros. can be explained by the desire to reduce risk amid the uncertain circumstances characteristic of Burma in the early 1880s. Although the company could not predict the future viability of their business in Burma exactly, it nevertheless supplied pessimistic forecasts to the Indian Government and the Foreign Office in London.<sup>807</sup>

Following the end of the Third Anglo-Burmese War in 1885, the speed of extraction in the area of Upper Burma increased. However, the company faced a variety of challenges including banditry and widespread social upheaval caused by the collapse of the Konbaung Dynasty. Up until 1901, only one Western staff member managed to complete his employment contract with the company in Burma; the others were murdered, died of illness, or resigned.<sup>808</sup> Human-resource problems such as this prompted the company to reconsider the option of conducting operations in Siam.

Nonetheless, the result of war might have influenced the decision to continue operations in Burma. Hence, after the first survey, the company decided to buy teak from Siam, but it did not embark on a path of direct investment at this stage. Additional problems in Burma, however, encouraged the company to expand its business ventures in Bangkok. Bombay Burmah founded its Bangkok office as a sub-branch of the Rangoon office and established a

---

<sup>806</sup> Pointon, *The Bombay Burmah Trading Corporation Limited, 1863–1963*, 19.

<sup>807</sup> *ibid.*, 29.

<sup>808</sup> *ibid.*, 18.



residence for its employees in 1889. This office primary bought teak from the Bangkok market. One year after the establishment of the Bangkok office, the head office in London decided to send a second survey team to explore teak and business prospects in the eastern Salween area.

The second report envisioned an exceptionally promising future for the business. Indeed, the following assessment written by a company officer is demonstrative of these favourable impressions regarding the possibilities represented by Siamese teak: “This time, the report sound business friendly, people with milder temper than their Burmese neighbour, possessed non arrogance [...]”<sup>809</sup> The second report also contained valuable information value vis-à-vis understanding the teak business. It reported on the major teak business concentrations in Chiang Mai, Lampang, and Tak. Although Burmese merchants had influence over the teak business, for instance, they often lacked liquidity and suffered from a shortage of credit.<sup>810</sup> This assessment regarding a shortage of credit in the teak business was also endorsed by a British parliamentary report in 1895.<sup>811</sup>

In terms of organisational structure, Bombay Burmah was a family-run business. The origins of the Bombay Burmah can be found in the story of six Scottish brothers from Edinburgh. While their father was engaged in the construction and architectural business, the eldest son decided to leave Great Britain for a business career in Asia. In 1841, William Wallace joined Frith & Co. in Bombay. Later, he returned to London in 1844 and established the London branch of Frith, Wallace & Co. The company profited by performing an agency service for businesses in India and Ceylon. Over the next two decades during the 1840s and the 1850s, all of the brothers joined the business in India. The Wallace brothers then set up another company, and established Wallace & Co. in 1848. The new company was truly a family company which reserved management positions for family members or others loyal to company. Those who were not direct members of the family required family approval to enter into partnership positions.<sup>812</sup>

---

<sup>809</sup> *ibid.*

<sup>810</sup> *ibid.*, 34.

<sup>811</sup> Black, *Siam*, 3–4.

<sup>812</sup> John Micklethwait and Adrian Wooldridge, *The Company: a Short History of a Revolutionary Idea* (New York: Modern Library, 2003), 82–83. The authors refer to this form of British family business as a truly British ‘type’ prior to the First World War. This type of company tended to keep decision making within a small circle of family members. From the 1920s, however, many companies could not sustain their management capacities by promoting an untalented heir to an important position.

The turning point of the company and its entrance into the teak business commenced in 1856–1857 through the initiative of the eldest brother, when he established a new company bearing his name: William Wallace & Co. The company operated in the Rangoon and Moulmein areas. The founding of this new company was not done with the consent of his brothers. William Wallace & Co. specialised in timber and shipbuilding. To facilitate this, he successfully negotiated with the Burmese courts for a forestry concession in northern Burma.

The investments of William Wallace & Co. drained a lot of financial resources from the Bombay branch and the new company did not bring much in the way of returns on these investments. The risk of conducting business in Burma was of great concern to his siblings. The history book written by a company partner verifies the feud between William and his brothers. His brothers castigated William for these risky investments in the teak business, and claimed that these investments were driven by his negative temperance and overconfidence.<sup>813</sup>

In 1862, the Wallace family broke their relationships with non-family partners to form a new company. Subsequently, they formed a new company in London, Wallace Brothers & Co., which became the mother company of Bombay Burmah. There is no reliable information that explains why the brothers suddenly decided to establish a new splinter company. There are several possibilities, however, which may have caused this, including: the financial burdens of the elder brother's company: William Wallace & Co.; an agreement with a new partner; and/or a change in business direction.<sup>814</sup>

When they established Wallace Brothers & Co., the new company bought the shares of William Wallace & Co. as well as its sawmill and offices in Burma. They also changed the name of the company to the Bombay Burmah Trading Corporation Limited. The new company started to play a substantial role in the growth of the family business when teak became a major product. This was due to the growth of the ship-building industry both in India and Europe. The management style of Wallace Brothers & Co. was, in general, different from the way that British businesses operated in Asia. While most British companies in Asia – at least in Southeast Asia – hired non-family members for managerial positions, Bombay Burmah preferred the promotion of long-term employees as a partner in

---

<sup>813</sup> Pointon, *Wallace Brothers*, 13.

<sup>814</sup> *ibid.*, 14–15.

residence<sup>815</sup> and appointed them to the major branches in Asia. The task of partner in residence was to act as an adviser for the manager in each local branch office. This system helped the company retain knowledgeable and experienced staff. The idea of partnership incentivised staff to remain with the company rather than seek advancement elsewhere, for instance, by joining another companies or, indeed, by setting up a new company themselves. This system ensured that their partner tried their best to raise the company's profit or expand the scale of the company's operations. During the 1870s, for example, Bombay Burmah expanded their teak concessions in Upper Burma because of the initiative of two high ranking staffs in India: J. A. Bryce and H. Maxwell. Bombay Burmah then promoted both of them to partners in London and Bombay.<sup>816</sup>

Due to the influence of Bombay Burmah, and the percentage of the teak business controlled by the organisation, Siam's ruling elites felt very uncomfortable about the participation of the company in the Third Anglo-Burmese War in 1885. Following the war in Burma, Bombay Burmah fell out of favour with the Siamese political elite because of the company's reliance on the lobbying power of the British Foreign Office. The tactic deployed by the Siamese government was to use Bombay Burmah, and the influence of the company held with both the British and the Indian governments, to counter the influence of France on the western border of Siam.<sup>817</sup>

Bombay Burmah's ability to control the teak industry successfully from the boom of teak in the nineteenth century until its bust after the First World War was related with its distinct management structure. The progressive idea of decentralising managerial responsibilities was a major factor that helped Bombay Burmah succeed in the Siamese teak industry. In short, trusted managers remained in prominent positions without any competition from non-management level staff for many decades. One extraordinary example is G. E. Hewitt, who started working with the company in 1890. From 1902 until 1923 he was responsible for a sawmill in Bangkok. Another was M. S. Smith, who held the position of a rafting station manager from 1895 until 1924.<sup>818</sup>

---

<sup>815</sup> This is the system developed by the Bombay Burmah Trading Corporation. The company appointed senior staff as company partners to ensure loyalty.

<sup>816</sup> *ibid.*, 29, 102–103.

<sup>817</sup> Barton and Bennett, "Forestry as Foreign Policy," 67.

<sup>818</sup> Pointon, *The Bombay Burmah Trading Corporation Limited, 1863–1963*, 39.

### 6.2.2 Borneo Company Limited

Borneo Company Limited was registered in London in 1856. It aimed to operate in the archipelago area of Southeast Asia. In the first decade of the company, Borneo Company business activities were concentrated largely on the Sarawak area. The company set up a Bangkok branch to export pepper in 1865 then expanded to rice. In the same year, Borneo Company became the partner of Bangkok Rice Mill Co., Ltd. Borneo Company's sawmill was the first sawmill business in Siam. Its first teak related operation was the construction of a sawmill in 1870.

The business structure of the Borneo Company was different from that of the other teak companies in Siam. MacEwens was a British company. Its head office was located in Singapore and it had branches and operations in Bangkok, Sarawak, and Manila. There is very little information about the company. A Scottish merchant founded MacEwens and Company in 1846. MacEwens focused on commercial activities within Southeast Asian region. In the year of its registration, the Borneo Company bought MacEwens as part of a merger. The decision of Borneo Company to acquire MacEwens was a fruitful decision. According to Borneo Company's records, MacEwens was founded as a partnership between the Morgan family and the MacEwens family. Later, the Morgan family withdrew from this business partnership and sold all of their shares to the MacEwens.<sup>819</sup> The company conducted business in Southeast Asia for only ten years; nevertheless possessed a solid business network in various cities in Asia. Borneo Company's decision to acquire MacEwens in 1856 facilitated the easy establishment of its trade and administrative networks.<sup>820</sup> This decision by the Borneo Company – a newly established business with large amounts of financial support from London – was also demonstrative of the growing scale of economic activities in Southeast Asia. The year of the Borneo Company's foundation indicated the strong will of foreign companies seeking to capitalise on the new conditions imposed by the Bowring Treaty of 1856.

According to the Siamese business directory, the Borneo Company had firmly established company branch in Bangkok by 1880.<sup>821</sup> From this source, the details of the company's business activities are unclear, but it does provide company staff details. The manager of the

---

<sup>819</sup> Henry Longhurst, *The Borneo Story: the History of the First 100 Years of Trading in the Far East by the Borneo Company Limited* (London: Newman Neame, 1956), 17.

<sup>820</sup> *ibid.*, 39.

<sup>821</sup> *Siam Directory 1880*, 93.

Borneo Company's Bangkok branch was F. S. Clarke. Later, in an unknown year, Clarke resigned from this managerial position and founded a company under his own name.

In terms of overall business operations, Borneo Company operated as one of the largest companies in Siam prior to the First World War and shared profits in many sectors. Unlike Bombay Burmah, the company has no records detailing the competitive advantages it may have received via strong connections with the Foreign Office. Instead, the Borneo Company built strong connections with the Siamese ruling family during the reign of King Mongkut or King Rama IV.<sup>822</sup>

The Borneo Company joined the global competition for teak, but it was unsatisfied with the product found in the Bangkok market. Solely playing the role of exporter could not fulfil the Borneo Company's ambition to profit from the global market. The Borneo Company found that the teak logs sold in Bangkok market were inferior in quality and the number of logs sold each year was influenced by the amount of water and rainfall in the riverine system. The Borneo Company was the first company to send a representative to Chiang Mai to buy teak directly.<sup>823</sup> To cover the vast geographical area, the company evolved from a family business with interpersonal relationships to a more pragmatic business-orientated model. Specifically, the Borneo Company appointed two agents in Chiang Mai and Tak provinces. From this network, the Borneo Company could control both the quantity and quality of teak floated downriver from northern Siam. While the agent of Tak province was unknown, the Borneo Company appointed Louis Leonowens to this role in Chiang Mai in 1890. Louis' contract with the Borneo Company stipulated that it was his duty to buy teak logs on the open market and acquire forestry concessions for the company.

Contractually, everything ran smoothly. In the absence of any detailed information, however, the Borneo Company accused Leonowens of a secret business scheme. In 1895, Leonowens left the Borneo Company because the company suspected his private teak business was funded by the Borneo Company. They believed that he signed the contract with his name, rather than that of the Borneo Company, and then sold the logs of Borneo Company for his own profit. He doubled the profit by the service paid by the company and the profit from

---

<sup>822</sup> Malcolm Falkus, "Early British Business in Thailand," in Davenport-Hines, R. P. T; Jones, *British Business in Asia since 1860*, 138.

<sup>823</sup> Nigel J. Brailey, "The Origins of the Siamese Forward Movement in Western Laos, 1850–92," 136.

selling to Borneo Company.<sup>824</sup> The Borneo Company's accusations against Leonowens seem convincing given that Leonowens committed a similar fraud later, while contracted with Bombay Burmah.<sup>825</sup>

However, the financial damage caused to the Borneo Company by Leonowens seems to be small and there are no records referring to the total amount of profit of lost. Of serious concern to the Borneo Company was the future of teak business in northern Siam. The company's expansion into the teak industry had a direct impact on its management structure. During the 1880s, the Borneo Company had seven branches under management of the company board in London. Five branches were located in Southeast Asia (Bangkok, Batavia, Sarawak, Singapore, and Surabaya) and another two branches were located in Hong Kong and Calcutta.<sup>826</sup> All of these are major Asian ports. The company then made the decision to establish a formal managerial hierarchy and linked Chiang Mai as a sub-branch under the management of the Bangkok office. This highlights that the company took the teak trade seriously.

A variety of other factors affected the Borneo Company's investment strategies in the teak industry, including the expansion of teak extraction, the growth of demand for teak in global markets, and Leonowens' fraud. The Borneo Company's choice to invest in and manage teak directly in northern Siam overlapped with the Siamese government's reform of the forestry administrative system in 1896.

After the establishment of the Forest Department in 1897, and consequent new pattern of forestry administration, the Borneo Company needed to cope with both internal and external changes. The internal change was to assign someone with management experience to vacant managerial position in Chiang Mai. The Borneo Company solved this problem by sending C. S. Leckie, the Borneo Company general manager in Bangkok, to take care of the situation in 1897. Leckie resided as a temporary manager in Chiang Mai for a year. When D. F. Macfie, an assistant manager of the Chiang Mai branch, returned from his vacation, he was appointed as acting manager in 1898 and promoted to manager in 1899.<sup>827</sup>

---

<sup>824</sup> Malcolm Falkus, "Early British Business in Thailand," in Davenport-Hines, R. P. T; Jones, *British Business in Asia since 1860*, 142.

<sup>825</sup> Pointon, *The Bombay Burmah Trading Corporation Limited, 1863–1963*, 36–37.

<sup>826</sup> Metcalfe, "The Structure and Evolution of an Operational Network," 29–30.

<sup>827</sup> PUA A 19 David Fleming MacFie. Chiang Mai Record (1884–1919).

According to the first complete records of forestry concessions in 1902, the Borneo Company possessed sixteen concessions, meaning that it ranked second amongst British companies involved in the teak business in terms of total number of forestry concessions.<sup>828</sup> Unlike Bombay Burmah, the Borneo Company did not maintain their operations in teak. The Borneo Company's total number of forestry concessions had fallen to just four by 1927.<sup>829</sup>

As previously discussed, the success of many British companies in the teak industry lay in the services that each company provided as an agent for other companies. From the 1900s until the 1920s, the Borneo Company increased the number of services it provided as an agency<sup>830</sup> while the number of teak concessions that it possessed decreased significantly. There are two factors that contributed to this change in the Borneo Company's business patterns. First, during the 1910s, the number of teak available in the forest decreased and this made the extraction process more difficult. Second, the demand for teak in global markets started to decline after the First World War. Stiff competition in the teak business forced the Borneo Company to adopt a new business strategy. The company switched its business focus from export-oriented commodities to services and the import of consumer products.<sup>831</sup> As a result of these reasons, the Borneo Company gradually reduced its focus on teak in 1920s.

### 6.2.3 Siam Forest Company Limited (later Anglo-Siam)

The Siam Forest Company (hereafter Siam Forest) had a different structure from the other companies in the teak industry. For the whole period of teak business in Siam, the company maintained its head office in Lampang, and did not have an office in Bangkok. The business operation of Siam Forest is comparatively unknown due to a lack of historical sources in Thailand. The information from the 1894 business directory, however, explains the methods used by the company. Unlike any other company, Siam Forest focused on the extraction process in the forest rather than exporting teak to the global market. By residing in Lampang, a province in the Northern region, the company had fewer contacts with prospective clients and the Siamese government. Located far from Bangkok, the cosmopolitan centre of commerce, Siam Forest needed to conduct its business via an agent in Bangkok. This agent

---

<sup>828</sup> Chusit Chuchat (ชูสิทธิ์ ชูชาติ), "The Origin of Capitalism and the Impact on Peasant Society in the northern Region 1855–1932 (การดำเนินระบบเศรษฐกิจทุนนิยมกับผลกระทบต่อสังคมชาวนาในภาคเหนือ พ.ศ. 2398–2475)," 43.

<sup>829</sup> NAT Mor Ror 7 Kor Sor 5/17/4 Forest Survey, Name list, Size, Number of total logs, and the name of the concessionaires. (มร 7 กษ 5/17/4 บัญชีสำรวจรายชื่อป่าไม้, ขนาดป่า, จำนวนไม้, กับชื่อนุคคลหรือบริษัทที่ได้รับทำป่าไม้สัก).

<sup>830</sup> *The 1894 Directory for Bangkok and Siam; Directory for Bangkok and Siam.*

<sup>831</sup> Akira Suehiro, *Capital Accumulation in Thailand, 1855–1985*, 42–46.

was Ewart, Latham and Company (hereafter ELC). ELC was a trading house in London and Bombay. The company was the mother company of Siam Forest. ELC provided the agency service for her subsidiary, Siam Forest, in Siam.

Originally, ELC acquired Bombay Saw Mills Ltd, in 1883. This mill sourced its teak from Burma. Later, ELC send a representative to Rangoon to secure teak supply. There, Mr. C. H. Dennis, ELC's representative, learned about the conflict and ongoing problems in Upper Burma between Bombay Burmah and an independent kingdom ruled by the Konbaung Dynasty. He also learned about the rich and fertile forest areas in northern Siam. He reported to the mother company in Bombay about the possibility of acquiring cheaper teak logs from Siam than those supplied by Bombay Burmah.

Regardless of the lack of further information pertaining to how the company learned about teak in Siam, the company managed to obtain teak concessions in the Lan Na principalities. In 1885, Siam Forest was founded in Bombay as a joint venture by British and Indian business interests. ELC was employed both as secretaries of a new company and as an agent in London for teak supplied by Siam Forest. During its inaugural year the company started to deliver the logs from Ngao River (แม่น้ำงาว) in Lampang to Bangkok.

F. S. Clarke, the owner of Clarke & Co., was a former manager of the Borneo Company during the early 1880s. Later, he resigned from the Borneo Company and built his business fortune under his own name. His company managed some of the agency businesses in Bangkok and provided a service for Western companies intending to conduct business in Siam. Clarke & Co. represented a small-sized British company similar to Siam Forest.

The status and the relationship between these three companies were complex. The customers in Siam had a choice to buy teak either from Clarke & Co.<sup>832</sup> or from ELC. Meanwhile, the Siam Forest Company provided contacts from its Lampang office. The structure of Siam Forest differed from other companies because Siam Forest limited its business operations to northern Siam alone. In addition, it focused only on teak extraction and did not expand its business into related areas, such as the sawmill industry, until much later. The company, for example, did not own a sawmill until 1912. It can thus be assumed that the company sold teak in the form of logs without manufacturing them into teak planks, although it is possible that the latter operation was conducted by Clarke & Co. Nevertheless, Siam Forest's business

---

<sup>832</sup> Clarke & Co. was an independent company and it sold the logs in the Bangkok markets.



model was completely different from Bombay Burmah and the Borneo Company. These two companies invested in manufacturing like sawmills from an early period and covered a larger market area outside of Siam.

When the Siamese government established the Forest Department in 1897 and codified the regulations regarding forestry, this coincided with the decision of the mother company, the ELC in London, to: a) take over the teak logs and sawmill business from Clarke & Co. in Bangkok, and b) acquire the share of the Siam Forest in Bombay from their Indian partners.<sup>833</sup> It was a smallest British company in the teak business. The company had less than ten forestry staff with a lease area that only existed in Lampang province during the same period.<sup>834</sup>

In the midst of the First World War, Siam Forest decided to change its business model. This was because was confronted with a shortage of capital and the high costs of maintaining staff in the forest for long periods of time. As a result, Siam Forest reduced its teak extraction activities and increased its investment in the rice and agency businesses. Subsequently, Siam Forest changed its name to the Anglo-Siam Corporation in 1917.<sup>835</sup> The new name signified a change of direction for the company as it morphed from a teak only business to incorporate its activities as an agency as well. The company again changed its name in 1939 to the Anglo-Thai Corporation.

The number of Siam Forest's teak concession never really changed: it rose from one to two over the course of three decades. The number of staff in Lampang rose from just two persons in 1894 to nine persons in 1914.<sup>836</sup> In one of these forestry concessions, however, Siam Forest invested a lot in infrastructure to facilitate the transportation of teak. This construction project was the largest investment in the teak business made by a British company.<sup>837</sup> The Business Directory of 1912 also confirms the existence of a Siam Forest sawmill in

---

<sup>833</sup> Malcolm Falkus, "Early British Business in Thailand," in Davenport-Hines, R. P. T; Jones, *British Business in Asia since 1860*, 141.

