

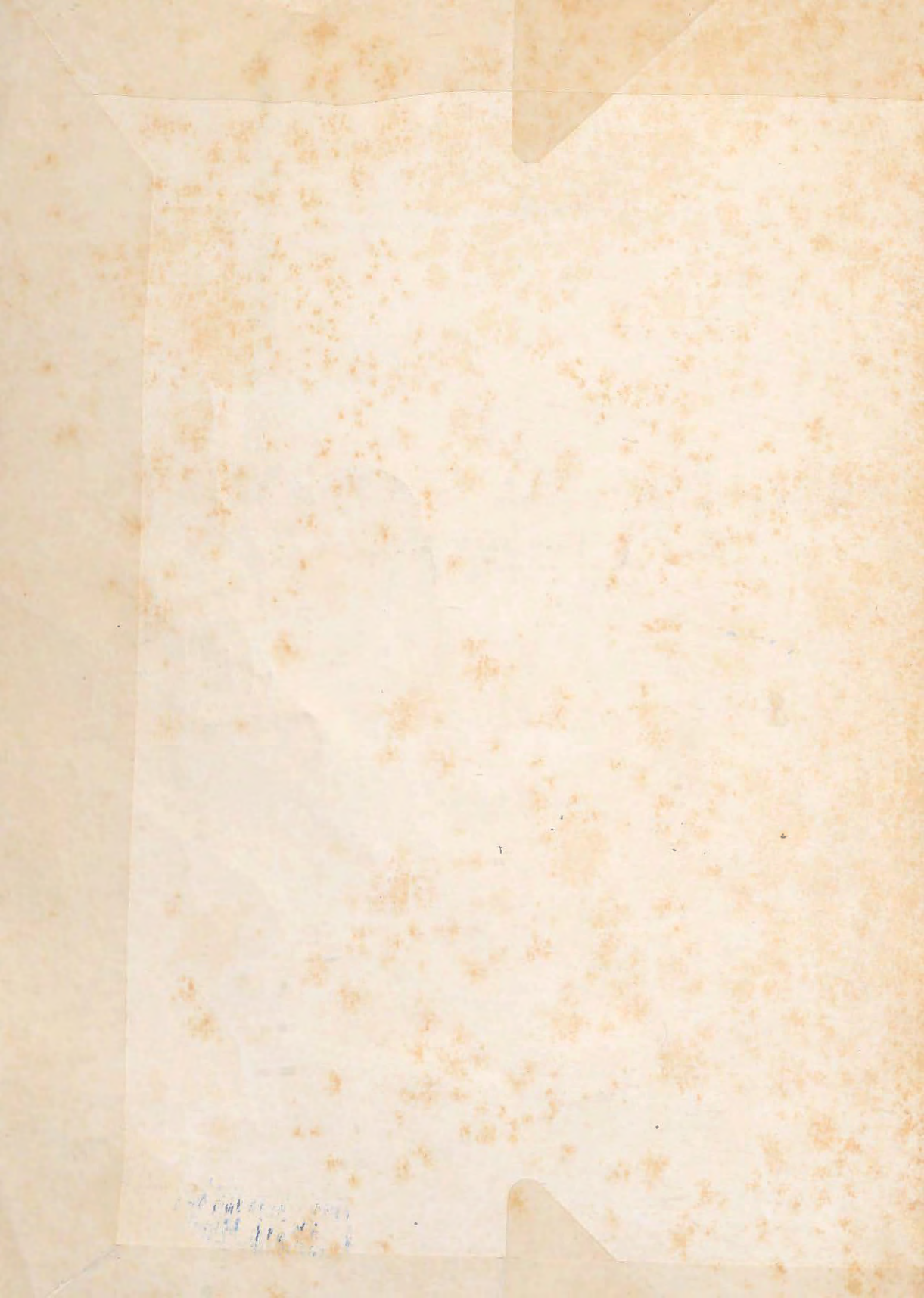
**MONOGRAPHS** OF THE MALAYSIAN BRANCH  
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**AN HISTORICAL GEOGRAPHY OF PAHANG**

**By DR. R. G. CANT**

**MONOGRAPH No. 4**

**1973**



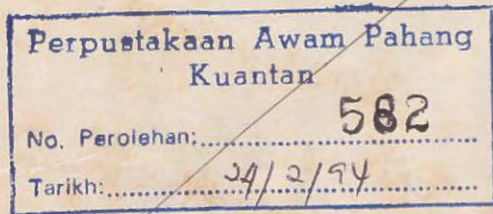
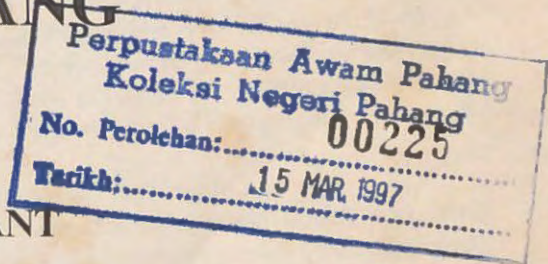
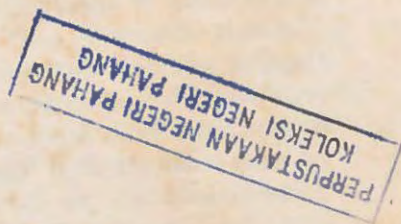


Monographs of the Malaysian Branch  
Royal Asiatic Society

No. 4.

# AN HISTORICAL GEOGRAPHY OF PAHANG

by  
DR. R.G. CANT



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# AN HISTORICAL GEOGRAPHY OF PAHANG

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# AN HISTORICAL GEOGRAPHY OF PAHANG

## PREFACE

This study was made possible by the award of a Commonwealth Scholarship by the Federation of Malaya (subsequently Malaysia). During the two years from May 1962 to April 1964 the writer was enrolled as a full time student in the Department of Geography at the University of Malaya and worked under the supervision of Professor Robert Ho. A considerable proportion of the two year period was spent in collecting and collating primary source materials which were held in the various District Administrative Offices and State Departments in Pahang. Since most of the documents located were unsorted and unclassified and have not hitherto been used by research workers they are described in some detail in the bibliography. Files from the Kuantan District Office and published materials were consulted in the Public Records Office at Petaling Jaya and visits were also paid to the Singapore National Library, the Headquarters of the Geological Survey at Ipoh, and the Forest Research Institute at Kepong. Relevant files from the Colonial Office Records and the India Office Records were consulted on microfilms held in the Library of the University of Malaya.

The maps and diagrams used in the text were prepared by the writer while in Malaya and reproduced in form suitable for publication by Mr. Ching Kok Heng, Draughtsman at the Department of Geography, University of Malaya.

Special acknowledgement is made to the following:-

The officials who made available the documents on which this study is based: the State Secretary, Pahang, and the Keeper of the Public Records, Malaysia; the State Agricultural Officer, the State Veterinary Officer, the Chief Surveyor, the Religious Affairs Officer, the Commissioner of Lands and Mines, and the State Forest Officer, all for Pahang; the Inspector of Mines, Eastern Malaya; the District Officers for Lipis, Raub, Bentong, Pekan, Temerloh, and Kuantan, and the Agricultural Circle Officer, North Pahang; the Senior Inspector of Mines, the Director of Geological Survey and the Surveyor General, all for the Federation of Malaya; the Librarian, Department of Agriculture and the Librarian, Forest Research Institute.

The staff in the various offices where the documents have been studied; Assistant District Officers, Chief Clerks, Settlement Officers and Office Boys who have assisted in the location and sorting of the material and answered my many questions.

Those who have discussed specific aspects of the study or provided information about the availability of material; in particular Mr. W.P. Panton, Mr. R. Stensland, Mr. J. Wyatt-Smith, Dato Mahmud bin Mat, Professor K.G. Tregonning and Inche Zakaria bin Hitam.



Those residents of Kuantan, Kuala Lipis and Raub who provided accommodation for myself and my wife and without whose very practical support this research would not have been possible.

Inche Hamdan bin Sheikh Tahir and the staff of the Scholarships and Training Division of the Ministry of Education in Kuala Lumpur for the very warm interest they took in the welfare of Commonwealth Scholars in Malaya.

The Librarian and staff of the University of Malaya Library, the Librarian of the New Zealand Geographical Society and the Librarian-in-Charge, Country Library Service, Christchurch.

The Editor of the *Journal of Tropical Geography* for permission to include chapter 4 which appeared in volume 19 of that journal.

Inche Md. Derus bin Osman, Inche Abdul Samad bin Haji Abdullah, Messrs John Ngai and V. Palani for their help in many practical ways.

Mrs. Dorothy Hunter for the gracious way in which she undertook the laborious task of typing the final script.

The Staff of the Department of Geography, University of Malaya; Dr. J.C. Jackson for his willingness to discuss many aspects of the study and his help with table 9; Professor Robert Ho for his guidance and encouragement; Dr. Donald McTaggart who cheerfully picked up the threads of supervision after I had left Malaya and guided the work through its closing stages.

To our many friends, Malaysian and expatriate, who made our stay in Malaya so pleasant and to my wife who shared this experience with me and helped with innumerable details of organisation.

Hokitika, New Zealand October, 1965.



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## GLOSSARY

<i>atap</i>	roofing thatch or nipah palm leaves
<i>batas</i>	bunds in a padi field
<i>belukar</i>	secondary growth or jungle
<i>bukit</i>	hill
<i>dusun</i>	orchard
<i>estate</i>	unit or aggregate of land under one management and with an area of 100 acres or more
<i>gantang</i>	measure of capacity equal to 1 Imperial gallon
<i>genting</i>	pass
<i>gunong</i>	mountain
<i>hydraulic</i>	a method of mining similar to <i>lampanning</i> (q.v.) but employing the use of monitors, jets of water under pressure, to break up the overburden
<i>jelutong</i>	the base for chewing gum obtained from the sap of the jelutong tree
<i>kampung</i>	Malay village with its surrounding gardens
<i>karang</i>	ore bearing material
<i>kati</i>	measure of weight equal to $1\frac{1}{3}$ pounds
<i>kongsi</i>	a Chinese firm or syndicate
<i>kuala</i>	a river mouth or confluence
<i>ladang</i>	shifting cultivation, a cultivated clearing
<i>lampanning</i>	a method of surface mining employed in valleys and hill slopes where the overburden is removed by running water; also known as ground sluicing
<i>lombong</i>	an open-cast alluvial tin mine from which the overburden and <i>karang</i> are removed by manual labour
<i>medium holding</i>	unit or aggregate of land under one management and with an area between ten and 100 acres
<i>mukim</i>	the smallest administrative unit, a subdivision of a district
<i>padi</i>	the growing plant and the unmilled grains of the rice plant
<i>paya</i>	permanent swamp, a wet-padi field
<i>penghulu</i>	headman of a mukim
<i>permatang</i>	an inland beach ridge, an old sand beach
<i>pikul (or pikul)</i>	100 kati or 133 pounds

<i>plantation</i>	a collective term for <i>estates</i> , <i>medium holdings</i> , and <i>smallholdings</i> (q.v.)
<i>pulau</i>	an island
<i>smallholding</i>	a unit of land of ten acres or less which was alienated by entry in the mukim register and does not form part of a <i>medium holding</i> or <i>estate</i> (q.v.)
<i>sungei</i>	river
<i>ulu</i>	area of country drained by the tributaries of a river; thus Ulu Lipis is the area drained by the tributaries of the Lipis River

### Currency

During the period covered by the study the Malaysian dollar (\$) was equal to 2 shillings and 4 pence Sterling.



## ABBREVIATIONS USED IN THE NOTES

A.R.	Annual Report
F.M.S.	Federated Malay States
J.I.A.	The Journal of the Indian Archipelago and Eastern Asia
J.M.B.R.A.S.	Journal of the Malayan Branch, Royal Asiatic Society
J.S.B.R.A.S.	Journal of the Straits Branch, Royal Asiatic Society
J.T.G.	Journal of Tropical Geography (formerly the Malayan Journal of Tropical Geography)
P.C.C.L.	Pahang Consolidated Company Limited
Phg.Sec.	Pahang State Secretariat
R.A.G.M. Coy.	Raub Australian Gold Mining Company.

District Offices or District Office Files are referred to by the name of the district only; thus *Raub A.R.* 1913 is the Annual Report of the Raub District Office for 1913 and *Kuantan* 213/27 is Kuantan District Office File number 213/27.

Pahang State or Pahang State Departments are referred to as Pahang; thus *Agriculture, Pahang* refers to the State Agricultural Department, Pahang. The Federated Malay States and Federal Departments, including those which were merged with Straits Settlements Departments, are similarly referred to as F.M.S.; thus *Forestry, F.M.S.* refers to the Forestry Department of the Federated Malay States.

References to office files are given in two parts separated by a diagonal line: firstly the number of the file and secondly the two terminal figures of the year in which it was first opened. Thus *Temerloh* 1017/36 is Temerloh District Office File number 1017 for 1936. Once a file is opened the terminal date is unchanged and the file quoted above may contain more recent documents dealing with the same topic.





## CHAPTER 1

### INTRODUCTION

This is a study of changes in the geography of the State of Pahang between 1888 and 1939, the initial period of British administration. It focuses attention on a particular area of the humid tropics during a period of rapid and critical geographical change. It traces the evolution of new spatial patterns as a colonial administration, a commercial economy, and alien immigration are superimposed on an indigenous pioneer economy.

Pahang has been selected for study for three main reasons. Firstly because it is characteristic of large areas of equatorial Asia which have low population densities<sup>1</sup>. In common with Borneo, Sumatra, south Thailand, and the southern Philippines, Pahang is today sparsely settled and little developed (fig. 1). With increasing population pressure in the Eastern World, and a quickening tempo of development stimulated by Asian nationalism and political independence, such areas are attracting increased attention. Pahang provides a convenient setting within which certain problems and concepts of development can be examined in detail. Secondly Pahang occupies a distinct and intermediate role within Malaysia; it is intermediate between the more highly developed States fronting onto the Straits of Malacca and the less developed States which face the South China Sea; the composition of its population places it near the centre of a continuum extending from such multi-racial States as Johore and Selangor to predominantly Malay States such as Kelantan and Perlis; in size and population density it is intermediate between the smaller mainland States and the larger States in the Borneo territories. The third reason for selecting Pahang for special study is the present state of historical and geographical knowledge in Malaya. Much is known and much has been written about the trading settlements of Penang, Malacca, and Singapore, while in recent years the western peninsular States have been the subject of an increasing amount of research. Pahang, however, has remained in obscurity until the present decade of national independence and development plans. Its current political and economic importance is such that an investigation of its historical development is a necessary prerequisite for sound government planning.

In this study attention is focused on the first and longest period of British administration in Pahang. When the project was first conceived it was intended to trace the sequent occupancy of Pahang from prehistoric times to the independence of the Federation of Malaya in 1957. Soon after the research was initiated, however, it became clear that greater benefit could be achieved

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1. Pierre Gourou it was who described hot, wet Asia as a juxtaposition of densely occupied areas and sparsely settled expanses. *The Tropical World*, p. 105.



by concentrating on the period between the establishment of the British administration in 1889 and the Second World War. While the availability of research material relating to the years before and after this period is likely to improve in the future, it was considered that now is the optimum time to make a thorough study of Pahang under the first British administration.

The historical geography of Pahang prior to the British period is thus covered in outline only (Chapter 3). The historian Linehan has already made a major contribution to our understanding of pre-British Pahang<sup>2</sup>. A more comprehensive study would require many years of research and skills with which the present writer is not equipped. Basic research into the archaeology, the ethnology and the anthropology of Malaya is still incompletely correlated and largely unconsolidated. Much documentary material relating to the Malay States is at present contained in archives and libraries in the Netherlands, Portugal, England, France, India, and China, but comparatively little is available in Malaya. Within the last six years a Public Records Office and National Archives have been set up in Malaya and part of their long term policy is to rectify this situation. While it is now possible to commence a study of the historical geography of pre-British Pahang, any attempt to produce a finished study in 1965 would be premature. The chapter which here precedes the main study is little more than a tentative introduction compiled from published sources.

The year 1939 was selected for the final reconstruction of the geography of Pahang since this was the last year for which complete data were available prior to the Japanese invasion<sup>3</sup>. Between 1939 and 1957 there were important changes associated with the Occupation, the Communist "Emergency" and the subsequent resettlement programme, but official documents relating to this latter period are classified as confidential and for security and political reasons are not available to research workers. When these restrictions are relaxed it is hoped that a study may be made of the changes which took place between the Second World War and the inauguration of the First Five Year Plan in 1957.

Historical geographers have evolved a number of methods to deal with the problem of manipulating heterogeneous spatial data in a chronological context<sup>4</sup>. Some, by focusing attention on specific elements of change or selecting themes around which their material is organised, concentrate attention on the changes rather than the continuing spatial relationships<sup>5</sup>.

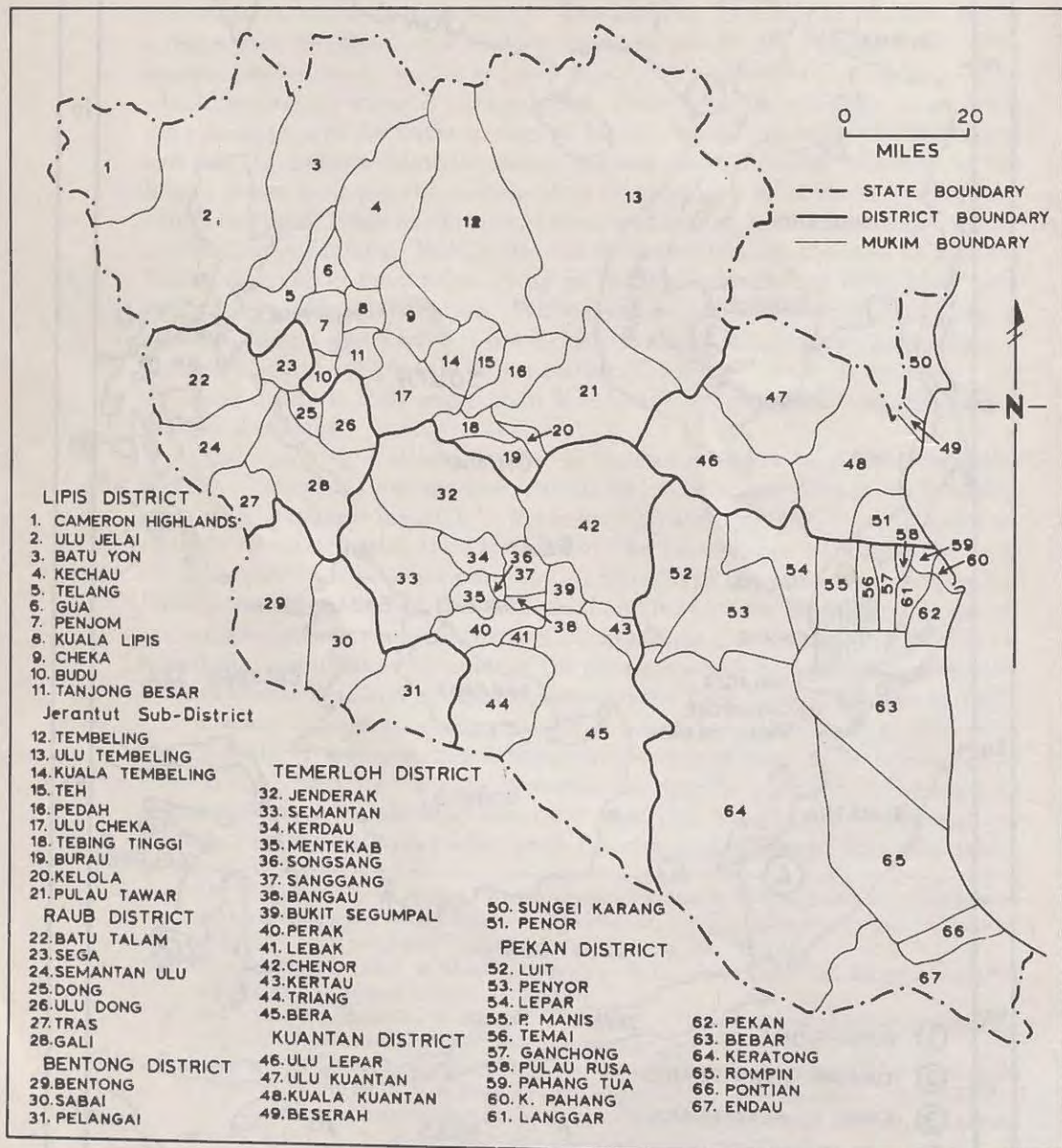
2. Dr. W. Linehan spent most of his administrative career in Pahang and was a specialist in the archaeology and Malay literature of that State. His most important work, "A History of Pahang", was published in *J.M.B.R.A.S.*, Vol. 14, Part 2, 1936.
3. The Japanese invasion of Malaya took place at the end of 1941 but no administrative reports were published for 1940 or 1941.
4. For a detailed discussion of these see Darby H.C.: "The Problem of Geographical Description" *Transactions of the Institute of British Geographers*, No. 30, 1962.
5. A systematic narrative approach is used to advantage by Andrew Hill Clark in his study of the South Island of New Zealand. He begins with a reconstruction of the primitive habitat and then traces in turn the invasion of the region by people, animals, and plants. Clark, A.H.: *The Invasion of New Zealand by People Plants and Animals*.



FIGURE 1 SOUTH-EAST ASIA LOCATION MAP



FIGURE 2  
PAHANG: ADMINISTRATIVE DIVISIONS





Others, by reconstructing past geographies at particular points in time, concentrate more on the spatial relationships and less on the processes of change<sup>6</sup>. The framework of the present study is selected to give emphasis to both aspects by combining the methods of static description with sequential narrative. After introductory chapters, which aim to put the study in its physical and historical setting, the study proper begins with a reconstruction of Pahang as it was on the eve of British administration. The period of study is then divided into three main phases. In each attention is focused in turn on selected aspects of the geography and changes are presented sequentially. At the end of each phase attention is refocused on the new patterns which have emerged and the old patterns which have persisted. Further reconstructions are thus made for 1909 and 1921 and the study concludes with a final reconstruction of Pahang on the eve of the Second World War.

The present study thus combines two established traditions of historical geography in order to facilitate an orderly study of changing patterns and changing relationships. By widening the horizon of geography to include velocity, pace, and timing<sup>7</sup> such patterns and relationships can be studied at greater depth. Special interest is attached to factors which have moulded the present day geography, and to problems of interest to the present generation of research workers, but it is in no way intended to limit this study to features which are still visible in the contemporary landscape. While it is recognised that a degree of selection is both essential and desirable, the combination of static reconstruction and narratives of change is intended to direct attention to all major factors which have combined to create past and present patterns of occupance in Pahang.

Within the conceptual framework described above it is also intended to recognise certain problems of interest both to geographers and workers in other disciplines. A short-list of eight such problems is given below:—

- (a) The effect of administrative actions in stimulating or retarding development.
- (b) The evolution, or the "involution" of traditional Malay agriculture during the colonial period<sup>8</sup>.
- (c) Reasons for the retarded development of Pahang as compared with the western States of Malaya.
- (d) Processes of capital formation in a developing economy.
- (e) The role of technical innovations in geographical change.
- (f) The nature of demographic expansion in this region.

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6. A classic study of this kind is Ralph H. Brown's *Mirror for Americans: Likeness of the Eastern Seaboard*, 1810.

7. Whittlesey, D.: "The Horizon of Geography" *Annals of the Association of American Geographers*, Vol. 35, No. 1, 1945, pp. 1-36.

8. Compare Geertz, C.: *Agricultural Involution. The Processes of Ecological Change in Indonesia*.



- (g) The extent to which "economic enclaves" developed in Pahang and the processes by which economic influences spread<sup>9</sup>.
- (h) The entrepreneurial role of the Chinese in the development of an integrated economy.

The diversity of these problems precludes a complete investigation of each within the limits of the present work. They are, however, noted at the outset and where possible their consideration is woven into its main fabric. Some will be examined in greater detail in subsequent papers<sup>10</sup>. It is intended that this study should form a comprehensive background for further interdisciplinary investigation of these and similar problems.

This study of Pahang during the British period draws mainly on the records created by the British administration itself<sup>11</sup>. There is, however, sufficient other material in the form of contemporary books, articles and newspapers, and in the memories of older residents, to allow an independent assessment of official attitudes and policies. In the course of their day to day administration, the British created a great volume of records. For convenience they may be classified into four groups, namely office files, annual reports, land records, and maps.

### Office Files.

It is broadly estimated that British Officials resident in Pahang created one and a half million office files during the period under review. In addition many other files relating to Pahang were held by Federal Departments in Kuala Lumpur and elsewhere. A proportion of these files contained information of a descriptive or a quantitative nature. These ranged from reports of areas visited by government officers, through many thousands of applications for mining or agricultural land, to such unlikely files as those containing evidence taken in civil or criminal law suits. Fortunately, or unfortunately as the case may be, only a fraction of the original files have been preserved for posterity<sup>12</sup>. When this study was commenced in 1962 the Public Records

- 
- 9. See Myrdal, G.: *Economic Theory and Under-developed Regions*, London, 1957, especially p. 31 and pp. 58-60.
  - 10. The first of these, under the title "Historical Reasons for the Retarded Development of Pahang State, Eastern Malaya" appeared in the *New Zealand Geographer*, Vol. 21, No. 1, 1965, pp. 26-37.
  - 11. A discussion of the material available for the pre-British period is beyond the scope of this study. Those references which are available in Malaysia are, however, included in the bibliography.
  - 12. Most files have been destroyed to make way for new files or have rotted away or been consumed by white ants as a result of inadequate storage facilities. The State Secretariat and many of the State Departments moved first from Pekan to Kuala Lipis and later from Kuala Lipis to Kuantan and in the course of such moves there was a strong tendency for non-current files to be abandoned. The Japanese Occupation is invariably quoted as the main cause of destruction; many offices were looted by civilians in 1941 and again in 1945 and between these dates many records were destroyed on the orders of a more ruthless administration. More subtle, however, was the fact that the Occupation provided a

(Continued on next page)



Office of the Federation of Malaya held some files from the Kuantan District Office but very little was known about records still held in Pahang. During 1962 and 1963 district offices and state departments were systematically visited by the writer. All collections of files thus located are listed in the bibliography. Those files which survive represent less than ten per cent of those originally opened and the most serious deficiency of all is the loss of all but a few dozen of the Pahang Secretariat Files for the years prior to 1934<sup>13</sup>. Nevertheless some files have been found for every year of the administration and some for every district of the State. Those which have been preserved form a reasonably representative sample.

### **Annual Reports.**

Each official in charge of an area of the State or a subdivision of the administration was required to write an annual report and compile statistical returns which were submitted to the next senior official in the hierarchy. Reports of junior officials were then utilized in the preparation of reports by their superiors. District administration reports and state departmental reports were then submitted to the British Resident who prepared the Annual Report for the State of Pahang. During the present century the reports of the state departments were also sent to the head of the corresponding federal department and, together with similar reports from other States, were used in the composition of the Federated Malay States Departmental Reports. Both the Pahang Annual Reports and the Federated Malay States Administrative and Departmental Reports were published<sup>14</sup>. These represent the apex of a long process involving the collective observation of several dozen officials and many man-hours of work and are the most important published sources of information about Pahang during this period. The unpublished reports of the District Officers and other Officials were normally kept in the files of the office where they were written and at the office to which they were submitted. Where such reports are available they provide much greater detail than do the published reports and are in addition a valuable check on the accuracy and the objectivity of the latter. It is unfortunate that so few of these have been preserved.

### **Land Records.**

Since the survey and registration of occupied land was a major concern of the British administration, land records are an important and well preserved group of documents. In pre-British times effective occupation, provided it was

---

water-tight excuse for subsequent losses. One office, which will remain anonymous, possesses a 1946 file commending certain staff members for the way in which they preserved prewar files at considerable personal risk. These same records, however, are no longer extant and their destruction is attributed to the Japanese.

13. State Secretariat files have a special importance since duplicate files of major documents prepared by district offices and state departments are normally sent to the State Secretary and preserved in his files.
14. Most, but not all, of these are available in Malaysia. For notes on their location see bibliography.



in accordance with Malay custom, constituted ownership. In its first year the new administration confirmed the ownership of existing occupiers and began to compile registers of land so held. In 1897 a *Registration of Titles Enactment* was passed and at the beginning of this century a comprehensive system of survey and registration, the Torrens System, was initiated (appendix 1.). While Revenue Survey work was carried out by the Pahang Survey Department and all survey records were held at the Survey Office at Kuala Lipis, responsibility for the legal registration of titles was divided between the Commissioner of Lands for Pahang and the District Officers (fig. 2). The former registered town land, and agricultural land in excess of ten acres while the latter registered smaller agricultural holdings and mining titles. Since all applications for land were received initially by the district offices, these kept duplicate copies of all Revenue Survey maps for their area and recorded all alienation work performed by the Commissioner of Lands. By the end of 1939 there were just over sixty-two thousand current titles in Pahang and, in addition, records had been retained for most titles issued after 1900 and subsequently cancelled.

Land records were legal documents and as such were stored in strong-rooms. The Japanese realised their importance in efficient administration and not only preserved them but also endeavoured to keep them up to date during the Occupation. There was, however, one serious loss; the strong-room at the Office of the Commissioner of Lands was breached by looters and the Registers of Grants were destroyed<sup>15</sup>. After the Occupation, these were reconstructed by recalling issue copies and issuing new titles. Since many issue copies had also been lost, however, the new Register of Grants is far from complete.

### Maps.

The production of maps was closely related to the system of land administration. No systematic survey work was done in Pahang until 1899 when the first Superintendent of Surveys was appointed and major triangulation commenced. Revenue Survey work, the survey of land for alienation, was undertaken from 1903 onwards and in 1909 the first reliable State Maps were published (see bibliography). The work of the Revenue Survey was carefully performed but progress was slow. In the first decade work was confined to larger agricultural holdings and those in the more densely settled and easily accessible areas. In the second decade a rapid increase in the demand for land left the department far in arrears. During the 1920's they were able to catch up but there were many areas, particularly in the north and south of the State, where occupied holdings remained unsurveyed until the 1930's or even later.

The two main series of maps produced by the Revenue Survey Department were cadastral maps, at a scale of four chains to the inch or eight chains to the inch, and State Maps, at a scale of four miles to the inch or eight miles to the inch. Over eight hundred of the former have been produced to show the location and extent of all alienated holdings. These maps show almost no

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15. I.e. the Registers for holdings in excess of ten acres. See appendix 1.



topographic detail but concentrate instead on showing the boundaries of every holding together with a statement of its area and survey number. Master copies are held at the State Survey Office where they are constantly revised and used to produce tracings and photostat copies used by the Land Offices. For the remainder of this study these cadastral maps will be referred to simply as Revenue Survey Maps.

Revenue Survey information was also used to produce the State Maps which showed the extent of land alienated or reserved at various dates from 1909 onwards (see bibliography). The value of these maps is seriously limited by the long and irregular delays which took place between the time when applications for land were approved and occupation permitted, on the one hand, and the time when survey was carried out and registration completed, on the other. Thus, for example, almost none of the holdings first occupied in 1918, 1919, or 1920 appear on the map *Pahang* 1920 which was compiled from land alienation data.

Topographic mapping in Pahang was commenced in the late 1920's and much of western Pahang was mapped at a scale of one inch to one mile during the following decade. These maps had considerable strategic importance, however, and few of the earlier editions survived the Second World War. Subsequent revisions, essential for present day requirements, limit the value of these maps as historic documents. Early editions which have been located are listed in the bibliography.

The two most complete sources of information used in the present study are the published Annual Reports and the Land Office—Revenue Survey records. Of equal importance, in spite of their incompleteness, are the office files. To a large extent these three sources are complementary. The Annual Reports on their own would tend to overemphasise the historical, rather than the spatial aspects of the study. Furthermore, they were carefully prepared for publication and have a natural tendency to highlight the successes and rationalise the prejudices of the administrators who compiled them. The land records are more geographical documents; they make it possible to map the expansion of alienated land and to locate the activities described in the Annual Reports. Compared with the Annual Reports they are more objective but this does not imply that they are more accurate; they stipulate which areas could legally be occupied; they list crops which may or may not have been planted. Careful comparison with the other sources is necessary in order to assess the extent to which they portray the reality on the ground. The office files, with their wide variety of miscellaneous material do much to expand the material available from the first two sources and provide a means of assessing its reliability. Such items as minutes on government policy, unpublished reports on such topics as illegal mining or shifting cultivation, and detailed submissions by individuals critical of government are an invaluable guide to the attitudes of the administration and the objectivity of its published material <sup>16</sup>.

16. Good examples of such files are *Raub* 487/22, *Phg. Sec.* 1164/39, *Phg. Sec.* 492/40, and *Agriculture, Pahang* 180/48.



Special mention should be made of the way in which Land Office and Revenue Survey records have been used in the study since this is closely related to its organisational framework. Information abstracted from *Mukim Registers* and *Indexes of settlement Work* was used to identify the threshold dates for the different phases of development and then reorganised to shed additional light on the geography of Pahang in 1888, 1909, 1921, and 1939. For seven selected mukims <sup>17</sup> maps were prepared which showed the land approved for occupation prior to each of the threshold dates. While these maps are considerably more accurate than the Revenue Survey State Maps discussed above, it should be noted that they give no indication as to whether occupation was effective or continuous.

The information abstracted from the *Mukim Registers* was also used to show the progress of alienation according to the race of the first owner and the nature of the stipulated cultivation for three selected mukims (figures 25 to 28). Land records of the type available in Pahang could be used much more intensively for detailed investigation of smaller areas. Used in conjunction with field studies they can throw considerable light on topics such as subdivision and fragmentation, patterns of change in land ownership and the extent to which shifting cultivation takes place within the framework of permanent land regulations.

This completes the review of the main source material available and the discussion of the way in which it has been used. In the two chapters which follow, the physical and historical background to the main study are presented. Chapter 2 indicates briefly those physical characteristics of Pahang which have been significant during the period under review, and chapter 3 provides a tentative reconstruction of the historical geography of Pahang in pre-British times. Both of these chapters rely on the published work of other writers. The main study, commencing with chapter 4 and continuing to the end, is the work of the present writer and contains the results of the research here described.

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17. These are Penjam, Dong, Bentong, Lebak, Kuala Kuantan, Penyor and Rompin (fig. 2). Copies of these maps are held at the Department of Geography, University of Malaya.



## CHAPTER 2

### THE PHYSICAL BACKGROUND

Pahang, with an area of 13,820 square miles, is the largest State in peninsular Malaysia (fig. 3). During the period from 1895 to 1948 when it was joined with Perak, Selangor and Negri Sembilan in the Federated Malay States, it made up half of that territory. Subsequently it represented 28 per cent of the Federation of Malaya when that was established. In 1963, with the formation of Malaysia, Pahang was somewhat dwarfed by Sabah and Sarawak but it still comprises 11 per cent of the total area. In terms of size it is thus intermediate between the larger States of the Borneo territories and the other States of mainland Malaysia.

In common with so many other South-East Asian political units, Pahang is a river basin State whose inland boundaries are sparsely settled divides. It is only within the last 75 years that these were finally established and accurately surveyed. The core of the State is the Pahang River and its tributaries. These rise in the interior of the Peninsula and eventually find their way into the South China Sea near latitude 3 degrees 30 minutes (fig. 4). To the north and south are the lesser river systems of the Kuantan, the Bebar and the Rompin while in the extreme south the Endau River is a recently fixed and atypical political boundary with Johore. Throughout its early history the political extent of the State expanded and contracted but until the construction of modern communications the centre of political control was always located at some point on the major river which gave the State its name and its identity.

The main tectonic features of Pahang are a series of longitudinal folds, formed by compression forces acting from the east and bowed slightly towards the west<sup>1</sup>. Except for the Benom Range these have their greatest magnitude in the centre of the Peninsula and diminish towards the south (fig. 4). The trends are not always conspicuous in the mature landscape. In three cases—the Main Range to the west, the Coastal range to the east and the Benom Range—the covering of ancient sedimentary rocks has been eroded away to expose more recently intruded igneous cores. Rivers flowing southwards with the tectonic grain, and eastwards across it, have deposited large areas of alluvium while post-glacial changes in sea level have resulted in the formation of extensive areas of coastal swamp.

The greater proportion of Pahang is land of low to moderate elevation. Under tropical conditions, elevations of up to one thousand, and even fifteen hundred, feet have not acted as a barrier to the cultivation of lowland crops. The impeded drainage of the coastal plains and the steeper slopes associated

1. See Scrivenor, J.B.: *The Geology of Malaya* and Richardson, J.A.: "An Outline of the Geomorphological Evolution of British Malaya", *Geological Magazine*, Vol.84, 1947, pp. 129-44.



with the mountain ranges have both, however, produced inferior soils which have been avoided by the Malay cultivators and the commercial agriculturalists alike.

Detailed soil work is still in its infancy in Pahang but a tentative soil map of Malaya at a scale of 24 miles to the inch has been prepared under the supervision of W.P. Panton<sup>2</sup>. The practical classification adopted by Panton gives a valuable guide to the agricultural potential of different areas of Pahang and a simplified version of the Pahang section of this map is reproduced in figure 5.

The first two categories shown represent negative areas which, with minor exceptions, have never attracted permanent settlement during the period under study. Where the *lithosols and shallow latosols* have been cleared by shifting cultivators, the soil depletion has been so rapid that cultivation has rarely been attempted after the second or third season. Only at government hill stations on the extreme western border of the State has there been any attempt at permanent cultivation. The *organic mucks and peats* of the coastal region have been formed under drainage conditions which have repelled permanent agriculture. Even when drainage problems are overcome these soils are less fertile than corresponding soils in western and northern Malaya<sup>3</sup>. In dry seasons, small patches within these areas have sometimes been cleared, burned, and sown with padi broadcast over the ashes but yields from such methods have never been sufficient to encourage regular cultivation or permanent settlement<sup>4</sup>.

The soils most important to traditional Malay agriculture are the *low humic gley soils*. In addition to more extensive areas shown on the small scale map, there are smaller areas in the valleys of the interior and along the floodplains of the major rivers. Where drainage and irrigation problems can be overcome, these soils can be used annually for the cultivation of wet padi. Where drainage or irrigation is lacking, regular cultivation may still be possible provided longer fallow periods are observed. In general, drainage problems are greater in the flatter coastal districts than in the interior. The fertility of these soils varies considerably and the mere provision of drainage and irrigation facilities is no guarantee that yields will justify the seed and labour expended in cultivation. Associated with these soils, particularly along the upper and lower reaches of the Pahang River, are some better drained alluvial soils which receive a regular topdressing of silt brought down by the annual floods of the Pahang River. Even where irrigation is not available, these latter soils can be planted annually provided that the land is well cultivated.

Parallel to the present coast line are a series of former beach ridges,

2. *Soil Map of Malaya*, 1962. See also Panton, W.P.: "The 1962 Soil Map of Malaya", *J.T.G.*, Vol.18, 1964, pp.118-124.

3. The reasons for this are not fully understood but the fact that these soils are underlaid with sand appears to be significant.

4. The method of cultivation described here is known in Pahang as *padi tabor*. *Agriculture, Pahang* 180/48.



FIGURE 3 MALAYSIA 1965



FIGURE 4 PAHANG  
RELIEF AND RIVERS

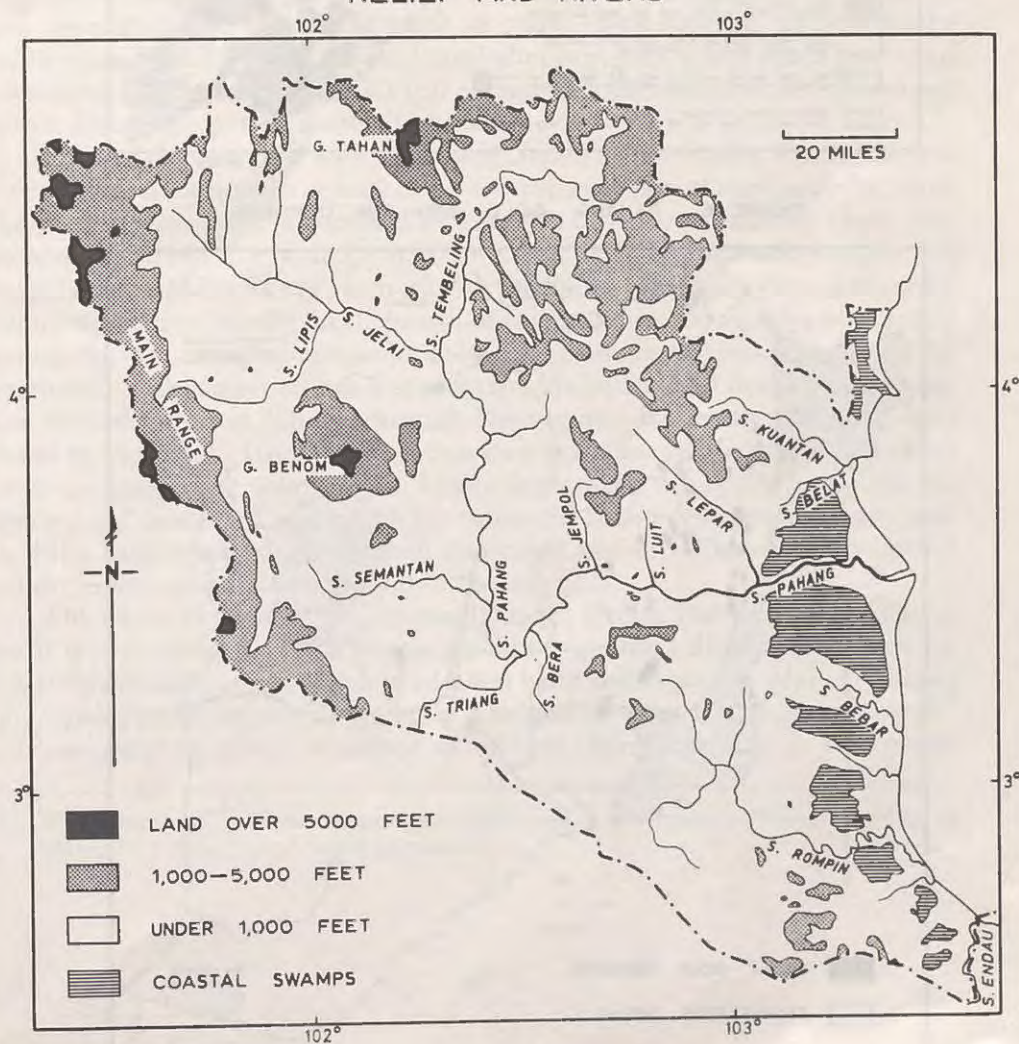




FIGURE 5 THE SOILS OF PAHANG

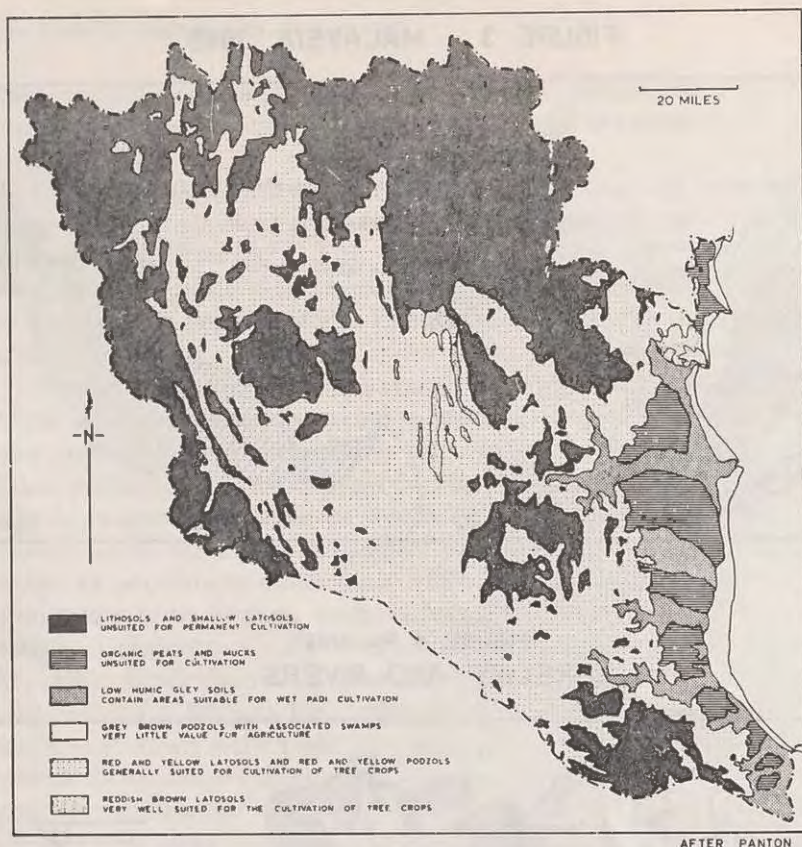


FIGURE 6 PAHANG: GOLD AND TIN DEPOSITS





separated by narrow swamps. The sandy material which makes up these ridges is very free draining and the *grey brown podzolic soils* which have developed on it are of very low fertility. Attempts at any form of cultivation result in very rapid soil deterioration and the nutrients available are barely adequate even for the coconut tree. Occasional crops of wet padi may be planted in the intervening *payas* but these also are of low fertility. As a result, the yields are low and quickly fall off after the first crop. Thus as a general rule it may be stated that the returns from any form of cultivation in this coastal area are very low and the rates at which natural vegetation can recover and soil fertility be replenished are very slow.

The two remaining categories are soils which have developed in areas where drainage is adequate and slope not excessive. In Malaya these soils have been widely used for the cultivation of rubber and other tree crops. The area covered by these soils in Pahang is larger than in any other State. These soils are formed from various parent materials and vary considerably in their fertility, even within each category. The *reddish brown latosols* have been formed over basic or intermediate igneous rock and have a much better structure than the *red and yellow latosols and podzols*. Variations in the fertility of these soils have only been studied in recent years and they had little influence on patterns of land alienation and settlement prior to 1921. The superior fertility of the *reddish brown latosols* was not realised until after occupation had taken place and cultivation commenced and their full extent, as indicated in figure 5, was not known during the period under study.

Pahang, in common with adjoining States of the Malay Peninsula, has mineral deposits which have long attracted the attention of miners and traders. The present discussion is confined to minerals discovered prior to 1940. Tin has been found in three main areas of the State; firstly on the eastern slopes and margins of the Main Range; secondly on the flanks of Gunong Serudom in the Kuantan District; thirdly in the south of the State, in the vicinity of Gunong Lesong (fig. 6). Small quantities of gold have been discovered in many localities, mainly within a broad belt known as the Malayan Gold Belt which extends from Mount Ophir in Johore, through Pahang into Kelantan, and north into Patani in Thailand. Iron ore exists in a number of places; in prehistoric times it was smelted in the valley of the Tembeling and in the 1930's large reserves were proved in south Pahang. Other minerals, such as copper, wolfram, and scheelite, have been mined in small quantities but they have never been important in the overall development of Pahang.

The whole of Pahang was originally under forest. For the present discussion it is convenient to use a simple six-fold vegetation division suggested by Wyatt-Smith and a map which is adapted from the *Vegetation Map of Malaya*, 1962, compiled under his direction<sup>5</sup>. The greater area of Pahang is covered with a tropical rainforest described as lowland dipterocarp but in the coastal

5. Wyatt-Smith, J.: "Some Vegetation Types and a Preliminary Schematic Map of Malaya", *J.T.G.*, Vol.18, 1962, pp.200-213.



areas, and at higher elevations, there are less important forest types which merit separate mention (fig. 7).

In the tidal reaches of the main rivers there are small areas of *mangrove forest*. These rarely exceed one or two square miles in extent and are thus small compared with those found on the more sheltered west coast of Malaya. These forests are low, and contain a narrow range of species. Those of economic importance include the *nipah* palm, which is used by Malays for thatching, and species of *rhizophora*, which are exploited for firewood and charcoal.

The *beach forests* are of such limited extent that they cannot be shown on the map. They contain a small number of species and are confined to the immediate vicinity of the coast. Along the foreshore are herbaceous plants and wispy *casuarina* trees; behind, on *permatang* ridges and occasional sandy flats, is a denser woodland with xerophytic trees ranging up to one hundred feet in height and a fairly dense layer of scrub and small trees. In the past, much of this forest has been destroyed and only limited regeneration has taken place with the result that there were considerable areas of low scrub and tufted grasses, even in 1888. Some of the trees can be utilized for local purposes such as building houses or repairing boats, but in general this type of forest has little commercial value.

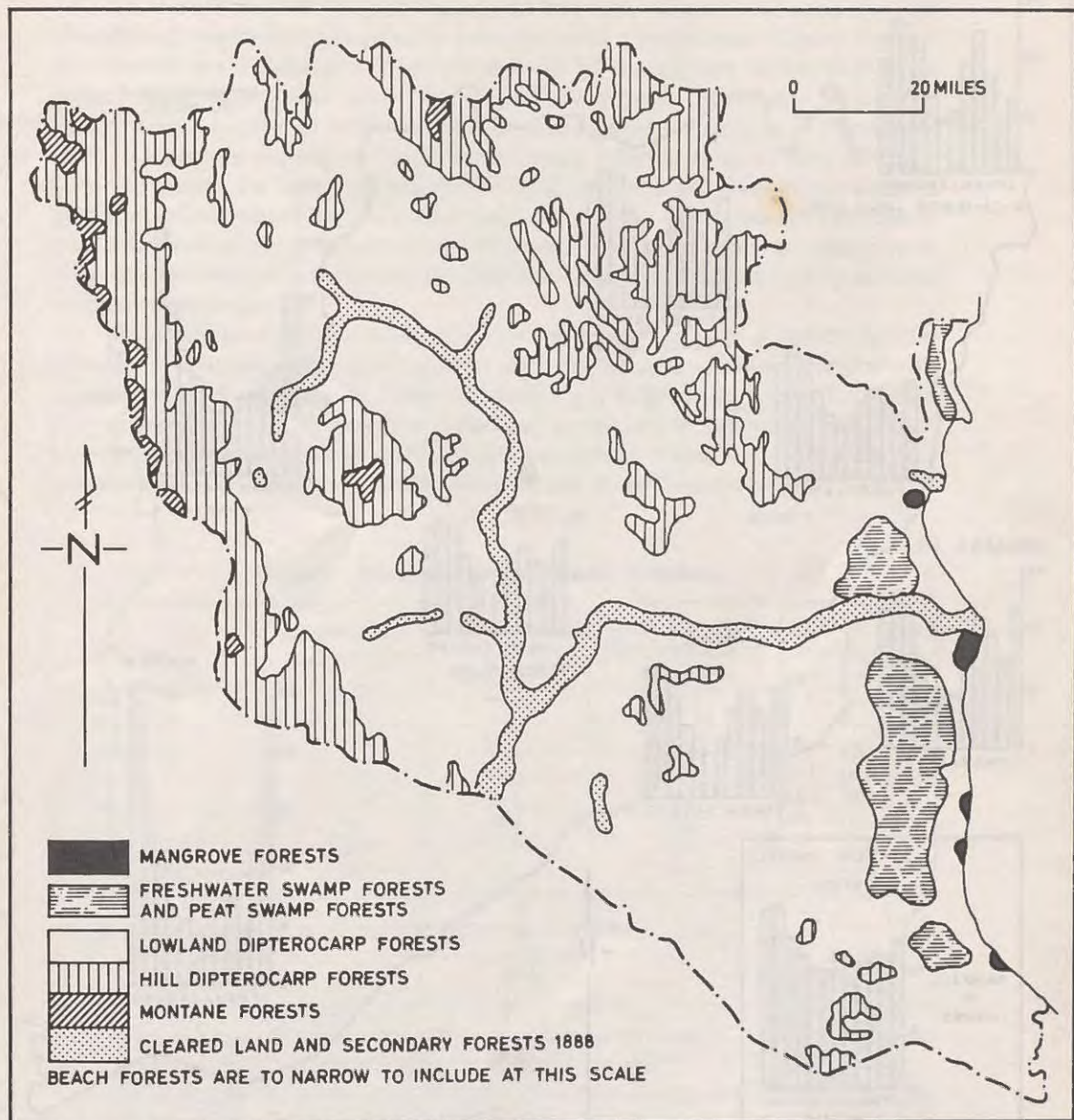
*Freshwater swamp forests* and *peat swamp forests* occur in the poorly drained areas between the lower reaches of the larger Pahang rivers. They range from open scrub with a few scattered trees to rainforests whose density and range of species is only slightly less than those of the lowland dipterocarp forests. Many of the species could be exploited commercially but it is only since the Second World War that this possibility has been seriously considered. During the period covered by the study these forests were strictly avoided by all save the occasional collector of jungle produce. The same drainage conditions which produced the forests repelled the settler and the cultivator.

The most important forests from the commercial point of view are the *lowland dipterocarp forests*. These are found on well drained soils at elevations of up to one thousand feet and cover approximately two-thirds of the total State area. They are dense, tropical rainforests with a main storey of seventy to one hundred feet in height, together with understorey, shrub, and ground layers, and emergents. They contain thousands of different species including almost all of the Malayan timber trees which are commercially exploitable. The lowland dipterocarp forests are by no means uniform but pure stands are never present. These forests, more than any of the others, have been subject to modification, both before, and during, the period under study. This is partly because of the timber they contain and partly because they are found on soils which have been developed for agricultural purposes.

Where soil and slope conditions are favourable, dipterocarp forests with a modified range of species are found at elevations between one thousand and three thousand feet. Many of the trees in these *hill dipterocarp forests* can be exploited commercially but regeneration takes place more slowly than in the case of the lowland dipterocarp forests. At higher elevations, and on poorer

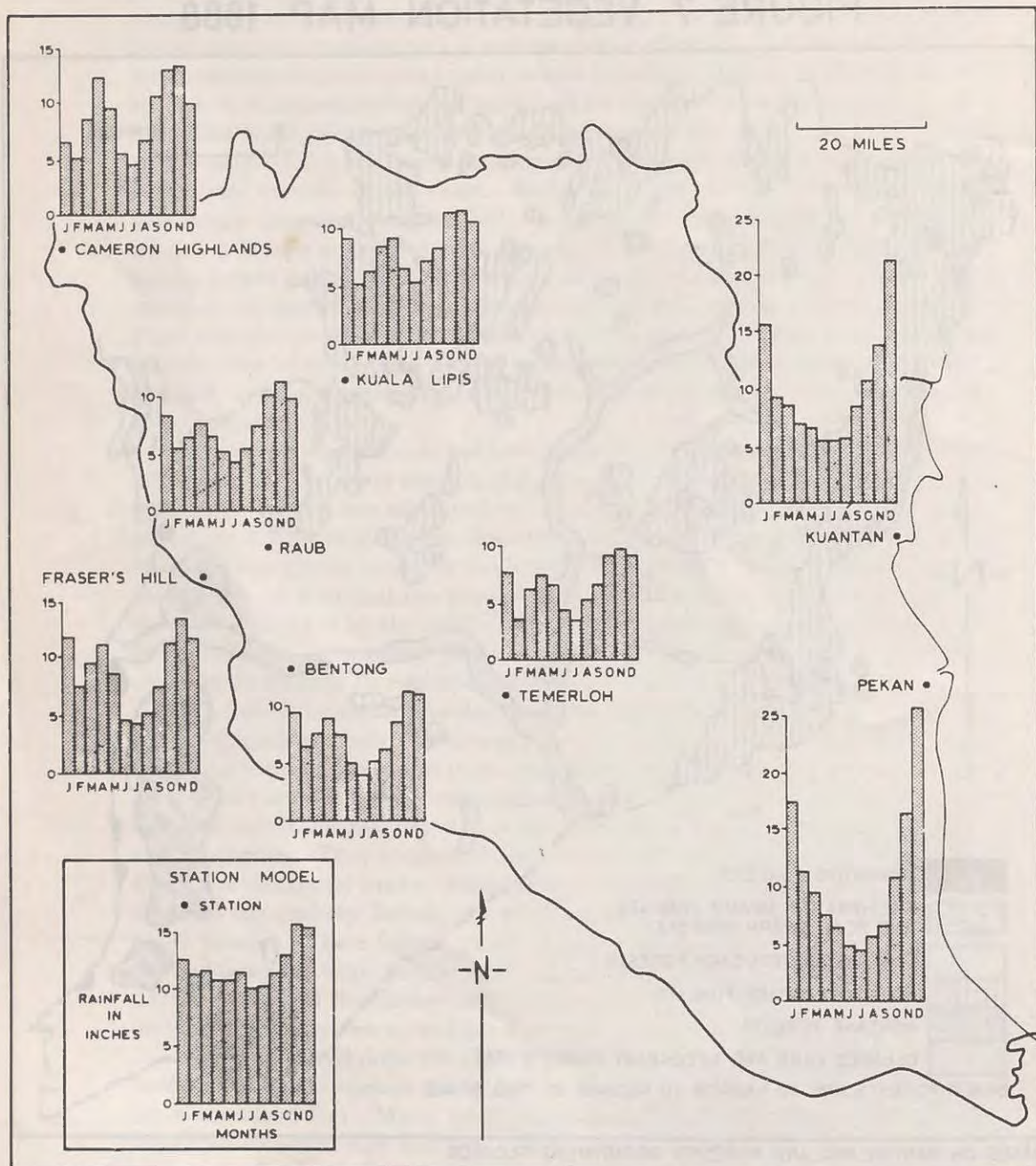


# FIGURE 7 VEGETATION MAP 1888



BASED ON PANTON, 1962 AND FORESTRY DEPARTMENT RECORDS

FIGURE 8 PAHANG: AVERAGE MONTHLY RAINFALL



SOURCE OF DATA: MALAYAN METEOROLOGICAL SERVICE: CLIMATOLOGICAL SUMMARIES.



soils at intermediate elevation, are *montane forests* which contain fewer species and a larger proportion of trees. These latter contain few, if any, commercial trees but they extend to the peaks of the highest ranges and provide a protective cover over the steeper slopes. Where they are removed by mining or natural calamity, serious erosion problems can result.

In areas where the tropical rainforest has been cleared and subsequently abandoned, regeneration normally takes place at a rapid rate. Under favourable conditions a thick growth of shrubs will be established within five or six years. After twenty-five years the secondary growth, or *belukar* to use the Malay term, begins to resemble the original forest cover minus the larger trees. Complete regeneration, however, may take as long as two or three hundred years. In instances where the land has been too completely cleared and the soil depleted by excessive cultivation<sup>6</sup>, or where areas have been burnt for several years in succession, clearings may be invaded by *lalang* grass (*imperata cylindrica*) which usually persists for many decades before normal regeneration resumes.

Pahang, in common with the rest of Malaysia, has a warm humid climate<sup>7</sup>. Temperatures are equable and the annual average temperature figures for lowland stations range between 77.4 degrees at Kuala Lipis and 81.3 degrees at Bentong (table 1). Annual temperature variations are slight, especially when compared with diurnal variations (table 1). The most important regional variations in temperature are those associated with altitude.

**Table 1. Temperature Conditions in Pahang.**

	Height in feet above m.s.l.	Annual mean temperature (degrees f.)	Range of monthly mean temperature (degrees f.)	Annual mean diurnal range (degrees f.)
Kuala Lipis	555	77.4	3.1	16.9
Raub	520	79.5	3.1	17.5
Bentong	317	81.3	2.5	20.1
Temerloh	163	78.5	3.3	16.8
Pekan	15	80.4	3.2	16.1
Kuantan	62	78.1	3.5	16.2
Fraser's Hill	4,268	66.0	4.1	11.0
Cameron Highlands	4,750	2.5	2.5	15.9

Source: Dale "Surface Temperature of Malaya" *op.cit.* Tables 1, 2, and 3.

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6. Better soils may be cultivated without major damage for three seasons but poorer soils, such as the grey brown podzols, are over-cropped at the end of the first season.
  7. Information in this section is largely drawn from three articles by W.L. Dale. They are "The Rainfall of Malaya, Part 1", *J.T.G.* Vol. 13, 1959, pp. 23-37; "The Rainfall of Malaya, Part 2", *J.T.G.*, Vol. 14, 1960, pp. 11-28, and "Surface Temperatures in Malaya", *J.T.G.*, Vol. 17, 1963, pp. 57-71.



The average rainfall figures for Pahang are generally higher than those for Western Malaya and there is a much more pronounced seasonal pattern (figure 8). This is a direct result of exposure to the north-east monsoon which commences in November or early December, reaches a peak between mid-December and mid-January, and continues with diminishing intensity until March. Coastal areas experience high seas and heavy rainfall during the earlier months of this monsoon and annual flooding occurs throughout Pahang as the result of heavy rainfall in upland areas exposed to the moist easterly airstream. The average annual rainfall for the eight recording stations ranges between 80.28 inches for Temerloh and 127.35 inches for Pekan.