<sup>834</sup> PUA A 19 David Fleming MacFie. *Chieng Mai Record* (1884–1919).

<sup>835</sup> Malcolm Falkus, "Early British Business in Thailand," in Davenport-Hines, R. P. T; Jones, *British Business in Asia since 1860*, 141.

<sup>836</sup> PUA A 19 David Fleming MacFie. *Chieng Mai Record* (1884–1919).

<sup>837</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1912 on the Trade and Commerce of the Consular District of Chiengmai*, 17.

Bangkok.<sup>838</sup> According to the total amount of teak logs from the two concessions, the logs from one forest were enough to fulfil the annual capability of a single sawmill in Bangkok.

Due to its small business scale and its business practices, Siam Forest was different from Bombay Burmah and Borneo Company because the company never became involved in Siamese domestic politics. From the 1890s to 1932, there were no signs of the company increasing its political influence in Siam. The only concerns that the Siamese government had regarding the operations of Siam Forest were purely business related. Correspondence at a ministry level vis-à-vis the company's teak contracts detail the willingness of the Siamese government to grant Siam Forest concessions because of its non-interference in Siam's internal politics.<sup>839</sup>

#### 6.2.4 The Danish East Asiatic Company (Det Østasiatiske Kompagni)

According to the available information, Hans Niels Andersen, the founder of the Danish East Asiatic Company, was originally trained as a shipbuilder. He then travelled to Siam in 1873 and served as a high ranking officer on a ship that belonged to King Rama V. In 1883, he sailed the Siamese royal ship “Thoon Kramom” (ทูลกระหม่อม), which was owned by the King Rama V. The ship sailed from Bangkok to Europe with a full load of teak. The teak was sold in Liverpool where it garnered close to 100 per cent profit.<sup>840</sup> On the return voyage, the ship transported coal for the Siamese Royal Navy. This mission is the earliest formal teak trade between Siam and Europe recognised in Thai history. The 1883 trip is, thus, a landmark moment in the teak trade. Although the ship was registered under the name of King Rama V, the king did not finance the trip. Instead, HSBC financed this trip. In 1883, however, there were not any Western banks operating in Siam. Nevertheless, the trip received financial support through Pickenpac, Theis & Co.; a Hanseatic Company which acted as an agent for HSBC in Bangkok.<sup>841</sup>

Andersen established his first company, Andersen & Co. (Andersen og Co. in Danish), in Siam in 1885. It was well known for its specialisation in logging and sawmill operations. There are no details about the company's customers, however. Nevertheless, according to

---

<sup>838</sup> *The Siam Directory, 1912*, 139.

<sup>839</sup> NAT Kor Sor 17/18 The Contract between the Ministry of Agriculture and the Anglo-Siam Company (ณ 17/18 กระทรวงเกษตรทำสัญญาป่าไม้กับบริษัทแองโกลสยาม).

<sup>840</sup> Andersen, *Tilbageblik*, 11–12.

<sup>841</sup> Eggers-Lura, “The Danes in Siam,” 131.

Andersen's background in shipbuilding, it was possible for the company to rely on Andersen's networks in the Danish shipbuilding business. Andersen & Co. invested in various business sectors in Siam. The company also invested in the hospitality sector, including a bakery and the Oriental Hotel. The latter would become a centre for the foreign expatriates in Bangkok. Despite its success, the company sold the hotel to Louis Leonowens in 1894. After selling the Oriental Hotel, Andersen shifted his business focus from hospitality to shipping, and other related activities. For instance, the company opened a store for shipping accessories in 1887. The company also monopolised contracts with Siam Royal Navy, resulting in large profits.<sup>842</sup> Beyond the shipping business, the company invested in the almost hitherto unknown manufacture of soda drinks and a retail shop for foreign customers.

Andersen returned to Copenhagen at an unknown date to establish the European branch of the company in Copenhagen. *Den Store Danske Encyclopædi*, the national encyclopaedia of Denmark, suggests that he returned to Copenhagen because of his concerns regarding the Danish government's attempts to develop Copenhagen into a commercial centre and leading ship builder in northern Europe. Andersen returned to Denmark and sought financial support from two Danish financial institutions. The first institution was *Privatbanken*. It belonged to Carl Fredrik Tietgen, but the bank turned down Andersen's investment proposal. Later, Andersen met with Isak Glückstadt, the director of *Landmandsbank* (the Agricultural Bank), the major competitor of Tietgen. Andersen and Glückstadt made a deal and formed the Danish East Asiatic (Det Østasiatiske Kompagni or ØK) in 1897. Glückstadt was appointed as the company's first chairman, and Andersen was the company's managing director.<sup>843</sup> Andersen received a good proposal from Glückstadt. The new company, the the Danish East Asiatic, bought Andersen & Co. for a million Danish Kroner from the total capital of the new company which comprised of three and a half million Danish Kroner. However, Andersen did not receive this payment in the form of cash but, rather, he received the payment in the form of company stock.<sup>844</sup>

Danish East Asiatic started with shipping and trading. Andersen used much of his past experience and networks in Siam to invest in the teak business. The company started to compete with the British companies in Siam during the last decade of the nineteenth century.

---

<sup>842</sup> *ibid.*, 132.

<sup>843</sup> *Den Store Danske Encyclopædi Bind 1* (København: Denmarks Nationalleksikon, 1994), 391–392.

<sup>844</sup> *The Singapore Free Press and Mercantile Advertiser*, "Danish Enterprise in the East," March 26, 1897.

However, Danish East Asiatic did not possess any forestry concessions so the company relied on Chinese agencies to acquire teak logs.<sup>845</sup>

From 1896 to 1902, Danish East Asiatic acquired at least one teak forest concession from the Siamese government, as the name of the company appeared in the record in 1902 (Table 6.1). Danish East Asiatic faced a difficult situation during 1903–1904 as low water levels impeded its ability to float teak down the river to Bangkok, and the Shan rebellion in the northern provinces halted the extraction of teak in 1902. Both of these events damaged the company's financial status.<sup>846</sup> Events impeding the extraction of teak in Southeast Asia were not Danish East Asiatic's only problems during 1903–1904. More bad news surfaced regarding the financial misconduct of the Agricultural Bank – that is, Danish East Asiatic's major financier. During the same period, Danish East Asiatic invested in grain from Russia. However, when the Russo-Japanese war broke out in 1904, Danish East Asiatic needed negotiate the uncertainty of the grain market. In addition, the shipping business in East Asia area declined until the end of the war in 1905. During this time, it is possible that the bank siphoned off funds to maintain Danish East Asiatic's liquidity in Asia and Russia.<sup>847</sup>

In light of the personal connections between Andersen and the Siamese court, it is arguable that Danish East Asiatic was the favourite European company involved in the teak business in Siam. In contrast to the other companies involved in the in teak business in Southeast Asia, Danish East Asiatic was only company conducting business under the Danish royal flag. While the company never received any assistance from the Danish government, one condition which the company refused was to apply for a five years subsidy from the government.<sup>848</sup> As a result, the Danish government allowed Danish East Asiatic to trade and sail with the same status as the Danish Royal Navy. A company that received subsidies from the Danish government was classified as a “private company,” whereas a company that was privately financed was considered a “national company”.<sup>849</sup> The company's status was a strange combination of national ambitions and its modus operandi in Siam.

A confidential report sent from the British Legation in Bangkok to the Foreign Office in London details its concerns regarding Danish East Asiatic's efforts to assert influence over

---

<sup>845</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1896 on the Trade of Chiengmai*, 4.

<sup>846</sup> *The Straits Times*, “The Rising in Northern Siam,” August 15, 1902.

<sup>847</sup> *Den Store Danske Encyclopædi Bind 1*, 391–392.

<sup>848</sup> *The Singapore Free Press and Mercantile Advertiser*, “Danish Enterprise in the East”.

<sup>849</sup> *ibid.*

the Siamese Court.<sup>850</sup> However, the report from the British Legation avoided discussion of the dubious strategies employed by British companies to attain forestry concessions from the Siamese government. Specifically, the report states that Danish East Asiatic managed to extend a forestry concession in Phrae province when Prince Valdemar made an official visit to Siam as the representative of the king of Denmark in 1900. The report was of the opinion that Phrae had the highest density of extractable teak available. Combined with the ease of teak transportation from Phrae province, it was judged that this investment would return a higher profit. Although a scientific report had not been included to support this notion, the report explained that the visit of the Danish prince was a move to strengthen Denmark's position in Siam. However, an official publication by Andersen in 1929, "*Udvikling*", did not credit the official visit of the Danish prince for the acquisition of the lease area in Phrae.<sup>851</sup>

On the contrary, Andersen credited and highlighted the role of Andreas du Plessis de Richelieu, who helped to set up the navy in Siam, and held an influential position in the Siamese Court as an admiral of the Siamese Royal Navy.<sup>852</sup> Richelieu took the occasion of a state visit to negotiate the forestry lease for Danish East Asiatic. As the Forest Department had already passed a regulation detailing how forestry concessions should be granted, this lobbying process had a small impact on grant process in practice.

It was beyond the ability of Danish East Asiatic to acquire the lease of teak concessions in northern Siam through special political connections. Nevertheless, the Danish company was in a favoured position. Danish East Asiatic provided a service that the Siamese considered to be of strategic value. A general report about Kelantan, submitted by W. A. Graham in 1904, states that Danish East Asiatic operated the postal system of Siam between Bangkok and Singapore on a monthly basis. Danish East Asiatic delivered the mail to the major Siamese cities on the east coast.<sup>853</sup> Graham's report, however, failed to explain the diversity of Danish East Asiatic's investments. In fact, the company that operated Siam's postal service was the Siam Steam Navigation Co., Bangkok, a subsidiary company of Danish East Asiatic.

---

<sup>850</sup> "9207 Despatch R. Paget 28 February 1908 Send Doc. 51," in Nish, *British Documents on Foreign Affairs*, 189; "9207(i) report R. Paget Feb. 1908 Annual Report, Siam, 1907," in Nish, *British Documents on Foreign Affairs*, 202.

<sup>851</sup> Andersen, *Udvikling*, 37.

<sup>852</sup> Andersen, *Tilbageblik*, 19.

<sup>853</sup> FO 881/8305 Siam: Report. Affairs in State of Kelantan, 1903–1904. (Mr. W. A. Graham).

## 6.2.5 French Business Interests

### 6.2.5.1 The French East Asiatic (La Compagnie Est Asiatique Française)

The relationship between the Siamese government and French investors was not good because of previous French efforts to colonise Siam. Indeed, French aggression led to the annexation of some of Siam's tributary states. The memory of this affected every business proposal proposed by French companies trying to do business in Siam. There is clear evidence, for example, that the Siamese ruling elites declined a foreign investment plan from a non-French company because it received financial support from a French business partner.<sup>854</sup>

Nevertheless, there were still some French merchants and companies operating in Siam before the 1920s. They were similar to British and German companies that sought business opportunities in the export and import sectors. French prospects for business were very limited because the government always suspected them of having an ulterior motive regarding colonisation.<sup>855</sup> As a result, French companies accounted for a small proportion of the teak business overall. Prior to the formation of the Forest Department in 1897, French merchants depended on Chinese compradors to obtain teak from northern Siam.<sup>856</sup>

Nonetheless, there were some efforts by French merchants to bid for teak concessions during the 1890s. Because of the bitter relationship between Siam and France, however, especially stemming from the Paknam incident in 1893, there was no substantial French presence in the teak business before the signing of the "Entente Cordiale Agreement" between Great Britain and France in 1904.<sup>857</sup> The agreement aimed to decrease confrontation between the two superpowers. Consequently, Siam became a buffer state between French and British interests and, henceforth, no more of Siam's territory was annexed by Great Britain or France by either diplomatic or military means.

The French East Asiatic Company (hereafter French Asiatic) set up business in Asia as a shipping company. French commercial reports detail that it provided a cargo-boat service for

---

<sup>854</sup> Nigel Brailey, "The Scramble for Concessions in 1880s Siam," *Modern Asian Studies* vol. 33, no. 3 (1999): 543–544.

<sup>855</sup> The Siamese government was very wary of the behaviour of foreign companies including the local people and the Chinese who sought protection as foreign subjects.

<sup>856</sup> Black, *Siam*, 6.

<sup>857</sup> See *France No. 1 Despatch to His Majesty Ambassador at Paris forwarding Agreements between Great Britain and France of April 8, 1904*, 26.

several French areas.<sup>858</sup> The story of the French company's activities in the teak business was reported in full detail for the first time in 1915 by Franklin Smith, a commercial agent of the United States Department of Commerce.<sup>859</sup> According to statistical data from the Forest Department, French Asiatic floated a smaller number of teak down the Mekong River than the total amount that British companies floated through Bangkok and Moulmein.

Although its export numbers were comparatively small, French Asiatic had a major advantage – the export of teak from northern Siam to Saigon entailed the lowest duty rate compared to other duty stations.<sup>860</sup> French Asiatic was a latecomer in comparison to British companies in the same industry. British companies possessed a decentralised structure in which a local manager made decisions based on local circumstances. French Asiatic, conversely, employed the opposite strategy and the head office in Paris managed everything.<sup>861</sup>

The location of the concession granted to French Asiatic in Chiang Khong (เชียงใหม่), a district of Chiang Rai province,<sup>862</sup> made the cost of teak extraction more expensive than other areas. This was because of lack of communications systems and transportation infrastructure between Chiang Khong and major commercial centres. Items and material required by the company had to be imported from Saigon via the Mekong River. The only exception was rice because it was abundant in Chiang Khong and therefore cheaper.<sup>863</sup>

During a consular tour, W. A. R. Wood, the British Consul-General from Chiang Mai who visited Chiang Rai in November 1927, reported on the continuous growth of the number and average size of teak exported by French Asiatic from the company station in Chiang Saen (เชียงใหม่แสน). During this tour, he met with Monsieur Lestere, the company manager in Chiang Saen, where the branch of the company was located. Wood discovered that French Asiatic was unable to work efficiently in northern Siam because they were unable to communicate with their subordinates in the local language. To increase its number of the teak exports, the

---

<sup>858</sup> Ministère du commerce, *Rapports commerciaux des agents diplomatiques et consulaires de France*, 31.

<sup>859</sup> Smith, *Teak in Siam and Indo-China*, 19–21.

<sup>860</sup> IOR/L/PS/11/57 P2563/1913 Siam: transport of teak to French Indo-China.

<sup>861</sup> Smith, *Teak in Siam and Indo-China*, 20.

<sup>862</sup> Chiang Khong previously belonged to Nan province. In 1910, the Siamese government created Chiang Rai province and incorporated Chiang Saen, Fang, Wiang Pa Pao, Phayao, Maei Chai, Dok Khamtai, Mae Sua, Chiang Kham, and Chiang Khong into a district area of Chiang Rai province. See Royal Gazette of Siam 12<sup>th</sup> June 1910.

<sup>863</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1911 on the Trade and Commerce of the Consular District of Chiangmai*, 7.

company bought teak via the Borneo Company forestry concession in the Fang district. In this circumstance, the French company conducted their business activities in manner similar to that of middleman rather than teak exporter. Wood also suggested that the management of French Asiatic failed to accommodate their Shan and Burmese contractors; apparently, the company seemed lacked a regulatory system to deal with such contractors. The company did not know that many of these contractors had bad financial records and had defaulted on previous loans. These problems led to a series of unpleasant litigatory cases between French Asiatic and their contractors. Neither the manager nor his assistants understood Thai so this further derailed their operations.<sup>864</sup> In short, Wood seems relieved to have discovered how incompetent the extent of French incompetency within the industry.

French Asiatic had a very specific market and it was subjected to a strict control. According to a British officer with an interest in the operations of French Asiatic, teak logs from Siam were only used in the domestic market in Cochinchina (present-day southern Vietnam). The French Navy was a major customer and ordered logs to construct ships. Indeed, the French government frequently forbid the export of teak from French Indochina, except to France.<sup>865</sup> However, strong demand in the domestic market forced French Asiatic to buy teak from other companies and import it to Saigon.<sup>866</sup>

#### 6.2.5.2 The Failure of M. G. Wartenau and Albert A. Giard

Although French Asiatic represented a successful case of French investment in the teak business, there were two instances where French entrepreneurs, M. G. Wartenau and Albert A. Giard, failed. Wartenau applied to the Siamese legation in Paris for a teak concession in 1901. He and his business partner got a million Francs and expected to find business partners amongst Siamese merchants, which would add another 2,600,000 Francs in Siam. Wartenau's plan was to acquire a total of 250,000 logs.<sup>867</sup>

His proposal expressed his desire for a teak concession in the area of the Kok River (แม่น้ำกก) in Chiang Rai province. His proposal was crucial because he wanted to extract teak from virgin forests. Neither foreign companies nor local people had extracted the teak in Chiang

---

<sup>864</sup> “13614/9 (i) Report W. A. R. Wood 27 Dec. 1927 Northern Siam,” in Trotter, *British Documents on Foreign Affairs*, 359–365.

<sup>865</sup> Smith, *Teak in Siam and Indo-China*, 20.

<sup>866</sup> IOR/L/PS/11/57 P2563/1913 Siam: transport of teak to French Indo-China.

<sup>867</sup> NAT Mor 16.2/8 Monsieur Wartenau (ม 16.2/8 มองซ็ืออัวด์ โน).



Rai province as there was no riverine network from the teak extraction area in Chiang Rai to the Chao Phraya River network.<sup>868</sup> The only way to transport teak logs to the commercial centres was to float them via the Mekong River. The anxiety related to high transportation costs played as a major factor in the lack of teak extraction in Chiang Rai.

There was also a political motive. The Siamese government had carefully preserved the forest in Chiang Rai from foreign companies. Prior to the Wartenau's proposal, there were no successful proposals by British companies for concessions in this area. The conflict between Siam and France from 1893 also made Siam reluctant to offer the forest to foreign companies. Siam was afraid of political problems should they grant a concession to a British company. Similarly, the government feared that it would lose further territory in northern Siam if the French government used problems in the teak business to justify their colonial ambitions.

Chao Phraya Suriyanuwat (เจ้าพระยาสุริยานุวัตร), the secretary of the Siamese Legation in Paris, submitted a report to the government in Bangkok detailing his efforts to delay Wartenau's proposal. He brought up potential problems – for instance, the cost of transportation and the difficulty of extracting teak in Chiang Rai – to dissuade Wartenau. The government in Bangkok was satisfied with these tactics. However, Wartenau's proposal also carried additional pitfalls. Wartenau was a friend of Jules Méline, the French Prime Minister from 1896 to 1898, and an influential public figure in Paris.

Siam answered that if the French government accepted the same or similar conditions to “The Chiang Mai Treaty”,<sup>869</sup> then Siam could lease the forest to him without delay. When the French government rejected the possibility of a treaty relating to northern Siam as a precondition, Wartenau dropped his proposal accordingly.<sup>870</sup>

After Wartenau failed to acquire a teak concession, Monsieur Albert Giard proposed another plan for the acquisition of a forestry concession from Kim Seng Lee in 1903. He had learned from Wartenau's failed proposal. Giard's proposal came with the support of the Siamese judiciary. The recommendation by Phraya Suriyanuwat to the government in Bangkok was

---

<sup>868</sup> See, for example, Suphawit Laohachaiboon and Takeda, “Teak Logging in a Trans-Boundary Watershed: an Historical Case Study of the Ing River Basin in northern Thailand.”

<sup>869</sup> See the detail Chapter 2.

<sup>870</sup> NAT Mor 16.2/8 Monsieur Wartenau (ม 16.2/8 มองซีเออวัค โน).

not to lease any forest to French citizens without the consent of the French government and the judiciary of the Siamese court.

Dealing with Giard was easier than the previous case. The Siamese legation in Paris learned about Giard's unclear nationality and legal status. He was Belgian with a Belgian father and a French mother. He was born in France but had managed to avoid French military conscription. Furthermore, he was unable to invest in business registered as a Belgian national. The Belgian government not only denied his proposal, but also his claim to Belgian nationality because he avoided military conscription in Belgium as well. The only solution available to him was to invest as a Siamese national.<sup>871</sup> However, renouncing either French or Belgian nationality and becoming a Siamese subject was unimaginable for a European merchant in 1903. This ambiguous situation surrounding Giard's legal status provided the Siamese government with a solid pretext to deny his proposal. Eventually Giard gave up on the idea.

#### 6.2.6 The Dutch Trading Company: the Indische Hout Import Maatschappij

An investment in the teak business required a strong financial network to make sure that each and every process could run smoothly. As mentioned in the Chapter 4, managing the extraction and transportation process in northern Siam was complicated. Various assistance from the British Legation in Siam helped to reduce business risks for British companies. However, the example of the French company mentioned in the previous section highlights some of the difficulty that companies might face when extracting teak in areas with unconventional terrain and/or lacking a riverine transportation network.

The case of the Dutch Trading Company is demonstrative of a different business experience than those previously discussed. As such, this section details the Dutch experience in the teak business. Unlike British, Danish, and French companies, they never meddled in Siam's internal politics and foreign affairs. The relationship between Siam and the Netherlands was more formal. Dutch involvement in Siam's economic system was very limited,<sup>872</sup> as were the activities of Dutch citizens in Siam between the 1880s and 1920s. This is especially the case

---

<sup>871</sup> NAT Mor 16.2/18 Monsieur Giard proposes for the Kim Seng Lee concession (ม 16.2/18 มอญซีเออเยี้ยต้งจะขอซื้ออำนาจทำการป่าไม้ของบริษัทิมเซ่งหลี).

<sup>872</sup> J. Thomas Lindblad, *Foreign Investment in Southeast Asia in the Twentieth Century* (Basingstoke: Macmillan in association with the Australian National University, Canberra, 1998), 18–20.

in comparison to the activities of Great Britain and France. Hence, the National Archives of Thailand has no detailed documents regarding Dutch business interests related to teak.

Without any concessions or political involvement in Siam, the Dutch Trading Company utilised a different business model. The earliest source referring to Dutch activities in teak dates back to the 1890s. Like other non-British companies, the Dutch Trading Company acquired teak logs through many channels including Chinese agents and other foreign export companies.<sup>873</sup> After the foundation of the Forest Department, a teak concession was systematically arranged. A Dutch company – there is no record of the company’s name – had one concession in an unknown locality (Table 6.1). After the reformation of the concession system in 1900s, the name of Dutch company or Dutch merchant disappeared from the business list of the Forest Department.<sup>874</sup>

The activities of the Dutch company, however, resurfaced again in 1924, when the Indische Hout Import Maatschappij (literally translated – Indian Timber – Import Co., Ltd.) published an advertisement in the Siamese government’s business directory. Specifically, it appeared in the advertisement section of the second edition of “Importers and Exporters Directory for Siam” published by the Ministry of Commerce. The company operated as a teak merchant in the international market by supplying teak from Siam to clients abroad. The company had branch offices in Bangkok, Surabaya, and Port Gentil in Gabon.<sup>875</sup>

The information from the “Handboek voor cultuur- en handelsondernemingen” published in 1914 provides detail of the Indische Hout Import Maatschappij. The company was registered in 1913 and its head office was in Amsterdam. The total amount of registered capital attributed to it was 250,000 Guilder. The company sold each share for 1,000 Guilder. With a small capital investment, the company was one of many hundreds of companies in the agricultural (Landouw) sector. The company, as a trading agency, specialised in timber for every purpose.<sup>876</sup>

In terms of its business practices, the role played by Chinese intermediaries was especially important for the Dutch company. In the whole history of the teak business in Siam, there is

---

<sup>873</sup> Black, *Siam*, 6.

<sup>874</sup> NAT Mor Ror 7 Kor Sor 5/17/4 Forest Survey, Name list, Size, Number of total logs, and the name of the concessionaires. (มร 7 กษ 5/17/4 บัญชีสำรวจรายชื่อป่าไม้, ขนาดป่า, จำนวนไม้, กับชื่อนุคคลหรือบริษัทที่ได้รับทำป่าไม้สัก).

<sup>875</sup> Ministry of Commerce, *Importers and Exporters Directory for Siam, 1924*, 116.

<sup>876</sup> *Handboek voor cultuur- en handels-ondernemingen in Nederlandsch-Indië 1914* (Amsterdam: J.H. de Bussy, 1914), 644.

only one record referring to the Dutch company in the nineteenth century. The uniqueness of Indische Hout Import Maatschappij, however, lay in the style that the company conducted business. It had no concession from the Siamese government, but it bought teak from Chinese intermediaries and provided a shipping service for prospective international clients outside of Siam. Over the course of a decade of operations, the company never changed how it acquired teak – although the open market in Bangkok was probably another source.

On the service side, Indische Hout Import Maatschappij operated as an insurance and shipping agent. Indische Hout Import Maatschappij also focused on importing consumer products such as textiles and cigars from Europe. In order to compensate for its lack of forestry concessions the company needed to rely on the profits that it made in these other business ventures.

#### 6.2.7 The Chinese Company: Kim Seng Lee

Data from 1902 indicates that “Siamese subjects” operated in 22 forestry concessions - or 26.50 per cent of the total number. The local ruling family operated thirteen concessions. The second biggest group in this category was “Kim Seng Lee”. Kim Seng Lee operated in six concessions. During the boom of Kim Seng Lee, there were no regulations requiring the company to register with the Siamese government. The first Act on Shareholder and Company (พระราชบัญญัติลักษณะหุ้นส่วนแลบริษัท) in Siam was enacted on 30<sup>th</sup> September 1912.<sup>877</sup> As a result, it is not possible to trace the story of the company by official records.

This section will discuss the development of Kim Seng Lee and its involvement in the teak business. Kim Seng Lee is the name of a joint venture between three Chinese merchants. The name of the founders were Tia U Teng, Bunyen, and Tang Guai. The most famous and significant partner is “Teng”. He was born in Canton province in southern China in 1842.

Three partners shared the company’s managing duties and responsibilities. The founder, Teng, managed the rice and tax-farming operations – the most lucrative businesses at that time. The second and third partners managed the teak business. There are a number of anecdotes recorded about the company because some of their businesses were located outside Bangkok. Nevertheless, Tia U Teng and the company were famous because of their success in the rice and the tax-farming business rather than teak.

---

<sup>877</sup> Royal Gazette of Siam of 17<sup>th</sup> September 1912.

The story of Tia U Teng or Chang Ting (according to Chinese Mandarin pronunciation) has an element of a rags to riches saga. In Thai, the expression “One-mat, one-pillow” (เสื่อพื่นหมอนใบ) is used to describe the hard-working attitude of the Chinese. This work ethic helped the Chinese succeed in business. U Teng went into debt to the tune of 18 Baht in order to buy a one-way boat ticket to Bangkok in the 1870s. Having experience in many occupations, he managed to accumulate capital from a ferry business in Bangkok. In 1882, he established a small export business. During this period, he married a woman from an affluent family in the Lan Na principalities. This marriage provided him with access to elite networks, robust political connections,<sup>878</sup> and the opportunity to engage in the tax-farming business. Kim Seng Lee was well known for its role in tax-farming system outside of Bangkok. They controlled many kinds of tax-farming in the Lan Na principalities. The company monopolised taxes on opium, gambling, liquor, and lottery. The company expanded into the teak industry when it received a concession in Lampang.<sup>879</sup>

There are two reasons that explain why the Kim Seng Lee was able to invest on the similar scale to foreign companies, while many merchants from the Chinese community were only able to invest on a small scale or in a single forest. First, the main partner “Teng” was familiar with the local chiefs and the Siamese governor in Chiang Mai. This was because of several businesses he ran in Chiang Mai and the leverage afforded to him by his wife’s familial connections. Later, he won the right to monopolise various aspects of tax-farming in northern Siam from the Siamese government. In addition, every forestry concession needed the approval of the Siamese governor stationed in Chiang Mai. Teng’s personal networks guaranteed his access to both the local ruling family and the Siamese officers stationed in the north.

There is no data available about the income that Kim Seng Lee received from tax-farming, but the value was probably larger than other businesses belonging to Chinese merchants during the same period. The nature of the teak business required a large amount of investment and the return of a profit for each log could extend to three to five years. In the teak business, forestry concessions could bring a large amount of profit. This was due to the margin between the market price and the cost of teak extraction. Another way to increase profits was to invest in a sawmill. One could consider the combination of teak extraction and a sawmill a

---

<sup>878</sup> Skinner, *Chinese Society in Thailand*, 137.

<sup>879</sup> *ibid.*

perfect example of vertical integration<sup>880</sup> in the teak industry, whereby the two businesses support and complement each other. A parallel investment in teak concessions and a sawmill might also include a business plan that helps to control teak resources and the manufacturing process. However, this required substantial financial support that ordinary Chinese merchants could only dream of. Nevertheless, with funding from its tax-farming business, Kim Seng Lee was able to make an investment in the two different businesses.

The company faced many difficulties, which partially stemmed from the company's undisciplined practices. A report from an inspection tour in the northern region by a high-ranking Siamese officer describes the strictness that British officers in the Forest Department displayed when dealing with non-British companies in the teak business. It is likely, thus, that Kim Seng Lee was subject to unfair treatment and that there were strict regulatory controls over the company's operations. Indeed, there were several lawsuits between the company and the Forest Department. W. F. Tottenham, the head of the Forest Department, for instance, accused Kim Seng Lee of many wrongdoings such as cutting non-girdled teak, stamping a hammer mark on other teak logs, and working the forest without a proper forestry map. The Forest Department also made a variety of non-legal complaints about Kim Seng Lee's unruly practices in the teak business. First, the company owner did not possess adequate knowledge about either the terms of his concession or regulations pertaining to forestry. Second, the company did not have an agency network in the area of the company's concession. And third, the company did not even have a bookkeeper or an accounting system.<sup>881</sup>

Private conversations between Siamese inspectors and Kim Seng Lee's head of the teak section, Laung Chit Chamnong (หลวงจิตรจำนง) show that the Forest Department's accusations regarding the lack of an agency system were groundless. Laung Chit claimed that his company had frequently submitted reports to the Forest Department. Without clear and convincing evidence, the report suspected that the Forest Department was biased against Kim Seng Lee. Sometimes Chinese merchants experienced difficulties when trying to

---

<sup>880</sup> *The Economist* defines 'vertical integration' as the merging of two businesses that are at different stages of production. For more details see *The Economist*, "Vertical integration," accessed February 3, 2016, <http://www.economist.com/node/13396061>. However, the condition for vertical integration is that both businesses support or relate to each other.

<sup>881</sup> NAT Mor Ror 5 Mor 2.14/46 Phrae Inspection Tour (มร 5 ม 2.14/46 รายงานตรวจราชการเมืองแพร่).

communicate in a Western language; this obstructed their operations and frequently led to misunderstanding between the two parties.<sup>882</sup>

Correspondence between Prince Damrong and King Rama V regarding the manager of the teak section and the partner of the company, Bunyen (Laung Naraphithak), speculated that he was too old to handle the business effectively. The first petition from Kim Seng Lee sought permission to sell the teak section and the company's concessions to a French merchant. This idea made the Siamese government uncomfortable because it was government policy to encourage and increase the participation of local companies in the industry. Subsequently, the company eventually decided to sell its five teak concessions in Lampang and Nan to Bombay Burmah instead of the French merchant.<sup>883</sup> The decision surprised Prince Damrong and the king because Bombay Burmah already controlled numerous teak concessions. Indeed, Bombay Burmah possessed the largest share of operations in the teak business.

As mentioned earlier in Section 6.1, a poorly made choice to invest in the shipping business resulted in a serious economic downturn for the second generation of Kim Seng Lee proprietors. A son of U Teng, Kee Sophanodorn (กี โสภโณดร์) or Phra Sophol-Phetcharat (พระโสภณเพชรรัตน์) inherited the family company, but his mismanagement and conflict with his business partners negatively affected the company. The company survived until 1918 when it suffered a huge financial deficit. It was, then, also sued and the company finally filed for bankruptcy in court.<sup>884</sup>

After Kim Seng Lee, there were only two Chinese families in northern Siam which invested in the forestry sector. The Chutima-Nimmanahaeminda (ชุตินา-นิมมานเหมินท์) and Osathaporn (โอสถาพร) families oversaw a small portion of overall investments in the forestry and sawmill business. The evidence for this can be found in their booking accounts.<sup>885</sup> Apparently, as a non-core part of their overall business strategy, their involvement in the teak industry started following the end of Second World War and ceased to operate in the early 1960s.

---

<sup>882</sup> *ibid.*

<sup>883</sup> R. H. Macaulay, *History of the Bombay Burma Trading Corporation, Ltd; 1864–1910* (London: Ballantye, 1934), 74; Sanan Ratanasopa (สนั่น รัตนโสภณ), “Evolution of Foreign Companies in Thailand 1855–1941 (วิวัฒนาการบริษัทต่างชาติในประเทศไทย พ.ศ. 2398–2484)” (Master of Arts, Chulalongkorn University, 1984), 72.

<sup>884</sup> Royal Gazette of Siam 14<sup>th</sup> July 1918.

<sup>885</sup> Plaioor Chananon (ปลาย้อ ชนชนนท์), *The Roles of Merchant Capitalists in the Rise and Expansion of Capitalism in Northern Thailand, 1921–1980* (นายทุนพ่อค้ากับการก่อตัวและขยายตัวของระบบทุนนิยมในภาคเหนือของไทย พ.ศ. 2464–2523), 147–150.

### 6.3 Networking: Two Case Studies of Non-Westerners in the Thai Teak Business

There are two different examples of non-Western staff and teak merchants who worked in the teak business. The first is Bunlao Inthaphan (บุญเลา อินทะพันธ์), a native of Chiang Mai, who later worked as a middle manager of the Borneo Company. The second is Phanasith Janviroj (พนาสิต์ จันทร์วิโรจน์) – the son of a British subject who migrated from Burma and worked as a sub-contractor for teak companies. Phanasith founded his own company and invested in the teak business.

Bunlao Inthaphan was the grandson of Intha<sup>886</sup> (อินตะ): part of first generation of locals who were converted from Buddhism to Christianity by Rev. Daniel McGilvary in 1869.<sup>887</sup> Bunlao was, thus, born into a native Protestant family in 1897. Bunlao's father, Sri-Oh (ศรีโอ๊ะ), attended a missionary school during his childhood and studied at a primary level in Wang Sing Kham Boys School (โรงเรียนวังสิงห์คำ). This was later renamed the Prince Royal College (โรงเรียนปรินส์รอยแยลส์วิทยาลัย). Bunlao followed in his father's footsteps and attended the same school. As a young boy, he had the chance to receive a modern education. The most important aspect of the education provided by missionaries in Siam was instruction in both modern Thai script and the English language. Modern educational skills, and mastery of the English language in particular, were in high demand by foreign companies. This new system of education was markedly different from a traditional monastic education. Monastic education was intended to educate members of the society in religious precepts. As such, a religious education was unsuitable training for employment within a modern business company and government appointments.

After graduating from secondary (pre-tertiary) school, Bunlao enlisted in an artillery unit. Later, having finished his military service, he passed the state examination and worked as a secretary for the Ministry of Interior in Chiang Mai province. He worked there for six years and gained experience working within the government's bureaucratic system. After resigning from the Ministry of Interior, he became an employee of the prince of Chiang Mai, a sub-contractor for a Borneo Company teak concession. Bunlao's duty was to supervise teak during the cutting and transportation processes. After successfully demonstrating his ability

---

<sup>886</sup> There are two different spellings for "Intha". Rev. Daniel McGilvary uses "Inta" in his book while the family adapts his name into their surname as "Intha".

<sup>887</sup> Daniel McGilvary, *A Half Century among the Siamese and the Lao: an Autobiography* (New York: Fleming H. Revell Company, 1912), 96–97.



to supervise forest works, he became an official Borneo Company staff member in 1931. He continued to work for Borneo Company until his retirement in 1957. During his time at Borneo Company, his job was to assign tasks to each elephant and mahout crew and manage the elephant herd.<sup>888</sup>

Another example of a staff member who possessed a modern education takes the form of a student from Assumption College. During an official tour and political inspection of Mae Hong Son and Chiang Mai province in 1929 by Prince Paribatra Sukhumbhand, or Prince Nakhon Sawan (เจ้าฟ้าบริพัตรสุขุมพันธุ์ กรมพระนครสวรรค์วรพินิต), the Siamese Prime Minister and Minister of Interior,<sup>889</sup> he examined the activities of teak companies in many districts. He found that almost every large-scale operations belonged to Bombay Burmah and that the minor scale teak businesses were operated by the Karen people. One of large-scale operations hired the young Siamese officer from Assumption College (a French Catholic boys' school) by sending a representative to the school to conduct a job interview.<sup>890</sup> The students had been educated in a similar manner to Bunlao. The missionary schools taught modern subjects that were required to work in both business and the public sector, including mathematics, foreign languages, as well as standard Thai language and literacy.

These examples of native Siamese employed in forestry positions by Western companies show that these companies tried to network with people outside of their respective communities. As a result of their education, in addition, the Siamese were not categorised as a working group according to their ethnicity. This is in contrast to groups such as the Karen and Khmu who only worked in labour-intensive positions. Lacking fully-developed business networks and well-educated staff, it was hard for Chinese merchants to compete in the teak business. In other words, the obstacles encountered by Chinese merchants were not only financial, but also related to difficulties in finding individuals suitably qualified for middle management positions in the forest.

---

<sup>888</sup> Chaiyot Chaininlaphan (ชัยยศ ชัยนิลพันธ์), *Nan In-tha, the ancestor of Inthaphan Family, The First Christian in Lanna: Education, Biography, and the History of Christian community in Lanna* (หนานอินตะ ต้นตระกูลอินทพันธ์ คริสเตียนไทยคนแรกของล้านนา การศึกษาอัตชีวประวัติ และประวัติศาสตร์ของชุมชนคริสเตียนในล้านนา) (Chiang Mai: Saeng Silpa, 2010), 97–98, 103.

<sup>889</sup> He was the Prime Minister from 1925–1932 and Minister of Interior from 1928–1932.

<sup>890</sup> NAT A 15/1 Inspection Report on Chiang Mai and Mae Hong Son, February and March 1929 (อ 15/1 รายงานตรวจราชการ จังหวัดเชียงใหม่ จังหวัดแม่ฮ่องสอน มณฑลพายัพ เมื่อเดือน กุมภาพันธ์ มีนาคม พ.ศ. 2472).

For the second example, Phanasith Janviroj, his story started in Lampang – a major urban commercial centre of the northern region. While there were various types of commercial activities in Lampang city, the teak extraction business was the most significant. Although there is no statistical record to support this argument, Lampang’s remaining architectural heritage from the era of teak is indicative of the city’s prosperity during this time.<sup>891</sup>

Given the poor quality of soil in the vicinity of Lampang, the city’s economic system depended on commercial activities, primarily centred on the teak industry.<sup>892</sup> The teak business also required a large amount of people. As a result, such commercial activities in the Lampang city area encouraged immigration from Burma which, in turn, created new commercial networks. The inability of Lampang to produce enough rice encouraged Chinese and other ethnic merchants to sell rice there.<sup>893</sup> The rice trade in the province similarly encouraged people, including Phanasith’s father, to migrate from Burma to Lampang. The origin of Burmese people in Lampang can be traced back to the old capital city, Mandalay.

Opportunities within the rice industry were not the sole factors accounting for Burmese immigration to Lampang; political upheaval in Burma during the 1880s also encouraged this trend. Burmese who migrated from Mandalay to northern Siam chose one of the two routes available during that time. On the first route, they travelled from Mandalay to Rangoon, then redirected to Moulmein. After walking across the nearby Moei River (แม่น้ำเมย) to Me Sot in Tak province, they finally travelled to Lampang. On the second route, they made their way from Mandalay to the Salween area. After crossing the Salween River to Mae Hong Son, they travelled to Lampang.<sup>894</sup>

It was during the 1880s – when waves of Shan, Mon, and Burmese immigrants migrated to northern Siam, especially after the Third Anglo-Burmese War in 1885 – that Burma was

---

<sup>891</sup> Please see the detail on the architectural heritage that belongs to various teak merchants in Kitisak Hengsadikun (กิตติศักดิ์ เสงษ์ภูิกุล), *Kongta Market: Old District and Story of Lampang* (ภาคกองต้า ย่านเก่าเล่าเรื่องเมืองลำปาง) (Nonthaburi: Matichon, 2009).

<sup>892</sup> Grabowsky, *Bevölkerung und Staat in Lan Na*, 364.