Rainfall intensities during the north-east monsoon are often very high in East Coast areas. Sustained heavy rainfall can persist for days or even weeks. Average figures conceal large variations and the rainfall which is recorded at lowland stations on the coast is much less than that received on the ranges behind. Nevertheless it may be noted that the average rainfall intensity for both the Pekan and Kuantan stations exceeds one inch per day during the month of December<sup>8</sup>. Later in this study reference will be made to the very intense rainfall which was experienced in Pahang during December, 1926<sup>9</sup>.

Important variations in the seasonal distribution of rainfall occur within Pahang as a result of local relief and exposure. The seasonal rainfall for each station is shown in figure 8. The periods of relative drought which occur at different times in different districts are of significance for the Malay padi cultivators; planting dates cannot be standardised for the whole of Pahang but must vary from locality to locality according to the rainfall regime and the extent of local flooding. In areas prone to serious flooding the length of time between the end of the seasonal drought and the onset of the annual floods is critical to the success or failure of the padi crops.

In a land that was completely forested the rivers were potentially important lines of communication (fig. 4). Entry to the coastal rivers was impeded by bars but once these were negotiated it was possible for small craft, drawing up to three or four feet of water, to travel many miles upstream. The Kuantan, the Bebar, the Rompin and the Endau Rivers were narrower and deeper than the Pahang River but they provided only limited access to the interior and the west of the State. The Pahang River contained shoals which hindered navigation in the dry season but it provided a direct entry into the interior of the State. The tributaries of the Rompin either regressed upon the main stream or lost themselves in a featureless divide; those of the Pahang arose in areas where the natural routeways to the north and west were more decisive. The Pahang River and its tributaries were of major significance in the evolution of the settlement pattern in pre-British times.

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8. Dale: "The Rainfall of Malaya, Part 2" *op.cit.* Table 1, p.22.

9. See chapter 10, page 115



## CHAPTER 3

### THE HISTORICAL BACKGROUND

Evidence for the reconstruction of the historical geography of Pahang prior to the nineteenth century is incomplete and fragmentary. Prehistoric and literary sources provide a discontinuous series of glimpses into the past but at no stage is it possible to describe the whole of the area or to trace a continuous thread of development<sup>1</sup>. An evaluation of the primary source material is beyond the scope of this study and the present chapter draws upon the published works of those writers who have most carefully sifted and weighed the evidence presented by workers in a wide range of disciplines. On the basis of the main conclusions reached by Tweedie, Loewenstein and Sieveking, Winstedt and Wilkinson, Linehan and Wheatley, a tentative narrative of geographic change is here presented.

The chapter is organised in three sections. The first deals with the migrations of population in pre-Malay times, the second conjectures the emergence of Pahang as a political unit, and the last covers the partially documented period of Malay history between 1454 and 1888.

### PREHISTORIC MIGRATIONS

It has been popular among anthropologists concerned with the larger migrations of people in the Asian and Pacific world to assign to the Malay Peninsula a causeway role. Locally there is little evidence that this has been the case. Many thousands of years have elapsed since man first entered Pahang, and many small groups may have passed through or perished without leaving any evidence, but the conviction which emerges from a study of the published evidence is that this was a sparsely settled land until very recent times.

Archaeology provides evidence about four cultural groups which entered Pahang from the north prior to the present millenium. Two of these groups were stone-age settlers and two appear to have been expatriate miners who brought with them a metal culture from their more civilized homelands to the north of the Peninsula (fig. 1).

The first to leave evidence of their existence were a people who were known as *Hoabhinians* after the locality in Tonkin where their artifacts were first identified<sup>2</sup>. They arrived in Malaya some time between the fifth and second milleniums B.C. and entered Pahang via the interior routeways from Kelantan (fig. 9). These settlers were essentially a hunting and gathering

1. The problems involved in historical reconstruction in Malaya are well discussed by Wheatley in his preface to *The Golden Khersonese*.
2. Tweedie, M.W.F.: "The Stone Age in Malaya", *J.M.B.R.A.s.*, Vol. 26, Pt. 2, 1953, and "Prehistory in Malaya", *Journal of the Royal Asiatic Society*, 1942. Matthews, J.: *A Check List of Hoabhinian Sites Excavated in Malaya 1860-1939*.



people who used flaked stone implements and lived in limestone caves and rock shelters. It seems that they were unfamiliar with any form of agriculture and lacked both the inclination and the equipment to clear the forest. At any given time their numbers might be reckoned in tens rather than hundreds and there is no evidence that they moved further into Pahang than the limestone areas in the vicinity of Bentong, near the middle Pahang River, and inland from Kuantan.

The interior routeways were also the lines of entry for *Neolithic* people who followed from about 2,000 B.C. onwards<sup>3</sup>. Their settlements were located on the flood-plains of the interior rivers and their polished stone implements are occasionally uncovered by the annual floods. The unusually severe flood of 1926, for example, uncovered a number of their settlement sites in the Tembeling Valley (fig. 9). It is uncertain to what extent these people brought their culture with them, and to what extent they developed it through later contact with more civilized people, but by the first millenium B.C. they were agriculturalists and craftsmen able to make pottery and build houses and boats. Their numbers were larger than those of the *Hoabhinians*, probably to be reckoned in hundreds but not thousands. Their only impact on the landscape was a limited amount of clearing close to the rivers and the construction of houses not unlike those of the present indigenous population.

During this period when neolithic people occupied the flood plains of the interior there is evidence that at least two waves of more civilized people entered Pahang by interior routeways but did not remain as permanent settlers. The first of these came to Pahang in the early centuries of the Christian era and brought bronze objects which were later discovered in the valley of the Tembeling<sup>4</sup>. From these objects they have been identified as *Dong-s'on* people whose cultural homeland lay to the north-east of the Indo-China Peninsula (fig. 1). They came to Pahang either as miners or traders in search of minerals and left no evidence of well established settlements. Towards the end of the first millenium another wave of temporary immigrants entered Pahang. These people were familiar with the use of iron and engaged in extensive gold mining activities in the western interior of Pahang. Sieveking postulates that they came from Indianised colonies which superseded the *Dong-s'on* Empire in south Cambodia<sup>5</sup>.

It appears that the migrations of the ancestors of the present Aborigines must have coincided to some extent with the activities of those groups which have left archaeological evidence. The chronology is uncertain but there is linguistic evidence of contact between the Aboriginal communities and the expatriate mining communities described above. It would appear that the ancestors of some of the Aboriginal tribes were akin to, but not identical with,

3. Tweedie: "The Stone Age in Malaya", *op. cit.*

4. Loewenstein, J.: "The Origin of the Malayan Metal Age", *J.M.B.R.A.s.*, Vol. 29, Pt.2, 1956, pp. 5-78.

5. Sieveking, G. de G.: "The Iron Age Collections of Malaya", *J.M.B.R.A.s.*, Vol. 29, Pt. 2, 1956, pp. 79-138.



**FIGURE 9 ARCHAEOLOGICAL  
DISCOVERIES IN PAHANG**



**AFTER TWEEDIE AND LOEWENSTEIN**



FIGURE 10  
MALAYA: LOCATION MAP PRE 1888





the stone-age settlers of the limestone areas and the flood-plains. The Aborigines are usually classified into three main groups: the *Negrito*, the *Senoi*, and the *Jakun* or proto-Malays.

On the basis of their culture the *Negritos* (also known as *Semang*) appear to be the oldest of the Aboriginal peoples of Pahang. Although their economy is very similar to that of the *Hoabinhian* people, there is no definite evidence that they actually inhabited Pahang in pre-Neolithic times. They are a pigmy race with brownish-black skin and curly hair<sup>6</sup>. Until the present century they had no agriculture but lived by gathering roots and jungle fruits which they occasionally supplemented by fish or game. A nomadic people, they erected no houses but relied on rock shelters or erected temporary lean-to's from leaves and branches. Numerically they are the smallest of the three groups and it may be assumed that very small communities entered from the north by overland routes and settled in the hill country of northern Pahang. In recent times their numbers have never exceeded three or four hundred and there is no evidence of a greater population in the past.

The *Senoi* are a much more numerous people than the *Negrito* and it appears that they also entered Pahang by the northern routeways. At present they are found in the mountain ranges of the north-west but formerly they may have occupied most of the area north of the Triang and west of the Jempol Rivers (fig. 10). They live in communal houses built on piles and engage in shifting cultivation of rice, millet, tapioca, sweet potatoes, tobacco, and sugar cane. Some, at least, of these crops are recent innovations. The *senoi* appear to have been well established in Pahang when the expatriate miners arrived in the first millenium, and to have come in close contact with them since they absorbed some of their words and their system of numerals.

The third of the Aboriginal peoples are the *Jakun*, or proto-Malays. It is widely believed that these people are the descendants of earlier arrivals in a long sustained migration which in later centuries provided the parent stock of the modern Malays. Compared with the *Senoi*, they have a marked Mongoloid strain and their hair is straight and dark. Their cultural homeland has been traced to the Yunnan region of inland south China but it is clear that their movement from there to the Malay Peninsula must have taken many centuries<sup>7</sup>. Even so, their penetration of the coastal and lowland areas of Pahang may have taken place at the same time as the *Senoi* were entering the interior by the overland routeways. The proto-Malays were a seafaring people who obtained their living from fishing and piracy, supplemented by collecting and gathering. Only when they moved inland and intermarried with the *Senoi* or other hill peoples did they practice cultivation and then only in a rudimentary manner. Today their descendants are found mainly to the east of the Triang and the Jempol and mainly to the south of the Pahang River. Migration into the west

6. Winstedt, R.O.: *The Malays. A Cultural History*, and Wilkinson, R.J.: *A History of the Peninsular Malays*.

7. Winstedt: *op. cit.* and Wilkinson: *op. cit.*



of the State was also probable but there the processes of absorption are so complete that little evidence remains.

In the closing centuries of the first millenium Pahang was, by present day standards, uniformly populated, but the density was extremely sparse. The *Senoi* and the *Negrito*, together with occasional groups of miners who entered by the northern interior routeways, lived in the western interior while the *Jakun* inhabited the eastern lowlands. The largest groupings were the family or the nomadic community, and while the more civilized visitors from the north may have forced local groups to work for them, there is no evidence that they endeavoured to impose any form of organised political control.

The emergence of Pahang as a political unit is documented by no local evidence but certain deductions can be made by studying the fortunes of the larger powers which, in turn, extended their control over the Malay Peninsula, and comparing this with occasional references in the literature of the Arabs, the Indians and the Chinese, those three eastern peoples who engaged in the growing trade between Europe and the Eastern World<sup>8</sup>.

### THE EMERGENCE OF PAHANG AS A POLITICAL UNIT.

During the 9th and 10th centuries A.D., Pahang lay in a political vacuum between the Khmer Empire in the north, and the Sri Vijayan Empire in the south (fig. 1). The former was a land empire, centred on present day Cambodia, whose strength lay in her agricultural base. The latter was a commercial and maritime power based on Palembang in south Sumatra and with sufficient foothold on the isthmian and north-west portions of the Malay Peninsula to control the trade routes from India to China.

The migrations of proto-Malays continued during these centuries but the cultural background of the new arrivals was changing. From the Khmer Empire to the north they brought an increasing knowledge of crops and agricultural techniques which made it possible for the lowland areas of Pahang to support a denser population than hitherto. Settlement increased along the banks of the rivers and by the 12th century had reached the level where Sri Vijaya was moved to extend its control over at least the coastal area of what is today Pahang. Under the influence of this Indianised Buddhist Empire, Pahang had its genesis as a political unit. In 1178 the Chinese writer Chao Ju-Kua, in the first specific written reference to Pahang, records that it, along with Trengganu, Kelantan and other States, was tributary to Sri Vijaya<sup>9</sup>. This recognition by the Chinese would imply that, in addition to political unity, there was sufficient economic unity for Pahang to figure in international

8. The events in this next section are discussed in detail by both Wheatley, P.: "*The Golden Khersonese*", and Winstedt, R.O.: *The Malays. A Cultural History*. What follows draws on the interpretations of both writers but more particularly on Wheatley who is more catholic in his choice of source material and who handles the spatial aspects of his interpretation with greater skill.

9. Wheatley: *op. cit.*, p. 70.



trade, and that a commercial centre must have been established at some point in the coastal region, presumably on the Pahang River.

The gradual build-up of population must have continued, for prior to the end of the 14th century, Pahang, according to Malay sources quoted by D'Eredia, was recognised as the most important of the Malay States<sup>10</sup>. During that century the Sri Vijayan Empire was eclipsed by the Majapahit Empire based on Java, and the Thais were the ascendant power in the north. For a time neither of the latter were able to assume effective control over the Peninsula and Pahang made clear its self-identity by sending embassies to China in 1378 and several times between 1411 and 1416<sup>11</sup>. After this time, however, it was forced to acknowledge Thai suzerainty and pay tribute annually.

Chinese sources contain several descriptions of Pahang at the end of the 14th century<sup>12</sup>. They reveal that Pahang produced sufficient rice for its own needs and exported tin and luxury jungle products, namely camphor, gharu-wood, and perfume. The territorial extent of Pahang at this time is not known but the fact that Pahang was not exporting gold via the east coast would imply that the interior of the State was under independent control. Linehan<sup>13</sup> has shown that there is a long tradition of communications between Ligor and Pahang via the Tembeling and Lebir valleys and it may well be that the Malays of Ligor, or their Thai overlords, were in control of the goldfields. On the basis of evidence presented by Linehan, it is possible to postulate a second political unit in the interior with its capital either at Chini or Pulau Tawar and its economic and cultural links with the Malay States of south Thailand. If such a postulation is made, however, it must be kept in mind that the population would have been basically Malay, with some slight Thai admixture, and the capital nothing more impressive than a slightly enlarged Malay village<sup>14</sup>.

Shortly before 1403, a group of Indonesian Malays established a trading settlement at Malacca on the opposite coast of the Peninsula (fig. 10). The site was well chosen and the settlement quickly attracted traders from India and China, and Malays from the Archipelago. Within the first half century the rulers of the new settlement adopted the Moslem religion and established a Malay Sultanate. For a time they paid annual tribute to the Thais but by the reign of Sultan Mazaffar (1446-1456) they had become sufficiently powerful to withhold this payment. The Thais attempted to reassert their authority by sending an army overland via the valleys of the Tembeling, the Pahang and

10. Eredia, E.G. de: "Report on the Golden Chersonese or Peninsula 1597-1600" (Translated by Mills J.V.) *J.M.B.R.A.S.*, Vol. 8, 1930, p. 233.

11. Wheatley: *op. cit.*, p. 90.

12. Translations of these are contained in Wheatley: *op. cit.* and Groeneveldt, W.P. "Notes on the Malayan Archipelago and Malacca", *Miscellaneous Papers Relating to Indo China*, Second Series, Vol. I, pp. 255-6.

13. Linehan, W.: "A History of Pahang", *J.M.B.R.A.S.*, Vol. 14, Pt. 2, 1936.

14. Compare Southwood, K.E.: "Lake Chini—A Lost Settlement in Pahang", *Malaya in History*, Vol. 6, No. 1, 1960, pp. 24-30.



the Bera, but this was defeated by the Malaccans. Pahang had been implicated in this abortive invasion and shortly afterwards, in 1454, Malacca equipped a naval expedition "with two hundred sail, big and small" and attacked Pahang. The ruling prince of Pahang fled to the interior but was captured on his way up the Tembeling, and the whole of the State was quickly conquered. For the next four centuries the history of Pahang is documented, albeit obscurely at times, in the Annals of the Malacca Sultans and their successors<sup>15</sup>.

### PAHANG FROM 1454

Pahang was quickly subordinated to Malacca and many Malaccan Malays came to Pahang as permanent settlers. There was immediate inter-marriage between two racially different types of Malay. The invaders had strong Sumatran, and possibly Javanese, affinities while the Pahang people were closely related to the Malays and other peoples to the north. Prior to 1454 the religion of coastal Pahang had been a debased form of Buddhism but the new ruling class were Moslems and converted the Malays who lived close to the royal town on the lower Pahang River. For half a century Pahang was ruled over by lesser members of the Malaccan royal family but remained virtually independent, as evidenced by the fact that the ruler of Pahang was overlord of Trengganu at this time. Trade, already important in the previous two centuries, continued to develop in response to the growth of Malacca and the stimulus which this had on trade in the whole South-East Asian region<sup>16</sup>. Trade in Pahang was on a much smaller scale than at Malacca but the port of the former was increasingly frequented by Chinese junks as well as smaller vessels from the other Malay States, from Siam in the north, from the Archipelago, and even from Arabia<sup>17</sup>. During the 15th century trade was entirely maritime and there was no evidence that the military route across the Peninsula had begun to assume any commercial importance.

The arrival of the Portuguese to Malaya in 1509 and their capture of Malacca in 1511 had little permanent effect on Pahang. Direct contact with the Portuguese was spasmodic, brief, and usually violent<sup>18</sup>. They took over Malacca without disrupting commerce in the surrounding area and in Pahang, as elsewhere, the growth of trade continued. There was an increasing number of references to Pahang in European as well as Chinese literature but none of the Portuguese penetrated further into Pahang than the town near Pekan or

15. The most important of these are "Sejarah Melayu", *J.M.B.R.A.S.*, Vol. 16, Pt. 3, 1938, and "Bustan as-Salatin", *J.S.B.R.A.S.*, No. 81, 1920. For a detailed discussion of Malay sources see Tregonning, K.G.: *Malaysian Historical Sources*.

16. Wheatley: *The Golden Khersonese*, Chapter 20.

17. G.R. Tibbetts has shown that the Arab pilots of the 15th century had a limited knowledge of the eastern coast of the Peninsula. See "The Malay Peninsula as known to the Arab Geographers", *J.T.G.*, Vol. 9, 1956, pp. 21-60.

18. Linehan: "A History of Pahang", pp. 19-24 and appendix VII.



the river mouth at Endau<sup>19</sup>. In common with all other non-Malay sources prior to the 19th century the Portuguese can give us no knowledge of the interior that is not second-hand<sup>20</sup>. The picture which emerges is that of a royal village and trading port at Pekan and one or two gold-mines located vaguely in the interior. In 1537 Hwang Chang, writing about Malacca, mentions that from there "one can go overland to Siam"<sup>21</sup> and this, coming from a Chinese source, may be the first reference to an overland trade that was becoming increasingly important.

Shortly after the arrival of the Portuguese at Malacca, Minangkabau Malays from Sumatra has settled in its hinterland and from the middle of the 16th century they had been moving over the low divide into Pahang (fig. 10). Gradually they spread down the Triang and the Bera Rivers and along the Pahang as far as the Semantan and Luit Rivers. By 1612 they had moved northwards into the area of the Jelai and its tributaries where they mingled with the Aborigines in the vicinity of the gold mines<sup>22</sup>. These Minangkabau settlers were attracted to Pahang by the prospects of trade and gold mining and they brought with them the Moslem religion and a strong tradition of wet rice cultivation. They sought out those areas where gold could be found (fig. 6) and they established the cultivation of wet rice in narrow inland valleys that were topographically similar to those of their former homelands.

The period between the establishment of the Malacca Sultanate in Pahang in the mid-15th century, and the beginning of the 17th century, appears to have been a period of relative stability in Pahang. It may be assumed that population and agriculture developed steadily and it is known that trade increased and a community of Chinese traders was established at Pekan<sup>23</sup>. In 1607, the arrival of the Dutch in Malaya heralded a deterioration in political conditions. Rivalry among the European powers stimulated a series of alliances and counter-alliances among the Malay States of the Peninsula and Archipelago. Trade increased but the wealth from trade upset the balance of power among the Malay rulers and provided them with the resources to hire mercenaries and build up fleets. In Pahang it was the coastal areas which suffered most. In the space of three decades they were invaded and ravaged many times by Malays from Johore and Aceh, and suffered in addition spasmodic reprisals by the European powers. On occasions Pahang swelled her population with slaves from other States but many of her own

19. It is probable, but not certain, that the town visited by Portuguese in the 16th century (Linchan: *op. cit.* p. 27) was the one described by Dutch writers in the 17th century and identified by most historians as present day Pekan.

20. McGregor, I.A.: "Notes on the Portuguese in Malaya" *J.M.B.R.A.S.* Vol. 38, Pt. 2, 1955.

21. Groeneveldt: "Notes on the Malayan Archipelago and Malacca", p. 245.

22. In 1612 the ruler of Pahang was forced to flee to the "gold mountains". The Minangkabaus were evidently well established by that date since he appointed one of them to be the chief of the Jelai District. Linchan: *op. cit.*, appendix III.

23. The Dutch voyager Floris records that Kampong China was burnt during an attack by the King of Johore in 1612 (Linchan: *op. cit.* p. 31) and the Chinese Tung Hsi Yang K'an makes mention of this community, in a work written in 1618 (Groeneveldt: *op. cit.*, p. 257.)



people were killed or carried off into captivity in Aceh in northern Sumatra. Agriculture declined and east Pahang degenerated into a haunt of pirates<sup>24</sup>.

These wars between rival naval powers, both Malay and European, and the rise of piracy, did not immediately diminish trade in Pahang. Until 1641, when the Dutch finally captured Malacca and defeated the Portuguese, neither power was in effective control of the ocean. Voyages from the South China Sea to the Straits of Malacca were thus extremely hazardous and the overland route from Pahang to Malacca became increasingly popular. Goods landed at Kuala Pahang or Pekan could be taken up the Pahang, the Bera and the Seriting Rivers, portaged a short distance to the upper reaches of the Muar, and from there taken on to Malacca<sup>25</sup>. After the fall of Malacca to the Dutch, piracy was partly suppressed, and hostilities broke out between the Dutch and the Minangkabau States in the interior, with the result that the overland trade quickly diminished. For a time it appears that the direction of trade was reversed and tin from Selangor and Klang was carried eastwards across the Peninsula in an effort to break a Dutch monopoly, but this latter movement was not sustained.

During the remainder of the 17th century and the whole of the 18th, conditions in the coastal regions of Pahang continued to be disturbed. From 1641 onwards Pahang, along with the Riau Islands south of the Peninsula, was part of the Johore Empire which succeeded the Malacca Sultanate, but the Johore Sultanate was wracked by internal and external wars and rarely provided a stable control. The Dutch attempted to redirect Pahang trade to their own ports and contacts with them brought little but conflict and no prospects of creating order. The British, who followed later, occasionally traded with Pahang in defiance of the Dutch monopoly but adopted a policy of non-intervention. Bugis from the Celebes, who came to Pahang as traders, mercenaries and pirates, settled in the coastal regions and intermarried with the local nobility. During most of this period the nobility were fully engaged in power struggles, and an increasing number of ordinary Malays allied themselves to one or other of the contending factions. Those who attempted to continue with the cultivation of padi or kampong crops bore the brunt of the strife and were frequently driven out from their holdings or killed. Agriculture sank to a still lower level and trade, which had survived the earlier period of unrest, declined considerably because of disorder within, and a renewed incidence of piracy without.

The interior of Pahang during these same 17th and 18th centuries appears to have been much more stable. Distance separated the population from the ravages of piracy and the attacks of maritime powers, be they Malay or European. For the most part the local chiefs were able to remain aloof from the power struggles of the coastal region and in doing so strengthened their own

24. Linehan: *op. cit.*, p. 40.

25. This is the well-known Panarikan route discussed by Wheatley in "Panarikan", *Journal of the South Seas Society*, Vol. 10, 1954, and by Noone, H.D. in "The Panarikan and Bernam land-routes", *J.M.B.R.A.S.*, Vol. 17, Pt. 1, 1939.



positions. For an undocumented length of time the Minangkabau States of interior Pahang, known as "Ulu Pahang" and "Jellye" were part of a loose confederacy known as the "Negri Sembilan" and only nominally subject to Johore<sup>26</sup>. "Ulu Pahang" at this time was the area drained by the Bera, the Triang and the Semantan, while "Jellye" consisted of the area drained by the Tembeling, the Jelai and the Lipis. Of the two, the latter area was the most secluded and this permitted a steady development of agriculture and gold mining activities. Malay settlers were attracted to both these areas from Perak and Negri Sembilan and small communities of Chinese gold miners moved in from interior Kelantan. Later, at the end of the 18th century, a new Negri Sembilan, centred on Sri Menanti, was established and many of the settlers in the area of the Semantan and the Seriting Rivers moved back over the low divide into the present day Negri Sembilan<sup>27</sup>. To this day the Malay population of the Bentong district is sparse compared with that of the Raub and Lipis districts north of the Benom Massif.

For a number of decades in the earlier part of the 19th century, Pahang enjoyed a period of stable rule. In 1806 the Sultan of the Riau-Johore-Pahang Empire, then living at Riau, appointed his Bendahara, or chief minister, to be ruler of Pahang. In 1812 the Sultan died and in 1824 the old Empire was dismembered by an Anglo-Dutch treaty which declared the islands south of Singapore to be a Dutch sphere of influence and the Peninsula to be a British sphere of influence. As a result Bendahara Ali was the undisputed ruler of Pahang until his death in 1857. He was sufficiently powerful on the one hand, and sufficiently diplomatic on the other, to extend his control over the whole of the present-day Pahang without going to war with any of his territorial chiefs. During the 18th century the overland trade from interior Pahang had revived, but after the establishment of Singapore in 1819, Ali was able to redirect trade down the Pahang River and out to the East Coast via his customs station at Pekan. In addition to gold and tin, Pahang exported an increasing quantity of jungle produce to Singapore during the latter decades of his reign. Munshi Abdullah, who visited Pekan in 1838, listed eaglewood, benzoin, resin and rattans, all of which were collected by the local population<sup>28</sup>.

Under the rule of Bendahara Ali, Pahang recovered some of its former prosperity and the population began to increase. The Bendahara and his chiefs engaged in tin mining and spent much of their time in the interior. The labour of their Malay and Aborigine subjects was supplemented from time to time by slaves purchased from Illanun pirates<sup>29</sup>. Chinese were encouraged

26. This is not identical with the Negri Sembilan of modern times. Moor, probably quoting Newbold, lists the following states as belonging to this earlier confederation:—Segamat, Sungei Ojong, Kalang or Salangore, Johole, Jelaboo, Ulu Pahang, Naning, Rumbowe and Jellye. *Notices of the Indian Archipelago*, pp. 256-9.

27. Winstedt: *op. cit.* p. 158.

28. Abdullah bin Abdul Kadir: *The Story of the Voyage of Abdullah bin Abdul Kadir*.

29. The Illanun pirates who engaged in this trade were not permitted to enter Pahang and the River Endau became an important slave mart prior to 1838. Most of the slaves were

(Continued on next page)



to engage in trade and gold and tin mining and estimates of the Chinese population range between two thousand and twelve thousand. Medhurst, who visited Pekan in 1842, sets the figure at five thousand and noted that the Bendahara demanded the equivalent of £12 sterling from each Chinese who left Pahang to return to his native land<sup>30</sup>. The annual production of tin was estimated at one thousand piculs, modest compared with that of Trengganu, Perak, and Sungei Ujong which each produced seven thousand piculs. In addition Pahang produced some five thousand ounces of gold. Europeans were not encouraged to take part in mining or even visit the mining areas. In 1827, an Englishman, Gray, made the overland trip from Malacca to Pekan via the Muar, the Seriting, the Bera, and the Pahang Rivers but he was not permitted to visit the Jelai mining area<sup>31</sup>. The Europeans had practically no idea of the topography of interior Pahang but by using Malay sources they made a number of estimates of the total population. The most accurate of these was probably the figure of fifty-nine thousand suggested by Begbie in 1834<sup>32</sup>.

It might be expected that agriculture would recover under the firmer rule of Bendahara Ali but two legacies of the former disorder discouraged this. The first was piracy, which was permitted to continue with the connivance of the Bendahara, and which brought reprisals from the British who destroyed a number of coastal settlements which, they believed, were used as bases for the forty to fifty vessels which harassed the growing coastal trade<sup>33</sup>. The second was an unemployed nobility which subsisted on the labours of the peasant classes and gave protection to petty criminals who were freed from normal processes of the law when they became "Raja's Slaves"<sup>34</sup>. When Munshi Abdullah visited there was a very little cultivation in the vicinity of Pekan and he records that vegetables and tubers were being imported from upriver, and rice from other States. He pondered the poverty and desolation of the locality and attributed it, not to pirates, nor poverty of the soil, nor merely laziness, but to the fact that the inhabitants lived "in continual fear of the oppression and cruelty of the Rajas and other notables"<sup>35</sup>.

When Bendahara Ali died in 1857 he left two sons and a disputed succession. Thus for a period of six years Pahang was again the scene of civil war and there was fighting in the Bera, the Tembeling, the Lipis, the Jelai, and up and down the Pahang River. The losses suffered by the actual contenders in the power struggle were slight compared with those suffered by the Malay pea-

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described as Cochin Chinese. Thomson, J.T.: "Description of the Eastern Coast of Johore and Pahang, and adjacent Islands", *Journal of the Indian Archipelago*, Vol. 5, 1851, p. 136.

30. Medhurst, W.H.: *China, Its State and Prospects*, p. 346.

31. The text of Gray's Journal is contained in Linehan: *op. cit.*, pp. 57-59

32. Begbie, P.J.: *The Malayan Peninsula*, p. 272.

33. "Report of Voyage for the Suppression of Piracy by H.M.S. Andromache, 1836", *East India Company Records, Microfilm* 2791.

34. Abdullah bin Abdul Kadir: *op. cit.*, p. 11.

35. *Op. cit.*, p. 14.



santry and the Chinese miners and traders. Linehan has described the plight of the Malay peasants thus:—

“Harried by both sides, impressed, forced to provide food for the conflicting forces, deprived of what little property they possessed, subjected to great cruelties ... their villages overrun by foreign fighting men, their lot was unenviable. Many of those who could do so fled to adjoining States. The modicum of prosperity which the country had enjoyed in the hey-day of Bendahara Ali’s rule quickly disappeared in the conflict of the warring factions”<sup>36</sup>.

Hostilities came to a close in 1863 with the flight and subsequent death of one claimant. The other, Ahmad, was given the title of Bendahara by the chiefs and installed as ruler. For the next quarter century Ahmad was in undisputed control of Pahang but he did little to curb the power of the petty nobility or improve the lot of the peasantry. Whereas his father, Ali, had succeeded in restoring to Pahang some of its former prosperity, Ahmad did little more than maintain it at the impoverished level to which it had fallen during the intervening Civil War. Instead, as will shortly be seen, he allowed himself to become entangled in the new economic and political forces which were sweeping the Peninsula at this time. Ahmad’s rule as Bendahara, and later Sultan, continued until his death in 1914 but long before that latter event his authority was curtailed by the appointment of a British Resident and the establishment of a regular administrative staff of English colonial officials. In the next Chapter we will consider the events leading up to British intervention in Pahang and reconstruct the geography of Pahang as it was on the eve of British Administration in 1888.

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36. Linehan: *op. cit.*, p. 89.



## CHAPTER 4

### PAHANG IN 1888. THE EVE OF BRITISH ADMINISTRATION

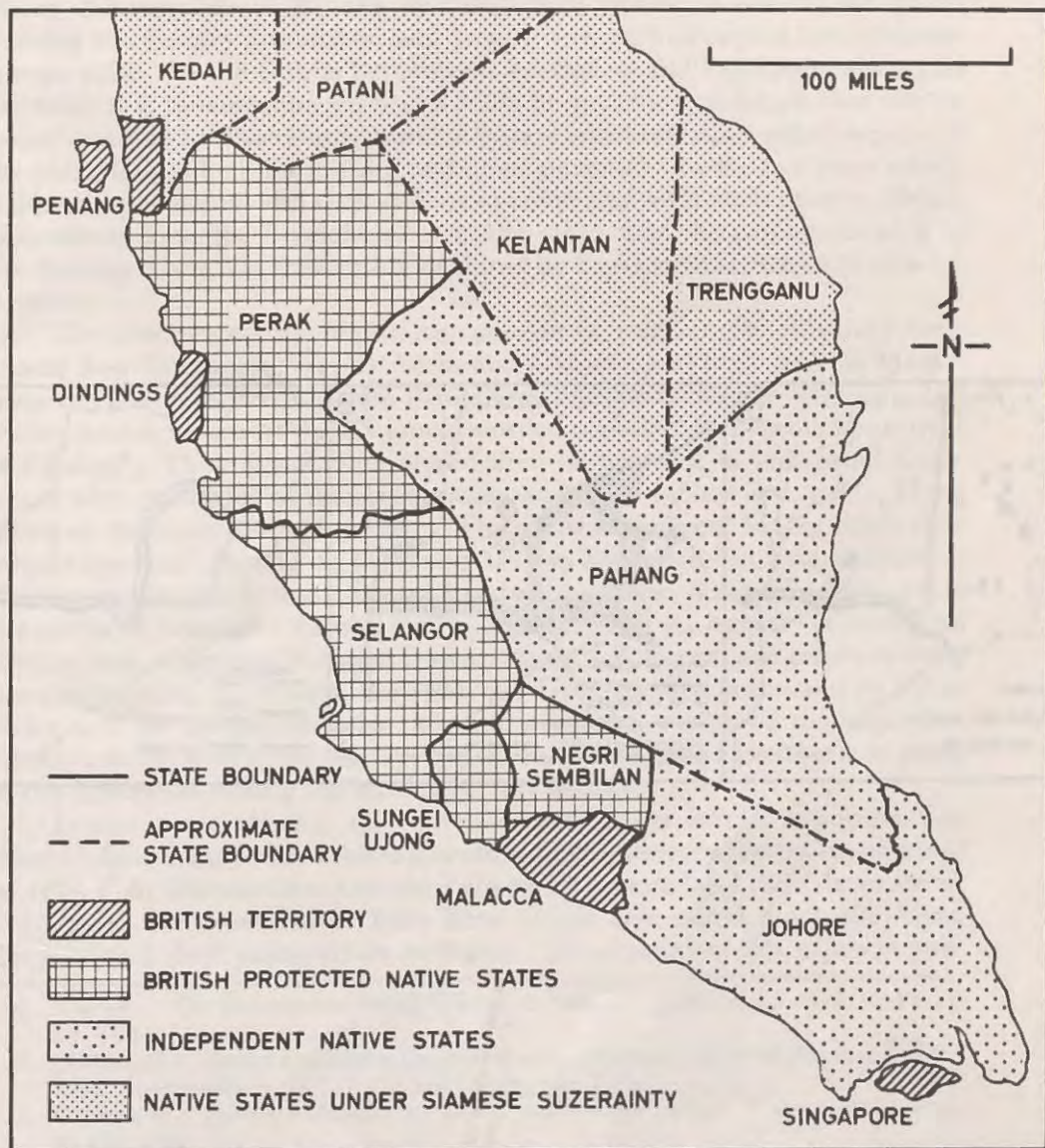
In the 1880's British rule was firmly established in the Straits Settlements and the western states of Perak, Malacca and Sungei Ujong (fig. 11). The east coast of Malaya was well known to Asian traders but was rarely visited by European trading ships. After the founding of Singapore in 1819 coastal trade between that port and Pahang was handled exclusively by Chinese junks and smaller vessels operated by Malays or by Bugis from the Celebes<sup>1</sup>. The ancient *penarikan* route had fallen into disuse and the Malay ruler firmly refused to grant permission to Europeans to visit the goldfields of interior. As far as the Europeans were concerned, Pahang was an unknown land, behind the economic watershed of the Peninsula.

Earlier, Chinese miners had entered the Peninsula through the British settlements at Malacca and Penang and opened up the alluvial tinfields of the western foothill zone. A rapid influx of people was followed by a period of civil disorder which resulted in British intervention in 1875 and the establishment of British rule in the western states. By 1888, which was the eve of British administration in Pahang, railways were operating in many parts of western Malaya, road systems had been developed linking the mining areas, and the first European Estates were already well established<sup>2</sup>.

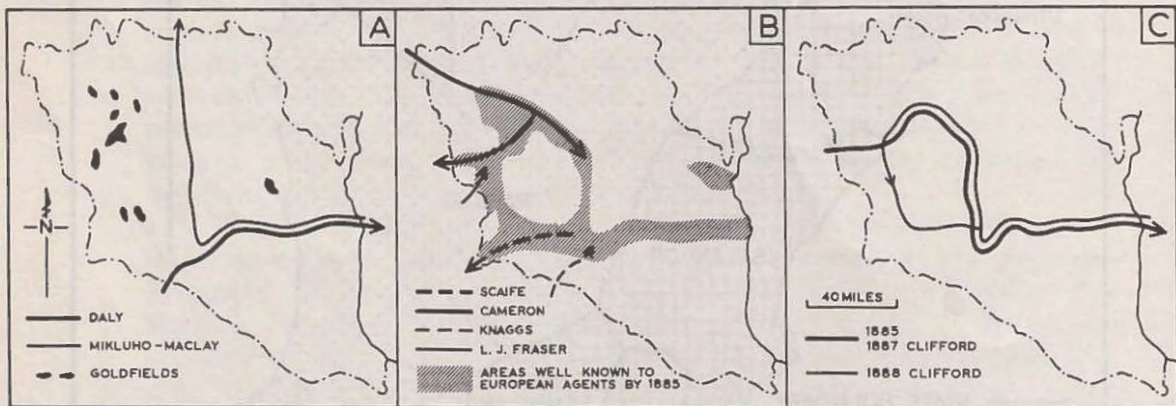
With the establishment of settled conditions in the west, the attention of the natural scientist and the explorer was attracted towards the interior of the Peninsula. In 1875 two Europeans made notable journeys into Pahang. The Russian ethnologist, Baron M. de Mikluho-Maclay, landed at Pekan and travelled up the Pahang and Tembeling Rivers and from there crossed over into Kelantan (fig. 12A)<sup>3</sup>. Several months later a government survey party headed by Daly crossed from Negri Sembilan to Pahang by the *penarikan* route and travelled down the Serting, the Bera, and the lower Pahang Rivers to Pekan. Both parties were favourably received by the *de facto* ruler Bendahara Ahmad, but they were not encouraged to visit the goldfields nor were they given an accurate idea of their location<sup>4</sup>. The results of these two journeys were duly noted by the learned societies of the time and incorporated into maps of the Peninsula but the opportunities for development were so much greater,

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1. Horsburgh, J.: *The India Directory*, Vol. 2, p. 317, and Mills, L.A.: "British Malaya", *J.M.B.R.A.S.*, Part 3, pp. 231-2.
  2. Jackson, J.C.: "Population changes in Selangor State", *J.T.G.*, Vol. 19, pp. 42-57.
  3. Mikluho-Maclay, M. de: "Ethnological excursions in the Malay Peninsula", *J.S.B.R.A.S.* No. 2, pp. 205-221. and Skinner, A.M.: "Geography of the Malay Peninsula", *J.S.B.R.A.S.*, No. 1, pp. 60-1.
  4. Daly, D.D.: "Surveys and Explorations in the Native States of the Malayan Peninsula", *Geographical Journal*, Vol. 4, p. 401.











and access was so much easier, in the British administered Malay States that no further attention was paid to Pahang until the following decade.

Between 1882 and 1884 the position began to change. Bendahara Ahmad paid several extended visits to Singapore and with his following mixed freely with the wealthy merchants of that colony. Flattered by the attentions of wealthy Arabs, Chinese, and Europeans, he readily disclosed information about the resources of Pahang and legend of unlimited natural wealth in Pahang was quickly established and accepted by men of capital and administrators alike. In the Straits Settlements capitalists and entrepreneurs began to realise that the unprotected States could be exploited on a scale that was no longer possible in those states under a British administration which regulated the alienation of land for mining and other purposes. In the five years which followed, speculators and their friends at court vied with each other to obtain concessions from the Bendahara<sup>5</sup>. At the same time the catchment area of the Pahang River was thoroughly explored by Europeans in search of mineral deposits.

The mechanism for obtaining concessions was simple. Wealthy merchants from Singapore, mainly Arabs and Chinese, and high ranking Malays from the Johore court plied the Bendahara and his favourites with gifts and money and in return received vaguely worded concessions covering large areas of Pahang<sup>6</sup>. These concessions would then be bartered to individual Europeans who proceeded to form companies and raise capital in London, Hong Kong or Australia to develop them. The rights of the local Malay chiefs were largely ignored. Mining by kampong Malays and small but long established Chinese communities was stopped by the concession holders<sup>7</sup>. Meanwhile the northern interior of Pahang was being explored by a handful of European mining men. Cameron, Knaggs, Gower, Scaife, L.J. Fraser, and others covered the major rivers, the Telom, the Jelai, the Lipis, the Semantan and its tributaries, and the Triang between 1882 and 1885 (fig. 12B). All the important mining areas known to the Malays appear to have been visited by one or other of the European mining agents during this period<sup>8</sup>.

It was inevitable that the representatives of the British administration should follow in the wake of this exploration and blatant concession-mongering<sup>9</sup>. In 1885 F.A. Swettenham entered Pahang by an overland route from Perak (fig. 12C). He crossed over from Batu Gajah and rafted down the Lipis, the Jelai and the Pahang rivers to Pekan. His account of this trip was pub-

5. Thio, E.: "The Extension of British Control to Pahang", *J.M.B.R.A.S.*, Vol. 30, Part 1, pp. 51-2.

6. Clifford, H.: "Report concerning the present state of Pahang and its inhabitants, 1st Oct., 1887." in microfilm series *C.O.* 273, reel 148. See also Thio, E.: *op. cit.*

7. Clifford, H.: "Journal of Mission to Pahang" in microfilm series *C.O.* 273, reel 144, entry for Feb. 10th.

8. A detailed documentation of these explorations is contained in Cant, R.G.: "Pahang in 1888. The Eve of British Administration", *J.T.G.*, Vol. 19, p.5 and p.18.

9. See Thio, E.: "The British Forward Movement in the Malay Peninsula, 1880-89", in *Papers on Malaysian History*, pp. 120-24.



lished in the same year<sup>10</sup>. Swettenham was not successful in his quest for a treaty and two years later Hugh Clifford entered from Selangor and followed the route used by Swettenham. After weeks of waiting, Clifford obtained a treaty<sup>11</sup> and the following year the Bendahara (by now recognised as Sultan) agreed to accept a Resident British Adviser. Clifford spent a number of months in Pahang during 1887 and 1888 and in April and May of the latter year travelled up the Pahang and Lipis Rivers, called at Penjom, then crossed to Raub and the Bentong area and left the interior by the Semantan and Pahang Rivers (fig. 12C). An outline of this trip is contained in his personal diary for the year 1888 which is now in the Public Records Office, Petaling Jaya. The first British Resident, J.P. Rodger, was appointed in October, 1888, but the full machinery of British administration was not established until July of the following year. During the intervening months Rodger visited the principal districts of Pahang and areas where mining was in progress, and described the conditions as he saw them in the first Annual Report which was written at the end of 1888.

On the basis of the material available for the reconstruction of the geography of Pahang on the eve of British rule it is possible to reconstruct two Pahangs. The first is an image that existed in the popular mind of the interested public in London and Singapore and which is seen in the writings of the British Officials in the Straits Settlements. The second is the geographical reality which the present chapter will attempt to describe. The old image of Pahang as a land of readily available but unexploited wealth was unconsciously built up by Swettenham, Clifford, and Weld in their official despatches. Swettenham and Clifford at this time were at the beginning of their careers in the civil service and were young, enthusiastic and inexperienced. Sir Frederick Weld, the Governor of the Straits Settlements, was an able and mature administrator but unfamiliar with the interior of Pahang and faced with the task of convincing a reluctant Colonial Office that intervention in Pahang was justified. Less unconsciously the image was inflated by the commercial men who were seeking to raise funds and float companies in the money markets of the English speaking world. In the Straits Settlements the general public who had witnessed the rapid economic development of the mining areas of the western foothills could readily imagine even greater things happening in the larger and more remote interior about which they knew so little. Sir Frederick Weld voiced the general enthusiasm of the times in the address which he made to the Singapore Legislative Council on the eve of his departure:

“Pahang is an exceedingly rich country, richer probably and larger than Perak; it marches with all our native states and with good government is capable of great and immediate progress...Perak and Selangor were very small a short while ago but have far more than compensated for

10. Swettenham, F.A.: “Journal kept during a journey across the Malay Peninsula”, *J.S.B. R.A.S.*, No. 15.

11. Clifford, H.: “Journal of Mission to Pahang”.



the loss of our trade with Acheen, and Pahang is probably richer than Perak and Selangor and may one day compensate, or help materially to compensate, for the proportion of loss we may suffer from trade restrictions at Saigon. Pahang should, in my opinion, be penetrated by roads from Perak and Selangor at the Ulu, also via Jelebu and south by a railway from Malacca which should eventually reach Tekan..."<sup>12</sup>.

Weld's successor, Sir Cecil Clementi Smith, expressed very similar sentiments when he wrote in the following year that "Pahang is indubitably the richest and most favoured state in the Peninsula and has only to be properly governed to ensure rapid development and future prosperity"<sup>13</sup>.

Pahang in 1888 had a forest cover that extended from the seashore to the top of all but the highest mountain ranges and which was broken only by the narrow *permatang* (beach ridges) among the coastal swamps, and the numerous rivers. Man, and the cultural changes he had wrought, were a minute element in the total geographical scene. In figure 13 Pahang is divided into 5 zones of occupance; of these, all except the narrow coastal zone contained varying proportions of forest. In zone 2 the area actually cleared and cultivated with padi, or planted with fruit trees or coconuts, was at the most 50,000 acres, and clearings once made for *ladang* cultivation and abandoned to *belukar* or secondary forest were unlikely to have exceeded five times the cultivated area. Thus even here the forest from which man obtained timber or jungle produce was predominant. Similarly the areas cleared for mining were small in relation to those portions of the mining zone still under forest. Alluvial gold mining by Malays was carried out mainly in the beds of streams or rivers and made no new openings in the forest, and the area cleared for mining at this time fell short of 1,000 acres. The commercial extraction of timber and jungle produce did not involve any clear felling and the impression on the overall forest cover was slight. In a State with an area of 8,846,000 acres man was in effective occupation of less than 0.6 per cent of the land surface and he may have replaced the tropical rainforest with secondary growth or *belukar* over a further three or four per cent. The clearings that he had made were for the most part small and scattered along the river or coastal margins of the forest.

### Communications.

Communications in Pahang in 1888 were by jungle track, by sea, and by river. The jungle tracks were used by the Aborigines, the collectors of jungle produce, and those Malays who from time to time migrated to and from adjacent States. Along the coast numbers of native craft, and occasional Chinese junks and European steamers plied back and forth calling at the larger *kualas* in Pahang and the other Malay States to the north. The sandy beach was regularly used by travellers on foot but the wide river mouths, especially to the south, made it less suitable for the transport of goods. In this forested

12. Microfilm Series C.O. 273, reel 148.

13. Quoted by de Silva, J.D.: *British Relations with Pahang, 1884-1895*.



region, however, it was the rivers which were by far the most important lines of internal transport. Hugh Clifford had this to say of them:

"Rivers...on the East Coast form the principal, and often the only highways, many of them being navigated for nearly three hundred miles of their course. When they become too much obstructed by falls to be navigable even by dugout, they still serve the Malays of the interior as highways. Where they are very shallow indeed they are used as tracks, men wading up them for miles and miles. A riverbed is a path ready cleared through the forests and to the Semang, Sakai and the jungle bred Malay it is Nature's macadamised road. More often the unnavigable streams serve as guides to the traveller in the dense jungle, the tracks running up their banks and crossing and recrossing them at frequent intervals"<sup>14</sup>.

The Pahang River itself formed the greatest single artery of communication (fig. 14). Except for a few men such as Clifford and Swettenham, who entered the State from the interior during the north-east monsoon, the majority of non-Malay travellers and traders entered Pahang via Kuala Pahang and Pekan. Even in 1888, by which time several tracks across the Main Range from Ulu Pahang to Perak and Selangor were in regular use, the Pahang River still carried the greatest volume of goods and passenger traffic. The cost of using the overland routes for the conveyance of goods was much heavier. The Penjom Mining Company, for instance, brought their supplies from Singapore via the Pahang River and imported their currency overland from Selangor and claimed that it cost them \$250 for every \$1,000 worth of silver coin carried over the mountain track<sup>15</sup>. Only in the case of the Tras mining area, directly opposite Kuala Kubu in Selangor, was the overland transit of goods an economic proposition.

The Chinese traders usually employed Malays from Sumatra or Kelantan to pole the long and narrow boats up and down the Pahang River. The European mining company at Penjom operated their own shallow draught steam launch between Kuala Pahang and the Penjom landing, which was some three miles from the mines. For downstream traffic large bamboo rafts were very popular. They were usually about 20 feet long and four feet broad with a raised platform at the centre<sup>16</sup>. In addition to conveying goods and passengers, they were in themselves a marketable commodity since they could be dismantled and sold to the coastal traders. For this reason it was often very difficult to find bamboo in the upper reaches of the Lipis and Jelai Rivers.

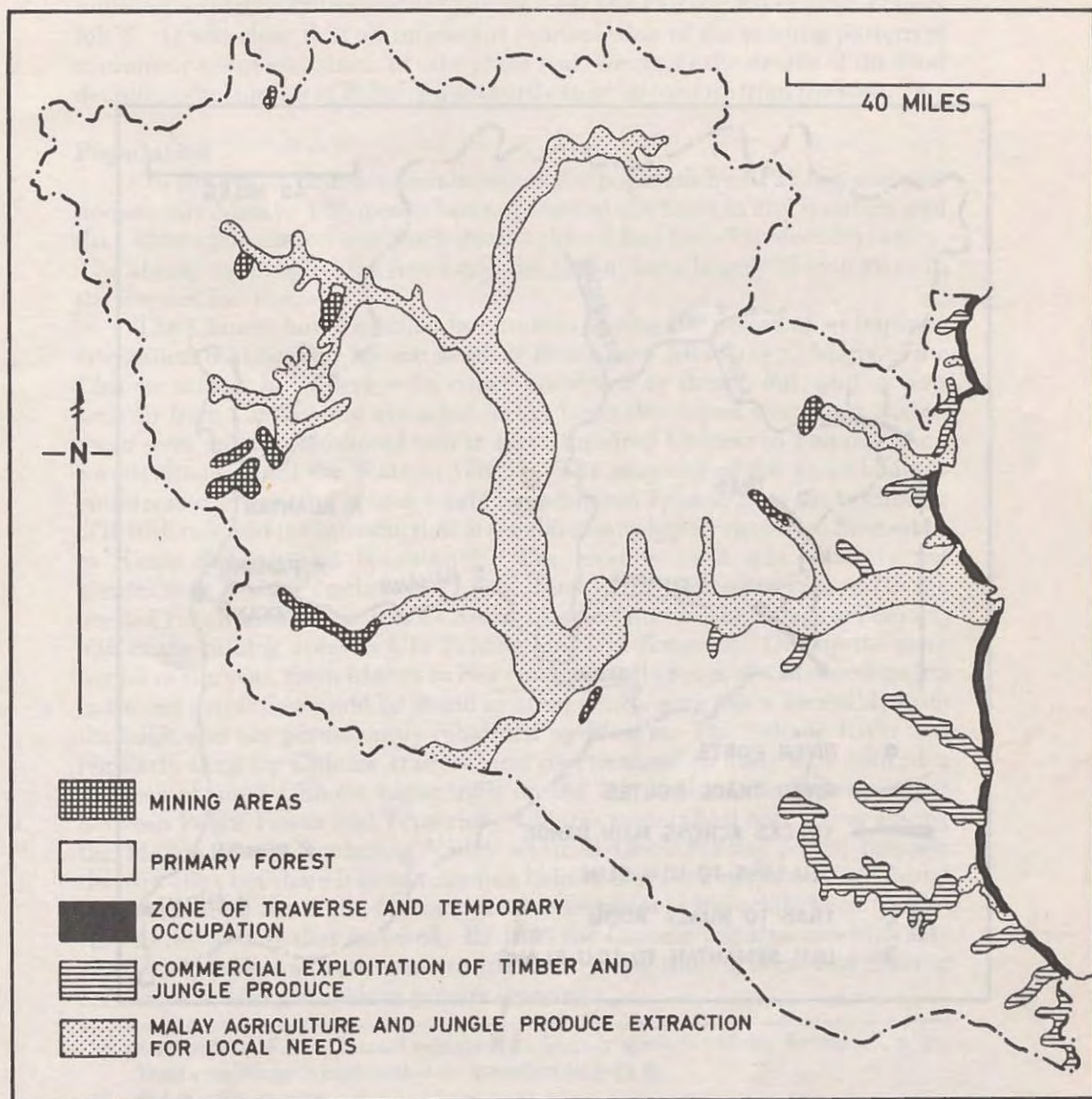
The slowness of the river traffic, the shallowness of the Pahang River during the dry season, and the difficulty of movement by sea during the north-east monsoon were major factors in favour of improved land connections with the western States. Swettenham had recommended the construction of a road

14. Clifford, H.: *In Court and Kampong*, p. 11.

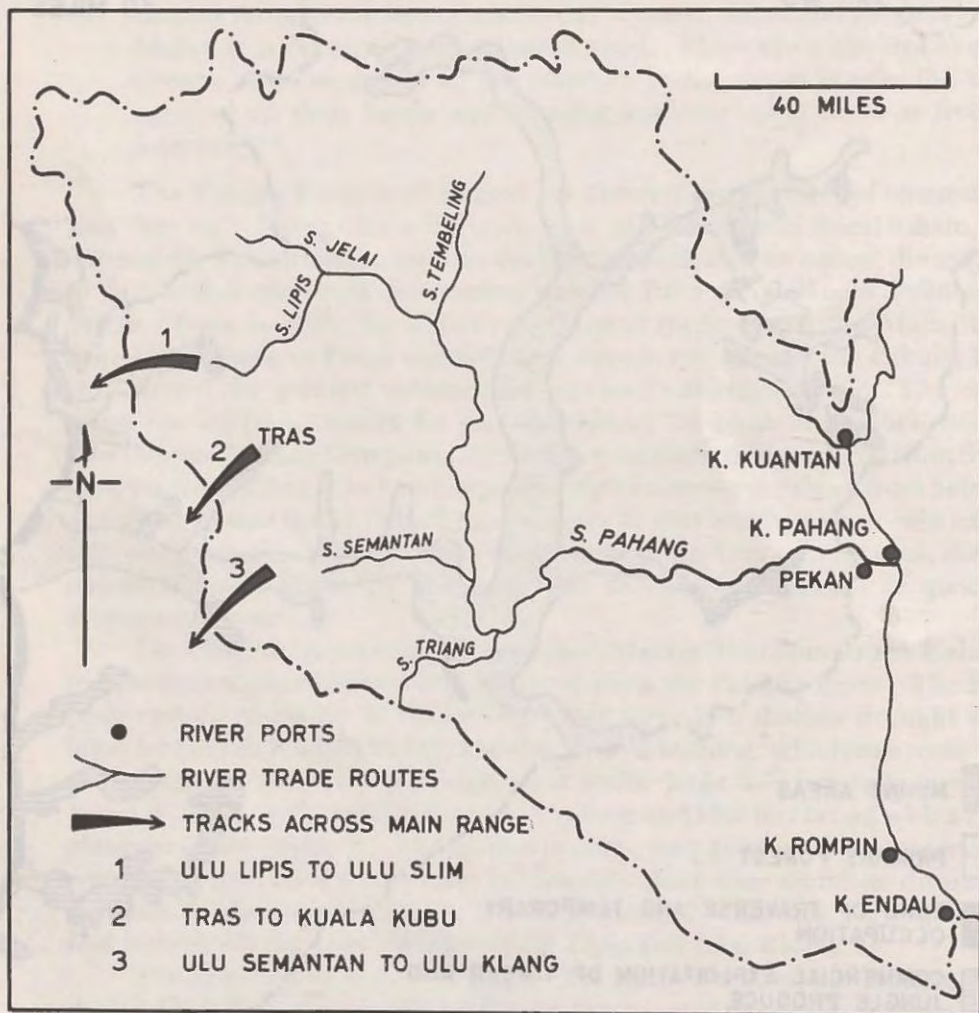
15. *Selangor Secretariat File No. 370/87*.

16. Clifford, H.: "Journal of a Mission to Pahang".











from Johore Baharu to Pekan, while Weld had favoured the construction of roads from Perak and Selangor and a railway from Malacca to Pekan<sup>17</sup>. By 1888, however, the decision had been made to construct a cart track from Kuala Kubu to Raub, and routes from Kuala Pilah, in Negri Sembilan and across the Ginting Bidai from Selangor were to be investigated with a view to building a road or railway which would meet the Pahang River near Temerloh<sup>18</sup>. It was clear that an important reorientation of the existing pattern of communications was about to take place and, whatever the details of the final decisions, the interior of Pahang was shortly to be opened up from the west.

### Population

On the eve of British administration the population of Pahang was predominantly Malay. Europeans had not entered the State in any numbers and the Chinese population was much smaller than it had been four decades earlier. The aboriginal peoples, the Senoi and the Jakun, were largely hidden away in the forested interior.

The Chinese had dwindled in numbers during the period of widespread lawlessness that began with the death of Bendahara Ali in 1857. Many of the Chinese miners or traders were either murdered or driven out, and as new arrivals from China were attracted to the more developed west coast States, there were only an estimated two to three hundred Chinese in Pahang when Swettenham visited the State in 1885<sup>19</sup>. The majority of the 3,241 Chinese enumerated in the 1891 census would have entered Pahang after the beginning of British rule and the introduction of regular steamship services from Singapore to Kuala Pahang and Kuantan<sup>20</sup>. The total in 1888 was certainly not greater than Rodger's estimate of 1,500. Most of the Chinese were found in the town of Pekan where there was a Chinese quarter, the trading village of Penjom, and in the mining areas in Ulu Pahang and Ulu Kuantan. During the drier period of the year, from March to November, small groups of Chinese engaged in timber extraction could be found in areas which were easily accessible from the coast and not permanently inhabited by Malays. The Pahang River was regularly used by Chinese traders, and Swettenham in 1885 had noticed a number of small Chinese sugar mills on the left bank of the Pahang River between Pulau Tawar and Temerloh. Chinese traders had been living among the Malays in the Tembeling Valley when Mikluho-Maclay passed through there in 1875 but there is good reason to believe that the existence of individual Chinese among the Malays in such remote areas could have only been temporary in the decade that followed. By 1888 the Chinese population which survived in Pahang had concentrated itself into a few mining areas and trading centres in an effort to achieve greater security.

17. Swettenham, F.A.: "Journal kept during a journey across the Malay Peninsula", p. 37. Weld's preference is expressed in the quotation on page 29.

18. *P.A.R.* 1889, p. 1195

19. Swettenham, F.A.: "Journal kept during a journey across the Malay Peninsula", p. 10.

20. *Census of Pahang*, 1891, in *Straits Settlement Government Gazette*, 1892, p. 2401.



**Table 2. The Population of Pahang 1888**

	Rodger's estimate 1888 <sup>a</sup>	Census 1891	Present estimate for 1888
Malays (including associated races)	30,000	51,146	48,000
Chinese	1,500	3,241	1,500
Europeans	—	102	15
Aborigines	3,500	2,032	10,000
Total	35,000	57,444 <sup>b</sup>	60,000 <sup>c</sup>

Notes: a. From *Pahang Annual Report*, 1888, p. 1195

b. This includes Tamils and other Indians, Eurasians and Javanese who would almost all have arrived after 1888; for the most part they were brought in as labourers for the European mining companies or employed by the British administration.

c. Total rounded off.

There were probably between ten and twenty Europeans in Pahang at this time. Rodger did not even include them in his 1888 population estimate (table 2). These Europeans were engaged in prospecting or survey work in preparation for mining ventures in the interior or timber extraction near the coast. Lewis Fraser was already established at Tras where he was financing Chinese and Malay tin miners and exporting tin via the bridle path from Tras, across by Gap, to the Selangor mining centre at Kuala Kubu<sup>21</sup>. Swan, a government surveyor, was engaged in making the alternative road and rail traces from Negeri Sembilan to Temerloh and from Selangor to Temerloh.

Little accurate information is available about the numbers or the distribution of the Aborigines. Rodger's estimate of 3,500 is in excess of the number enumerated in 1891. The 1901 census, however, placed their numbers at 7,340. Not until twenty years after the establishment of British rule was it possible to obtain a reliable picture of their distribution. It is clear, however, that the majority of those Senoi who were in regular contact with the more settled Malay population lived in the upper valleys of the Jelai and the Lipis and their tributaries<sup>22</sup>. Apart from one or two larger settlements they lived in small groups of two or three families.