<sup>893</sup> Macro Patel (มาร์โก พาเทล), “The History and Development of Commercial Activities in Lampang from nineteenth Century until 1939 (ประวัติและพัฒนาการของการค้าขายในลำปางตั้งแต่ปลายคริสต์ศตวรรษที่ 19–1939) translated by Kueamas Vuthikarn (เครือมาส วุฒิการณ์),” in *Lampang: the Last Century* (ลำปาง: เมื่อห้วงหนึ่งศตวรรษ), ed. Phairot Chaimuangchun (ไพโรจน์ ไชยเมืองชื่น) (Lampang: Lamapang Ratchapat University, 2001), 22–24; Moerman, “Chiangkham’s Trade in the “Old Days”” 167–168.

<sup>894</sup> Bongkoch Nantiwat (บงกช นันทิวัดน์), “Burmese chedis in Lampang during the reign of King Rama V (เจดีย์แบบพม่าสมัยรัชกาลที่ 5 ในเมืองลำปาง),” 132–133.

completely annexed as a part of the British Empire. The British government and the diplomatic service in Siam subsequently claimed to be the protector of the people who migrated from Burma. In Lampang, this increase in British subjects was a result of both the development of the teak business and political unrest in Burma. Unfortunately, there is no information available that details the year that Phanasith's father migrated to Siam. According to research about the urbanisation of Lampang, however, the first wave of migration from Burma to Lampang can be traced back to the 1890s.<sup>895</sup>

Burmese merchants played a significant role in the development of Lampang's economic system. One of the most famous merchants was Maung Chan Ong (หม่องจันโอง), Phanasith's father. He was born in Burma in 1863 and started his first career in the teak business with Messrs Louis T. Leonowens Ltd. If this information is true, he became involved in the teak business in his thirties because Messrs Louis T. Leonowens Ltd was founded in 1902. However, another source suggests that Maung Chan Ong started his first career with Danish East Asiatic.<sup>896</sup>

Later, the British Vice-Consul appointed Maung Chan Ong as a "headman subject" to oversee every issue related to British subjects in Lampang.<sup>897</sup> He had eight children. His oldest son was named Ta Ou (ต้ออู) (later he changed his name to Thai as Phanasith – พนาลีสิทธิ์ – which literally means 'the rights over the forest'). Ta Ou or Phanasith went to Burma and studied there for two years. After this, he travelled to India and studied forestry science for six years. At the age of twenty, he then returned to Lampang and married the daughter of Maung Gyi (the Burmese teak merchant and the comprador of Siam Kammachon Bank – สยามกัมมาจล – the forerunner of the Siam Commercial Bank).

Phanasith was able to start his career with the Forest Department due to his knowledge of English and accounting.<sup>898</sup> His education in forestry science may have also helped him obtain this position. His mastery of the English language was particularly important as it was he was required to work with foreign officers within the department and liaise with foreign companies. Eventually he would resign from the Forest Department and found his own teak

---

<sup>895</sup> Kitisak Hengsadikun (กิตติศักดิ์ เสงษยัญญกุล), *Kongta Market*, 11.

<sup>896</sup> Thot Khananaphon (ทศ ทัศนภาพร), *Sing Lanna* (สิงห์ล้านนา) (Bangkok: Rich, 2008), 211.

<sup>897</sup> Anu Noenhat (อนุ เนินหาด), *The Stories from the Grand Father and Grand Mother* (พ่ออู๋ขี้แม่อู๋ขี้เล่าไว้), Chiang Mai Society 29 (Chiang Mai: Nopburi Kanphim, 2011), 322.

<sup>898</sup> *ibid.*, 323–324.

company bearing his name. It was smaller than an average Western company. Nevertheless, his company received its first concession in Chiang Rai. After the concession in Chiang Rai expired, the company received another concession in Mae Hong Son.<sup>899</sup> However, the company was unable to expand the size of its operation in the teak business in order to compete successfully with Western companies. To prevent ongoing losses resulting from direct competition with foreign companies in the teak industry, Phanasith's company switched its focus to other timbers and mining instead. The company's shift to the mining sector proved to be a successful strategy as evidenced by its mining operation in Mae Hong Son province.

Bunlao and Phanasith had two similarities: a modern education and experience working with the government. Nevertheless, they had different backgrounds. Bunlao was a native of Chiang Mai born in Christian family and enrolled in a missionary school. As a result, he was ripe for recruitment by British companies. His cultural background meant that he was familiar with foreigners and was integrated into various foreign community networks in northern Siam.

Lampang was different to Chiang Mai where Phanasith made good use of two local factors: the support within Burmese community and the political influence of the British in northern Siam. It is clear that, as the descendant of a Burmese merchant, this partially connected him with the Burmese community. His marriage also solidified this connection. Having been appointed as Burmese headman, his father was not just an ordinary sub-contractor in the teak business, but rather a source of political patronage from the British government. With this connection, his father could secure his son's future by sending him aboard for an education.

The above examples of well-educated natives and British subjects demonstrate the non-economic factors that helped non-Westerners enter into the teak industry, whether this relates to the acquisition of a position in a middle management position as in the case of Bunlao, or, indeed, the ability to become an entrepreneur like Phanasith. Furthermore, it manifested that only western companies had the capability to recruit middle-ranking staff from skilled native people. For non-British companies, a lack of clerical and administrative staff made it difficult to expand business and increase the number of forestry concessions under their control. The ability of British companies to fill these positions with qualified people provided a competitive big advantage in the teak business. Only when there were not European staff in

---

<sup>899</sup> *ibid.*, 325.

the office would the clerk position be temporarily fulfilled by a native or Chinese worker. However, lacking such staff in the forestry area, the solution of British company was to recruit permanent local staff.

The skills required for the teak business and modern business organisation derived from modern education, such as mathematics and the English language. These requirements meant that only a very limited number of the local population were qualified to work as middle management in a teak company. As such, it could be argued that the failure of Chinese companies, and various small concessions owned by the local prince and his descendants, came from a lack of networking and their inability access this pool of skilled workers.<sup>900</sup> This lack of middle management, in turn, hindered the expansion of their business.

#### 6.4 The Teak Business and Capitalism in Northern Siam

“A good timber season means a hardly-earned increment to the timber firms, and an accumulation of timber at the duty station followed during the ensuing year by an increased export from Bangkok, but affects only slightly and indirectly the general purchasing power of the bulk of the population who take no part in extracting the teak but confine themselves as a rule to agricultural pursuits.”

W. R. D. Beckett<sup>901</sup>

This section asks an important question: how did teak contribute to the economic and capitalist development of northern Siam from the 1880s until the 1932 revolution? First, this dissertation has found that the development of teak benefited western companies more than the local people and many ethnic merchants or sub-contractors failed to accumulate profit from teak. As detailed earlier, Ernest Satow reported that the profit made by the British subjects in teak business was usually spent on two extremely different things: merit-making projects involving the construction of Buddhist monasteries and stupas, and lavishing it on their mistresses.<sup>902</sup> Reginald LeMay, a former British Vice-Consul in northern Siam and an adviser of the Ministry of Commerce and Communications, expressed his views of polygamy in northern Siam, however, as luxurious and “out of fashion”, meaning that few people engaged in this kind of behaviour.<sup>903</sup>

---

<sup>900</sup> The case of French company detailed in section 6.2.5.1 had a similar problem. The French company suffered from the limited ability to understand the financial conditions of sub-contractors and the French did not possess the language skills to communicate with the people who worked for them.

<sup>901</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1900 on the Trade and Commerce of the Consular District of Chiangmai*, 4.

<sup>902</sup> Satow, *Diplomat in Siam*, 159.

<sup>903</sup> LeMay, *An Asian Arcady*, 85–86.

These remarks from Satow and LeMay regarding the sexual indulgence of the Shan and Burmese teak merchants indicate that this comportment was considered profligate and extravagant. From an economic perspective, this type of behaviour did not encourage the accumulation of capital either. As such, it is likely that almost all of the profits of these businesses were drained away as a result of consumptive behaviour, so little of it would have been reinvested in business operations. In order to support this statement, it is important to note that there are no documented examples which show that non-Western merchants transferred their accumulated wealth from the first generation of teak merchants to the second generation. There are also no documented examples of a non-Western sub-contractor developing and later becoming a concessionaire in their own right. The example of Phanasith examined in the previous section followed a different path from the reinvestment of capital gains; in contrast, it was his connections with the Siamese bureaucratic system that contributed to his success as an entrepreneur. More frequently, these merchants were faced with indebtedness because of their profligate behaviour and lack of business acumen.

The contribution of the teak industry to the overall economic development of northern Siam was limited. As mentioned in Chapter 5, the majority of people were employed in various positions according to their ethnicity. The British, either within the teak companies or the Forest Department, occupied higher positions with good salary and benefits like pensions.<sup>904</sup> These advantages provided British employees with financial security, which, on a certain level, guaranteed their future livelihood following retirement.

According to the information available, the case of William Bain can be used as an example that is indicative of the concentration of wealth amongst people who were directly engaged in the teak business or who worked for a British company. He was born in 1882 and started his career in the Borneo Company as a forestry assistant in 1903. He worked in this role in Tak, Lampang, and Chiang Mai for almost ten years. He was promoted to the position of forest station manager in Tak province in the 1920s, and held the same position in Chiang Mai until his penultimate year before retirement in 1932. Bain's case was quite exceptional because he decided to stay in Siam after his retirement from the Borneo Company. He invested his

---

<sup>904</sup> NAT FA 0301.1.10/6 Gratuities and Pensions for European Forest Officers. 1914; NAT Mor Ror 5 Mor 41/2 Forest Management (ม ร 5 ม 41/2 จัดการป่าไม้); LMA CLC/B/123/MS27206-002 Personal Ledger A.

money in real estate in Chiang Mai, which he partially rented out to the Borneo Company.<sup>905</sup> He passed away in 1958.

Nevertheless, the value of his investments in the Wat Ket (วัดเกต) area increased with the subsequent growth of the Chiang Mai area and its booming tourism industry. His eldest son, Jack Bain, inherited all of his real estate wealth in the urban areas of Chiang Mai. The price around the Wat Ket area has been increasing even since without any sign of slowing down.

The diverging levels of wealth between ethnic merchants and those who worked in companies and the Forest Department was a result of different economic behaviour. Other factors include benefits such as a pension or a higher salary based on the possession of certain skills and/or professional expertise.

However, working for a company did not always bring a high income. Non-skilled positions did not receive pension packages. The vast differences in wealth accumulation for labour in the teak business can be understood through the experiences of the Khmu. As non-skilled and low-paid labour, they were representative of the failure of widespread economic development in the northern region. Information detailing the Khmu's consumption behaviour helps to understand the character of economic development within the region. The Khmu did not enjoy the privileges of ongoing full time employment but, rather, they worked under temporary contracts and earned a very small amount of income.

Accordingly, the Khmu tended to buy the cheapest items regardless of quality. The consumption behaviour of the native population was similar to the Khmu.<sup>906</sup> Even when working in one of most profitable growth industries in the north, they still remained poor and were unable to transform themselves economically. Meanwhile, premium products imported from Europe, such as canned food and imported tobacco, were consumed by high-ranking government officials and foreigners.<sup>907</sup> These differences in consumption patterns highlight the vastly different levels of income derived from the teak industry. In other words, despite the lucrative nature of the teak business, it did not improve the living standards of low paid or coolie workers who formed the bedrock of the extraction process.

---

<sup>905</sup> Wood, *De Mortuis*, 20–21.

<sup>906</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1900 on the Trade and Commerce of the Consular District of Chiangmai*, 10.

<sup>907</sup> Prani Sirithon Na Phatthalung (ปราณี ศิริธร ณ พัทลุง), “Towkay Nguan Sun of Tantraphan (เจ้าแก้ววันซุนแห่งตันตราภักดิ์),” in *Phet Lan Na* (เพชรล้านนา), vol. 2, ed. Prani Sirithon Na Phatthalung (ปราณี ศิริธร ณ พัทลุง), 2nd, 2 vols. (Chiang Mai: Manager Phak Nua, 1995), 2:141.

The majority of Khmu workforce just saved enough of their salary to buy a bronze drum to take back to their home village in Laos. Only a small number of the Khmu married local women and continued to reside in Siam after the Second World War.<sup>908</sup> In fact, many of Khmu who resided in Siam after the end of their contract did not have any savings from their salaries left to show for their labours within the teak industry.

Teak was not the only reason for economic cleavages amongst the various groups of people living in northern Siam. The records suggest that economic inequality existed in provinces that were not involved in the teak business as well. In Nan, a small province located on the eastern border with Laos, the prosperity of natural resources like teak did not contribute any economic advantage to the city. There are no records of the teak-related industry in Nan. The extraction of teak logs from the area surrounding Nan city did not improve the economy of the urban area.<sup>909</sup> Conversely, in Chiang Mai and Lampang, there were industries such as sawmills that were related to the teak business. In addition, in the rural area outside of Chiang Mai city, there were a large rice fields in Saraphi (สารภี), a district of Chiang Mai province, which supplied rice to the workforce in the teak business.<sup>910</sup> Even a small province such as Lamphun possessed subsidiary industries that were essential to the teak business, for instance, the manufacturing of elephant-related equipment at a household level.<sup>911</sup>

As such, the teak business did create related economic activities in some provinces. As a result, the information available raises questions about the impact of the teak business on the economy of northern Siam. Lampang is one example of an area that prospered from teak. Lampang was a major commercial centre in northern Siam. An official report by Prince Benbadhanabongse (พระองค์เจ้าฟื้นฟูพัฒนาพงศ์), submitted to the Siamese government in 1903, refers to the significant size of the Western community there, and the resultant busy commercial activities of the Lampang market. He found that local people sold local products, Shan merchants sold products from Burma, and Chinese merchants sold products from Bangkok. In Lampang, there were two department stores selling products from both Bangkok and

---

<sup>908</sup> Frank M. LeBar, "Observations on the Movement of Khmu into North Thailand," *Journal of the Siam Society* vol. 55, no. 1 (1967): 73–74.

<sup>909</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1904 on the Trade and Commerce of the Consular District of Chiangmai*, 10–11.

<sup>910</sup> Cohen and Pearson, "Communal Irrigation, State, and Capital in the Chiang Mai Valley (Northern Thailand)," 91.

<sup>911</sup> NAT Mor Ror 5 Mor 29/1/96 Prince Pen's Inspection Report on Lamphun and Chiang Mai (มร 5 ม 29/1/96 พระองค์เจ้าภูษานนทรจากราชการเมืองลำพูนและเชียงใหม่).



Burma. His report gives the impression that the Lampang market, in general, was quite impressive. However, he did also note one particular phenomenon that he had observed in this market: that local people only consumed ordinary products produced locally and rarely consumed any manufacturing products imported from foreign countries.<sup>912</sup>

When one considers Prince Benbadhanabongse's report, Lampang's economy appeared to be flourishing at the time. However, in the nineteenth century, Lampang was unable to ensure an adequate supply of rice for its population and the city was often faced with food shortages. As with other provinces in Siam, rice played a significant role as a staple food item. In Thai history, there has been some cases of food shortages, but famine in Lampang occurred much more frequently. According to the records of missionaries, there was at least one large famine caused by food shortages. While travelling along a road in Lampang province, the missionaries reported the smell of rotting flesh. Subsequently, they found a large number of cadavers on the street – evidently they had died of famine. The bodies of an entire family were also found in a hut. The missionaries had to burn the hut to prevent the outbreak of disease.<sup>913</sup> The famines that occasionally took place in northern Siam showcases the limitations of the economic system that existed there at the time.

The simultaneous existence of both prosperity and famine in northern Siam raises an important question: where and to whom did the profits from the lucrative teak industry? The extravagant spending of the teak merchants was only a surface problem. This dissertation argues that the profit from teak was largely concentrated in the hands of the government and foreign companies, especially the British. As demonstrated in Chapter 3, the state benefited immensely from the income of teak. In contrast, this section will focus on the role of teak companies in commandeering vast amounts of wealth.

Amongst British companies, however, only Bombay Burmah compiled comparative statistics detailing market shares in the teak industry in order to inform its business strategies. The company explicitly controlled approximately 30 per cent of teak production exported from

---

<sup>912</sup> *ibid.*

<sup>913</sup> Ratanaporn Sethakun, *A Century of Community Economy in northern Thailand, 1899–1999* (หนังสือศตวรรษ เศรษฐกิจชุมชนหมู่บ้านภาคเหนือ) (Bangkok: Sangsan, 2003), 66–67.

Siam to Europe, whereas the rest of the market share was split amongst other companies.<sup>914</sup> It is clear that Bombay Burmah was the largest beneficiary of premium quality teak.

If the profits from teak were accumulated in northern Siam, it would be reinvested in related activities or another business. To facilitate the extraction process, the company brought a large amount of cash to Siam. This was utilised to pay the government, sub-contractors, company expenses, and employees. The physical movement of cash from urban areas to extraction locations in the forest necessitated a protective system. When the procurement of teak became more progressive and worked through a system of credit, the physical relocation of cash ceased. The company selling the teak logs quoted the total price of teak including the cost of shipping and insurance. As every company in teak business operated as an agency, they could provide shipping and insurance service without difficulty.

The consequence of these financial transactions between banks outside of Siam meant that the income from teak trade was stored in accounts located in Europe. As a result, these transactions brought neither credit nor cash to Siam. Although a certain amount of money was sent back to Siam to pay for the extraction process, it is worth repeating and emphasising the unequal distribution of wealth amongst people working in the teak business and the under development of northern Siam as a whole.

Teak did not contribute to accumulation of capital for the native people. When the power of the Lan Na principalities declined in the twentieth century, the Siamese state became the supreme owner of the forest. From an economic point of view, teak had, with the assistance of foreign companies, developed into the biggest industry of northern Siam.<sup>915</sup> The whole region depended on a single product without nurturing alternative products or local entrepreneurs. When the teak industry declined after the First World War, and as the railway system concomitantly reached the central areas of Lampang and Chiang Mai in 1916 and 1922 respectively, the economy of the north changed from being dominated by teak to a small-scale cash crop cultivation.<sup>916</sup>

---

<sup>914</sup> Andrews, *The Bombay Burmah Trading Corporation Limited in Burmah, Siam and Java: Teak, the Cutting and Marketing*, vol. 2, 131.

<sup>915</sup> Department of Overseas Trade, *Report on the Commercial Situation in Siam at the Close of the Third Quarter, 1922*, 40.

<sup>916</sup> Anan Ganjanapan, "The Partial Commercialization of Rice Production in Northern Thailand (1900–1981)" (Ph.D., Cornell University, 1984); Kanokwan Uthongsap, "The Economic Roles of the Sino-Thai Community in the Northern Region of Thailand from 1900 to 1960," Plaioor Chananon (ปลาย้อ ชนันทน์), *The Roles of*

One critique of the Siamese agricultural sector concerned the absence of the modern education therein. Commoners only had access to traditional forms of education provided by monks and temples. In short, the content was religiously orientated. Neither agriculture schools nor primary schools with the ability to teach substantive aspects of agriculture were established.<sup>917</sup> As a result, employees in the Siamese government lacked a proper basic education. In other words, Siam suffered from a shortage of human capital. After the revolution of 1932, the new government instituted compulsory education and began to take the issue more seriously.

In 1932, representatives of the British companies and the Siamese government worked hard to agree on new teak concessions. These interactions consisted of informal discussions between the British companies and the British diplomatic service in Bangkok. Nevertheless, the teak companies requested diplomatic pressure on the Siamese government. Negotiations with the new revolutionary government were different to those of the previous regime. Sir John Simon, the British Secretary of State for Foreign Affairs (in office 1931–1935), authorised Cecil Dormer, a head of British Envoy in Siam, to make decisions about teak and advise British companies based on his knowledge and expertise.<sup>918</sup>

Sir Cecil Dormer made a clear decision not to interfere in the negotiation for new forestry concessions in order to avoid any conflict that might hurt the feelings of the new government. This was especially the case when a British company threatened to resort to legal actions against the Siamese government.<sup>919</sup> Dormer's confidential letter to the Foreign Office suggested that the new government was reasonable and it was better for the British government to remain on good terms with it and avoid any unpleasant conflicts related to teak.<sup>920</sup>

---

*Merchant Capitalists in the Rise and Expansion of Capitalism in Northern Thailand, 1921–1980* (นายทุนพ่อค้ากับการก่อตั้งและขยายตัวระบบทุนนิยมในภาคเหนือของไทย พ.ศ. 2464–2523), 39–43, 47–55; Ratanaporn Sethakun, *A Century of Community Economy in northern Thailand, 1899–1999* (หนึ่งศตวรรษเศรษฐกิจชุมชนหมู่บ้านภาคเหนือ), 66–81, 93–128.

<sup>917</sup> Prinz von Siam Dilock, *Die Landwirtschaft in Siam: Ein Beitrag zur Wirtschaftsgeschichte des Königreichs Siam* (Leipzig: Verlag von C.L. Hirschfeld, 1908), 193–195.