A total of 51,146 Malays were enumerated in the 1891 census. The Sultan's household, numbering about 200, and the Malays in the Semantan Valley, numbering about 150, were not included in these figures<sup>23</sup>. Apart

21. *Kuala Lumpur District File* 893/87, and Maxwell, W.G.: "Early Days of Fraser's Hill", *Malayan Forester*, Vol. 17, p. 73

22. Of the 2,032 Aborigines enumerated in 1891 some 1,790 were in the Ulu Pahang District. See also Clifford, H.: *In Court and Kampong*, p.98 *et seq.*

23. The term Malay is here used in its widest sense and includes, in addition to Peninsula born Malays, Muslim immigrant from various islands of the Archipelago and a number who claimed to be Arabs but who were believed to be mainly Malay with some admixture of Arab blood. Pountney, A.M.: *Census of the Federated Malay States*, 1911, p. 48.



from these small omissions there are no grounds for assuming any large inaccuracies in the Malay section of the census. The average rate of increase for Malays in the decade 1891-1901 was 1,500 per year. This included natural increase and the excess of immigrants over emigrants. The Malay population for Pahang in 1888 is estimated by the present writer to be 48,000 (Table 2); a figure which is probably accurate to within 1,000, or two per cent. The average density of the Malay population at this time would thus be less than 3.5 to the square mile but in view of the distribution such a figure can have only limited significance. Nowhere in Pahang, however, were there any signs of population pressure.

It is not possible to show accurately the distribution of the Malay population in 1888 but the distribution of the Malay kampongs is shown in figure 15. Most Malay settlements in Pahang at this time were riverine; there were few permanent settlements on the coast. In Pahang, as elsewhere in the Peninsula, rivers played a major role in the life and the economy of the Malay. The easiest lines of movement in swampy and forested land were along the rivers. From them he could catch the fish that were his main source of protein. The best soils were those close to the rivers. Rivers provided him with his water supply and the means by which he disposed of his waste products.

Figure 15 shows this riverine distribution of kampongs but it also reveals the fact that Malays were not to be found on all of those rivers which were favourable for settlement. Instead there were denser concentrations on the banks of the Pahang, the Jelai, the Lipis and the Tembeling, together with the smaller valleys of Ulu Pahang: the Gali, the Dong, the Atok, the Budu, the Lalang, the Teris, and the Talang. South of the Pahang River there were few Malay settlements. Even the Rompin River, navigable for over one hundred miles, was sparsely settled while the extensive flat plains along the Keratong River in Ulu Rompin were known only to the Jakun. The rivers of south-east Pahang had not attracted Malay settlement; a reflection, probably, of their remoteness from the goldfields and their unsuitability as trans-peninsula routeways. Apart from well established villages at Beserah, Kuala Pahang and Kuala Rompin, coastal settlement was temporary and the population transient. During the fishing season there was an influx of Trengganu and Kelantan Malays but since most of these returned home with the onset of the north-east monsoon there was a lack of agriculture either in the form of padi or permanent kampong trees<sup>24</sup>.

Apart from the royal town of Pekan and the mining village of Penjom the population of Pahang was predominantly rural. Pekan was in effect an enlarged village which boasted four substantial buildings in addition to Malay style houses built either on rafts moored at the river bank or on the shore. The more substantial buildings consisted of two mosques, the Sultan's principal house and a new brick house "such as those occupied by Europeans in Singapore"<sup>25</sup>. In the centre of the town was a conspicuous shed used for the then

24. *Pountney* 257/90.

25. Swettenham, F.A.: "Journal kept during a journey across the Malay Peninsula", p. 31.



popular pastime of top spinning<sup>26</sup>. Swettenham describes the business part of the town as "two rows of the veriest hovels, built on either side of the main road, containing in all forty or fifty dwellings (which) constitute the 'bazaar' of the principal place in Pahang". This lack of urban development he attributed to the limited number of Chinese and the insecurity of their position.

Penjom was a small village located at a landing place on the Lipis River close to the gold mines. Upstream navigation was interrupted by the rapids at Benta, and paths from Budu, Raub, and Ulu Lipis converged here (fig. 16). Clifford visited Penjom in 1887 and later described it in the following terms:-

"(It was) inhabited at that time by more Chinese than Malays. It was at the nearest point on the river to the gold mines of Jalis (Jelai) and at the back of the squalid shops that lined the river bank a well-worn footpath led inland to the Chinese alluvial washings. Almost in the centre of the long line of shops and hovels which formed the village of Penjom stood the thatched house in which To 'Kaya Stia Wangsa (Chief of Lipis) lived'"<sup>27</sup>.

Elsewhere in Pahang the population lived in kampongs which varied in size from small clusters of one or two huts to large collections of several hundred dwellings grouped together where a tributary entered the main stream. The largest kampongs were at Chenor, Temerloh and Pulau Tawar. Each of these was the home of a major chief and their size reflected the ability of a powerful chief to attract followers rather than any functional development of the kampongs<sup>28</sup>.

### Agriculture.

Agriculture was carried out by both Malays and Aborigines. In the case of the latter it was confined to *ladang* cultivation. Hill padi and maize were the crops mentioned by contemporary writers but sweet potatoes and tapioca were probably also important. The Malays also relied on *ladang* cultivation but in some more densely settled areas they grew wet padi as well. Whereas the Aborigine moved his dwelling from *ladang* to *ladang*, the Malay tended to operate his *ladangs* from a fixed kampong base where he grew coconut and fruit trees and had his semi-permanent house.

In the 1880's the Malay subsistence economy had broken down to a much greater extent than some contemporary writers realised. Daly and Skinner, for example, both believed that agriculture in Pahang was well developed and productive by the Malay standards of the time. Daly gives us an image of abundance when he wrote that "provisions are very cheap and the land very productive. In the gardens and plantations all the ordinary varieties of tropical products are growing luxuriantly such as coconut trees, coffee arabica, padi,

26. Tenison-Woods, J.E.: "Geographical Notes in Malaysia and Asia".

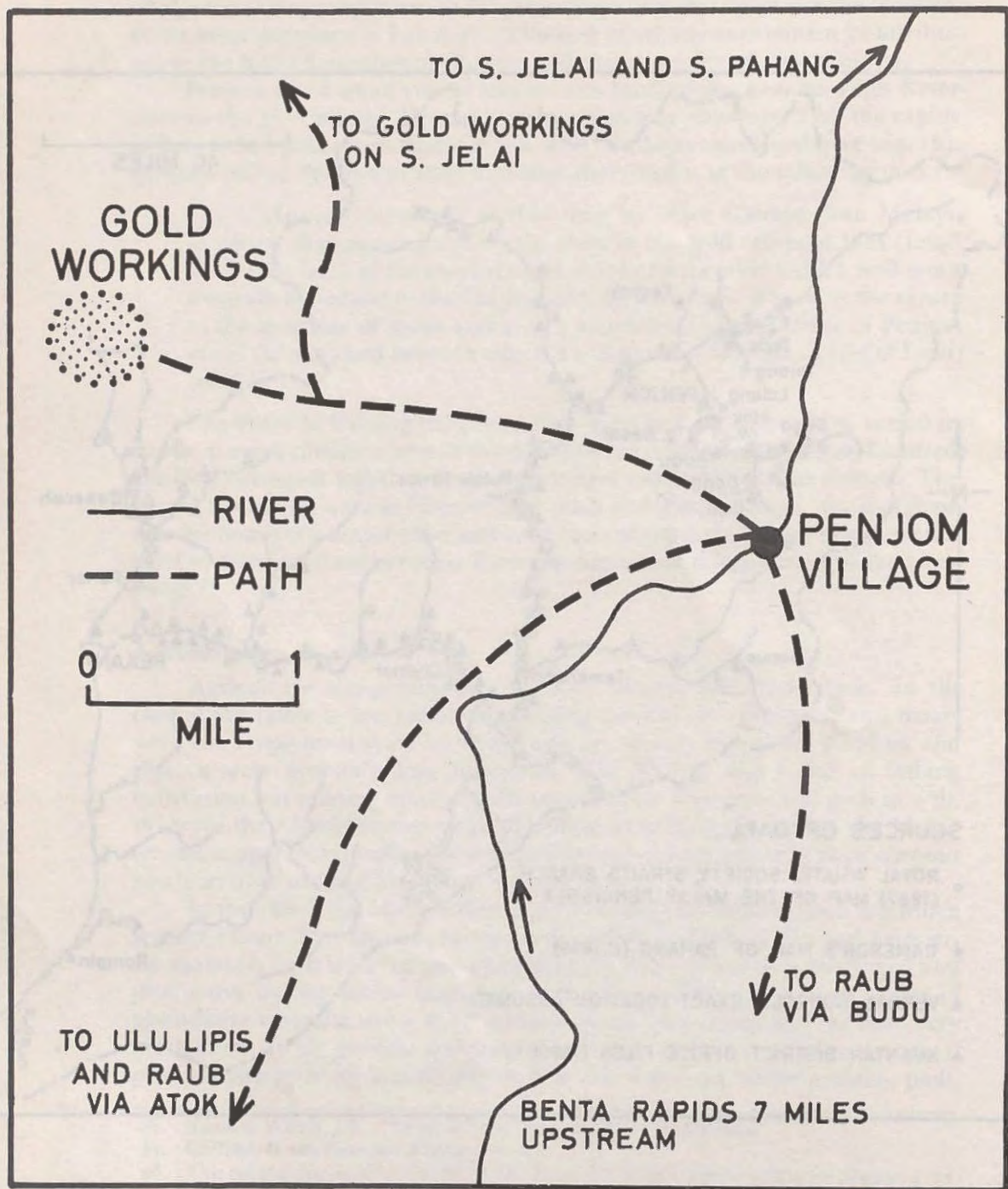
27. Clifford, H.: *In Court and Kampong*, p. 225

28. This point is discussed by Gullick, J.M.: *Indigenous Political Systems of Western Malaya*, p. 97.











Indian corn, plantains, tobacco, clove trees, etc.”<sup>29</sup>. Skinner thought that Pahang grew mainly wet padi and produced sufficient for her own needs<sup>30</sup>.

Evidence provided by those who became more familiar with Pahang does not, however, support this picture of productivity and abundance. Rodger's statements in the Annual Reports for 1888 and 1889 make it clear that insufficient rice was produced even in seasons of maximum yield. Well before 1888 the subsistence economy had been broken down by the Singapore demand for jungle produce and for alluvial gold. When Swettenham passed through Ulu Pahang in 1885 the Malays there were using rice imported from Kelantan. In years when the padi crops were good, less jungle produce was collected. If the crops failed, their efforts to collect jungle produce were intensified, sometimes to the point where they neglected to prepare for the next padi crop<sup>31</sup>. Clifford, Swettenham, and Rodger noted many areas of padi land which had fallen out of use in the years prior to 1888, and in the years which followed District Officers attempted with limited success to increase the area under production.

In most districts of Pahang the areas of readily available *paya* and *tenggala* land would have been adequate for the needs of all, but hill or dry padi grown in *ladangs* required less sustained effort and was favoured by the people in spite of much lower yields. There were few Malays in Pahang who did not rely on *ladang* methods to some extent. The highest standard of wet padi cultivation was to be found in the small valleys close to the gold workings of Ulu Pahang, areas that had been colonised in part by Menangkabau settlers in the sixteenth and seventeenth centuries. Here artificial methods of irrigation gave a more reliable supply of water provided that the earth and brushwood dams and the *tali ayer*, or water races, were maintained. At Kuala Priok, near Kuala Lipis, Swettenham noticed a large undershot wooden waterwheel used for lifting water from the river into a trough which conveyed it to the fields on the bank<sup>32</sup>. Similar waterwheels were used by farmers in Negri Sembilan<sup>33</sup>.

Wooden ploughs drawn by buffaloes were commonly used to cultivate the flat areas of river alluvium known as *tenggala* land. Extensive areas of such land were found on the upper Pahang River in the vicinity of Pulau Tawar, Swettenham wrote a detailed description of the latter area which he visited in 1885:-

“It is a curious thing to see in the Malay Peninsula buffaloes ploughing the slightly undulating plain of dry, but not hard, soil and more strange to be told that the rice grown is then sown as wheat is in the West, the ground harrowed and no irrigation done whatever, the harvest depending

29. Daly, D.D.: “Surveys and Explorations in the Native States of the Malayan Peninsula”, *Geographical Journal*, Vol. 4, 1882, p. 339.

30. Skinner, A.M.: *A Geography of the Malayan Peninsula and Surrounding Countries in Three Parts*, p. 51.

31. *Kuantan* 41/97

32. Swettenham, F.A.: “Journal kept during a journey across the Malay Peninsula”, p. 17.

33. Daly *op. cit.* described one which was in use on the Muar River in 1875.



simply on the rain. These fields when fallow seem to grow no weeds, only a sparse short grass, and they are ploughed across like a chess board several times before the wooden plough gets deep enough, then sown, harrowed, and nothing more done until the harvest. These fields have for many years yielded crop after crop under these conditions, and the only renewal of the soil is the annual small flood which rises over even these high banks, and a higher flood which comes about once every six years and drives the people out of their homes onto rafts"<sup>34</sup>.

The most extensive areas of wet padi land were to be found behind the levees of the Pahang River in the Temerloh District. During the annual flood season water was retained behind brushwood dams and the padi was then planted in the inundated fields. In the absence of effective water control methods the crops were at the mercy of the weather which followed. Methods of cultivation were also primitive; vegetation was cut into the inundated payas which were then trampled by teams of four or five buffaloes yoked together. Further away from the river banks considerable areas of dry padi were grown in *ladangs*.

In the Pekan District there were flat alluvial tracts along the Pahang River which could be used for *tenggala* cultivation but *ladang* methods were most popular both here and along the more sparsely settled Kuantan River. The swamp margins were occasionally planted with wet padi. In the few localities where coastal settlers did attempt to grow crops *ladang* cultivation, with fresh clearings made every year or two years, was the normal method of production<sup>35</sup>.

The crops cultivated by the Pahang Malays in their kampong and *dusun* (orchard) areas appeared to have included most of those commonly found in other parts of the Peninsula. Those which contemporary writers mentioned by name included banana, mangosteen, rambutan, pulassan, durian, Indian corn, Italian millet (*Panicum italicum*), sago and sugarcane. Daly also included coffee and clove trees on his list but these were neither widespread nor important. Ridley also noticed some very healthy plants of coffee (*C. arabica*) growing at Temerloh but added that the Malay owner was "quite ignorant of the use of the berries, using only the leaves to make tea of"<sup>36</sup>. The sale of tobacco was farmed out to Chinese and in order to protect their interest its local cultivation was forbidden. Gambier was grown for domestic needs. In the upper waters of the Tembeling River there were extensive areas planted by former generations of Malays and these were reputed to be sufficient to meet the needs of the whole betel-chewing population of Pahang<sup>37</sup>. The owners sold their produce to downriver Malays or Chinese traders and purchased rice

34. Swettenham: *op. cit.* p. 22.

35. "Rice Cultivation in Kuantan" in *Kuantan* 650/99. and "Report on Rice Cultivation in Pahang" in *Kuantan* 208/01

36. Kelsall, J.H. and Ridley, H.N.: "Account of a Trip up the Pahang, Tembeling and Tahan Rivers", *J.S.B.R.A.S.*, No. 25, p. 55.

37. *P.A.R.* 1890, p. 1433.



in return. Thus gambier was the only agricultural crop of any commercial importance but even its production was on a small scale and purely for the local market. Coconut palms were widely grown especially along the banks of the Pahang River. It is of interest to note that, while they were unimportant along the seashore, they grew in abundance in the cultivated valleys of Ulu Pahang at distances of one hundred miles from the sea and elevations of over 250 feet. In general the cultivation of kampong crops, like that of padi, was of a poor standard, partly owing to the poor quality stock and partly because of a lack of systematic care and attention.

It would be unfair, however, to attribute the low standard of agriculture to the laziness of the Pahang Malay, although Clifford did suggest that the Malays of Pahang were less industrious than their counterparts in Kelantan and Trengganu<sup>38</sup>. Among the factors which tended to discourage production in excess of subsistence needs was the breakdown of the Malay social organisation as a result of half a century of piracy and several decades of civil war. There was a lack of law and order and widespread exploitation of the *ra'ayat* by the ruling classes. Taxation in various forms was excessive and there was little security of property<sup>39</sup>. Security of person could best be achieved by possessing nothing that might attract the attentions of a local chief or a court Malay. To be the owner of well kept kampong trees or to produce a surplus of padi was to invite disaster. There was thus a strong tendency to maintain cultivation at a minimum level and many Malays had left the more densely settled kampongs and moved to upriver areas where they opened up small clearings in more isolated places. The ravages of wild animals and other pests were often regarded as preferable to those of their customary Malay overlords.

### Mining.

Before the establishment of British rule alluvial tin was worked by both Chinese and Malays on the eastern slopes of the Main Range and in the area west of Kuantan (fig. 17). At Sungei Lembing in Ulu Kuantan, there had been lode mining as well as alluvial mining prior to the arrival of the Europeans in 1888. W.H. Derrick, one of the early managers of the Pahang Corporation, had this to say of the earlier mining efforts:-

"There mines now being worked by the Pahang Corporation were, so the reports say, continually worked by Malays and Chinese for more than one hundred years, the wide surface excavations made by them, some of which are a thousand feet long, two hundred feet broad, and a hundred and fifty feet deep, testifying to this being a fact. The open cast system was the only one adopted by the old miners...the sides of their workings were sloped or terraced to keep them from falling in.

38. Clifford, H.: *In Court and Kampong*, p.17 *et. seq.*

39. Clifford, H.: "Journal of a Mission to Pahang" Microfilm Series C.O. 273, reel 148, and "A Journey through the Malay States of Trengganu and Kelantan", *Geographical Journal*, Vol. 9. p. 20.



This, and not the thickness of the lodes, accounts in many instances for the great width of the old workings...explosives were never made use of, owing to a strange superstition firmly believed in among the Chinese, viz., that the use of explosives frightens away any metal in a mine. In consequence of this, any very hard ground could not be worked. The ore obtained was crushed by wooden stamps shod with iron and worked by small overshot and undershot waterwheels. The only dressing appliance used was a long tom, the tail losses of which were very heavy"<sup>40</sup>.

In 1888 the Pahang Corporation had taken over the mining area at Sungei Lembing and claimed to have erected "thirty heads of stamps with a full complement of waterwheels and other machinery necessary to conduct mining operations"<sup>41</sup>. However, at this time the Corporation was busily engaged in raising capital and the Inspector of Mines who visited the mines the following year commented that "the workings appear to be more for exhibition than for honest output of revenue-producing material".

The condition of the gold mining industry was similar. Small areas of alluvial gold had been worked over a fairly extensive area and lodes were known to exist at Raub, Penjom, Kechau, and Selinsing (fig. 17). In 1888 European companies were at work at Penjom (The Penjom and Sungei Dua Semantan Company) and Selinsing (The Malay Peninsula (Pahang) Prospecting Company). Although some work had been done at both mines they, like the Pahang Corporation, were largely engaged in assembling and erecting equipment and recruiting indentured Chinese labourers through their agents in Singapore.

To most Europeans Pahang appeared to be a land of great mineral potential with extensive deposits of both gold and tin. Even mining men and administrators familiar with the interior of Pahang held this view, which was founded on facts which in themselves cannot be disputed<sup>42</sup>. Firstly it was known that the bulk of the tin in Malaya was found on the slopes and margins of the main granite range which formed the boundary between Perak and Selangor on the one side and Pahang on the other. Tin had already been found in very payable quantities in the valleys and alluvial flats on the western flanks and it was known to exist in similar situations on the Pahang side of the same range. From this the conclusion was readily, but erroneously, made that both sides of the granite range would be equally productive. Secondly it was known that alluvial gold and tin existed in many areas in Pahang and had been mined for several centuries (fig. 17). With rather less justification it was assumed that there were many areas yet to be discovered. The thoroughness with which the Malays over three of four centuries had sought out the tin and

40. Derrick, W.H.: "Notes on lode tin mining in the Malay Peninsula", *Transactions of the Institute of Mining and Metallurgy*, Vol. 7, 1899, p. 13.

41. *Kuantan* 1075/89

42. For this analysis I am indebted to J.B. Scrivenor: *Geology and Mining Industries of Ulu Pahang*. See especially p. vii and p. 13.



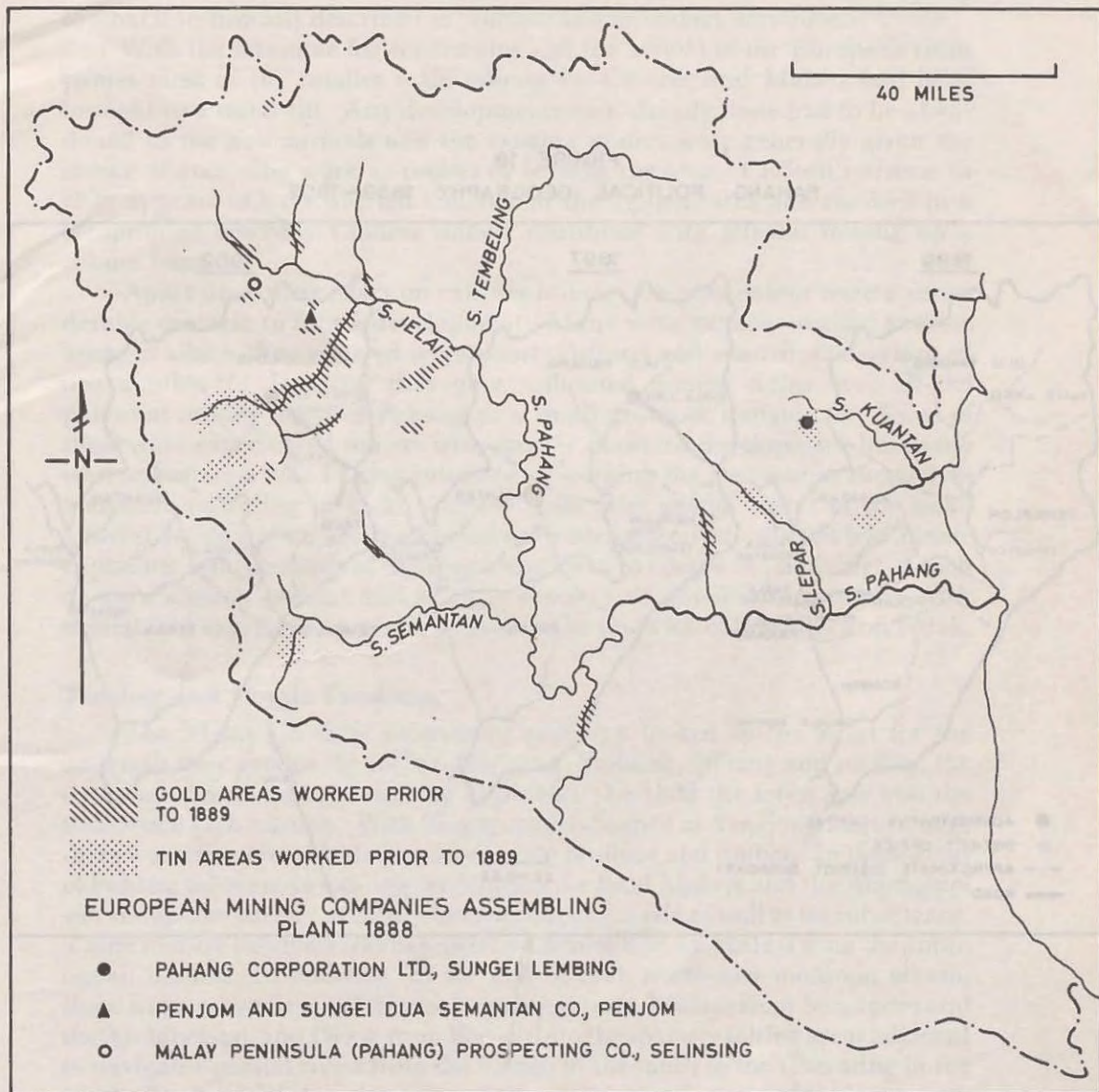
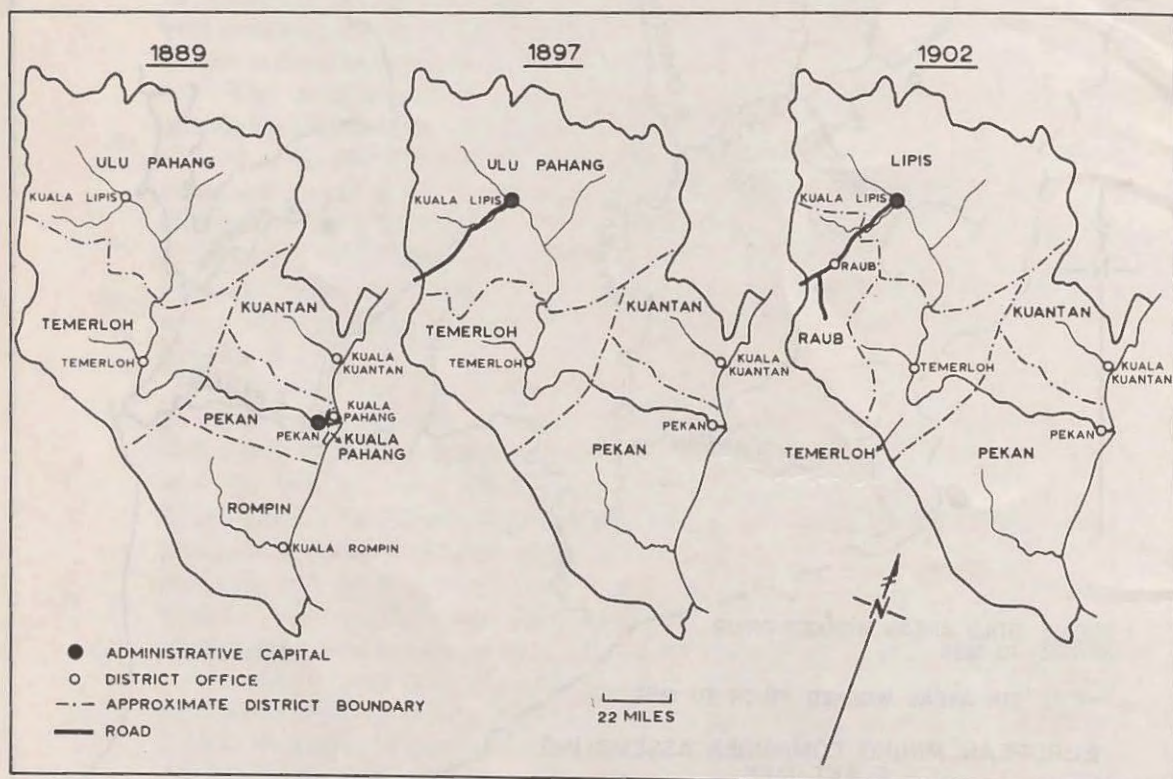




FIGURE 18  
PAHANG. POLITICAL GEOGRAPHY 1889-1902





gold bearing areas was not realised. The third fact was that the European lode mines established at Penjom and Selinsing in 1886 and 1887 initially yielded good results and it was believed that modern pumping and crushing equipment would be able to produce a much greater output than former miners had been able to achieve with their more limited equipment. In a flush of optimism it was not realised that the rock closer to the surface contained more gold owing to what is technically described as "surface and secondary enrichment".

With the scramble for concessions and the arrival of the European companies most of the smaller scale mining by Chinese and Malays had been brought to a standstill. Any development work already done had to be abandoned to the new arrivals and the existing miners were generally given the choice of accepting work as coolies or leaving the area. Clifford's arrival in 1887 appears to have averted violence in the Penjom area and resulted in a compromise whereby Chinese miners continued with alluvial mining on a tribute basis.

Apart from their effect on existing mining, the concessions were a considerable obstacle to future development. Many were vaguely worded and the areas to which they referred were poorly defined and sometimes overlapped one another<sup>43</sup>. In effect they gave unlimited mining rights over all the potential mining areas of Pahang to a small group of individuals. Some of these were experienced miners with specific plans for development but many were speculators who had no intention of working the concessions themselves and were unwilling to make way for those who would. Most of the small alluvial deposits of tin and gold could have been effectively worked by Chinese capitalists but the result of the concessions was to curtail the activities of such as were already present and to close the way to potential newcomers with capital and experience recently gained in the tin fields of Selangor and Perak.

### **Timber and Jungle Produce.**

The Malays in their subsistence economy looked to the forest for the materials they needed for fuel and lighting, building, fencing and roofing, the weaving of mats and the making of baskets. In 1888 the forest was also the source of a cash income. With Singapore established as a major trading centre there was a considerable demand for jungle produce and timber. In those areas of Pahang adjacent to existing settlements the local Malays and the Aborigines worked spasmodically to collect forest produce for sale as well as for subsistence. Trade in these products was handled by Chinese and by Malays from the Indonesian islands. In addition, at the end of each north-east monsoon season, there was a movement of Chinese from Singapore, Malays from Singapore and the Archipelago, and Dyaks from Borneo into the sparsely settled areas adjacent to navigable coastal rivers from the Endau in the south to the Cherating in the north (fig. 13). Within this zone of commercial exploitation jungle produce

43. Clifford, H.: "Report concerning the present state of Pahang" Microfilm Series C.O. 273, reel 148.



was collected by Malays and Dyaks while timber was extracted by Chinese and Malays and roughly squared or pit-sawn by the Chinese before being exported by sea.

Only two to three hundred people were involved in these activities, and they usually withdrew with the onset of the north-east monsoon. The only settlements established were the temporary *kongsi* houses of the Chinese timber workers and the occasional depot of a Chinese trader. *Atap* and *Mengkuang* were collected mainly for local markets and exported to Kelantan and Trengganu, while quantities of guttas, rattans, bamboos, and damar torches were sent to Singapore. Timber was exported in the form of baulks or planks, Chen-gal from the Kuantan District was in great demand in Trengganu for boats and houses and Chinese junks *en route* to China frequently called at Kuantan to complete their cargoes with quantities of coffin wood<sup>44</sup>. Most of the timber exported, however, went to the Singapore market. The Rompin River was the largest timber producing area in Pahang. The establishment of a British Collector and Magistrate at Kuala Rompin in 1889 reflected the importance of its hinterland as a supplier of timber and jungle produce.