<sup>918</sup> “14273/20 Despatch Sir John Simon 4 July 1932,” in Trotter, *British Documents on Foreign Affairs*, 57.

<sup>919</sup> “14273/30 Despatch C. F. Dormer 8 Sept. 1932,” in Trotter, *British Documents on Foreign Affairs*, 70–71.

<sup>920</sup> “14273/36 Despatch C. F. Dormer 18 Oct. 1932,” in Trotter, *British Documents on Foreign Affairs*, 78–79.

## 6.5 Conclusion

The development of the teak business is intrinsically related to the development of the foreign companies in Siam. Before the establishment of the Forest Department, there were investments by the British subjects in several teak concessions. However, European companies, and especially British companies, increased their influence in Siam as a result of number of the direct investments in the 1880s and 1890s. The initial data in 1902 for the teak concessions confirms this statement. As the data from 1927 shows, the investment of European companies remained paramount and these companies controlled more than half of the total number of the forestry concession.

The major factor that enhanced the expansion of European companies was the business model known as the “agency company”. This type of company provided several services to their clientele. British, Danish, and French companies in the teak business also operated as “agency companies” and profited from these services. These agency companies, for example, provided access to the financial institutions outside of Siam and other related services necessary for international trade, such as the shipping. The example of Bombay Burmah, which operated as an agent for the British-India Steam Navigation Company, or the company linked to Danish East Asiatic’s main activity, shipping, are two examples which exhibit the advantages that such companies maintained over local entrepreneurs.

Only a single Chinese company, Kim Seng Lee, managed to confront and compete with European companies in the teak industry. Without the knowledge vis-à-vis the shipping business, it invested in the shipping industry but, alas, the result was negative and led to bankruptcy following the First World War.

The second factor that created discrepancies between European companies and local entrepreneurs was the network that helped the European companies to access and co-opt eligible natives with skills suitable for an office job. Conversely, people with social networks and experience in modern education like Bunlao Inthaphan had access to jobs in corporations such as the Borneo Company. The examples of Ta Ou, or Phanasith, also lead to a similar conclusion although he did not stay on as employee, but rather later set up his own company in the teak business.

As a consequence of the investment in the industry, teak became the most important item exported from northern Siam from the 1890s until the end of the First World War.

Unfortunately, the prosperity derived from teak did not help, overall, to develop the economic conditions of the northern region. Although some economic activities related to teak, such as the supply of rice and the manufacture of elephant-related items, developed, the teak industry did not improve the lives of the vast majority of people. Ultimately, alas, as the condition of the teak forests declined following the First World War, this led to termination of industry and a consequent economic downturn in the northern regions of the Siamese state during this period.

## Chapter 7 Conclusion

“It is true that the export of teak will never again be so great as it was some few years ago.”

W. A. R. Wood<sup>921</sup>

This dissertation has examined the development of the teak business and the role it played in the Siamese economy from the 1880s to 1932. The chaotic political situation in northern Siam – that is, the region comprising the territory of the ancient kingdom of Lan Na – at the time was resolved by the nationalisation of the forest and the integration of the Lan Na principalities into the Siamese state. The dissertation has limited the research period to 1932 because this was the year of the revolution that transformed Siam from an absolute to a constitutional monarchy.

This dissertation is distinct from previous studies about teak as it focuses on the teak business and the operations of foreign companies. In brief, foreign companies are the key units of analysis in this dissertation. Previous studies focused on the economic and political development of the industry are largely dependent on sources from the National Archives of Thailand. As a result, the opinions of the royal family and the upper echelons of the Siamese government have tended to crowd out the voices of private companies. As such, these works have become an appendage of anti-capitalist and anti-imperialist rhetoric rooted in the Thai academic sphere. The author has provided an alternative interpretation to this based on various sources neglected by previous studies in order to avoid the same pitfalls. The dissertation thereby utilises document from many languages (Danish, Dutch, English, French, German, and Thai) to explain the teak business, and the role of foreign companies in particular, within the changing politico-economic context of the 1880s to 1932. Moreover, the dissertation examines the aforesaid developments through three concepts: economic history, business history, and political-economy. These concepts methodologically highlight the complexities of the state-business relationship, the development of the teak business, and the operations of companies at both a domestic and an international level.

Using foreign documents that provide hitherto unacknowledged information, the author argues against the widely held notion that European companies and/or European staff members in the Siamese government were secretly representatives of their respective nations.

---

<sup>921</sup> *Diplomatic and Consular Reports. Siam. Report for the Year 1913 on the Trade and Commerce of the Consular District of Chiangmai*, 5.

Throughout the focus period of this dissertation, it is true that companies demanded support from various diplomatic services in Siam. And, indeed, they received support when the request was related to a business issue. The recorded evidence shows, however, that the diplomatic services were not always able to support them and often hesitated to accommodate company demands. Furthermore, the Siamese government profited from the presence of the foreign companies in the teak business. It is unlikely that Siam would have profited from teak without the investments of foreign companies. In addition, besides the company's direct investment in the teak industry, the Siamese government appointed the managers of Bombay Burmah in Rangoon and Moulmein as Siam's Consuls in Burma.<sup>922</sup> It also appointed the Danish East Asiatic as its managing agent for the Siam Steam Navigation Company.

The author found and highlighted two major issues: 1) Each company had a unique production system. The production processes started deep in the forests of northern Siam and continued until the teak logs reached the customers in foreign markets. The processes ranged from the logging and grading teak logs to providing financial services and transportation; 2) Companies generally offered two categories of teak based on quality (that is, European and Indian Class). These products were marketed differently according to their intended use.

These two characteristics of production and marketing shall act as a framework for future research in either economic history or business history. However, research on commodities or agricultural products would be different from that of the large-scale manufacturing processes, such as the auto industry or computer hardware, due to the increased complexity of the products.

There are also constraints that arise when conducting research on the internal activities of business organisations. In order to investigate internal business activities, it is necessary to obtain access to business archives. The ability to understand the language used by each company is also very useful. Business archives explain how the company planned their corporate initiatives and how they operated in practice. As demonstrated in the case of Kim Seng Lee, the number of documents dealing with local companies available in the National Archives of Thailand is very limited. Moreover, many of these are government documents that only provide information regarding the company's interactions with either the government or European companies, rather than providing insight into the company's internal

---

<sup>922</sup> Andrews, *The Bombay Burmah Trading Corporation Limited in Burmah, Siam and Java: Teak, the Cutting and Marketing*, vol. 2, 121.

activities. Future research on economic and business history should keep these limitations in mind.

In the beginning, the volume of teak traded was relatively small even though teak was famous in Bangkok as a luxury product from the mid-nineteenth century. The volume of trade was so small that Sir John Bowring omitted teak from the treaty regulating trade between Siam and Great Britain in 1855. The global demand for teak and the reduction of marketable teak in Burma led to the increased extraction of teak in northern Siam. An influx of British subjects and the unruly practices of the princes whose families owned the forests, caused a variety of legal disputes in which the British government intervened. The disputes and problems arising from the teak business led to two Chiang Mai treaties between Siam and the Great Britain in 1874 and 1883. These guaranteed the protection of the British subjects in northern Siam and legitimised their participation in the teak business. The British government in return acknowledged Siam's sovereignty over the Lan Na principalities.

Both treaties served the purpose of formalising business practices and imposing law and order. In short, they created the stable conditions required for the teak business to flourish. The treaties also granted privileges to the British companies and British subjects. The scale of investments in the teak industry increased significantly after the Second Chiang Mai Treaty in 1883. Major British companies such as Borneo Company started to invest directly in teak and sent company agents to Chiang Mai.

The dissertation also found that, not only did the two treaties with Great Britain lead to the increased presence of the Siamese government in the northern regions, but also that the conflict with France in 1893 encouraged Siam to tighten its control over these areas. Siam also borrowed British staff from the Indian Imperial Forestry Service to establish the Royal Forest Department in northern Siam in 1897. The prime objective of this was to control the forests and regulate the extraction of teak. Shortly after the establishment of the Forest Department, the Siamese government established total control over, and ownership of, the forest. The Forest Department instituted many new regulations regarding logging practices and teak conservation. These regulations drastically changed the business environment. Logging processes and transportation costs became more expensive. In addition, the waiting period for teak operators to receive returns on their investments became longer. These conditions gave European companies a competitive advantage because of their access to the financial institutions and ongoing economic support. Last but not least, the ability of British



companies to manage the labour supply was another factor that irreparably disadvantaged small scale entrepreneurs, such as Chinese merchants or British subjects. Even the French company, a latecomer which had access to financial institutions in Indochina and France, could not compete on par with British companies and, moreover, struggled with its contractor in terms of litigation.

Business prowess alone was not the decisive factor explaining the dominance of British companies in the Siamese teak industry. When it came to granting forestry concessions, Siam's policy varied according to the nationality of the applicant. If the country of the applicant was on good terms with Siam then they tended to be more successful in securing a concession.

Hence, the dissertation contends that the ubiquity of European companies in the teak business was due to conditions created by the reformation of the Siamese government. These conditions, however, varied for British, Danish, and French companies. Two examples regarding the Danish and French companies help to explain the decision-making processes of the Siamese government. Danish East Asiatic, the Danish company, received a concession in Phrae without a political treaty between Siam and Denmark, because Siam had amicable relations with Denmark. In contrast, neither French companies nor its citizens received any concessions until 1904 because of French hostility prior to this juncture.

Meanwhile, British companies enjoyed the most prosperity in this industry. This development gave rise to mixed feelings within the Siamese government – in essence, a love-hate relationship. The Siamese government favoured the existence of big businesses because they supplied Siam with a steady income derived from an export item not strictly regulated by the Bowring Treaty. The existence of these companies, moreover, became the pretext that allowed Siam to gain control over the northern regions. Conversely, when the government obtained control over the forests, and the political situation in the northern region stabilised, the Siamese feared the domination of the European companies. In the early twentieth century, a sentiment of economic nationalism developed out of the teak industry. In Southeast Asia in general, sentiments of economic nationalism arose amongst the indigenous peoples of the region, who resented the Chinese and Indian traders. In brief, native inhabitants regarded these traders as agents of the colonial system and colonial rule. In Siam, European companies did not develop monopolies in the rice and tin businesses. King Rama VI (reigned 1910–1925) in addition, constructed a state ideology in Siam that rendered the Chinese as the

“Jews of the East” who supposedly sucked the wealth out of Siam.<sup>923</sup> Interestingly, though, he excluded Europeans operating in the teak business from his criticisms.<sup>924</sup> However, negative feelings regarding putative foreign domination, the role of Rupee in the teak business, and the influence of British officers in the Royal Forest Department, are prominently displayed in government documents of the time.

The bankruptcy of Kim Seng Lee in 1918 emphasised the government’s inability to support local companies and control the teak business through a patron-client relationship. Following the end of the First World War, the entire teak industry in Siam started to decline. While Siam experienced a high demand for rice and tin in the same period, the demand of teak did not increase. The slow growth of the ship-building industry and unstable political environments in major markets for the Indian Class teak, such as China and India, made the large-scale export of teak problematic. Henceforth, the price of teak on the global market did not reach the levels as during before or during the First World War.<sup>925</sup> However, teak still ranked as the third most important export item in Siam, in terms of total export value, until the first half of 1930s. The export status of teak declined once again during the latter half of 1930s, after which rubber became the third important export item in Siam.<sup>926</sup>

The second factor accounting for the decline of the teak business was the deterioration of teak in terms of wood quality and size. If the First Chiang Mai Treaty in 1874 was used as the official landmark inaugurating the advent of the teak industry in Siam, it was only five decades later that reports by the Forest Department pointed to the general degradation of teak by the 1920s. In short, the average girth size of teak found in northern Siam at this time was smaller than it had been in the past.<sup>927</sup> Shortly after the end of the First World War, the

---

<sup>923</sup> Asvabahu (อัสวาบหุ), *Jews of the East and Awake Thailand* (พวกยิวแห่งบูรพทิศ และ เมืองไทยจตุสดมภ์) (Bangkok: King Rama VI Foundation, 1985).

<sup>924</sup> In Siam, negative feelings towards economic domination did not escalate into riots or boycotts. Indeed, the author was unable to locate any reports that refer to the boycott of foreign companies. In Siam, the biggest boycott before the Second World War was led by the Chinese against Japanese consumer products. However, this did not stem from economic considerations but, rather, the Japanese invasion of Manchuria. Nevertheless, it is likely that ordinary people were able to perceive foreign domination through the prevalence of mass produced consumer products and the widespread use and sale of foreign products. In the same period, there was a similar phenomenon boycotting European products in the Ottoman Empire, see Yavuz Köse, *Westlicher Konsum am Bosphorus: Warenhäuser, Nestlé & Co. im späten Osmanischen Reich (1855–1923)* (München: Oldenbourg, 2010), 425–440.

<sup>925</sup> Council of Commercial Promotion, Ministry of Commerce, *The Record 22* (จดหมายเหตุสุภาพเผยแพร่พาณิชย์ เล่ม 22), 105.

<sup>926</sup> Ingram, *Economic Change in Thailand, 1850–1970*, 94.

<sup>927</sup> Banasopit Mekvichai, “The Teak Industry in North Thailand: The Role of a Natural-resource-based Export Economy in Regional Development,” 165, 168, 180–84.

reduced quality of teak logs being floated to Bangkok was openly discussed,<sup>928</sup> both by the Forest Department and by European teak companies. In general, this reduced quality of teak became the pressing concern regarding the future viability of the teak business. The degradation of teak had a direct impact on the amount of premium quality or the European Class teak that was exported from Siam.

The decline of the teak business prompted the Siamese government to take further control over the teak business. It first started by enforcing of the use of Baht instead of Rupee. The substitution of the Rupee with Baht can be interpreted as long-awaited political victory for the Siamese government. From the 1900s, the Siamese government's endeavoured to replace Rupee with Baht within the forestry industry of northern Siam.<sup>929</sup> In addition, 1922 marked the first time that the Siamese government was able increase fees without consultation with British diplomats.

At the end of the Second World War, Siam – as an ally of the Axis powers – was punished for the seizure of the teak concessions from British and French companies. The Siamese government subsequently returned these concessions and paid reparations for the damage caused to teak logs and company properties. British companies then planned to establish a teak cartel amongst British companies. The group intended to control the amount of teak logs cut and exported, as well as to dictate its price on the global market. The cartel initiative was started by Bombay Burmah and the Borneo Company; both had abundant supplies of teak trees left for girdling. Other companies with smaller stocks of teak were also invited to participate in the cartel during its early years. Small companies like Louis Leonowens Limited and Siam Forest, however, withdrew from the cartel during the first five years. Their withdrawal was a result of unbalanced quotas granted by the cartel's committee. The decision granted a certain percentage to each company and this was calculated from the total number of teak trees across all concessions. Big companies obtained large quotas using this method.

As such, smaller companies considered these quotas to be unfair. And it is true – while only having access to a small reserve of teak trees, they paid the same amount in salaries, rent, and for the maintenance of equipment. In other words, the returns that small companies received were unreasonable. When they changed their mind, they sped up the harvesting process and

---

<sup>928</sup> Department of Overseas Trade, *Report on the Commercial Situation in Siam at the Close of the Third Quarter, 1923*, 11.

<sup>929</sup> NAT FA 0301.1.23/7 Currency in Monthon Phayab. (1903–1925).

sent as many logs as possible to the market before exiting the business.<sup>930</sup> Nevertheless, the teak business increasingly went bust as big companies withdrew from Siam in 1950s. Bombay Burmah stopped sawmill operations in Bangkok in 1956 and sold all of its machinery in the following year.<sup>931</sup>

The era of British domination in the teak business thus declined, and they no longer exerted any significant political influence in Bangkok. In 1962, the Thai government prohibited private companies from obtaining teak concessions and the industry became a government monopoly. Never again did teak reach the same importance as a major export item compared to its heyday prior to the First World War. Nevertheless, teak's luxury status and the strict controls on its harvest and use still exist in Thailand despite deforestation and the ongoing depletion of natural teak reserves in northern Thailand.

---

<sup>930</sup> LMA CLC/B/207/MS40508 Bombay Burmah Trading Corporation Limited: Correspondence Concerning Milling of Timber in Bangkok and Cooperation between Companies Exporting Timber.

<sup>931</sup> Pointon, *The Bombay Burmah Trading Corporation Limited, 1863–1963*, 116.

## **Bibliography**

### **Primary Sources**

#### **The Hansard Debate of the House of Commons**

United Kingdom. *Hansard House of Commons Debates*; 25 July 1893 Series 4 Vol. 15 Cols. 467–8.

#### **Royal Gazette of Siam**

12<sup>th</sup> June 1910

17<sup>th</sup> September 1912

14<sup>th</sup> July 1918

#### **Newspapers**

*Financial Times*. “Siam's Teak Industry: reduced export in 1899 from a deficient rainfall.” September 1, 1900.

*Straits Times Weekly Issue*. “Dispute over Logs in Siam.” December 19, 1893.

*The Singapore Free Press and Mercantile Advertiser*. “Danish Enterprise in the East.” March 26, 1897.

*The Straits Times*. “Shooting in Siam: European Attacked and Wounded at Paknampho.” June 22, 1908.

*The Straits Times*. “Siam Teak.” May 8, 1898.

*The Straits Times*. “The Rising in Northern Siam.” August 15, 1902.

#### **Archival Sources**

##### **Les Archives générales du Royaume/Algemeen Rijksarchief (AGR). Brussels, Belgium**

AGR I 184/418 Pierre Orts. Renseignements recueillis lors d'une mission au Laos siamois. 1897.

##### **The India Office Record (IOR), The British Library. London, United Kingdom**

IOR/L/PJ/6/1974, File 364 – Feb 1929 Attack on an employee named 'Upton' of the Bombay Burmah Trading Corporation: Report Issued by Telegram.

IOR/L/PS/11/57 P2563/1913 Siam: transport of teak to French Indo-China.

##### **The London Metropolitan Archives (LMA), London, United Kingdom**

LMA CLC/B/123/MS27206–002 Personal Ledger A

LMA CLC/B/123/MS27473 Bangkok branch, Siam: collected extracts from correspondence and reports concerning up-country timber deliveries (ie classification, selection and logging of teak), for the guidance of forest assistants. Compiled 1922.

LMA CLC/B/207/MS40304 Bombay Burmah Trading Corporation Limited: 'Upcountry Advances'.

LMA CLC/B/207/MS40508 Bombay Burmah Trading Corporation Limited: Correspondence Concerning Milling of Timber in Bangkok and Cooperation between Companies Exporting Timber.

LMA CLC/B/207/MS40745 Bombay Company Limited: board minute book.

## **The National Archives (TNA): Public Record Office (PRO). Surrey, United Kingdom**

### **Foreign Office (FO)**

FO 69/55 Journal kept by Captain Lowndes, Superintendent of Police British Burma, whilst on a Mission to the Zimme Court.

FO 69/60 Chiangmai Claims; relations between Mr. Knox and the Siamese Government.

FO 371/13264 Siam. Code 40 Files 849–5768.

FO 881/6721 SIAM: Despatch Court held by Vice-Consul W. Beckett at Nakonsawan to try Robberies of Teak Timber. Notification and Report. (Mr. de Bunsen).

FO 881/8305 Siam: Report. Affairs in State of Kelantan, 1903–1904. (Mr. W. A. Graham).

FO 881/9006 SIAM: Report. General Report for 1906.

## **The National Archives of Thailand (NAT). Bangkok, Thailand**

### **Miscellaneous Files (อื่นๆและเบ็ดเตล็ด)**

NAT A 15/1 Inspection Report on Chiang Mai and Mae Hong Son, February and March 1929 (อ 15/1 รายงานตรวจราชการ จังหวัดเชียงใหม่ จังหวัดแม่ฮ่องสอน มณฑลพายัพ เมื่อเดือน กุมภาพันธ์ มีนาคม พ.ศ. 2472).

NAT Mis 6/7 Dusit Panichphan. Lecture on Royal Forest Department and Thai Forest. (บ 6/7 คู่มือ พานิชพัฒน์ คำบรรยายเกี่ยวกับกรมป่าไม้และป่าไม้ของไทย).

NAT Or 7/2 Thai Forestry and the Teak Forest of Thailand (อื่นๆ 7/2 ป่าของไทยและป่าสักของไทย).

### **The Office of the Financial Advisor File (FA)**

NAT FA 0301.1.10/4 Payment of Royalty by timber firms in sterling. (2451–2461).