### Fishing.

As in the case of the timber cutters and the jungle produce collectors, the fishermen of the Pahang coast in 1888 were largely a migrant population. Most of them were seasonal fishermen from Trengganu and Kelantan, fishing in Pahang offshore waters only after the north-east monsoon had ended. In addition there was a lesser annual migration of Sekai-Laut Aborigines from the Aor and Lingga Islands to the small islands in the vicinity of Pulau Tioman where they dived for *beche de mer* and pearl shell<sup>45</sup>. At Beserah, Penor, Kuala Pahang and Rompin there were more settled Malay fishing communities. These latter were usually dependent on a leader or *satu tuan* who had enough money to finance them in the off-season, and sufficient authority to keep law and order and protect them from exploitation or even attack by outsiders. Frequently the *satu tuan* of one of the villages in either Pahang or Trengganu would decide to move across the border, in which case the village would be abandoned and a new one established at another small coastal *kuala* where the political climate appeared to be more favourable. A considerable settlement at Gebing (north of Beserah) had thus been abandoned shortly before the British administrators arrived and one at Penor on the coast between Kuantan and Kuala Pahang was similarly abandoned in 1898<sup>46</sup>.

No estimates are available of the number of men or boats employed in the fishing industry of Pahang in 1888 but even after a considerable increase of numbers in the intervening years there were only 356 boats employed in the 1894 season<sup>47</sup>. The boats used were for the most part small *kolek* which

44. *Kuantan* 115/94

45. "Report on Pahang Fisheries" in *Kuantan* 340/94.

46. *Kuantan* 257/90 and *Kuantan* 93/99.

47. "Report on Pahang Fisheries" *Kuantan* 340/94.



carried two or three line fishermen and could operate only in good weather. Larger boats were used at Kuala Rompin and Kuala Pahang and some at the latter port were able to go to sea during breaks in the north-east monsoon. Kuala Pahang provided fresh fish for a large market at Pekan while Malay fishermen in other villages were able to sell their catches to Chinese fish merchants who dried and salted them for export.

### **Land of Promise?**

In 1888 the new economic forces that were transforming the west coast States had produced little external change in the geography of Pahang. The first roads and railways had still to be constructed. Most of the population were either Malays or Aborigines. Settlement was largely riverine following the traditional pattern of the Malays but there were still large areas with favourable river sites which were devoid of permanent Malay settlement. There were extensive areas of coastland with no settled population. The outward changes were few but the subsistence economy of the Malays had already been modified by internal disorder and an increasing volume of trade with Singapore. Agricultural productivity was at a low level and insufficient for the needs of the existing population although there was no limit to the amount of land available. The arrival of the concession hunters and the liberal way in which concessions were granted had resulted in a falling off of mineral production and was to present the new administration with a knotty problem to unravel before steady development could be made possible.

In terms of the needs and requirements of the Malays and Aborigines Pahang was a land capable of meeting all the demands they could make on the soil, the rivers and the forest for many generations to come. In terms of the demands about to be made by the Europeans, the resources of Pahang were much more limited than was commonly realised. The optimists of the time thought specifically in terms of mining and had only vague and ill-formed ideas of agricultural development. They regarded Pahang as a land of great mineral wealth without realising that its mineral resources were far from bountiful when compared with those of Perak and Selangor. The agricultural potential was real but large scale development along the lines envisaged by European or Australian financiers would require the construction of expensive lines of communications. Although the decisions to open up Pahang from the west had been made, no one had a clear idea of the physical obstacles to be overcome. The majority of those who were best informed were confident that, with a small amount of initial investment, the resources of Pahang would prove more than adequate to pay for the future and continued development of the region. 1888 was a year of high hopes and great visions for the future but beneath all this Western optimism Pahang remained a land of somewhat sober and unimpressive reality.

### **The New Administration, 1889.**

In 1889 the machinery of British administration was set up when the



British Resident, Rodger, was joined by 15 other European officials. The Sultan and his major Chiefs were appointed to a Council of State and given fixed political allowances while the British took over the collection of revenue and the general administration of the State. Pahang was divided up into six districts and each was placed under the charge of a District Officer who combined the functions of Collector and Magistrate. Other European officials were placed in charge of administrative departments such as public works, police, and mines. The locations selected for the state capital and the district administrative centres reflected the importance of river communications and East Coast points of entry (fig. 18). Law and order was ensured by the presence of Sikh police on loan from Perak and Selangor. The lesser officials took up their posts in July of 1889 and set about their primary task of maintaining law and order. In a short time they were busily engaged in their two most characteristic duties: the raising of revenue and the writing of reports.

1888 marked the end of an old era and 1889 the beginning of a new phase of assessment and development. Pahang had been opened up to the western world and, provided her resources were adequate and the obstacles to efficient transportation could be overcome, far reaching changes might be expected. In the two chapters which follow, attention is focused on the changes, or lack of change, which took place during the first twenty years of British administration. In 1888 it was the mining potential of Pahang which stimulated greatest interest in the State and this aspect is selected for study in the first of these chapters while agriculture is discussed in the second. Other aspects of geographical change are dealt with in so far as they relate to the two main topics selected. At the end of this development period a further cross-sectional study is presented in chapter 7.



## CHAPTER 5

### MINING IN PAHANG 1889 to 1909

In 1889, as soon as his new officials had taken up their posts, the British Resident, Rodger, turned his attention to those aspects of the economy which could produce revenues; agriculture, jungle produce collecting, timber cutting, and mining. It was immediately clear that mining was the most important, not only in terms of recent output, but also because it alone held the prospect of immediate development on a scale comparable to the revenue needs of the State. At the same time mining was the field of activity where the problem of the concessions loomed largest. The 39 concessions which had been granted by the Sultan contained within their limits all of the known mining land in the State. The administration felt obliged to recognise all but the vaguest of these, but it realised that sound development could not take place unless the concession holders were prepared to work their own holdings or make way for those who would.

Rodger was an experienced and capable administrator and the solution which he worked out appeared to do justice to the rights of all concerned. In 1889 he introduced Mining Regulations which would enable government to resume any concessions not being exploited. The regulations allowed a three year period for prospecting; after this land which was not effectively and continuously worked was to be given up<sup>1</sup>. Conditions relating to the number of men employed (or their equivalent in machinery), in proportion to the area of land retained, aimed at concentrating the efforts of the miners on the best sections of their properties. Such provisions were not popular with the speculators or the European miners but the regulations as a whole provided ample time for those with genuine interests to begin serious work<sup>2</sup>.

The immediate effect of the Mining Regulations was, however, to leave mining in the hands of existing concession holders and exclude others who were, at this stage, willing to begin work in the State. In particular they excluded the capital and the organisational skills of the Chinese capitalists who were busily exploiting the tin fields of the western States. During these first three years the mineral resources of Pahang, held in such high repute by the Malays<sup>3</sup>, were to be tested by the standards of the European companies formed to exploit this State. Likewise the methods and structure of the same European companies were to be tried out in the tropical rain-forests of Pahang. Rodger,

1. P.A.R. 1889, p. 1602. The Mining Regulations in Pahang were modelled on those in force in Queensland, Australia.
2. The attitudes of the European mines to the regulations are forcibly stated by Warnford-Lock in *Mining in Malaya for Gold and Tin* and also in correspondence in the Kuantan District Files between the Pahang Corporation and the government.
3. Skinner, A.M.: *A Geography of the Malay Peninsula and Surrounding Countries*, Part 1, p. 51.



with shrewd insight and an air of detachment, was fully aware of this when he wrote at the end of 1889:—

“Most of the European Companies now working in this State are engaged in the development of mines originally opened by natives—Siamese, Chinese, or Malay—and having regard to the machinery and improved appliances now available for pumping water from the mines, and for getting and reducing the ores, it will be a lasting disgrace for European mining enterprise if the law of ‘the survival of the fittest’ should cause these mines to revert, as the alluvial mines of Selangor have reverted, from wealthy companies, commanding all the resources of modern engineering science, to Eastern miners, equipped only with the rudest and most primitive appliances”<sup>4</sup>.

### 1889 to 1893. European Mining Enterprise on Trial

Many of the concessions, obtained as speculations, were never prospected. Others were prospected in a desultory manner by European companies which turned their attention elsewhere without starting serious mining operations. At the end of 1893 some twenty of these unworked concessions were cancelled<sup>5</sup>. Most of the other concessions were under some form of European ownership or control.

Concessions with alluvial tin deposits were the first to be brought into production (fig. 19). Since the equipment needed was not elaborate, and the scale of mining could be varied to suit the labour force available, companies at Bentong, Sungei Dua, and Belat, the latter near present day Gambang, began work as soon as their indentured Chinese labourers arrived from Singapore. Tin was being exported within twelve months but the obstacles quickly became apparent. Living as they were in freshly made clearings, management and labourers alike suffered from malaria and the mortality rates were very high<sup>6</sup>. Direct supervision of inexperienced Chinese labourers by European managers, who also lacked experience, was not a success and differences which arose were aggravated by ill health and isolation<sup>7</sup>. In 1890 serious work ceased at Sungei Dua and Belat and the companies involved transferred the remnants of their labour forces to lode mining properties. The Bentong Company exported “a considerable amount” of tin ore in 1890 but was unable to recommence work after a stoppage caused by the rebellion of the local chief at the end of 1891<sup>8</sup>.

4. *P.A.R.* 1889, par. 23.

5. *P.A.R.* 1893, p. 5.

6. *Kuantan* 43/91 and *P.A.R.* 1890.

7. The Kuantan District files for 1890 contain a number of letters from the manager of the Belat mines which disclose the difficulties faced by a European manager with 200 indentured labourers in a locality two days journey by river from the nearest police station. See especially *Kuantan* 296/90 and *Kuantan* 297/90.

8. This outburst, known as the Pahang Rebellion, occurred when the Orang Kaya of Semantan, dissatisfied with the scale of his political allowance and prevented from

(Continued on next page)



FIGURE 19 PAHANG  
CHANGES IN MINING AND COMMUNICATIONS 1889-1909

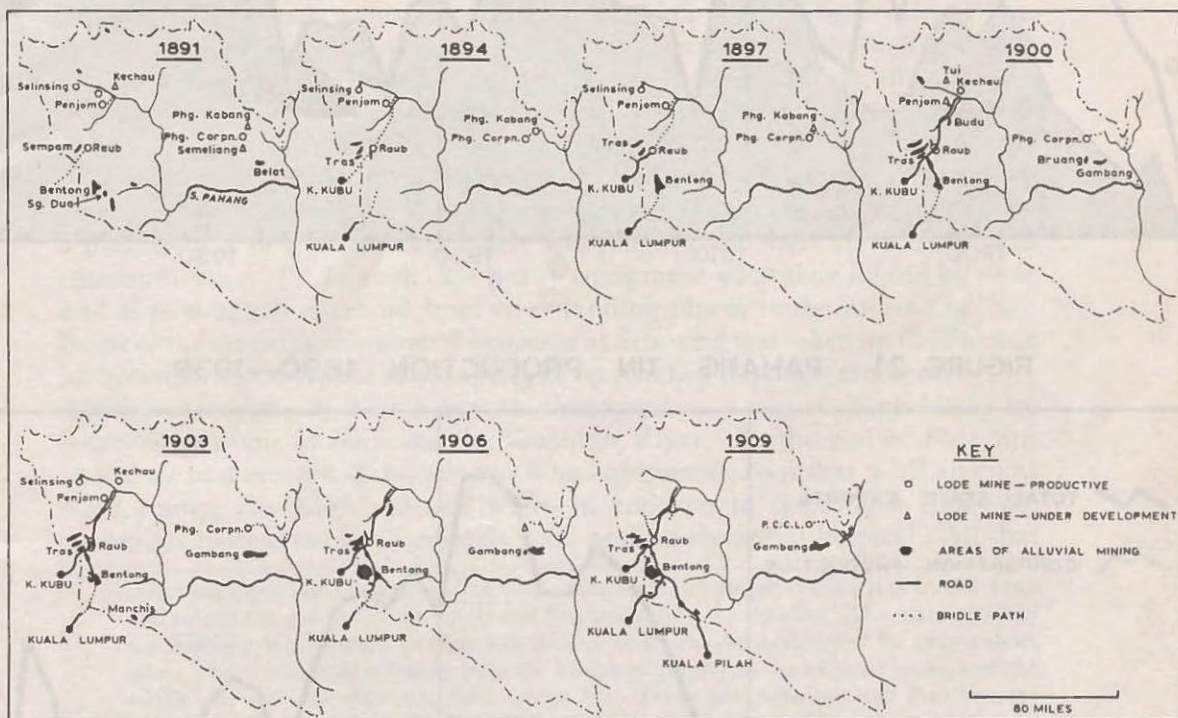




FIGURE 20 PAHANG: GOLD PRODUCTION 1891—1939

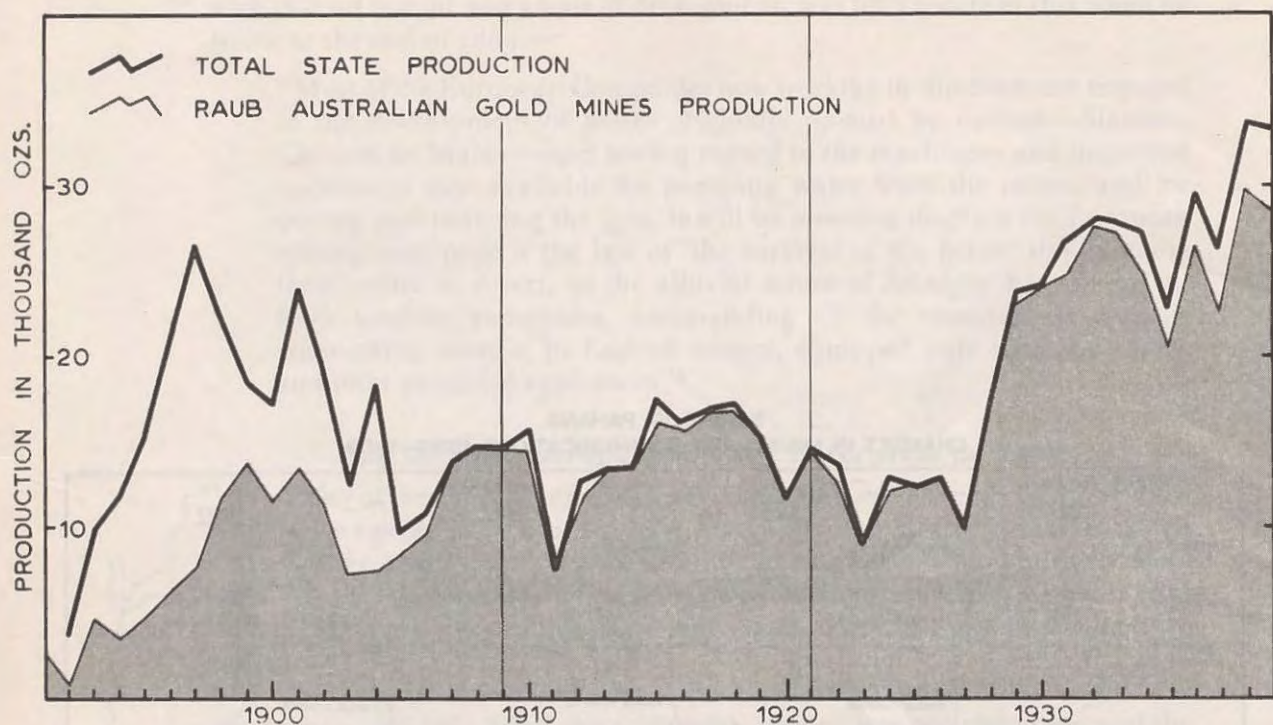
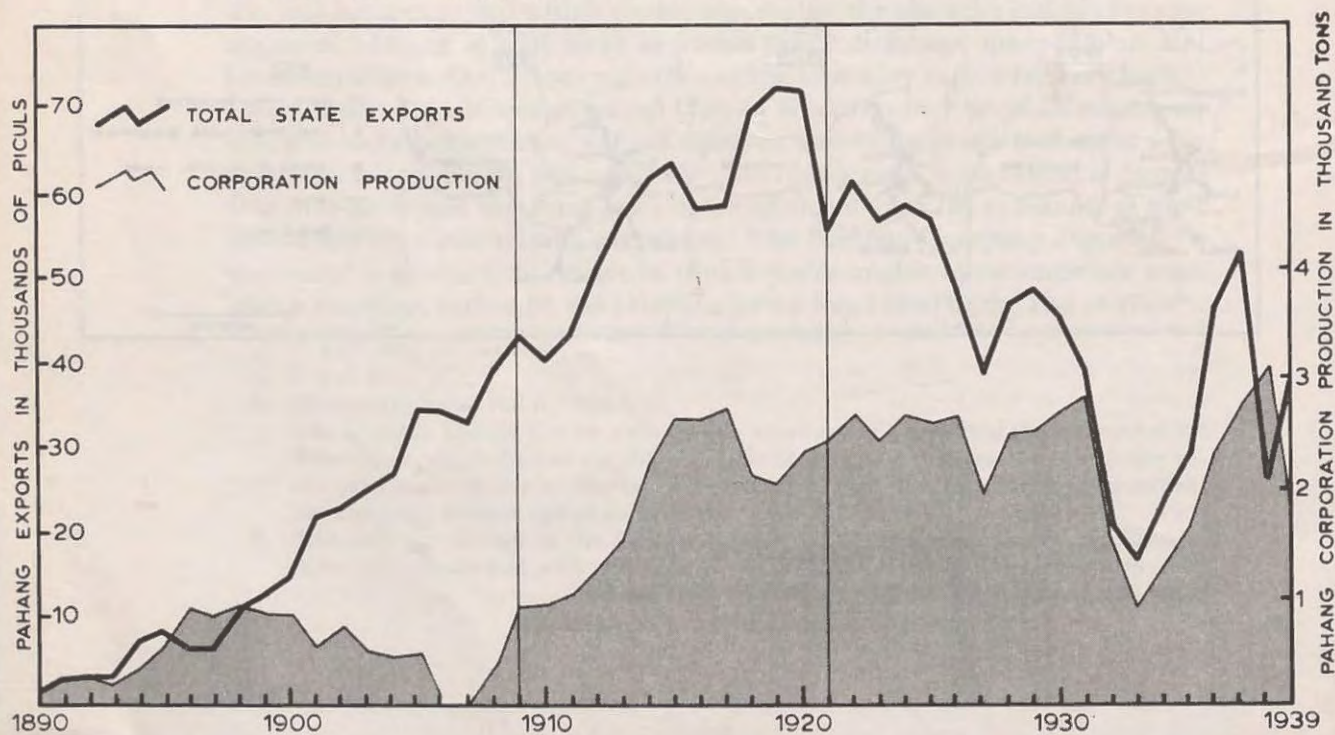


FIGURE 21 PAHANG TIN PRODUCTION 1890—1939



SOURCE: P.A.R.B. & FITCH (1952).



Rodger, in noting that the company had gone into liquidation, expressed the opinion that "a Chinese company would have succeeded in working the Bentong mines profitably but the expenses consequent upon European management and modes of working proved too much for the value of the property"<sup>9</sup>. It was clear that Chinese mining, with its more flexible organisation and lower overhead costs, would be better able to exploit these alluvial deposits.

Europeans who financed Malay and Chinese alluvial tin mining, or allowed these miners to work their concessions on a tribute basis, were more successful. The best known of these, L.J. Fraser of Tras, was extensively engaged in the transport of goods to and from the tin mining areas of the Raub District<sup>10</sup>. Fraser had sound local knowledge, experience in dealing with Chinese and Malays, and he did not expend his capital in mining equipment, European staff, or indentured labour. Instead he financed and encouraged existing Asian miners and, from the limited information available, he appears to have made a steady profit exporting tin mined in the vicinity of Tras and the present day hill station which bears his name. While such activities were sound economically, and well adapted to local conditions, the numbers of miners employed, and the output of tin, were small and stand in complete contrast to the visions held in the previous decade.

Lode mines could not be developed rapidly. More substantial buildings were required and the task of importing crushing and pumping equipment was a difficult one in a land where rivers and jungle paths were the only lines of communication<sup>11</sup>. In each case heavy equipment was taken inland by river and then dragged overland from river landing places to the mines (fig. 19). Some of the machinery intended for mines at Selinsing was taken up the Pahang and Jelai Rivers to Kuala Medang but never reached the site of the workings<sup>12</sup>. Another company at Ulu Kuantan attempted to avoid such problems by locating its plant at Baias on the Kuantan River. By the end of 1891 this company had erected elaborate crushing equipment, complete with an eight head stamp, dressing floor and wells, in addition to building a tramway, numerous bungalows for European staff, and a substantial hospital. All that

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collecting dues from boats plying the Semantan, attacked the police station at Lubok Trua and raided the *godowns* of the Raub and Bentong mining companies. The main phase of the rebellion was crushed in 1892 and mining at Raub was interrupted for only a short time. Those who suffered most were the Malay peasantry in the affected areas, and the administration who employed Sikh troops from Perak and Selangor and thus became heavily indebted to those States. Clifford portrays the character of this rebellion in *Bushwhacking and Other Asiatic Tales and Memories*. A more straightforward account is contained in the supplement to the *Straits Times* of January 23rd, 1892.

9. *P.A.R.* 1891, p. 2397.

10. For the extent of this and other Districts at various dates see fig. 18.

11. The problems faced by the Raub mines, and the steps taken to overcome them, are well described in the *Straits Times: Golden Raub*, pp. 11-12.

12. "A great accumulation of sand, buried boilers, engines, batteries and other machinery transported up the Jelai at enormous cost and never erected, lies at Kuala Medang, as a silent testimony to the capabilities of a past management." Warnford-Lock, C.G.: *Mining in Malaya for Gold and Tin*, p. 94.



was lacking, commented the writer of the *Pahang Annual Report* for that year, was a lode of tin in the vicinity of the mill which would repay the cost of working<sup>13</sup>.

By the end of 1893 the records make it clear that there were only four European mining companies engaged in serious work in Pahang. There were the three companies mining gold at Raub, Penjom and Selinsing, and the Pahang Corporation working the tin lodes at Sungei Lembing. Although some minerals were being produced (figs. 20 and 21), output bore no relation to capital expended and it was as yet too early to assess the eventual profitability of such mines<sup>14</sup>. It was very clear, however, that European mining in Pahang had not been established on the scale envisaged by the optimists of the 1880's. European attempts to mine alluvial tin had failed and the more successful ventures of men like L.J. Fraser were the result of entrepreneurial rather than mining skill. With only four companies in operation, and approximately one thousand labourers employed, European mining had been established on only a modest scale and it remained to be seen whether these ventures could survive on a permanent basis. In view of the considerable capital expenditure and the high ratio of European staff<sup>15</sup> it was clear that a considerable output of minerals, and a marked reduction in overhead costs, would be required if the companies were to continue in operation.

At the end of 1893 the British Resident cancelled some twenty of the concessions and noted in his report that "Government now has at its disposal large areas of mining and agricultural land". There was, however, no influx of new capital or population into Pahang in 1894. The first flush of optimism was over and neither Europeans nor Chinese were attracted by the new image which was emerging. Europeans were unwilling to introduce new capital until the existing ventures had proved themselves to be economically sound and the Chinese were too busily engaged in the western States where communications were well developed, overhead expenses considerably lower, and returns more assured. In 1895 it was officially recognised that apart from the activities of the lode mines, mining development in Pahang was at a standstill.

The mining policy initiated by Rodger in 1889, and carried on by his successors, was administratively sound but its long term consequences were unfortunate. The effective opening up of Pahang was delayed at a critical time when the western States had already entered a phase of sustained and cumulative economic development. In Selangor, Perak, and Negri Sembilan, economic opportunities were expanding faster than the tin reserves were diminishing and Pahang lost much of its attractiveness in consequence. During these first four years the new economic penetration of roadless Pahang

13. *P.A.R.* 1891, p. 2397.

14. In June of 1894 the *Selangor Journal* claimed that the Selinsing Syndicate had expended £80,000 on their property (Vol. 2, 1894, p. 315). Output to the end of 1893 totalled 827 ounces.

15. Information in the *Pahang Annual Report* for 1892 reveals that the companies concerned employed 49 Europeans and an Asian labour force of approximately eleven hundred.



was made with comparatively slender private resources. Small European mining ventures were unable to make that initial conquest of the forest environment necessary to overcome a high level of endemic disease. Chinese syndicates which could more readily have come to terms with the environment were largely excluded. Larger European enterprises were too few, and communications too meagre, to produce external economies which might reduce their overhead costs. Their total investment was not inconsiderable but in the absence of parallel investment in the public sector any immediately cumulative effects were lost in the vastness of this sparsely settled State.

The blame, however, cannot fairly be handed to Rodger. His primary responsibilities were to maintain the peace, establish a well-ordered administration, and, as far as possible, balance official revenue with expenditure. He had neither the time, nor the funds, nor the economic skills, to plan and initiate a policy of economic development. The non-appearance of most concession holders, and the fact that the mineral resources of Pahang were less bountiful than hitherto realised, were factors beyond the control of Rodger and his immediate successors.

### 1895 The Reassessment and the New Development Policy

Senior British officials concerned with the administration of Pahang made a close scrutiny of the position there in 1895. When comparisons were made with Perak, Selangor, and Negri Sembilan, it was obvious that the development of Pahang not only lagged far behind but showed no signs of catching up. Revenue from mineral exports was less than \$50,000 as compared with \$3,350,000 from the other States and official expenditure in Pahang exceeded revenue by two and a half times. As a result of annual deficits, and expenditure incurred in putting down the Pahang rebellion, Pahang was heavily in debt to her western neighbours.

In the *Pahang Annual Report* for 1895, D.H. Wise, the Acting British Resident, revealed what the administration considered to be the main factors contributing to the retarded development of Pahang<sup>16</sup>. These can be summarised as follows:—

1. Chinese population was lacking in Pahang at the time the British assumed control.
2. Other States were well provided with roads, and miners were thus unwilling to open up new ground in Pahang.
3. Most of Pahang had, until recently, been tied up in unworked concessions.
4. The inhabitants had, for the past four years, suffered from actual or apprehended disturbances.

While each of these conclusions was valid the overall analysis was incomplete. The attitudes of the officials concerned were coloured by their recent experience in the western States; they were so impressed by the success of

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16. *P.A.R.* 1895, p. 70.



Chinese alluvial tin mining in Perak and Selangor that they failed to recognise the strengths or the needs of European mining in Pahang. Their response to the failure of European companies on the alluvial fields of the western States, and the majority of those who held concessions in Pahang, was a lack of interest in the prospects of the minority who were still at work in the latter State. They thus ignored the basic distinction between alluvial mining, which was labour intensive and required little capital investment, and lode mining, which required considerable capital investment and technical management. Likewise, they made no thorough appraisal of the mineral resources of Pahang although sufficient prospecting and mining had already been done to make an interim assessment possible. Instead they chose to formulate new policies based on this inadequate analysis and to reinforce their case by flourishing the old myth of Pahang as a land of unlimited natural wealth<sup>17</sup>.

The new policies were initiated in 1895 and 1896. In essence they consisted of three main items. The first was the federation of Pahang with the three western States and the establishment of a Federal Capital at Kuala Lumpur<sup>18</sup>. Thus the financial resources of the western States were made available to assist Pahang and they in their turn were given greater freedom to extend their economic sphere of influence eastwards. The second item was road construction. A trunk road was to be built across the Main Range to link the Pahang River system, and the interior mining areas, to the Selangor railhead at Kuala Kubu. Lesser roads were to be constructed to open up potential alluvial mining areas. The third and least publicised item aimed at enticing Chinese capitalists to Pahang. Overtures were quietly and discreetly made to several successful men in Perak and Selangor and they were offered special terms if they would begin alluvial mining in Pahang. Apart from the construction of the main trunk road, essential to the other aspects of their policy, no plans were made to encourage the European mining companies. The economic aspects of the policy were, in effect, single pronged. Chinese alluvial tin mining was to be encouraged as the one avenue of development likely to solve the State's fiscal problems. The next two sections of this chapter will trace, in turn, the effects of this policy on the development of Chinese and European mining.

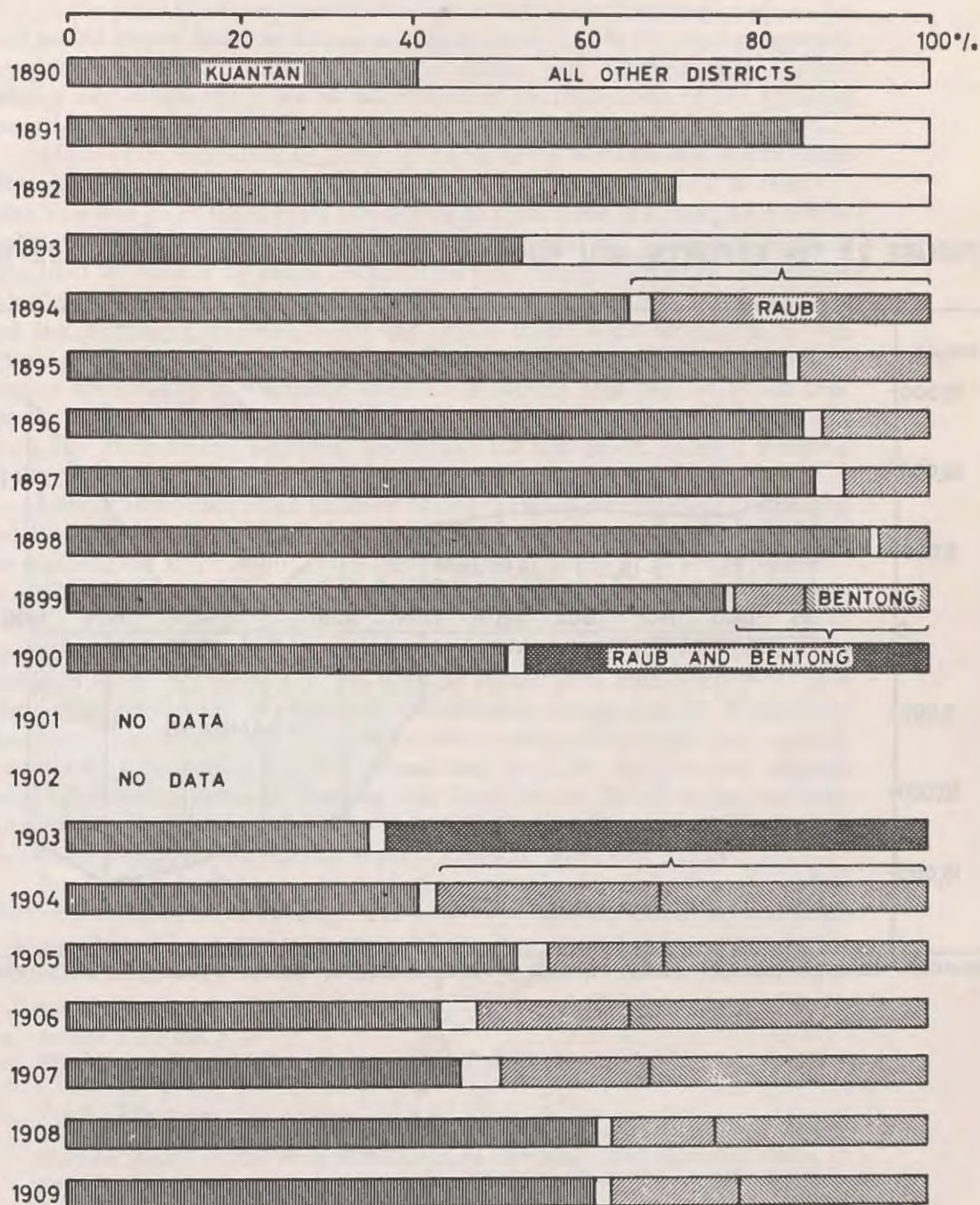
### Chinese Mining 1895 — 1909

The development of Chinese mining was, as anticipated, closely related to the construction of roads and the granting of special concessions. In 1895

17. Some of the most blatant statements are made by F.A. Swettenham in *F.M.S.A.R.* 1896, where among other things he writes that "one must go to Pahang to see the greatest mining enterprises in the Peninsula".
18. The Federated Malay States came into being in 1896. The four States, Perak, Selangor, Negri Sembilan and Pahang retained their own administration but lost the power to formulate their own policies. A number of Federal Departments were set up to co-ordinate the control of items such as forestry, mining, railways and trade. In Pahang, this change of political orientation was facilitated by the transfer of the State Capital from Pekan, on the coast, to Kuala Lipis, in the interior (fig. 18).