NAT FA 0301.1.10/6 Gratuities and Pensions for European Forest Officers. 1914.

NAT FA 0301.1.10/7 Payments of Royalty by Bombay Burma Trading Corporation at Rangoon.

NAT FA 0301.1.10/8 Scheme of Departmental Girdling. (1918–1919) (2461–2468).

NAT FA 0301.1.10/9 Departmental Girdling 2468. (2467–2469).

NAT FA 0301.1.10/12 Resumption by Government of two forests at Lampang. Question of sufficiency of present expenditure on forests generally.

NAT FA 0301.1.23/7 Currency in Monthon Phayab. (1903–1925).

### **The Ministry of Agriculture Files (กส - กระทรวงเกษตรธิการ)**

NAT Kasert 5/5 Appoint the head of Forest Division (กษ 5/5 เรื่องแต่งตั้งผู้บำรุงป่าไม้).

NAT Kor Sor 1/723 Prince Damrong asks the Ministry of Agriculture about the Forest Department (กส 1/723 กรมหลวงดำรงขอให้กระทรวงเกษตรกรรมป่าไม้ตามพระบรมราชโองการ).

NAT Kor Sor 17/18 The Contract between the Ministry of Agriculture and the Anglo-Siam Company (กส 17/18 กระทรวงเกษตรทำสัญญาป่าไม้กับบริษัทแองโกลสยาม).

NAT Kor Sor 17/20 Contract between Agricultural Ministry and Bombay Burmah in Mah Hong Son for 15 years. (1924) (กส 17/20 กระทรวงเกษตรทำสัญญาป่าไม้กับบริษัทบอมเบย์มา ป่าแม่ฮ่องสอนเป็นเวลา 15 ปี).

NAT Kor Sor 17/22 The Report of Public Auction at Pak Nampho Duty Station (1924) (กส 17/22 กรมป่าไม้รายงานการขายทอดตลาดไม้ขอนสัก ที่ด่านภาษีไม้ปากน้ำโพ).

NAT Kor Sor 17/55 Petition of Chao Ratchawong on the Mae Pheun and Mae It Forest - Petition Denied (1926) (กส 17/55 ขกฏีกาเจ้าราชวงศ์เช่าทำป่าไม้แม่เพือนและแม่อิฐ).

NAT Kor Sor 17/94 Chao Keo Nawarat requests to extract teak in Mae Ta Maung Long (กส 17/94 เจ้าแก้ว นวรัตน์ฎีกาขอรับเหมาป่าไม้แม่ต้าเมืองลอง).

NAT Kor Sor 17/108 Report on the Public Auction in 1931 (กส 17/108 อธิบติกรมป่าไม้ รายงานขึ้นแจ้งการขาย ทอดตลาดไม้ของรัฐบาลใน พ.ศ. 2474 ว่าได้ผลดีมาก).

### **The Ministry of Finance** (กค - กระทรวงการคลัง)

Ministry of Finance. *Report of the Financial Adviser upon the Budget of the Kingdom of Siam for the Year 120 (1901–1902).*

### **The Ministry of Foreign Affairs Files** (กต - กระทรวงการต่างประเทศ)

NAT Kor Tor 65.11/14 Italian Government Proposes for the best and the cheapest Teak Timber (กต 65.11/14 รัฐบาลอิตาลีขอซื้อ ไม้สักอย่างดีและถูกที่สุด พ.ศ. 2460).

### **The Ministry of Interior** (ม - กระทรวงมหาดไทย)

NAT Kor Ror 5 Mor Tor (I) 3/133 To Phraya Maha Ammat, Phrya Srisungsahathep, Luang Anuchitphithak, the head of the teak tributary unit (ก-ร 5 มท (ล) 3/133 ถึงพระยามหาอำมาตย์, พระยาศรีสังหเทพ, หลวงอนชิตรพิทักษ์ แม่กองสัก).

NAT Mor Ror 5 Mor 16.1/10 Letter from Mr. De Bunsen, British Consul-General about the Forest Contract in Monthon Lao Chiang (ม. ร. 5 ม 16.1/10 เรื่องมิสเตอร์เดอบุนเซนอุปทูตอังกฤษเตือนความตกลงเรื่องสัญญาป่าไม้ มณฑลลาวเฉียง แลร่างสัญญามือผู้ค้า).

NAT Mor Ror 5 Mor 16.1/12 Teak Logs and the defaced Hammer Mark. (ม. ร. 5 ม 16.1/12 เรื่องไม้ซุงสักตีตรา ลบเลือน).

NAT Mor Ror 5 Mor 16.1/13 Proclamations and Acts related with the defaced Hammer Mark. (ม. ร. 5 ม 16.1/13 ประกาศพระราชบัญญัติ ข้อบังคับต่างๆ เรื่องไม้สักดวงตราลบเลือน).

NAT Mor Ror 5 Mor 16.1/19 Changing Forest Concession Contracts with Companies and the Lao Princes asking for more Money (ม. ร. 5 ม 16.1/19 จัดการแก้ไขเรื่องสัญญาป่าไม้ที่ขัดข้องกับบริษัทต่างๆแลเจ้านายเมืองลาว เรียกเงินแก่บริษัท).

NAT Mor 16.2/8 Monsieur Wartenau (ม 16.2/8 มงซิเออวัต โน).

NAT Mor 16.2/18 Monsieur Giard proposes for the Kim Seng Li Concession (ม 16.2/18 มงซิเออเยียดจะขอ ชื่ออำนาจทำการป่าไม้ของบริษัทกิมเซงหลี).

NAT Mor 16.3/2 Collect the Fee in Salween River (ม 16.3/2 เรื่องเก็บเงินค่าต่อไม้ทางลำน้ำคง).

NAT Mor Ror 5 Mor 2.14/46 Phrae Inspection Tour (มร 5 ม 2.14/46 รายงานตรวจราชการเมืองแพร่).

NAT Mor Ror 5 Mor 2.14/95 Lampang Inspection Tour (มร 5 ม 2.14/95 รายงานตรวจราชการเมืองลำปาง).

NAT Mor Ror 5 Mor 29/1/96 Prince Pen's Inspection Report on Lamphun and Chiang Mai (มร 5 ม 29/1/96 พระองค์เพ็ญรายงานตรวจราชการเมืองลำพูนและเชียงใหม่).

NAT Mor Ror 5 Mor 41/2 Forest Management (ม ร 5 ม 41/2 จัดการป่าไม้).

NAT Mor Ror 7 Kor Sor 5/17/4 Forest Survey, Name list, Size, Number of total logs, and the Name of the Concessionaires (มร 7 กษ 5/17/4 บัญชีสำรวจรายชื่อป่าไม้, ขนาดป่า, จำนวนไม้, กับชื่อบุคคลหรือบริษัทที่ได้รับทำป่าไม้ สัก).

NAT Mor Ror 7 Kor Sor 5/17/11 The Forest Granting of Forest Concession needs the Approval from the Supreme Council of State (มร 7 กษ 5/17/11 วาระเขียนเรื่องอนุญาตการทำป่าไม้ต้องให้เสนอเสนาบดีสภา).

### **The Payap University Archives (PUA), Chiang Mai, Thailand**

PUA A 19 David Fleming MacFie. Chiang Mai Record (1884–1919).

### **The SOAS Archive and Special Collection, London, United Kingdom**

Andrews, Ernest. *The Bombay Burmah Trading Corporation Limited in Burmah, Siam and Java: Teak, the Cutting and Marketing*. 3 vols. London: s.n, n.d.

Macdonald, Alfred. *My Experiences in Burma and Siam, 1881–1900*. London, 1935.

### **Confidential Print**

#### **Series E Asia**

Part I, From the Mid-Nineteenth Century to the First World War. Series E, Asia, 1860–1914, Vol. 27.

Nish, Ian, ed. *British Documents on Foreign Affairs: Reports and Papers from the Foreign Office Confidential Print*. 27 vols. Series E Part 1. Frederick, Maryland: University Publications of America, 1995.

“9207 Despatch R. Paget 28 February 1908 Send Doc. 51.” In Nish, *British Documents on Foreign Affairs*, 189.

“9207(i) report R. Paget Feb. 1908 Annual Report, Siam, 1907.” In Nish, *British Documents on Foreign Affairs*, 189–204.

Part II, From the First to the Second World War. Series E, Asia 1914–1939, Vol. 49.

Trotter, Ann, ed. *British Documents on Foreign Affairs: Reports and Papers from the Foreign Office Confidential Print*. With the assistance of Kenneth Bourne and Paul Preston. Series E Pt. 2: From the First to the Second World War Vol. 49 Siam and South-East Asia, 1914–1929. Frederick, Maryland: University Publications of America, 1997.

“11850/8 Despatch R. Seymour 30 Dec. 1920 Tariff revision.” In Trotter, *British Documents on Foreign Affairs*, 85.

“11850/16 Memorandum Foreign Office 10 Mar. 1921 Notes on revision of Anglo-Siamese Commercial Treaties.” In Trotter, *British Documents on Foreign Affairs*, 89–110.

“12545/2 Despatch Marquess of Curzon 25 Jan. 1923 Commercial treaty: transmits Doc. 146.” In Trotter, *British Documents on Foreign Affairs*, 184–86.

“12545/3 Letter B. C. Newton 26 Jan. 1923 Commercial treaty.” In Trotter, *British Documents in Foreign Affairs*, 184–86.

“12545/17 (i) Despatch W. A. R. Wood 9 May 1923 Crime in Chiangmai consular district and Despatch H. Fitzmaurice 8 May 1923 Crime in northern Siam.” In Trotter, *British Documents on Foreign Affairs*, 206–7.

“12957/20 Treaty British and Siamese Governments 14 July 1925 Anglo-Siamese general treaty.” In *British Documents on Foreign Affairs: Reports and Papers from the Foreign Office Confidential Print*. Edited by Ann Trotter, 265–69.



“12957/21 Treaty British and Siamese Governments 14 July 1925 Anglo-Siamese Treaty of Commerce and Navigation.” In Trotter, *British Documents on Foreign Affairs*, 269–77.

“13614/9 (i) Report W. A. R. Wood 27 Dec. 1927 Northern Siam.” In Trotter, *British Documents on Foreign Affairs*, 359–65.

Part II, From the First to the Second World War. Series E, Asia 1914–1939, Vol. 50.

Trotter, Ann, ed. *British Documents on Foreign Affairs: Reports and Papers from the Foreign Office Confidential Print*. With the assistance of Kenneth Bourne and Paul Preston. Series E Pt. 2: From the First to the Second World War Volume 50: Siam and South-East Asia, 1930–1939. Frederick, Maryland: University Publications of America, 1997.

“13999/5 Despatch C.F. Dormer 26 Jan. 1931.” In Trotter, *British Documents on Foreign Affairs*, 18–19.

“14273/20 Despatch Sir John Simon 4 July 1932.” In Trotter, *British Documents on Foreign Affairs*, 57.

“14273/30 Despatch C. F. Dormer 8 Sept. 1932.” In Trotter, *British Documents on Foreign Affairs*, 70–71.

“14273/36 Despatch C. F. Dormer 18 Oct. 1932.” In Trotter, *British Documents on Foreign Affairs*, 78–79.

### **The Governments Reports**

Archer, William J. *Report by Mr. W. J. Archer of a Journey in the Vice-Consular District of Chiangmai, Siam*. London: HMSO, 1888.

———. *Report on a Journey in the Mě-kong Valley*. London: HMSO, 1892.

Bianchi, A.T.I. *De Mechanische Eigenschappen Van Java-, Siam- en Burma-djati*. Korte Mededeelingen van het Boschbouwproefstation 60. Buitenzorg: Archipel Drukkerij, 1937.

Black, J. S. *Siam: Report on the Teak Trade in Siam*. Reports on Subjects of General and Commercial Interest. Miscellaneous series no. 357 (1895). London: HMSO, 1895.

Bliss, Don C. *Industrial Machinery Market in Siam*. Washington: United States Government Printing Office, 1930.

Bourke-Borrowes, D. R. S. *The Teak Industry of Siam*. Bangkok: Ministry of Commerce and Communications, 1927.

———. “The Teak Industry of Siam.” In *Siam: Nature and Industry*. Edited by Ministry of Commerce and Communications, 120–62. Bangkok: Ministry of Commerce and Communications, 1930.

Department of Overseas Trade. *Report on the Commercial Situation in Siam at the Close of the Third Quarter, 1922*. London: HMSO, 1923.

———. *Report on the Commercial Situation in Siam at the Close of the Third Quarter, 1923*. London: HMSO, 1924.

———. *Report on the Commercial Situation in Siam at the Close of the Third Quarter, 1924*. London: HMSO, 1925.

*Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1889 on the Trade of Bangkok*. London: HMSO, 1890.

*Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1890 on the Trade of Siam*. London: HMSO, 1891.

*Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1891 on the Trade of Chiangmai.* London: HMSO, 1892.

*Diplomatic and Consular Reports on Trade and Finance. Siam. Report for the Year 1892 on the Trade of the District of Her Majesty's Consulate-General at Bangkok.* London: HMSO, 1893.

*Diplomatic and Consular Reports on Trade and Finance: Report for the Year 1886 on the Trade of Bangkok.* London: HMSO, 1887.

*Diplomatic and Consular Reports on Trade and Finance: Report for the Year 1887 on the Trade of Siam.* London: HMSO, 1888.

*Diplomatic and Consular Reports. Siam. Report for the Siamese Official Year April 1, 1913 to March 31, 1914, on the Trade of the Consular District of Bangkok.* London: HMSO, 1915.

*Diplomatic and Consular Reports. Siam. Report for the Year 1893 on the Trade of the District of Her Majesty's Consulate-General at Bangkok.* London: HMSO, 1895.

*Diplomatic and Consular Reports. Siam. Report for the Year 1896 on the Trade of Chiangmai.* London: HMSO, 1897.

*Diplomatic and Consular Reports. Siam. Report for the Year 1897 on the Trade and Commerce of the Consular District of Bangkok.* London: HMSO, 1898.

*Diplomatic and Consular Reports. Siam. Report for the Year 1897 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1898.

*Diplomatic and Consular Reports. Siam. Report for the Year 1898 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1899.

*Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Bangkok.* London: HMSO, 1899.

*Diplomatic and Consular Reports. Siam. Report for the Year 1899 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1900.

*Diplomatic and Consular Reports. Siam. Report for the Year 1900 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1901.

*Diplomatic and Consular Reports. Siam. Report for the Year 1900 on the Trade of Nan.* London: HMSO, 1901.

*Diplomatic and Consular Reports. Siam. Report for the Year 1901 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1903.

*Diplomatic and Consular Reports. Siam. Report for the Year 1902 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1904.

*Diplomatic and Consular Reports. Siam. Report for the Year 1902 on the Trade of Bangkok.* London: HMSO, 1903.

*Diplomatic and Consular Reports. Siam. Report for the Year 1903 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1904.

*Diplomatic and Consular Reports. Siam. Report for the Year 1904 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1905.

*Diplomatic and Consular Reports. Siam. Report for the Year 1905 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1906.

*Diplomatic and Consular Reports. Siam. Report for the Year 1906 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1907.

*Diplomatic and Consular Reports. Siam. Report for the Year 1907 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1908.

- Diplomatic and Consular Reports. Siam. Report for the Year 1908 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1909.
- Diplomatic and Consular Reports. Siam. Report for the Year 1909 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1910.
- Diplomatic and Consular Reports. Siam. Report for the Year 1910 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1911.
- Diplomatic and Consular Reports. Siam. Report for the Year 1911 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1912.
- Diplomatic and Consular Reports. Siam. Report for the Year 1912 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1913.
- Diplomatic and Consular Reports. Siam. Report for the year 1913 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1915.
- Diplomatic and Consular Reports. Siam. Report for the Year 1913 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1915.
- Diplomatic and Consular Reports. Siam. Report for the Year 1914 on the Trade and Commerce of the Consular District of Chiangmai.* London: HMSO, 1916.
- East India (Treaty with the King of Siam). Copies of the Treaty between the Government of India and the King of Siam; and, of all Papers relating thereto, as far as those Documents can be made public.* London: The House of Commons, 1874.
- France No. 1 Despatch to His Majesty Ambassador at Paris forwarding Agreements between Great Britain and France of April 8, 1904.* London: HMSO, 1904.
- Hill, Kenneth M. *Furniture Markets of the Far East. Compile from Reports of Consular Officers of the Department of State and Oversea Representatives of the Department of Commerce.* Washington: Government Print Office, 1926.
- Ministère du commerce. *Rapports commerciaux des agents diplomatiques et consulaires de France: Commerce extérieur du Siam en 1903. Exploitation des forêts au Siam.* Paris: Office National du Commerce Extérieur, 1905.
- Ministère du commerce et de l'industrie. *Siam, mouvement économique du Laos Siamoïse (Monthons Isan et Oudon).* Rapports commerciaux des agents diplomatiques et consulaires de France 865. Paris: Office national du commerce extérieur, 1910.
- Ministre des Affaires étrangères. *Documents Diplomatiques: Affaires de Siam.* Paris: Imprimerie Nationale, 1893.
- . *Documents Diplomatiques: Affaires de Siam, 1893–1902.* Paris: Imprimerie Nationale, 1902.
- Ministry of Commerce and Communications, ed. *Siam: Nature and Industry.* Bangkok: Ministry of Commerce and Communications, 1930.
- Papers relating to the Foreign Relations of the United States, with the Annual Messages of the President transmitted to Congress. December 6, 1897.* Washington: Government Print Office, 1898.
- Report on the Commercial Situation in Siam at the Close of the Year 1919.* London: HMSO, 1920.
- Royal Forest Department. *Siam: Forests.* Bangkok: Bangkok Times Press, 1926.
- . *Type of Forests of Thailand.* Bangkok: Ministry of Agriculture, 1962.
- Siam. No. 1 (1871). Commercial Report from Her Majesty's Consul-General in Siam for the Year 1870.* London: HMSO, 1871.
- Siam. No. 1 (1875). Commercial Report from Her Majesty's Consul-General in Siam for the Year 1874.* London: HMSO, 1875.

*Siam. No. 1 (1876). Commercial Report from Her Majesty's Consul-General in Siam for the Year 1875.* London: HMSO, 1876.

*Siam. No. 1 (1894). Correspondence respecting the Affairs of Siam.* London: HMSO, 1894.

*Siam. No. 2 (1883). Commercial Report by Her Majesty's Acting Agent and Consul-General in Siam for the Year 1882.* London: HMSO, 1883.

*Siam. No. 2 (1884). Commercial Report by Her Majesty's Acting Agent and Consul-General in Siam for the Year 1883.* London: HMSO, 1884.

*Siam. Treaty of Friendship and Commerce between Her Majesty and the Kings of Siam. signed at Bangkok, April 18, 1855. With an Agreement Supplementary thereto. signed at Bangkok, May 13, 1856.* London: HMSO, 1857.

Smith, Franklin H. *Teak in Siam and Indo-China.* Department of Commerce and Labor, Bureau of Foreign and Domestic Commerce / Special agents series 108. Washington: Government Print Office, 1915.

Stevenson, Perry J. *Methods of Handling Lumber Imports in Africa.* Washington: Government Print Office, 1923.

Stringer, C. E. W. *Report: by Mr. C.E.W. Stringer of a Journey to the Laos State of Nan, Siam. Presented to Both Houses of Parliament by Command of Her Majesty, April, 1888.* London: HMSO, 1888.

*Treaty between Her Majesty and His Majesty the King of Siam for the Prevention of Crime in the Territories of Chiangmai, Lakon, and Lampoonchi, and for the Promotion of Commerce between British Burman and the Territories Aforesaid.* London: HMSO, 1884.

*Treaty Series. No. 9 1897. Notes Exchanged between Great Britain and Siam extending the Operation in Siam of the Treaty of September 3, 1883.* London: HMSO, 1897.

U.S. Office of the Comptroller. *Annual Report of the Comptroller of the Currency 1895.* Washington: Government Print Office, 1895.

### **Business Directory**

*Directory for Bangkok and Siam.* Bangkok: Bangkok Times Press, 1914.

*Handboek voor cultuur- en handels-ondernemingen in Nederlandsch-Indië 1914.* Amsterdam: J.H. de Bussy, 1914.

*Importers and Exporters Directory for Siam.* Bangkok: Ministry of Commerce, 1924.

*Siam Directory 1880.* Bangkok, 1880.

*The 1894 Directory for Bangkok and Siam.* Bangkok: Bangkok Times Office, 1894.

*The Siam Directory, 1912.* 2nd (reprinted). Bangkok: White Lotus, 2005.

Ministry of Commerce. *Importers and Exporters Directory for Siam, 1924.* 2nd. Bangkok: Ministry of Commerce, 1924.

### **Encyclopædia Entries**

*Den Store Danske Encyclopædi Bind 1.* København: Denmark's Nationalleksikon, 1994.

George Scott, James. "Salween River." In Hugh Chisholm, ed. *The Encyclopædia Britannica: a Dictionary of Arts, Sciences, Literature and General Information Volume 24.* Eleventh Edition. 103–4, Cambridge: Cambridge University Press, 1911.

Brandis, Dietrich, and James S. Gamble. "Teak." In Hugh Chisholm, ed. *The Encyclopædia Britannica: a Dictionary of Arts, Sciences, Literature and General Information Volume 26.* Eleventh Edition. 483–86, Cambridge: Cambridge University Press, 1911.

Scott, James G., and J. P. Hardiman. *Gazetteer of Upper Burma and the Shan States Part 1 Volume 1*. New York: AMS Press, 1983.

———. *Gazetteer of Upper Burma and the Shan states Part 2 Volume 1*. New York: AMS Press, 1983.

———. *Gazetteer of Upper Burma and the Shan states Part 2 Volume 2*. New York: AMS Press, 1983.

*Thai Encyclopedia for Children Volume 3* (สารานุกรมไทยสำหรับเยาวชน เล่มที่ 3). Bangkok: Khrusapha, 1977.

*The Imperial Gazetteer of India, Vol. 5 Abazi to Arcot*. Oxford: Clarendon Press, 1908.

### **Literature in Thai Language**

Adisorn Maukphimai (อดิศร หมวกพิมาย). “Krom Tha and Thai Economic System: the Analysis of the Structural Change and the Development from Thonburi Period to the Bowring Treaty 1767–1855 (กรมท่ากับระบบเศรษฐกิจไทย: วิเคราะห์โครงสร้างและการเปลี่ยนแปลงตั้งแต่สมัยธนบุรีกับการทำสนธิสัญญาเบาว์ริง พ.ศ. 2310–2398).” Master of Arts, Thammasart University, 1989.

*Annam Siam Yuth* (อานามสยามยุทธ). 2 vols. Bangkok: Phare Phitthya, 1971.

Anu Noenhat (อนุ เนินหาด). *The Stories from the Grand Father and Grand Mother* (พ่ออุ้ยแม่อุ้ยเล่าไว้). Chiang Mai Society 29. Chiang Mai: Nopburi Kanphim, 2011.

Asvabahu (อัสวพาหุ). *Jews of the East and Awake Thailand* (พวกยิวแห่งบูรพทิศ และ เมืองไทยจึงตื่นเถิด). Bangkok: King Rama VI Foundation, 1985.

Bongkoch Nantiwat (บงกช นันทวิวัฒน์). “Burmese chedis in Lampang during the reign of King Rama V (เจดีย์แบบพม่าสมัยรัชกาลที่ 5 ในเมืองลำปาง).” Master of Arts, Silpakorn University, 2007.

Chaiyot Chaininlaphan (ชัยยศ ชัยนิลพันธ์). *Nan In-tha, the ancestor of Inthaphan Family, The First Christian in Lanna: Education, Biography, and the History of Christian community in Lanna* (หนานอินตะ ต้นตระกูลอินทพันธ์ คริสเตียนไทยคนแรกของล้านนา การศึกษาอัตชีวประวัติ และประวัติศาสตร์ของชุมชนคริสเตียนในล้านนา). Chiang Mai: Saeng Silpa, 2010.

Chamaichom Sunthornwat (ชัยโยม สุนทรสวัสดิ์). “A Historical Study of Forestry in northern Thailand from 1896 to 1932 (การศึกษาเชิงประวัติศาสตร์เกี่ยวกับกิจการป่าไม้ทางภาคเหนือของไทย ตั้งแต่ พ.ศ. 2439 ถึง พ.ศ. 2475).” Master of Arts, Chulalongkorn University, 1977.

Chatthip Nartsupha (ฉัตรทิพย์ นาถสุภา). *The Thai Village Economy in the Past* (เศรษฐกิจชุมชนหมู่บ้านไทยในอดีต). Bangkok: Sangsan, 1990.

Chulitphong Chularat (จุฬิศพงษ์ จุฬารัตน์). *The Krom Tha Khwa officials: their Roles and Functions during the Ayutthaya and Ratanakosin Periods (1610–1892)* (บทบาทและหน้าที่ของขุนนางกรมท่าขวา ในสมัยอยุธยาถึงสมัยรัตนโกสินทร์ (พ.ศ. 2153–2435)). Bangkok: Chulalongkorn University Press, 2007.

Chaophaya Tiphkornrawong (เจ้าพระยาทิพากรวงศ์มหาโกษาธิบดี). *The Rattanakosin Royal Chronicle of Rama III* (พระราชพงศาวดารกรุงรัตนโกสินทร์ รัชกาลที่ 3). Bangkok: Department of Fine Arts, 1995.

- Chusit Chuchat (ชูสิทธิ์ ชูชาติ). “The Origin of Capitalism and the Impact on Peasant Society in the northern Region 1855–1932 (การดำเนินระบบเศรษฐกิจทุนนิยมกับผลกระทบที่มีต่อสังคมชาวนาในภาคเหนือ พ.ศ. 2398–2475).” *Social Science Journal* 5, no. 1 (1981): 39–63.
- . *Cow Caravan Merchant: The Pioneer of Trading in northern Thai Village 1855–1960* (พ่อค้าวัวต่าง: ผู้บุกเบิกการค้าขายในหมู่บ้านภาคเหนือของประเทศไทย (พ.ศ. 2398–2503)). Chiang Mai: Lanna Printing, 2002.
- . *Scorpion Ship Merchants of the Ping River (1296–1961 Ad.)* (พ่อค้าเรือหางแมลงป่องนายฮ้อยหลวง ลุ่มแม่น้ำปิง (พ.ศ. 1839–2504)). Second Edition. Chiang Mai: Lanna Printing, 2006.
- Council of Commercial Promotion, Ministry of Commerce. *The Record* 22 (จดหมายเหตุสภาเผยแผ่พาณิชย์ เล่ม 22). Bangkok: Ministry of Commerce, 1926.
- . *The Record* 41 (จดหมายเหตุสภาเผยแผ่พาณิชย์ เล่ม 41). Bangkok: Ministry of Commerce, 1932.
- Damrong Rajanubhab, Prince (สมเด็จพระเจ้าบรมวงศ์เธอ กรมพระยาดำรงราชานุภาพ). *The Chronicle of our Wars with the Burmese* (พงศาวดารเรื่องไทยรบพม่า) Bangkok: Matichon, 2002.
- Kitisak Hengsadikun (กิติศักดิ์ เสงษ์ภูกุล). *Kongta Market: old District and Story of Lampang* (ภาคกองต้า ย่านเก่าเล่าเรื่องเมืองลำปาง). Nonthaburi: Matichon, 2009.
- Kukrit Pramoj (กึกฤทธิ ปราโมช). *Burma Defeated* (พม่าเสียเมือง). Bangkok: Flower, 2009.
- Macro Patel (มาร์โก พาเทล). “The History and Development of Commercial Activities in Lampang from Nineteenth Century until 1939 (ประวัติและพัฒนาการของการค้าขายในลำปางตั้งแต่ปลายคริสต์ศตวรรษที่ 19–1939) translated by Kueamas Vuthikarn (เครือมาส วุฒิการณ์).” In *Lampang: the Last Century* (ลำปาง: เมื่อหัวหนึ่งศตวรรษ). Edited by Phairot Chaimuangchun (ไพโรจน์ ไชยเมืองชื่น). Lampang: Lamapang Ratchapat University, 2001.
- Nidhi Eoseewong (นิตี เอื้อยศรีวงศ์). *Pen and Sail: Literature and History in early Bangkok including the History of Bangkok in the Chronicles of Ayutthaya* (ปากไก่อและใบเรือ: รวมความเรียงว่าด้วยวรรณกรรมและประวัติศาสตร์ต้นรัตนโกสินทร์). Nonthaburi: Samesky, 2012.
- Panee Bualek (พรณี บัวเล็ก). *The Analysis and Characteristics of Thai Commercial Banker, 1932–1973* (วิเคราะห์นายทุนธนาคารพาณิชย์ของไทย พ.ศ. 2475–2516). 2nd. Bangkok: Siam, 2000.
- . *The Characteristics of Thai Capitalists between 1914–1939: the Lessons from Success and Tragedy* (ลักษณะของนายทุนไทยในช่วงระหว่าง พ.ศ. 2457–2482 บทเรียนจากความสำเร็จสู่โศกนาฏกรรม). 2nd. Bangkok: Panthakit Publishing, 2002.
- Photjana Luang-aroon (พจนา เหลืองอรุณ). “Commercial Shipping and Thai Economy 1855–1925 A.D. (การเดินทางเรือพาณิชย์กับเศรษฐกิจไทย พ.ศ. 2398–2468).” Master of Arts, Silpakorn University, 1980.
- Plaioor Chananon (ปลาย้อ ชนชนนท์). *The Roles of Merchant Capitalists in the Rise and Expansion of Capitalism in northern Thailand, 1921–1980* (นายทุนพ่อค้ากับการก่อตัวและขยายตัวระบบทุนนิยมในภาคเหนือของไทย พ.ศ. 2464–2523). Bangkok: Social Science Research Institute, Chulalongkorn University, 1987.
- Poonporn Poonthachak (พูนพร พูลทจักร). “Economic Change in Monthon Pha-Yap after the Construction of the Northern Railway, 1921–1941 (การเปลี่ยนแปลงทางเศรษฐกิจในมณฑลพายัพ หลังการตัดเส้นทางรถไฟสายเหนือ พ.ศ. 2464–2484).” Master of Arts, Silpakorn University, 1987.

- Pornpen Hantrakool (พรเพ็ญ ฮันตระกูล). “The Government Spending during the Reign of King Rama the Sixth (A.D. 1910–25) (การใช้จ่ายเงินแผ่นดิน ในรัชสมัยพระบาทสมเด็จพระมงกุฎเกล้าเจ้าอยู่หัว (พ.ศ. 2453–68)).” Master of Arts, Chulalongkorn University, 1974.
- Porphant Ouyyanont (อุยยานนท์ พอพันธ์). “Wage in Thai Economic History (ค่าจ้างแรงงานในประวัติศาสตร์เศรษฐกิจไทย).” *Thammasat Economics Journal* vol. 14, no. 1 (1996): 48–86.
- Prachum Phongsawadan Vol. 18 (Division 31) The Story of American Missionaries in Siam* (ประชุมพงศาวดาร เล่ม 18 (ภาคที่ 31) จดหมายเหตุเรื่องมิชชันนารีอเมริกันเข้ามาประเทศไทย). Bangkok: Khrusapha, 1963.
- Pranee Klam-som (ปราณี กล้าส้ม). *Bangkok's Old Quarters. 2* (ย่านเก่าในกรุงเทพฯ เล่ม 2) vols. 2. Bangkok: Maung Boran, 2006.
- Prani Sirithon Na Phatthalung (ปราณี ศิริธร ณ พัทลุง). “Towkay Nguan Sun of Tantraphan (เจ้าแก้ววันซุนแห่งต้นตราภันท์).” In *Phet Lanna*. Vol. 2. Edited by Prani Sirithon Na Phatthalung (ปราณี ศิริธร ณ พัทลุง). 2nd. 2 vols., 141–44. Chiang Mai: Manager Phak Nua, 1995.
- Ratanaporn Sethakun (รัตนาพร เศรษฐกุล). *A Century of Community Economy in northern Thailand, 1899–1999* (หนึ่งศตวรรษเศรษฐกิจชุมชนหมู่บ้านภาคเหนือ). Bangkok: Sangsan, 2003.
- . *Economic and Cultural History of Chiang Mai and Lamphun Basin* (ประวัติศาสตร์เศรษฐกิจวัฒนธรรมแอ่งเชียงใหม่-ลำพูน). Chiang Mai: Silkworm Books, 2009.
- Salairat Dolarom (ไสลรัตน์ ดลอารมย์). “Development of Teak Logging in Thailand 1896–1960 (พัฒนาการของการทำป่าไม้สักในประเทศไทย พ.ศ. 2439–2503).” Master of Arts, Silpakorn University, 1985.
- Sanan Ratanasopa (สนั่น รัตนโสภาก). “Evolution of Foreign Companies in Thailand 1855–1941 (วิวัฒนาการบริษัทต่างชาติในประเทศไทย พ.ศ. 2398–2484).” Master of Arts, Chulalongkorn University, 1984.
- Sarasawadee Ongsakul (สรวิชาติ อ่องสกุล). *Culture and Politics in Lan Na* (วัฒนธรรมการเมืองล้านนา). Bangkok: Ton Orr Grammy, 1996.
- . *Lan Na History* (ประวัติศาสตร์ล้านนา). Bangkok: Amarin, 2010.
- Slade, Herbert. *Slade's Report on the Forestry in Siam before the Establishment of Forest Department Ror Sor 114 (1896)*. Bangkok: Information Center, Royal Forest Department, 1993. translated from English language.
- Suntharee Arsvai (สุนทรี อาสะไวย์). *The History of Rangsit Canal: Impact on Land Development and Social Condition 1888–1914* (ประวัติศาสตร์คลองรังสิต: การพัฒนาที่ดินและผลกระทบต่อสังคม พ.ศ. 2431–2457). Bangkok: Thammasart University Press, 1987.
- Suri Liengsaengthong (สุรีย์ เลียงแสงทอง). “An Analytical Study of Phuket's Economy during 1853–1932 (การศึกษาวិเคราะห์สภาพเศรษฐกิจเมืองภูเก็ตระหว่าง พ.ศ. 2396–2475).” Master of Arts, Chulalongkorn University, 1981.
- The Personal Letters of King Rama V in the year 1877* (จดหมายเหตุพระราชกิจรายวันในพระบาทสมเด็จพระจุลจอมเกล้าเจ้าอยู่หัว จุลศักราช 1239 พุทธศักราช 2420). Bangkok: Department of Fine Arts, 2010.
- Tej Bunnag (เดช บุญนาค). *Ror Sor 121 Rebellion* (ขบถ รศ. 121). Bangkok: The Foundation for the Promotion of Social Science and Humanities Textbook Project, 1981.
- Thanom Tana (ถนอม ตนะนา). “Rice Mills Operation in Central Thailand, 1858–1938 (กิจการโรงสีข้าวในที่ราบภาคกลางของประเทศไทย พ.ศ. 2401–2481).” Master of Arts, Silpakorn University, 1984.

- Thot Khananaphon (ทศ คณนาพร). *Sing Lanna* (สิงห์ล้านนา). Bangkok: Rich, 2008.
- Tritnay Noppakhun (ตฤณชัย นพคุณ). *Thai Forest: a Conclusion of Power and Interest* (ป่าไม้ไทย บทสรุปแห่งอำนาจและผลประโยชน์). Bangkok: Sang Serm Thai Foundation, 2001.
- Weerathep Srimongkol (วีระเทพ ศรีมงคล). “The Tax Collection in Lanna 1884–1902 (การจัดเก็บภาษีอากรในล้านนา พ.ศ. 2427–2445).” Master of Arts, Silpakorn University, 1987.
- Yoshiyuki Masuhara (โยชิยุกิ มาซุฮารา). *The Economic History of Laos Lan Chang Kingdom in 14<sup>th</sup>–17<sup>th</sup>: from the Inner Trading State to Semiport Trading State* (ประวัติศาสตร์เศรษฐกิจของราชอาณาจักรลาวล้านช้าง สมัยคริสต์ศตวรรษที่ 14–17 จาก "รัฐการค้าภายในภาคพื้นทวีป" ไปสู่ "รัฐกึ่งเมืองท่า"). Bangkok: Matichon, 2003.

### **Literature in Western Languages**

- Akiko Iijima. “The "International Court" System in the Colonial History of Siam.” *Taiwan Journal of Southeast Asian Studies* vol. 5, no. 1 (2008): 31–64.
- Akin Rabibhadana. *The Organization of Thai Society in the early Bangkok Period, 1782–1873*. Ithaca, N. Y.: Department of Asian Studies, Cornell University, 1970.
- Akira Suehiro. “Capitalist Development on Postwar Thailand: Commercial Bankers, Industrial Elite, and Agribusiness Groups.” In Ruth McVey, *Southeast Asian Capitalists*, 35–63. Ithaca, NY: Southeast Asia Program Cornell University, 1992.
- . *Capital Accumulation in Thailand, 1855–1985*. Tokyo: Centre for East Asian Cultural Studies, 1989.
- Amnuayvit Thitibordin. “Mapping Discourses of Community Rights in Northern Thailand, from the First National Economic and Social Development Plan to the Thaksin Era.” In *Political Governance and Minority Rights: The South and South-East Asian Scenario*. Edited by Lipi Ghosh, 180–98. London: Routledge, 2009.
- Anan Ganjanapan. “The Partial Commercialization of Rice Production in Northern Thailand (1900–1981).” Ph.D., Cornell University, 1984.
- Andersen, Hans N. *Tilbageblik*. København: Hølst, 1914.
- . *Udvikling*. København: Hølst, 1929.
- Andrews, James M. *Siam. 2nd Rural Economic Survey, 1934–1935*. Bangkok: Bangkok Times Press, 1935.
- Archer, William. *The Truth about the Mekong Valley*. Bangkok: Bangkok Times, 1891.
- Bacon, George. *Siam: the Land of the White Elephant, as it was and is*. New York: Scribner, Armstrong, 1892.
- Banasopit Mekvichai. “The Teak Industry in North Thailand: the Role of a Natural-resource-based Export Economy in Regional Development.” Ph.D., Cornell University, 1988.
- Banton, Mandy. *Administering the Empire, 1801–1968: a Guide to the Records of the Colonial Office in the National Archives of the UK*. London: University of London, Institute of Historical Research, 2008.
- Barnard, Timothy P. “The Timber Trade in Pre-Modern Siak.” *Indonesia*, no. 65 (1998): 87–96.
- Barton, Clifton G. “Credit and Commercial Control the Strategies and Methods of Chinese Businessmen in South Vietnam.” Ph.D., Cornell University, 1977.
- Barton, Gregory A., and Brett M. Bennett. “Forestry as Foreign Policy: Anglo-Siamese Relations and the Origins of Britain's Informal Empire in the Teak Forests of Northern Siam, 1883–1925.” *Itinerario* vol. 34, no. 2 (2010): 65–86.



- Berghoff, Hartmut. *Moderne Unternehmensgeschichte: eine themen- und theorieorientierte Einführung*. Paderborn: F. Schöningh, 2004.
- Bock, Carl. *Temples and Elephants: the Narrative of a Journey of Exploration through Upper Siam and Lao*. London: Samson Low, Marston, Searle & Rivington, 1884.
- Bowie, Katherine A. "Peasant Perspectives on the Political Economy of the Northern Thai Kingdom of Chiang Mai in the Nineteenth Century: Implications for the Understanding of Peasant Political Expression." Ph.D., University of Chicago, 1988.
- . "Unraveling the Myth of the Subsistence Economy: Textile Production in Nineteenth-Century Northern Thailand." *The Journal of Asian Studies* vol. 51, no. 4 (1992): 797–823.
- Bowring, John. *The Kingdom and People of Siam Volume 1*. Tokyo: Oxford University Press, 1969.
- . *The Kingdom and People of Siam Volume 2*. Tokyo: Oxford University Press, 1969.
- Brailey, Nigel. "The Scramble for Concessions in 1880s Siam." *Modern Asian Studies* vol. 33, no. 3 (1999): 513–49.
- . "The Origins of the Siamese Forward Movement in Western Laos, 1850–92." Ph.D., University of London, 1968.
- Braund, H. E. W. *Calling to Mind: Being Some Account of the First Hundred Years (1870 to 1970) of Steel Brothers and Company Limited*. Oxford: Pergamon Press, 1975.
- Bristowe, W. S. "Robert Hunter in Siam, 1824–44." *History Today* 24, no. 2 (1974): 88–95.
- . *Louis and the King of Siam*. London: Chatto & Windus, 1976.
- Brown, Ian. "British Financial Advisers in Siam in the Reign of King Chulalongkorn." *Modern Asian Studies* vol. 12, no. 2 (1978): 193–215.
- . "Siam and the Gold Standard, 1902–1908." *Journal of Southeast Asian Studies* vol. 10, no. 2 (1979): 381–99.
- Brown, Rajeswary A. "Chinese Business and Banking in South-East Asia since 1870." In *Banks as Multinationals*. Edited by Geoffrey Jones, 173–90. London, New York: Routledge, 2012.
- Bryant, Raymond L. *The Political Ecology of Forestry in Burma: 1824–1994*. Honolulu: University of Hawaii Press, 1997.
- Campbell, Reginald. *Teak-Wallah: The Adventures of a Young Englishman in Thailand in the 1920s*. Singapore: Oxford University Press, 1986.
- Chaiyan Rajchagool. *The Rise and Fall of the Thai Absolute Monarchy: Foundations of the Modern Thai State from Feudalism to Peripheral Capitalism*. Bangkok: White Lotus, 1994.
- Child, Jacob T. *The Pearl of Asia*. Chicago: Donohue, Henneberry and Co., 1892.
- Coase, Ronald H. "The Nature of the Firm." *Economica* vol. 4, no. 16 (1937): 386–405.
- Cohen, Paul T. "Problems of Tenancy and Landlessness in Northern Thailand." *The Developing Economies* vol. 21, no. 3 (1983): 244–66.
- Cohen, Paul T., and Ross E. Pearson. "Communal Irrigation, State, and Capital in the Chiang Mai Valley (Northern Thailand): Twentieth-Century Transformations." *Journal of Southeast Asian Studies* vol. 29, no. 1 (1998): 86–110.
- Cole, Arthur H. "What Is Business History?" *The Business History Review* vol. 36, no. 1 (1962): 98–106.
- Cox, Howard, and Stuart Metcalfe. "The Borneo Company Limited: Origins of a Nineteenth-Century Networked Multinational." *Asia Pacific Business Review* vol. 4, no. 4 (1998): 53–69.