FIGURE 22 PERCENTAGE OF TOTAL TIN PRODUCTION  
BY DISTRICTS. 1890—1909 (PAHANG = 100%)

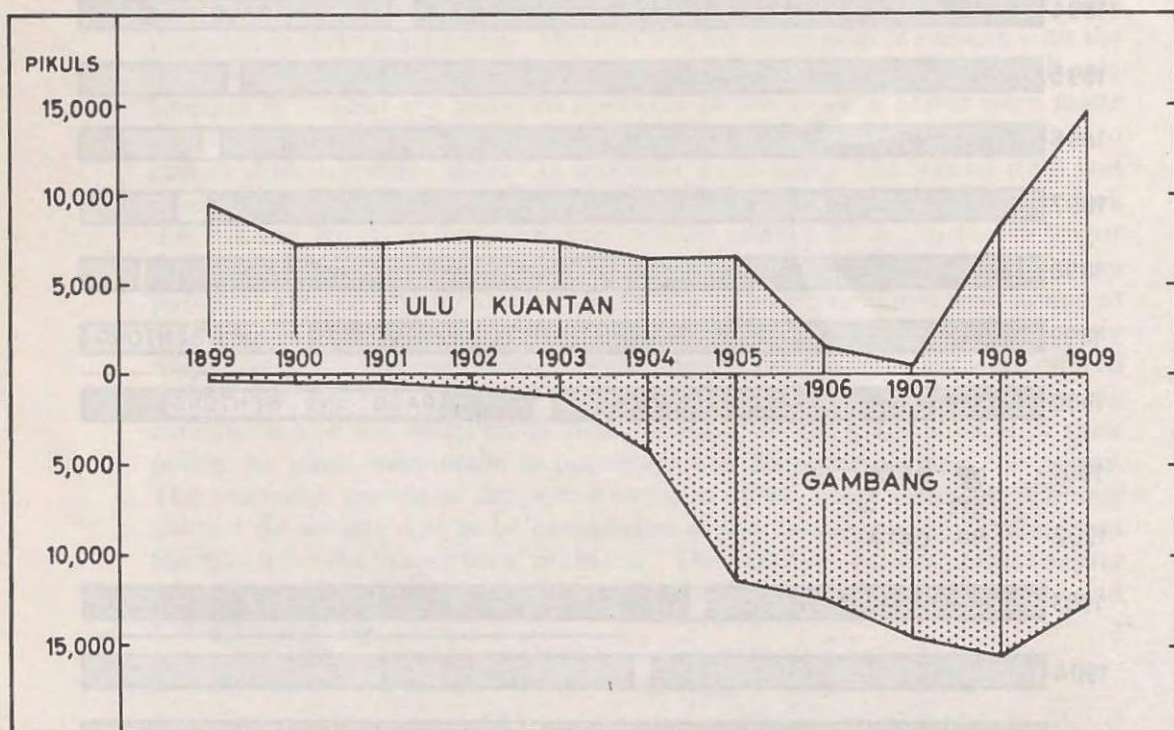


DISTRICT NAMES AND BOUNDARIES AS AT PRESENT DAY

SOURCES: { RICHARDSON (1939) Page 139  
PAHANG ANNUAL REPORTS. 1890—1909  
MINES, PAHANG, ANNUAL REPORTS. 1906—1909



FIGURE 23 TIN EXPORTS: ULU KUANTAN AND GAMBANG AREAS 1899-1909



SOURCES: KUANTAN DISTRICT FILES, PAHANG ANNUAL REPORTS, MINES ANNUAL REPORTS, PAHANG.



work was commenced on the Pahang Trunk Road from Kuala Kubu to Kuala Lipis (fig. 19). Construction was started at the Selangor end and carried out by the Selangor government. During 1895 and 1896 there was a drop in the price of tin and most of the six thousand workers employed on the road were Chinese from the Selangor mining areas<sup>19</sup>. As the road progressed there was an influx of population, both Malay and Chinese, into interior Pahang and when the price of tin recovered in 1897 some of the Chinese opened up small mines in the hills behind Raub and Tras.

Meanwhile negotiations were in hand for a well-known miner from Selangor to begin work at Bentong and an agreement was signed in 1897<sup>20</sup>. Loke Yew was given three years to select up to 4,000 acres of mining land which would be held under 21 years lease, free of rent or premium. Other applications were held over while he made his selection and commenced work. The costs of building a road from Bentong to Tranum were shared between Loke Yew and the Pahang government but the initial funds were advanced by the Selangor government. In return for these privileges Loke Yew agreed to employ continually a stipulated number of miners and pay an 8 per cent royalty on tin produced. In addition, he gained an important fringe benefit when the government accepted his tender for the newly created Bentong Opium Farm.

Late in 1897 some seven hundred of Loke Yew's miners arrived at Bentong and work commenced on the 21 mile link road. Within a few months a town site was selected and laid out and a considerable quantity of tin ore exposed<sup>21</sup>. In 1898 large scale mining was carried out on the flats but the export of tin ore was delayed when Loke Yew decided to erect his own smelter (fig. 22). In his report for 1898 Clifford estimated that Loke Yew's activities had added two thousand to the population of this sparsely settled area and noted that "in a single year a township of respectable dimensions has sprung up, mines have been opened at various localities, and roads constructed between each one and the township, the coolies are well housed and cared for, and the road which is being constructed between Bentong and Tras, on the Trunk Road, with the aid of a government grant of \$68,000 is well advanced. This fact," he added, "is calculated to give confidence to other Chinese capitalists"<sup>22</sup>.

Production at Bentong continued to increase but no other capitalists were in fact attracted to Pahang. The next important development took place in 1903 when the government granted Loke Yew a similar concession in the Belat-Gambang area, inland from Kuantan<sup>23</sup>. In spite of the fact that this

19. *Selangor A.R.* 1896, p. 6.

20. The terms of this agreement are contained in *Temerloh* 172/97.

21. *P.A.R.* 1897, p. 11.

22. *P.A.R.* 1898, p. 11.

23. The terms of this concession are contained in *Kuantan* 58/05. A road was to be built from Godown Rasau, on the lower Belat River, to Gambang. The agreement makes no mention of the revenue farms in this area but shortly after it was signed these were let to Loke Yew. *P.A.R.* 1905, p. 13.



area was already being pioneered by two small syndicates—one Chinese and one European—other applications were held over for three years while Loke Yew's agent selected 10,000 acres of mining land. In 1904 Loke Yew opened up several large open-cast mines on the alluvial flats and by the end of that year over two thousand men were employed and the output of tin was increasing rapidly (fig. 23). During 1905 Loke Yew's activities increased as further leases were taken up and in 1906 a new impetus was received when the reopening of the field to other miners coincided with the suspension of work by the European company at Sungei Lembing and the paying off of their labour force.

In the second decade of the period Chinese mining was thus being carried on in each of three alluvial mining areas: on the slopes of the Main Range behind Raub and Tras, in the Bentong district, and in the Gambang area (fig. 19). Each of these three tin mining areas represented different stages of a well-defined sequence of exploitation. In each case mining had started on a larger scale with *lombong*, or open-cast mines, and shallow shafting, on the alluvial flats. In Pahang these were soon exhausted and then mining began to move up the valleys of the granite hills. Here the pockets of payable material were richer, on the one hand, but smaller and more dispersed, on the other. Both the alluvial material in the valleys and stream beds, and the eluvial material on the adjacent hill slopes, were mined by *lampan*, or ground sluicing methods. With a change in techniques, and a reduction in size of individual workings, went a change in the methods of employment. The larger and more predictable *lombong* mines were labour intensive but they were usually operated by a mining capitalist who relied on wage and contract labour and regularly imported indentured recruits. When the *lombong* mines were worked out, the mining capitalist usually gave up direct control of mining operations and the *lampanning* properties were let out to tributors. These latter were usually indentured labourers who had completed their contract and formed themselves into small *kongsis* or co-operative groups. Normally they paid the owner of the property a percentage of the ore they produced, or they agreed to sell him the whole of their output at an agreed discount.

This sequence of exploitation was furthest advanced in the two interior mining districts. At Tras mining was carried out high in the hills and the number of miners diminished during the decade. At Bentong production and employment were maintained but by 1909 the majority of the miners were *lampanning* in the valleys of the Main Range<sup>24</sup>. At Gambang, in the Kuantan District, there were still some mines working the alluvial flats but new land was available only in the hills at the close of the period<sup>25</sup>. Tin production from Chinese mines increased steadily from 1897 onwards but by 1909 it was realised that the best areas were fast being worked out and, since no new discoveries were forthcoming, it was anticipated that production and employment would soon decline.

24. P.A.R. 1908, p. 5, and P.A.R. 1909, p. 6.

25. *Mines, (Coast Districts)* P.A.R. 1909.



Within the narrow limits of its development policy the administration was successful in its efforts to encourage Chinese mining in Pahang. The roads which were built and the concessions which were granted to Loke Yew encouraged a moderate influx of capital and population into those areas where alluvial tin was to be found. Enclaves of development were established in the vicinity of Tras, Bentong and Gambang. By 1909 the alluvial deposits of Pahang were being exploited almost to their full capacity. Increased production could have been achieved only by the use of techniques still to be introduced, or the construction of roads at a cost which could not be recouped from the minerals thus rendered accessible. Yet compared with the development of alluvial mining in the western States, and compared with the development needs of the Pahang economy as a whole, the results of its policy were far from satisfactory. In the closing years of the first decade of this century the three western States employed some 200,000 alluvial tin miners and produced over 750,000 piculs of tin annually. Pahang, by comparison, employed 10,000 in alluvial mining and these workers produced 30,000 piculs of tin<sup>26</sup>. During the years 1904 to 1908 State expenditure in Pahang was kept to a minimum but it consistently exceeded revenue by 100 per cent or more. By 1909 it was obvious, even to the British administration, that Chinese mining of alluvial tin deposits was not, on its own, an adequate solution to the problems of Pahang.

### European Mining 1895 — 1909.

European mining in Pahang employed Chinese labour but in other respects its methods and organisation contrasted with that of Chinese mining. The European companies were engaged, not in surface working of alluvial tin deposits, but in lode mining—usually underground—for either gold or tin. While the Chinese operated with a maximum of labour and a minimum of equipment, the Europeans employed a moderately large labour force and a much greater amount of equipment including pumping, hoisting, and crushing machinery. European mining was carried out by public companies which employed a considerable staff of skilled and highly paid European supervisors and engineers. Long periods of development work and much capital expenditure were necessary before production from the lodes could begin and it was rarely possible to modify the scale of operations if the mines did not come up to initial expectations. Chinese mining was more flexible and, in view of other sources of income available to the mining capitalist, less dependent on an assured margin of profit<sup>27</sup>. Whereas Chinese mining could maximise short term production, European mining was essentially a long term venture which would benefit from careful nurture during its development stages.

Until 1895 the European mining companies were fully occupied in recruiting indentured labour and carrying out development work in the face

26. These rounded figures are compiled from the Annual Reports of the four British Residents and the Resident-General together with the *Mines, (Coast Districts) A.R.* 1909.

27. Warnford-Lock, C.G.: *Mining in Malaya for Gold and Tin*, p. 173.



of obstacles created by isolation and high transport costs. Returns from minerals produced during this period were very small compared with expenditure but the royalties paid on output represented a significant proportion of government revenue. After 1895 the isolation of the gold mining region of Ulu Pahang was broken down by the construction of the Pahang Trunk Road through as far as Kuala Lipis. As each gold mining company completed its initial development work it was possible for the owners to assess its long term prospects.

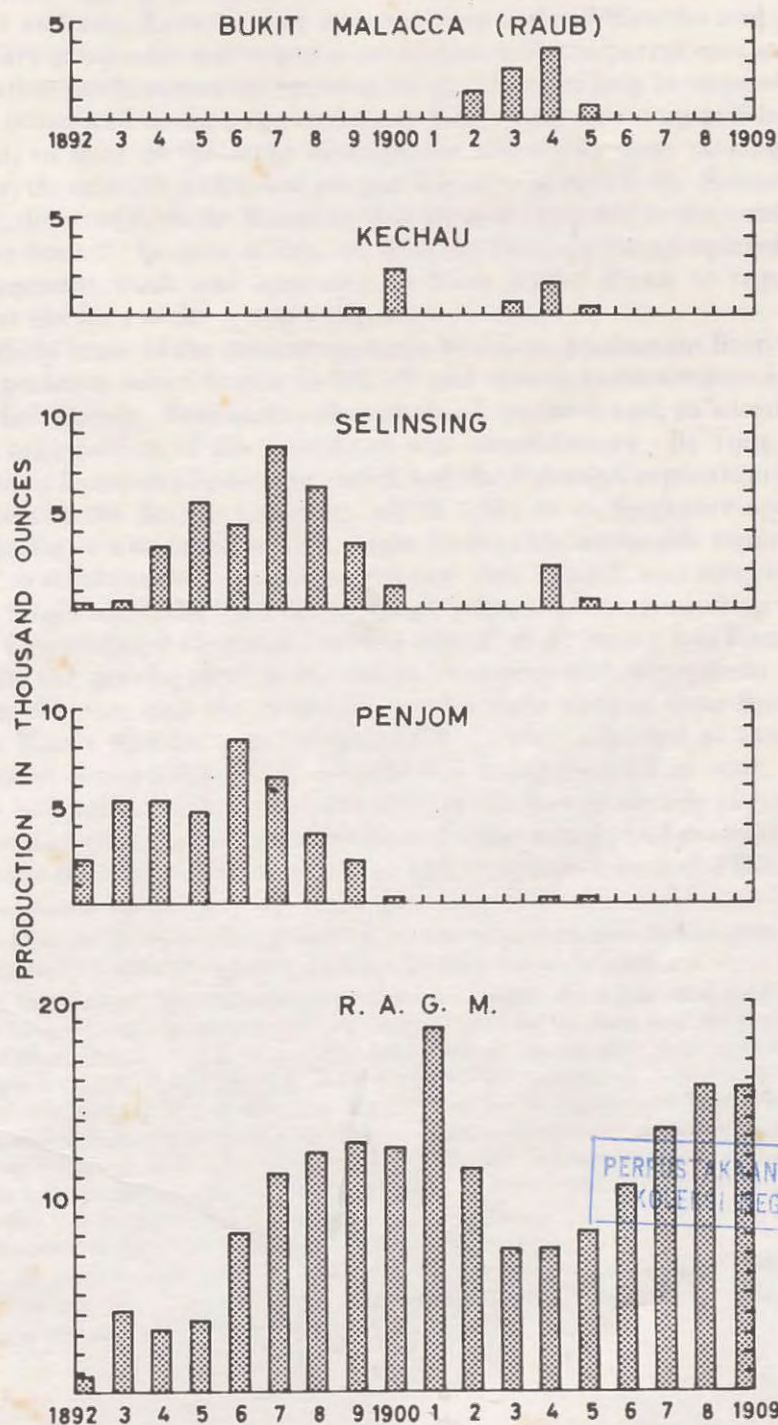
Three gold mines—those at Raub, Penjom, and Selinsing—were brought into regular production but only one was able to survive on a permanent basis (fig. 24). Penjom and Selinsing reached their maximum production in 1896 and 1897 respectively but their returns were insufficient to meet operating costs and pay the government royalty on gold produced. Both continued mining for a time but their eventual extinction was in sight when they reduced their expenditure, first by stopping prospecting and then by giving up underground mining. At Kechau attempts were made to reopen an earlier mine but this also was a failure. At Raub, however, mining was established on a permanent basis. At a time when the Penjom and Selinsing mines were curtailing development work the Raub Company carried out a bolder policy of expansion. In 1896 they were operating three fully equipped mines and the following year they decided to electrify these and erect new crushing batteries. While this was being done they sub-let portions of their property to other companies; one of these, at Bukit Malacca, was later reabsorbed. In 1901 the new 60 head stamp at Bukit Koman and the hydro-electric power station in the Sempam Valley began working. The output of gold did not increase permanently but operating costs were lowered and by 1905 they alone of the European gold mining companies remained (fig. 20 and 24).

No working figures are available but it appears that the margin of failure at the Penjom and Selinsing mines was a narrow one; a certain amount of mismanagement or the effects of the government royalty on gold may have been critical factors. It is uncertain whether the lodes at Penjom, Selinsing, or Kechau were extensive enough to permit exploitation on the larger scale achieved by the Raub Australian Gold Mining Company. It is almost certain, however, that the Raub Company would have similarly failed but for the success of its expansion and electrification programme. It is probable that some government support, either in the form of improved communications or temporary remission of royalties, would have made it easier for the smaller companies to reach a break-even point and may have encouraged others to begin mining. The long term cost-benefit of such investment would have compared favourably with that returned from assistance extended to Chinese mining<sup>28</sup>.

28. Only after the majority of the gold mining companies had failed did the Pahang administration come to realise the value of such assistance and even then it was extended only to the well established. In 1903 they shared the cost of sinking a trial shaft to the  
(Continued on next page)



FIGURE 24 GOLD PRODUCTION FROM  
PAHANG MINES 1892—1909



FIGURES FROM PAHANG ANNUAL REPORTS







Lode mining for tin was, during this period, confined to the Pahang Corporation's concession in the Ulu Kuantan. During the 1890's the three European companies at work there were the only producers in the Kuantan District and their aggregate output exceeded that of all other tin mines in the State (figs. 21 and 22). Even so, they were working under difficulties and one of the subsidiary companies was forced to recombine with the parent company. The Corporation made numerous requests for government help in improving access to the mines and to the large settlement which had grown up at Sungei Lembing but, in spite of the large contribution the mines were making to State revenue, the administration was prepared to give no such help. Revenue, was, in effect, diverted from the Kuantan District and expended in the western interior of the State<sup>29</sup>. In spite of this, the Pahang Corporation completed its initial development work and appeared to have settled down to regular production by the turn of the century (fig. 21).

In the early years of the present century, however, production from the Pahang Corporation mines began to fall off and serious reassessments were made as to their future. Transport costs remained excessive and, in addition, the internal organisation of the companies was unsatisfactory. By 1904 the Pahang Kabang Company had ceased work and the Pahang Corporation was heavily in debt to the Borneo Company which acted as its Singapore agent. An outside geologist was called in and, on the basis of his favourable report, it was decided to combine the companies, increase their capital, and reorganise mining on a larger scale. In 1906 the existing companies were wound up and the Pahang Consolidated Company, with a capital of £250,000 was formed. New plans for the development of the mines were prepared, equipment was ordered from Europe, and the construction of a light railway from Sungei Lembing to Kuala Reman was undertaken<sup>30</sup>. After a period of careful prospecting and construction work, mining was recommenced in 1907. By 1909 output had again reached the peak level of the former decade (fig. 21). At the end of that year the Company employed 1,600 miners and contributed one third of the tin exported from Pahang. In its expanded form the Pahang

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1,500 foot level at the Raub mine (*P.A.R.* 1903). On various occasions in later years they agreed to remit royalties while major development work was undertaken.

29. In 1896, for example, the administration refused a request for a four mile road from Baias to Sungei Lembing (*Kuantan* 208/96). In his report for the same year the Kuantan District Officer revealed that revenue in his district was six times greater than expenditure resulting in a surplus of over \$20,000. "The revenue", he commented, "was mainly from the 5 per cent duty on Pahang Corporation tin", and the expenditure "is kept as low as possible, and nothing can at present be done to open up the country either by roads, or improvements to the river navigation or existing tracks" (*Kuantan* 19/97). In 1898 the Kuantan revenue surplus was over \$30,000 and in 1899 over \$50,000 but still no road construction was commenced in the District. Meanwhile government had made a grant of \$68,000 towards the building of Loke Yew's road at Bentong.
30. *P.A.R.* 1907, pp. 6-7. An account of the history of these mines is also contained in Fitch, F.H.: "The Tin Mines of the Pahang Consolidated Company, Limited", in *Bulletin Institution of Mining and Metallurgy*, No. 493, 1947, pp. 1-27.



Consolidated Company was able to achieve economy of scale without any parallel investment by the Pahang administration.

### CONCLUSION.

The most important changes which took place in the geography of Pahang during the first two decades of British administration were directly or indirectly associated with mining. The areas of greatest population increase and urban development were the mining districts of Kuantan and Ulu Pahang, and the pace of development, as measured by the increase of trade and productivity, was largely controlled by the state of the mining industry and government policy with respect to road construction. The mining industry, however, was never established on a large enough scale to meet the revenue needs of the whole State. At no time did the mining revenue received by the Pahang government exceed five per cent of that for the Federated Malay States as a whole. It became increasingly clear that the mineral resources of Pahang were on a less liberal scale than those of Perak and Selangor, and, if the value of its mineral wealth was to be the index of its prosperity, then Pahang must inevitably lag behind its western neighbours. By 1909 it was widely realised that the future development of Pahang did not lie in its mineral resources. Tin was the major source of its revenue but the price for this was falling off and the alluvial tin fields already showed signs of exhaustion. All but one of the gold mining companies had failed and production from the Raub mines was not increasing. For Pahang the year 1909 would have been one of pessimism for the fact that significant events were taking place in the field of agriculture. The nature of these will be seen in the next chapter.

In spite of its relative isolation, its late start, and the limitations of its mineral resources, Pahang could have developed much more rapidly from 1895 onwards had it not been for the inadequacies of the development policy formulated at that time. While the policy of encouraging Chinese mining was well conceived, it could not have produced results comparable to the needs of the situation. In actual fact those two European mines which survived this phase of administration were, in 1909, producing minerals equal in value to those produced by the Chinese sector of the industry. Large private investment by a number of other European companies was wasted, largely as a result of the government's failure to support it with parallel investment in the public sector. Not only did government fail to make an adequate assessment of the mineral resources of Pahang but they failed to realise the contribution which European companies could make in conditions which were not indetical with those of Selangor. Because of this they failed to combine the economic skills and resources of both Chinese and European miners into an integrated programme of development. Had they done so the short-term gains from an influx of Chinese capital and population would have been adequately reinforced by the longer term development resulting from European mining. Under such a programme, a modest take-off into sustained economic growth might well have taken place in Pahang at the beginning of this century.



## CHAPTER 6

### CHANGES IN AGRICULTURE, 1889 to 1909

Mining activities during the period 1889 to 1909 brought a considerable influx of immigrants, both Malay and Chinese, and formed the spearhead of change and development in Pahang<sup>1</sup>. Agriculture, in contrast, played no significant role in the establishment of the new economy. For the most part communications were improved, and new towns established, only in those areas where mining development took place. Most, but not all, of the indigenous Malays were, during this period, geographically separate and economically independent from the developing economy of the mining areas. The traditional economy was, however, influenced by other factors associated with the introduction of the British administration and these first two decades were a significant period of response and adjustment for Malay agriculture. European commercial interests did little more than experiment with agriculture as long as mining dominated the economic scene but towards the end of the period both they and the Chinese showed more interest in commercial agriculture and established the foundations for later expansion (figures 25 to 28).

In this chapter changes in indigenous agriculture, the growth of new coastal settlements, and the genesis of commercial agriculture, are considered in separate sections. While it is convenient to use terms such as "indigenous agriculture" and "commercial agriculture", it must be made clear that conceptual divisions of agriculture into either subsistence and commercial sectors, or traditional and export sectors, are blurred even at this early stage. The main factor which broke down such clear cut distinctions was the immigration of Malays who came to Pahang attracted by the development taking place in the mining areas. They came, not to seek direct employment as mining labourers, but to take part in associated activities such as jungle clearing, timber cutting, boat poling, or trading. At the same time, they grew most of their own food and, given the opportunity, would market the surplus locally. Many were temporary immigrants who moved on to other States but numbers chose to remain as agricultural settlers and, in the manner of similar immigrants in the undocumented past, quickly settled down and merged with the existing Malay population. Culturally and religiously akin to the indigenous Malays, they differed mainly in that they were more susceptible to new ideas, had adopted monetary goals and thus, as the opportunity arose, were more ready to engage in commercial cultivation.

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1. When the census was taken in 1911, Chinese numbered over 24,000 and made up 22 per cent of the population. The number of Malay immigrants was smaller, in the order of eight to ten thousand, and cannot be accurately determined from the census.



## INDIGENOUS MALAY AGRICULTURE.

The traditional Malay economy in Pahang represented no ancient and stable adjustment between man and the land. Instead it was perpetually in a state of flux and adaptation; adaptation not to the immediate habitat so much as to the external factors such as war, invasion, piracy, natural calamity, or changing economic opportunities created by contact with foreign traders<sup>2</sup>. Many of these factors had a depressing effect on indigenous agriculture since they resulted in insecurity and discounted the value of long term investment in tree crops or permanent padi fields. They had, however, created a resilience in Malay society which gave it the ability to overcome disaster or adapt more readily to changed conditions. Even before British intervention in Pahang, disintegrative forces associated with the Industrial Revolution were widely felt; traders from Singapore and elsewhere were eager to purchase raw materials and sell manufactured goods in Pahang. With the beginning of the British administration and the improvement of communications these forces were further intensified. At the same time British rule brought other changes which tended to stabilize the existing economy and fix the pattern of Malay settlement which existed in 1888.

From 1889 onwards the development of larger scale mining activities and the need for transport services in Pahang created a considerable demand for hired labour. In this State, as elsewhere in Malaya, Chinese were imported to do most of the manual labour in the mines. Work such as jungle clearing and the poling of river boats was done largely by Malays from Kelantan and the Archipelago. Some Pahang Malays sought wage employment but it was usually on a temporary basis and fitted into their existing way of life in the same way as the collection of jungle produce or the panning of alluvial gold.

In the vicinity of the mining areas, the roads and the new administrative towns, the availability of casual employment and the lure of manufactured goods were potential forces making for change. Elsewhere the most pervading influence detrimental to agriculture was the demand for jungle produce and the increase in the facilities for marketing it.

All things considered, however, the establishment of the actual administration made for stability. Its first aim was to establish law and order and with two exceptions it succeeded in this; at the end of 1891, and again in 1894, rebellions by the discontented Orang Kaya of Semantan resulted in temporary periods of disorder. Crops were abandoned and villages destroyed in the affected districts of Raub, Bentong, and Semantan, but when the hostilities ceased most of the refugees returned to rebuild their kampong dwellings and replant their fields<sup>3</sup>. Recovery in the Raub District was more rapid than in the Semantan where the rebellion began. By 1895 the administration had re-

2. The political and economic institutions of Malay society in the 1870's are well described in Gullick, J.M.: *Indigenous Political Systems of Western Malaya*.

3. *P.A.R.* 1893, p.3, and also McCallum, H.E.: *A Trip Across the Peninsula with H.E. the Governor*, pp.12, 16.



established effective and undisputed control and, for better or for worse, the Malay population was under "bureaucratic" rather than "feudal" government. Greater security of person and property were strong forces acting to produce a more stable economy and an expanding agriculture.

In the first year of the administration, land regulations were passed which required every occupier of land to demarcate his holding and have it registered by the District Officer<sup>4</sup>. Land formerly held under Malay customary tenure was thus given a permanent title in the form of a *Malay Certificate* and from 1891 onwards annual quit rents were levied. By the middle of the decade new land could only be occupied with the permission of the authorities and on payment of an appropriate fee, with the result that land already held tended to acquire a monetary value. At the same time, the administration attempted to discourage temporary cultivation by charging higher rentals for the land so used, and by 1900 it had prohibited the felling of virgin forest for this purpose. Official pressure was thus exerted to encourage permanent padi cultivation and to replace kampong-based shifting cultivation wherever the latter was prevalent.

In attempting to discourage shifting cultivation the administration failed to provide positive assistance to communities who had no wet padi areas or no tradition of wet padi cultivation. The development of this form of cultivation received as much verbal support as the encouragement of alluvial tin mining but there the comparison ended. On several occasions Malay communities approached District Officers for finance to help construct small irrigation schemes but in each case they were refused on the ground that no funds were available<sup>5</sup>. In many cases where the government stopped ladang cultivation, settlers who were either unable or unwilling to grow wet rice turned instead to collecting jungle produce in order to earn money to buy imported rice. Accusations of laziness were made and the reluctance of the Malays to work harder than they need for the same amount of food was not appreciated. In extreme cases settlers were prepared to abandon their houses and their kampong land and move into States where the British administration was not yet established<sup>6</sup>.