- Crawfurd, John. *Journal of an Embassy from the Governor-General of India to the Courts of Siam and Cochin China: Exhibiting a View of the Actual State of those Kingdoms*. 2nd ed. 2 vols. London: H. Colburn and R. Bentley, 1830.
- Cushman, Jennifer W. *Family and State: the Formation of a Sino-Thai Tin-Mining Dynasty, 1797–1932*. Singapore: Oxford University Press, 1991.
- Davenport-Hines, R. P. T, and Geoffrey Jones. “British Business in Asia since 1860.” In Davenport-Hines, R. P. T; Jones, *British Business in Asia since 1860*, 1–30. Cambridge: Cambridge University Press, 1989.
- Davenport-Hines, R. P. T and Geoffrey Jones, eds. *British Business in Asia since 1860*. Cambridge: Cambridge University Press, 1989.
- Davies, Henry R. *Yuen-Nan: The Link between Indian and the Yangtze*. Cambridge: Cambridge University Press, 1909.
- Descours-Gatin, Chantal. *Quand l'opium finançait la colonisation en Indochine: L'élaboration de la régie générale de l'opium, 1860 à 1914*. Paris: L'Harmattan, 1992.
- Dickson, A. J. C. “The Teak Industry.” In *Twentieth Century Impressions of Siam: its History, People, Commerce, Industries, and Resources, with which is incorporated an Abridged Edition of Twentieth Century Impressions of British Malaya*. Edited by Arnold. Wright and Oliver T. Breakspear, 170–81. London: Lloyds Greater Britain Publishing Company, Ltd, 1908.
- Dilock, Prinz von Siam. *Die Landwirtschaft in Siam: ein Beitrag zur Wirtschaftsgeschichte des Königreichs Siam* (Leipzig: Verlag von C.L. Hirschfeld, 1908).
- Drabble, J. H., and P. J. Drake. “The British Agency Houses in Malaysia: Survival in a Changing World.” *Journal of Southeast Asian Studies* vol. 12, no. 2 (1981): 297–328.
- Eggers-Lura, Aldo. “The Danes in Siam: their Involvement in establishing the Siam Commercial Bank Ltd. at the End of Last Century.” *Journal of the Siam Society* vol. 81, no. 2 (1993): 131–40.
- Evers, Hans-Dieter. “The Bureaucratization of Southeast Asia.” *Comparative Studies in Society and History* vol. 29, no. 4 (1987): 666–85.
- Evrard, Olivier. “Highlanders’ Mobility and Colonial Anxieties: a Political History of the Khmu Migrants in Siam.” In *Scholarship and Engagement in Mainland Southeast Asia*. Edited by Oscar Salemink. Chiang Mai: Silkworm Books, Forthcoming.
- Falkus, Malcolm. “Early British Business in Thailand.” In Davenport-Hines, R. P. T; Jones, *British Business in Asia since 1860*, 117–56. Cambridge: Cambridge University Press, 1989.
- Feeny, David. *The Political Economy of Productivity: Thai Agricultural Development, 1880–1975*. Vancouver: University of British Columbia Press, 1982.
- Götte, Rudolph. *Notes on Siamese Timber Suitable for Building Purposes*. Bangkok, 1908.
- Grabowsky, Volker. “The Thai Census of 1904: Translation and Analysis.” *Journal of the Siam Society* vol. 84, no. 1 (1996): 49–85.
- . “Forced Resettlement Campaigns in northern Thailand during the early Bangkok Period.” *Journal of the Siam Society* vol. 87, no. 1 & 2 (1999): 45–86.
- . *Bevölkerung und Staat in Lan Na: Ein Beitrag zur Bevölkerungsgeschichte Südostasiens*. Wiesbaden: Harrassowitz, 2004.
- Grabowsky, Volker, and Andrew Turton. *The Gold and Silver Road of Trade and Friendship: the McLeod and Richardson Diplomatic Missions to Tai States in 1837*. Chiang Mai: Silkworm Books, 2003.
- Graham, W. A. *Siam: a Handbook of Practical Commercial and Political Information*. 3rd ed. 2 vols. 2. London: Morning, 1924.

- Gras, N. S. B. "Why Study Business History?" *The Canadian Journal of Economics and Political Science / Revue canadienne d'Economie et de Science politique* vol. 4, no. 3 (1938): 320–40.
- Gützlaff, Karl. *Journal of Three Voyages along the Coast of China, in 1831, 1832, & 1833; with notices of Siam, Corea, and the Loo-Choo Islands*. London: Frederick Westley and A.H. Davis, 1834.
- Hall, D. G. E. *Henry Burney: a Political Biography*. London: Oxford University Press, 1974.
- Hanna, Willard. *Change in Chiangmai*. New York: American Universities Field Staff, 1965.
- Harper, Tim N. "The Politics of the Forest in Colonial Malaya." *Modern Asian Studies* vol. 31, no. 1 (1997): 1–29.
- "Herbert Slade, O. U. S. E." *The Indian Forester* 31 (1905): 320–21.
- Heughan, John. *By Canoe and Elephant: Adventures in the Burma-Siam Jungle*. Sydney: Angus and Robertson Limited, 1942.
- Holt Samuel, Hallett. *A Thousand Miles on an Elephant in the Shan States*. Edinburgh: W. Blackwood, 1890.
- Hosseus, Carl C. "Die Gewinnung des Teakholzes in Siam und seine Bedeutung auf dem Weltmarkt." In *Jahresbericht der Vereinigung für angewandte Botanik: Vierter Jahrgang 1906*, 40–50. Berlin: Verlag von Gebrüder Borntraeger, 1907.
- . "Kurzer Bericht über Vorkommen, Anbau und Gewinnung des Teakholzes in Siam." *Notizblatt des Königl. botanischen Gartens und Museums zu Berlin* vol. 4, no. 39 (1907): 279–84.
- Howitz, Pensak C. *Thai-Danish Relations: 30 Cycles of Friendship*. Copenhagen: Royal Danish Ministry of Education, 1980.
- Ichiro Kakizaki. *Laying the Tracks: the Thai Economy and Its Railways 1885–1935*. Kyoto area studies on Asia. Kyoto: Kyoto University Press, 2005.
- Ingram, James C. *Economic Change in Thailand, 1850–1970*. Stanford, Calif.: Stanford University Press, 1971.
- Jeshurun, Chandran. "The Anglo-French Declaration of January 1896 and the Independence of Siam." *Journal of the Siam Society* vol. 58, no. 1 (1970): 105–26.
- Jones, Stephanie. *Trade and Shipping: Lord Inchcape, 1852–1932*. Manchester: Manchester University Press, 1989.
- Jordan, Roger W. *The World's Merchant Fleets, 1939: the Particulars and Wartime Fates of 6,000 Ships*. London: Chatham Publishing, 1999.
- Kanokwan Uthongsap. "The Economic Roles of the Sino-Thai Community in the Northern Region of Thailand from 1900 to 1960: a Case Study of Lampang Province." Ph.D., Waseda University, 2012.
- Kingshill, Konrad. *Ku Daeng, the Red Tomb: a Village Study in northern Thailand*. Bangkok: Suriyaban Publisher, 1974.
- Köse, Yavuz. *Westlicher Konsum am Bosporus: Warenhäuser, Nestlé & Co. im späten Osmanischen Reich (1855–1923)*. München: Oldenbourg, 2010.
- Kunio Yoshihara. *The Rise of Ersatz Capitalism in South-East Asia*. Singapore: Oxford University Press, 1988.
- Landon, Margaret. *Anna and the King of Siam*. New York: John Day Company, 1944.
- Larsson, Tomas. *Land and Loyalty: Security and the Development of Property Rights in Thailand*. Ithaca: Cornell University Press, 2012.

- LeBar, Frank M. "Observations on the Movement of Khmu into North Thailand." *Journal of the Siam Society* vol. 55, no. 1 (197): 61–79.
- LeMay, Reginald. *An Asian Arcady: the Land and Peoples of Northern Siam*. Cambridge: Heffer, 1926.
- Leonowens, Anna H. *The English Governess at the Siamese Court: Being Recollections of Six Years in the Royal Palace at Bangkok*. Boston: Fields, Osgood, & Co., 1870.
- Lindblad, J. T. *Foreign Investment in Southeast Asia in the Twentieth Century*. Basingstoke: Macmillan in association with the Australian National University, Canberra, 1998.
- Longhurst, Henry. *The Borneo Story: the History of the First 100 Years of Trading in the Far East by the Borneo Company Limited*. London: Newman Neame, 1956.
- Lowy, Stephen. *Century of Growth: the First 100 Years of Siam Commercial Bank*. Singapore: Editions Didier Millet, 2007.
- Macaulay, R. H. *History of the Bombay Burma Trading Corporation, Ltd; 1864–1910*. London: Ballantye, 1934.
- Marshall, J. G. F. "Official Papers and Intelligence: the Maihongson Forest in Siam." *The Indian Forester* vol. 27, no. 9 (1901): 476–84.
- Mayuri Ngaosyvathn, and Pheuiphanh Ngaosyvathn. *Paths to Conflagration: Fifty Years of Diplomacy and Warfare in Laos, Thailand, and Vietnam, 1778–1828*. Ithaca, N.Y.: Southeast Asia Program Publications, Cornell University, 1998.
- McCarthy, James. *Surveying and Exploring in Siam*. London: J. Murray, 1900.
- McGilvary, Daniel. *A Half Century among the Siamese and the Lao: an Autobiography*. New York: Fleming H. Revell Company, 1912.
- McVey, Ruth T., ed. *Southeast Asian Capitalists*. Ithaca, NY: Southeast Asia Program Cornell University, 1992.
- . "The Materialization of the Southeast Asian Entrepreneur." In Ruth McVey, *Southeast Asian Capitalists*, 1–33. Ithaca, NY: Southeast Asia Program Cornell University, 1992.
- Metcalfe, Stuart. "The Structure and Evolution of an Operational Network: the Borneo Company Ltd, 1850–1919." *Asia Pacific Business Review* vol. 7, no. 2 (2000): 17–38.
- Michaud, Jean. *Historical Dictionary of the Peoples of the Southeast Asian Massif*. Lanham Md.: Scarecrow Press, 2006.
- Micklethwait, John, and Adrian Wooldridge. *The Company: a Short History of a Revolutionary Idea*. Modern Library chronicles. New York: Modern Library, 2003.
- Moerman, Michael. "Chiangkham's Trade in the 'Old Days'" In *Change and Persistence in Thai Society: Essays in Honor of Lauriston Sharp*. Edited by William Skinner and Thomas Kirsch. New York: Cornell University Press, 1975.
- Moore, Adey. "An early British Merchant in Bangkok." *Journal of the Siam Society* vol. 11, no. 2 (1915): 21–39.
- Nisbet, Hugh. *Experiences of a Jungle-Wallah*. St. Albans: Fisher, Knight and Co., 1910.
- Pallegoix, Jean-Baptiste. *Description du royaume Thai ou Siam: comprenant la topographie, histoire naturelle, moeurs et coutumes, législation, commerce, industrie, langue, littérature, religion, annales des Thai et précis historique de la mission; avec carte et gravures. Tome Premier*. Paris: Mission de Siam, 1854.

- Pointon, A. C. *The Bombay Burmah Trading Corporation Limited, 1863–1963*. Southampton: Millbrook Press, 1964.
- . *Wallace Brothers*. Oxford: Oxford University Press, 1974.
- Puangthong Rungswasdisab. “War and Trade Siamese Interventions in Cambodia, 1767–1851.” Ph.D., University of Wollongong, 1995.
- . “Siam and the Contest for Control of the Trans-Mekong Trading Networks from the Late Eighteenth to the Mid-Nineteenth Centuries.” In *Water Frontier: Commerce and the Chinese in the Lower Mekong Region, 1750–1880*. Edited by Nola Cooke and Tana Li, 101–18. Singapore: Singapore University Press, 2004.
- Ramsay, Ansil J. “The Development of a Bureaucratic Polity: The Case of Northern Siam.” Ph.D., Cornell University, 1971.
- Ratanaporn Sethakun. “Political, Social, and Economic Changes in the Northern States of Thailand Resulting from the Chiang Mai Treaties of 1874 and 1883.” Ph.D., Northern Illinois University, 1989.
- Redlich, Fritz. “Approaches to Business History.” *The Business History Review* vol. 36, no. 1 (1962): 61–70.
- Richardson, David. *Dr. Richardson's Missions to Siam, 1829–1839*. Edited by Anthony Farrington. Bangkok, Thailand: White Lotus Press, 2004.
- Rickover, R. M. *Pepper, Rice, and Elephants: a Southeast Asian Journey from Celebes to Siam*. Annapolis: Naval Institute Press, 1975.
- Sarasin Viraphol. *Tribute and Profit: Sino-Siamese Trade, 1652–1853*. Cambridge, Mass.: Council on East Asian Studies, Harvard University, 1977.
- SarDesai, D. R. *British Trade and Expansion in Southeast Asia, 1830–1914*. New Delhi: Allied Publication, 1977.
- Satow, Ernest. *Diplomat in Siam: H.B.M. Minister-Resident, Bangkok, 1885–88*. Edited by Nigel Brailey. Bangkok: Orchid Press, 2000.
- . *The Satow Siam Papers: the Private Diaries and Correspondence of Ernest Satow, C.M.G. H.B.M. Minister-Resident, Bangkok, 1885–1888*. Bangkok: Historical Society, 1997.
- Sconce, Gideon C. *Journal of the Salween Surveying Expedition*. Calcutta: Military Orphan Press, 1865.
- Seekins, Donald M. *Historical Dictionary of Burma (Myanmar)* (Lanham, Md.: Scarecrow Press, 2006)
- Skinner, George W. *Chinese Society in Thailand: an Analytical History*. Ithaca, N.Y.: Cornell University Press, 1957.
- Small, Leslie. “Historical Development of the Greater Chao Phya Water Control Project: an Economic Perspective.” *Journal of the Siam Society* vol. 61, no. 1 (1973): 1–24.
- Smyth, Herbert W. *Five Years in Siam from 1891 to 1896*. 2 vols. London: J. Murray, 1898.
- Stuyt, Alexander M. *Survey of International Arbitrations 1794–1938*. The Hague: Martinus Nijhoff, 1939.
- Sukanya Bumroongsook. “Chulachomklao Royal Military Academy: The Modernization of Military Education in Thailand (1887–1948).” Ph.D., Northern Illinois University, 1991.
- Suphawat Laohachai boon, and Shinya Takeda. “Teak Logging in a Trans-Boundary Watershed: an Historical Case Study of the Ing River Basin in northern Thailand.” *Journal of the Siam Society*, vol. 95 (2007): 123–41.

- Tambiah, Stanley J. *World Conqueror and World Renouncer: a Study of Buddhism and Polity in Thailand against a Historical Background*. Cambridge: Cambridge University Press, 1976.
- Tarling, Nicholas. "Harry Parkes' Negotiations in Bangkok in 1856." *Journal of the Siam Society* vol. 53, no. 2 (1965): 153–80.
- Tej Bunnag. *The Provincial Administration of Siam, 1892–1915: the Ministry of the Interior under Prince Damrong Rajanubhab*. Kuala Lumpur: Oxford University Press, 1977.
- Teruko Saito, and Lee Kin Kiong. *Statistics on the Burmese Economy: The 19th and 20th Centuries*. Singapore: Institute of Southeast Asian Studies, 1999.
- Thongchai Winichakul. *Siam Mapped: a History of the Geo-body of a Nation*. Honolulu: University of Hawaii Press, 1994.
- Todd, David. "John Bowring and the Global Dissemination of Free Trade." *The Historical Journal* vol. 51, no. 2 (2008): 373–97.
- Tuck, Patrick J. N. *The French Wolf and the Siamese Lamb: the French Threat to Siamese Independence, 1858–1907*. Bangkok: White Lotus, 1995.
- Usher, Ann D. *Thai Forestry: a Critical History*. Chiang Mai: Silkworm Books, 2009.
- Vincent, Frank. *The Land of the White Elephant: Sights and Scenes in Southeastern Asia. A Personal Narrative of Travel and Adventure in Farther India, Embracing the Countries Elephant of Burma, Siam, Cambodia, and Cochin-China. (1871–2)*. New York: Harper & brothers, 1874.
- Webster, Anthony. *Gentlemen Capitalists: British Imperialism in Southeast Asia, 1770–1890*. London: Tauris Academic Studies, 1998.
- . "Business and Empire: a Reassessment of the British conquest of Burma in 1885." *The Historical Journal* 43, no. 4 (2000): 1003–25.
- Wilson, Constance M. "The Holy Man in the History of Thailand and Laos." *Journal of Southeast Asian Studies* vol. 28, no. 2 (1997): 345–64.
- Wolters, O. W. *History, Culture, and Region in Southeast Asian Perspectives*. Rev. ed. Singapore: Institute of Southeast Asian Studies, 1999.
- Wood, R. W. "Of Teak and Elephants: a Teak-Wallah Reminisces." *Journal of the Siam Society* vol. 68, no. 2 (1980): 91–95.
- . *De Mortuis: the Story of Chiang Mai Foreign Cemetery*. 5<sup>th</sup>. Bangkok: Craftsman Press, 1999.
- Wood, W. A. R. *Consul in Paradise: Sixty-Nine Years in Siam*. London: Souvenir Press, 1969.
- Wyatt, David K, trans., *The Nan Chronicle*. Ithaca, N.Y.: Southeast Asia Program, Cornell University, 1994.
- Yoneo Ishii. *The Junk Trade from Southeast Asia: Translations from the Tōsen fusetsu-gaki, 1674–1723*. Singapore: Institute of Southeast Asian Studies, 1998.
- Younghusband, George J. *Eighteen Hundred Miles on a Burmese Tat: through Burmah, Siam, and the eastern Shan States*. London: Allen & Co., 1888.
- Zimmerman, Carle C. *Siam: Rural Economic Survey 1930–31*. Bangkok: Bangkok Times Press, 1931.

### **Internet Resource**

Sumari Sukdanont (สุมาลี สุขदानนท์). *Bangkok Port (ท่าเรือกรุงเทพ)*. 2011. Accessed 24<sup>th</sup> November 2015.  
<http://www.tri.chula.ac.th/triresearch/bangkokport/bangkokport.html>.

The Economist. *Vertical Integration*. Accessed 3<sup>rd</sup> February 2016.  
<http://www.economist.com/node/133960>

### **Declaration of Oath**

Hereby, I follow the §7 Paragraph 4 of the “The doctorate regulations for the Faculty of Humanities at the University of Hamburg”

I confirm that I wrote the dissertation on my own, without using any other than the declared sources, references and tools. All passages included from other works, whether verbatim or in content, have been identified as such. The content of the presented dissertation has not been used as a whole for another scientific work or publication so far. If own publications have been included partially, they have been identified as such.

Amnuayvit Thitibordin

Amnuayvit Thitibordin



## **Lebenslauf**

„Lebenslauf entfällt aus datenschutzrechtlichen Gründen“