Throughout the State the introduction of permanent titles for land tended to fix the location of settlements and encourage the cultivation of more kampong trees but the efforts of the administration to strengthen the padi growing base of Malay agriculture met with mixed success. The response varied in different areas of the State: in part it was the resultant of exposure to new economic forces on the one hand and the attentions of the administration on the other; in part it was a reflection of the agricultural traditions of each local area.

In interior Pahang, west of the Sungei Jempol, there was an expansion of agriculture in those mukims where wet padi was an established part of the

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4. P.A.R. 1889, p. 1602.

5. P.A.R. 1897, p. 7

6. Kuantan A.R. 1898 in *Kuantan* 93/99.



Malay economy; in particular in the tributary valleys of the lower Lipis River and those areas of the Temerloh District adjacent to the middle Pahang River. Examples of these are Mukim Dong in the Raub District and Mukim Lebak near Temerloh. Such mukims increased not only their padi area but also the area of land occupied by kampong cultivation, fruit trees, and coconuts (fig. 25). The example of Mukim Dong is of special interest since it lay on the newly constructed Trunk Road and was only eight miles from the mining town of Raub. It would appear that the impact of disintegrative forces associated with the development of mining was not sufficiently strong to weaken the agricultural base of this and similar mukims at Segu, Budu, and Tanjong Besar. Within these mukims there was some relocation of settlement in the kampongs close to the new road since new houses were usually sited adjacent to the highway.

Where the wet padi base was weaker, and opportunities for wage employment were locally available, efforts by the administration to stop the cultivation of dry padi resulted in a relative decline of agriculture. In the upper Lipis Valley, much frequented by European officials and accessible to several mining areas, actual depopulation had set in by the turn of the century<sup>7</sup>.

Areas remote from the district administrative centres at Raub, Kuala Lipis, and Temerloh were little affected by the new policies. The task of surveying and registering all Malay holdings was begun at the beginning of the century in the most populous mukims close to administrative centres or mining areas. Since staff was limited and mining lands were given priority, progress on agricultural smallholdings was slow and the recording of most mukims was not completed until the second or third decade. As a result there was little change in remoter areas such as the Tembeling valley during the period ending in 1909 and hill padi continued to play an important part in the agricultural economy<sup>8</sup>.

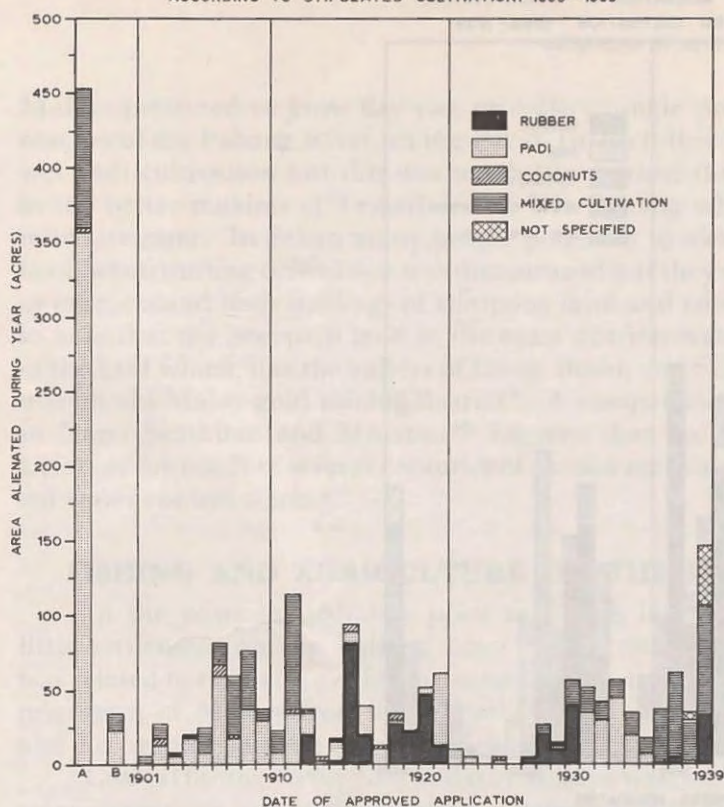
Behind the river banks of the coast districts there was *paya* land which could be used for wet padi cultivation but any such tradition was lacking except in some of the kampongs adjacent to the Pahang River and in the Luit valley. District Officers at both Kuantan and Pekan worked hard to encourage the growth of wet padi and the improvement of other forms of cultivation. At Kuantan the counter-attractions were too strong; there was no alienation of wet padi land and little increase in the number of holdings taken up for other forms of subsistence agriculture (fig. 27). Immigrant Malays familiar with wet rice cultivation showed no inclination to develop it in east Pahang and the local

7. Nathan, J.E.: "Journey over the Main Range from Perak to Pahang", *J.S.B.R.A.S.*, No. 68, 1915, p. 3.

8. This is implied from information contained in the "List of Penghulus and Assistant Penghulus in Pahang" in *Kuantan* 49/14. The annual rental of mukims in the Tembeling and Ulu Jelai was low compared with the estimated population and remarks such as "poor mukim" and "disappointing cultivation" contrast with references to "fine stretches of wet padi" and "penghulu has skill in irrigation" which are made about the mukims closer to Raub and Kuala Lipis.

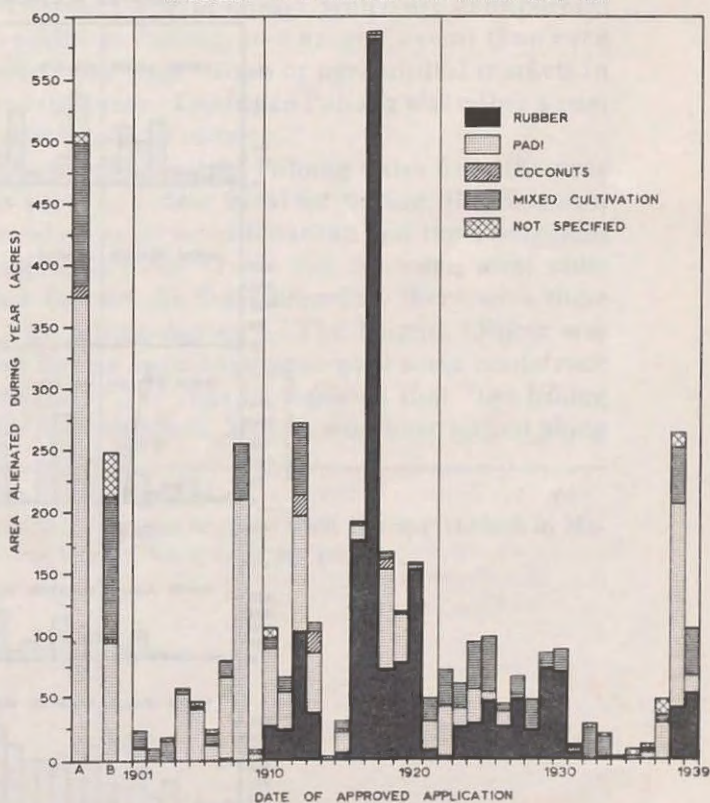


FIGURE 25 MUKIM LEBAK. ALIENATION OF SMALLHOLDINGS  
ACCORDING TO STIPULATED CULTIVATION. 1888-1939



A = LAND HELD UNDER MALAY CERTIFICATE  
B = LAND APPROVED FOR OCCUPATION 1889-1900

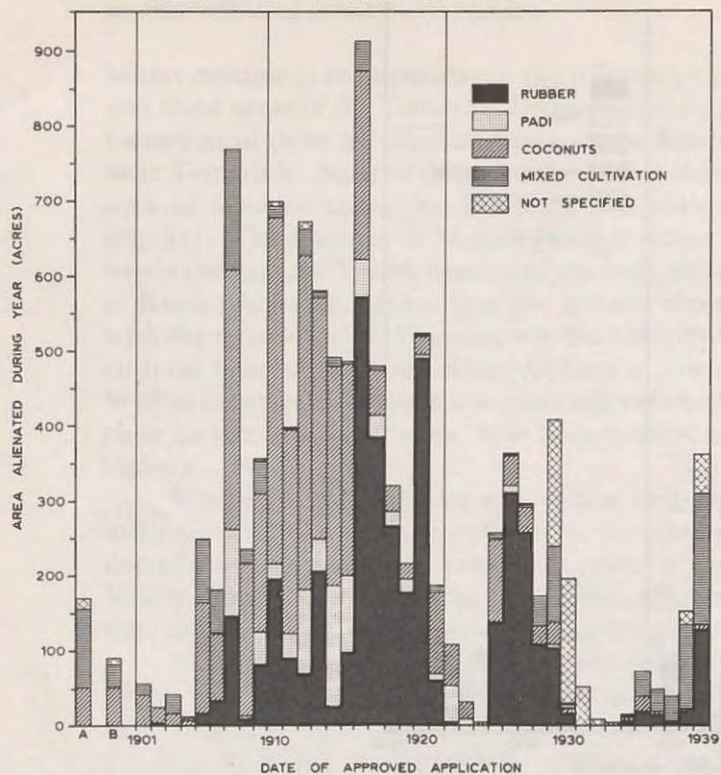
FIGURE 26 MUKIM PENJOM. ALIENATION OF SMALLHOLDINGS  
ACCORDING TO STIPULATED CULTIVATION. 1888-1939



A = LAND HELD UNDER MALAY CERTIFICATE  
B = LAND APPROVED FOR OCCUPATION 1889-1900

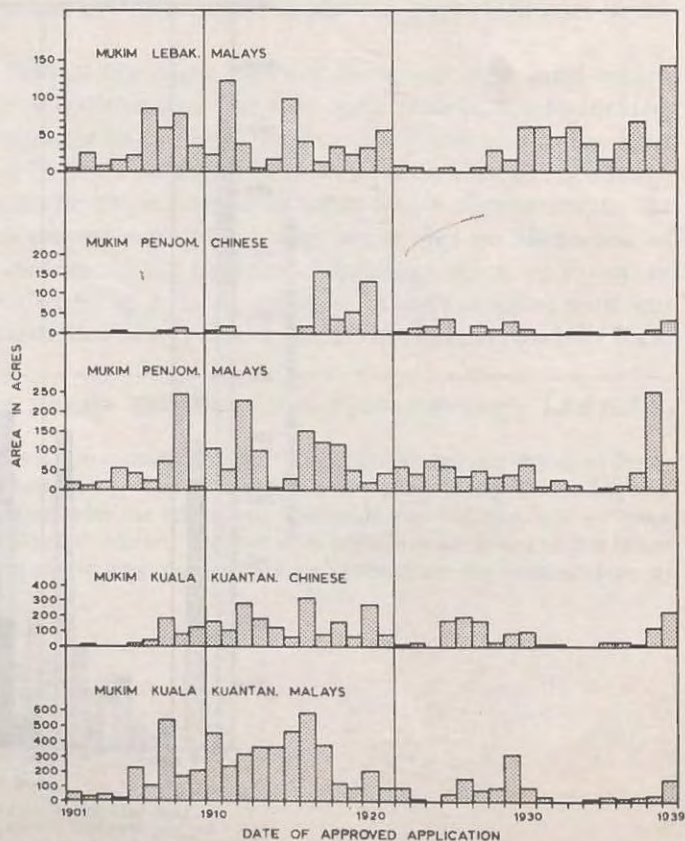


FIGURE 27  
MUKIM OF KUALA KUANTAN. ALIENATION OF SMALLHOLDINGS  
ACCORDING TO STIPULATED CULTIVATION 1888-1939



A = LAND HELD UNDER MALAY CERTIFICATE  
B = LAND APPROVED FOR OCCUPATION 1889-1900

FIGURE 28 PAHANG SELECTED MUKIMS. AREA OF SMALLHOLDINGS  
ALIENATED ACCORDING TO RACE OF OWNER. 1901-1939





Malays preferred to grow dry rice or collect jungle produce. On the lower reaches of the Pahang River, in the Pekan District, there was some increase in wet padi cultivation but this was much less marked than that already noted in the better mukims of Temerloh and Ulu Pahang where the tradition was much stronger. In Pekan many people preferred to seek other forms of livelihood when shifting cultivation was discouraged but they continued to maintain or even expand their holdings of kampong land and coconuts. It is of interest to note that the best padi land in the coast districts was in the isolated valley of the Luit which, like the valleys of Dong, Budu, and Sega in interior Pahang, was an old Malay gold mining district<sup>9</sup>. A comparison with padi cultivation in Negri Sembilan and Malacca<sup>10</sup> suggests that the higher soil fertility at Luit was the result of several centuries of careful cultivation and well constructed water control works.

### FISHING AND AGRICULTURE ON THE PAHANG COAST.

In the years immediately prior to British intervention there was very little settlement on the Pahang coast<sup>11</sup>. Its establishment after that date was related to the nature of fishing conditions on the East Coast, the southward migration of Malays from the densely settled coastal districts of Kelantan and Trengganu, and the activities of the new Pahang administration.

Coastal fishing on the East Coast of Malaya was, and indeed still is, a much more precarious and less rewarding occupation than in the west. The most serious problem was the north-east monsoon which made it impossible for small craft to venture out to sea for at least four months of the year. The strong seas associated with the monsoon and the sandy nature of the sea floor also made it uneconomic to erect the stake traps, or *kelongs*, which are so important in the Straits of Malacca. In addition Pahang, to a greater extent than even Kelantan and Trengganu, lacked any large urban or agricultural markets in the immediate vicinity of the coastal areas. Fishing in Pahang was either a part time occupation or an inadequate source of income.

The present expansion of coastal fishing in Pahang dates from the year 1891. In July of the previous year, at a time ideal for fishing, the Kuantan District Officer visited the coastal areas between Kuantan and the Trengganu border but found almost no fishing activity<sup>12</sup>. He did, however, meet some Malays who informed him that beyond the State boundary there were those who would come and settle "for a little money". The District Officer was unable to oblige in this respect but he must have generated some confidence for they came nevertheless. At the end of 1891 he reported that "the fishing industry, carried on principally by Trengganu Malays who have settled along

9. *Kuantan* 49/14.

10. Cultural methods used in these States are described in "Padi Planting Methods in Malaya", *Malayan Agricultural Journal*, Vol. 27, No. 2, 1939, pp. 40-59.

11. See Chapter 4, page 40.

12. *Kuantan* 257/90.



the coast, is increasing rapidly and I hope that by encouraging settlers at the mouths of some of the small coast rivers, all of which are scantily populated, permanent villages and plantations may gradually spring up"<sup>13</sup>.

In 1894 the Kuantan District Officer compiled a detailed report on the fishing industry in Pahang. This report is significant not only for the descriptive and statistical material which it contained, but also for the policy which it formulated at that date<sup>14</sup>.

According to the report there were well over 300 boats of various kinds operating from the Pahang Coast in 1894 (Table 3). Some 48 of these were boats exceeding 30 feet in length, and 20 of the boats based at Kuala Pahang were *jalaks* which could venture out to sea in moderately rough weather. The majority of the fishermen employed were of "the lowest class of Kelantan and Trengganu Malays" who either "return to their homes at the end of the season" or, being without employment during the north-east monsoon, "relapse into petty theft or more serious offenses relating to property". The writer further commented that the reason always given by newcomers arriving from Trengganu or Kelantan was that "their former headman has recently removed from that district". There is also evidence that a number of Chinese fish merchants from Trengganu moved to settle in Pahang at this stage<sup>15</sup> and their activities are reflected in a steady increase in exports of dried fish<sup>16</sup>. Immigrant Malay labour, Chinese entrepreneurship and the security of British rule thus appear to be the three main factors in this re-establishment of the Pahang fishing industry. Much remained to be done, however, before the economy of the coastal fishing settlements was placed on a satisfactory footing.

**Table 3. Number of Boats and Nets Employed on the Pahang Coast, 1894.**

Boats	Rompin	Kuala Pahang	Penor	Kuala Kuantan	Beserah	Gebing
Kolek (small)	40	161	2	27	54	10
Jalek (large)		20				
Pukat Dalam	6	5	2	2		2
Pukat Chang			3		3	
Nets	18	14	9	4	7	4
Stakes		2		3		

Source: "Report on Pahang Fisheries" in *Kuantan* 340/94.

The author of the report realised the advantages of permanent settlement and the need for supplementary sources of income. He thus recommended that the fishermen be given free grants of land for planting and rice cultivation.

13. Kuantan A.R. 1891 in *Kuantan* 33/92.

14. "Report on Pahang Fisheries" in *Kuantan* 340/94.

15. Interview with Madame Yeow, of Jalan Beserah, Kuantan.

16. Complete and comparable figures are not available but the value of exports of dried fish from Kuantan increased from \$241 in 1891 to \$2,158 in 1893. *Kuantan* 32/92 and *Kuantan* 115/94.



The administration adopted this policy but for various reasons the results were not satisfactory. In the first place rice cultivation was held in no higher regard by the fishing population than by the local Malays in the coastal districts. Even more serious was the fact that the months for the preparation and planting of coastal padi coincided with the best fishing months. In addition, the administration retained all the land which might be required for commercial purposes and limited their special grants to the sandy and infertile land immediately adjacent to the coast. A number of plots were taken up in 1895, chiefly between Beserah and Batu Hitam, but over 30 per cent of the trees planted were blown over or washed out the following year. Matters were not improved when the administration decided to charge quit rents on land alienated to fishermen settlers and in 1898 a number of settlers left Pahang and moved into Trengganu because they were required to pay quit rent for one of the few areas which had been taken up for coastal padi<sup>17</sup>. In spite of these and similar frustrations, the fishing population continued to increase during the next decade and more settlements were established at various points along the coast. Some planted coconut trees but none were willing to persevere regularly with wet padi. To this day the fishing settlements of Pahang have an inadequate agricultural base and the standard of living there is the lowest in Malaya.

### COMMERCIAL AGRICULTURE

In the first four years of British administration a few of the concession holders made desultory attempts to explore the agricultural potential of their lands. The Pahang Corporation, who initially held rights over the watersheds of the Kuantan, Rompin and Endau Rivers, did this more seriously than most. Their agent, A.J.G. Swinney, spent most of 1889 and 1890 exploring the Rompin River and reported favourably on its possibilities<sup>18</sup>. No minerals were found, however, and the Corporation decided to confine its activities to the Kuantan District. There they made experimental plantings of tobacco, pepper, and coffee, and imported plants of nutmeg and pepper which they distributed to Malays who were encouraged to grow them on special grants of Corporation land<sup>19</sup>. In most cases the plants grew well but both the Corporation and the Malays were too preoccupied with other activities to persist with cultivation.

At Bentong, E.A. Watson made a more sustained attempt to develop commercial cultivation. Twenty acres of Liberian coffee were planted in 1889 and 1890 but high transport costs discouraged further expansion at this stage<sup>20</sup>. By the time the Bentong road was completed a decade later the price of the product had fallen and there was no further incentive to grow coffee.

17. *Kuantan* 408/98.

18. Swinney, A.J.G.: *Report on Work Done etc. on the Rumpin River*.

19. References to these experiments are contained in the Kuantan Annual Reports for 1890, 1891, and 1892.

20. *P.A.R.* 1890, o. 1432.



The main obstacles to commercial agriculture at this stage were not the unworked concessions. Most of the concession holders were in need of money and would have made land available on favourable terms had the demand existed. Indeed, in 1890 the Pahang Corporation made overtures to Chinese pepper and gambier growers but the latter were unwilling to pioneer the coastal districts of Pahang while land was still readily available in Johore, so much closer to the Singapore market<sup>21</sup>. At the end of 1893 the British Resident expressed the opinion that the soil of Pahang possessed no advantages over that of the western States and noted that there were grave disadvantages, especially those relating to transport<sup>22</sup>. The investing public appear to have held similar views for they made no move to take up land when the unworked concessions were cancelled.

By the end of 1895 the situation had changed. Roads were under construction and Pahang was attracting other forms of development. In addition world prices for coffee had risen steeply and a great wave of coffee planting was sweeping the western states. One company decided to open an estate in in Raub District. They purchased the Liang Concession and imported Javanese and Sumatran labourers. By the end of 1896 they had cleared and planted 130 acres but the following year the price of coffee began to fall. Efforts were made to reduce transport costs by growing the rice needed for their own labourers. The District Officer visited the estate in June, 1898, and noted that the older Liberian coffee and the younger plants of *Coffee Arabica* looked very healthy but by the end of that year the whole estate was abandoned<sup>23</sup>. Whereas in the western States most coffee estates were able to carry on for several more years and then interplant with rubber, the more inaccessible Liang Estate would inevitably have been a high cost producer and was one of the first to be abandoned. Thus in Pahang there was a break in development and no continuity between earlier investment in coffee and the later introduction of rubber cultivation.

The next planting ventures took place in the vicinity of the eastern ports of entry. In 1898 a party of Malacca Chinese arrived at Kuantan in search of new land for tapioca and the following year they were permitted to open up two estates on hilly land which the District Officer described as too sandy and useless for any other purpose<sup>24</sup>. About the same time some of the

21. *P.A.R.* 1891, p. 2398.

22. *P.A.R.* 1893, p. 4.

23. "Ulu Pahang District Report, June 1898", *Pahang Government Gazette*, 1898, p. 333. In 1929 the District Forest Officer, Raub, made a trip up the Liang Valley and found a square mile of *lalang* with trees scattered here and there. He made the suggestion that the coffee estate had been forced to close because of an appalling death rate. This additional factor would explain the suddenness of the abandonment which took place in the latter months of 1898. "Preliminary Report on the land between the Sungei Liang and Ulu Sungei Lipis" in Forestry, Pahang file *D.F.O.R.* 219/29. See also *P.A.R.* 1896, p. 6.

24. Tapioca makes very heavy demands on the soil and at Malacca it had rendered large areas unsuitable for cultivation. As a result the Malacca government had in 1886 refused

(Continued on next page)



European and Chinese entrepreneurs already resident in Pahang took up land in the vicinity of Kuala Kuantan and Kuala Pahang. By the turn of the century they had established four coconut estates, each of several hundred acres. Commercial agriculture was established but on a very modest scale.

The pioneering of rubber cultivation in Pahang was a slow and hesitant business compared with the rapid expansion which took place in the western States during the early years of this century. In Pahang the first experimental plantings were made by the manager of the Pahang Corporation in 1897 and 1898<sup>25</sup> but it was not until 1905 that any planting was done on a commercial scale. The lack of good communications and higher labour costs are obvious factors in explaining this time lag, but the attitude of the general public outside Pahang was also significant. Between 1888 and the early years of this century the pendulum of official opinion had swung from hazy optimism to pseudo-objective pessimism and this in turn deterred private investors<sup>26</sup>. Nevertheless there were some who realised the opportunities that did exist and the foundations of Pahang's rubber industry were slowly laid during the first decade of this century. By tracing its establishment in some detail it is possible to examine the stimulus provided by those forms of economic development which had already taken place, and to compare the relative importance of internal capital accumulation with injections of new capital from outside Pahang.

In the Raub and Bentong districts the initiative was taken by American and European companies and by individual Europeans. In 1905 the District Officer at Raub received 13 applications for a total of 13,000 acres of land and he lost no time in making this available<sup>27</sup>. Shortly afterwards clearing and planting was commenced on the Pahang Rubber Company's estate at

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to grant further land for its cultivation. Sandhu, K.S.: "Chinese Colonization of Malacca", *J.T.G.*, Vol. 15, p. 14.

25. Derrick planted the first rubber in Pahang on lot 1144 (Mukim Kuala Kuantan) on the banks of the Kuantan River near Kuala Riau in 1897. The following year he opened another small plot at Tanjong Putus, also on the banks of the Kuantan River, and a larger area at Talam in the vicinity of one of the tapioca estates. *Kuantan* 408/98, *Kuantan* 514/98, *Kuantan* 116/00, and *Kuantan* 282/04.

26. Such an attitude is revealed in the official *Handbook of the Federated Malay States*, revised in 1904 by H. Conway Belfield, the British Resident in Selangor, and purporting to give accurate and up to date information to those interested in the F.M.S. Belfield, with first hand knowledge of Pahang and access to 14 years of official reports, surrounded his advice with an aura of uneasy vagueness and manipulated his information to give an image of a land still unknown. On page 22 he wrote thus:-

"In spite of the fact that little is at present known of the suitability or otherwise of the land in Pahang for the cultivation of products usually grown in the tropics such as coffee, tea, pepper, gambier, rice, etc., there is no reason to suppose that the soil is not suitable for these and other tropical products. The obstacles to planting enterprise on a large scale in this State are at present numerous. Labour is scarce and expensive; transport facilities are few and transport expenses are high; means of communication are defective and slow; the country is practically unknown to the outside world: these are some of the drawbacks which have hindered progress in the past."

27. Raub and Bentong at this time formed a single District (fig. 18).



Cheroh and by the end of 1906 eight separate properties were occupied. While each of these new estates was sited to take advantage of the transport and urban facilities already provided for mining, they nearly all represented the introduction of new capital into Pahang. Because they had adequate financial backing they were able to import Indian labour and open up their land with a minimum of delay.

The opening up of rubber estates in the Raub and Bentong districts was followed almost immediately by a growth of interest in smallholdings and many applications for rubber land were received from 1906 onwards. At first these were mainly from the Javanese and Sumatran Malays who had been attracted to the area by the opening up of roads and the development of mining during the previous decade. Their individual cash investments were not large but they were able to clear and plant their own holdings. Later in the decade, when mining began to decline at Tras and new mining land became scarcer at Bentong, there was a large increase in the number of applications by Chinese. Many of the holdings alienated to Chinese were of medium size, between ten and one hundred acres, and in later years some of them were combined into small estates<sup>28</sup>. The Chinese were thus re-investing capital obtained from mining in Pahang and in many cases they employed their mining labourers to open up agricultural land.

In the Kuantan District, where the first experimental plots had long been established, the lack of roads acted as a deterrent to outside capital. The successful development of commercial cultivation thus depended on local capital and local initiative. In 1905 and 1906 three moves were made to open up rubber estates but none came to immediate fruition. Tan Ah Choon, owner of the Semambu Tapioca Estate, applied to replant it with rubber, revealing that the "sandy and useless land" he had been granted was in reality a hill of rich volcanic soil. His request was approved but a rise in the price of tapioca intervened and he postponed the planting of rubber for several more years. A European syndicate, formed by the contractor building the road to Gambang, applied for 2,000 acres adjacent to the tapioca estate but since road construction did not progress as anticipated they lacked the financial resources to open up their estate. The Pahang Corporation obtained an additional 400 acres at Talam but development of that was delayed while the company was reorganised. In the meantime the first rubber smallholdings in the Kuantan District were planted by Sumatran Malays in the vicinity of the tapioca estates and near Gambang<sup>29</sup>.

During 1907 and 1908 there was little rubber planted at Kuantan except by the Pahang Consolidated Company (as the Corporation was now known)

28. Typical of men making applications of this kind was Chan Lam who "owns a good deal of mining land, is an energetic and prosperous miner and in a good position to develop this small area (of 50 acres)" *Revenue Survey, Pahang*, 1326/09. The importance of men like Chan Lam is clear from the survey records and the *Register of Grants* but they receive no mention in the official reports.

29. *Kuantan* 10/10.



and Malay smallholders. However, world prices rose steadily and more and more applications for rubber land were received by the District Office. In 1909 the Pahang Consolidated Company completed planting their 500 acres at Talam and were engaged in protracted negotiations for more land<sup>30</sup>. About the same time two Singapore Chinese began to open up a thousand acre block at Jeram and other outside investors began to bargain for land already developed. The two tapioca estates, together with a number of Malay smallholdings already planted with rubber, were purchased by two outside groups—one a company registered in Hong Kong and the other a Shanghai syndicate—and organised into rubber estates<sup>31</sup>. It was clear to all that the Kuantan District stood on the threshold of a new period of development.

The high prices paid for land already planted with rubber acted as a stimulus for a further expansion of smallholder cultivation, especially by Malays. Although Chinese traders and contractors shared in the opening up of land in the vicinity of Kuantan town there was no similar development at Gambang. Most Chinese there were still fully occupied with mining and even when applications were made for rubber land the government refused to alienate it on the grounds that it might later be required for mining<sup>32</sup>.

Away from the tin mining districts of Raub, Bentong, and Kuantan there was no development of rubber cultivation during this period ending in 1909. There are no references to planting, either by Malays or non-Malays, in either the Lipis or the Pekan Districts and the only rubber planted in the Temerloh District was at Lubok Trua, close to the Bentong tin mining area<sup>33</sup>. Isolation and lack of access were not the only factors responsible; the absence of any planting in those areas of the Lipis District served by the Pahang Trunk Road suggests that a lack of capital was also significant. Had gold mining at Penjom and Selinsing persisted for a few more years, or had more outside capital been attracted to Pahang, commercial agriculture could well have developed in the vicinity of Kuala Lipis town at this stage.

### CONCLUSION. THE NEW THRESHOLD.

Changes in agriculture during this initial period of British administration were not spectacular but by the end of 1909 the foundations were laid for a greater expansion in the period which followed.

30. Much of this correspondence is contained in *Kuantan* 982/09. The Kuantan District Officer supported their application on the grounds that they had fully planted their existing land at Talam in a "cheap and systematic way" and had assembled their processing equipment ready to begin tapping the first 25 acres of mature rubber as soon as their labourers arrived from Java. The British Resident for Pahang opposed the application on the grounds that they had done little to develop their mining concession and should not be given any additional land until they did so.

31. *Kuantan* 901/09, *Kuantan* 110/10 and *Kuantan* 229/10. These are part of the present day Semambu, Ruby, and Atbara Estates.

32. *Kuantan* 373/07 and *Kuantan* 380/07.

33. *P.A.R.* 1906 mentions that local Malays in the Temerloh district were planting rubber with seeds and stumps obtained from Selangor. *P.A.R.* 1906, p. 5, and *Temerloh* 8/05 and *Temerloh* 380/12.



In the better established areas of Malay agriculture this was a period of consolidation but in spite of the efforts of individual European officials there was no large increase in wet padi cultivation. The amount of rice imported during this period was far in excess of that required by the non-agricultural population. The first two decades of British administration did little more than restore Malay agriculture to a level of productivity that had already been achieved during the rule of Bendahara Ali in the years before 1857. Any success in this field, limited as it was, must be attributed to the greater level of personal security that the administration provided, rather than its efforts to improve agriculture.

In its desire to encourage wet padi cultivation, and to persuade coastal fishermen to settle permanently, the administration was well intentioned. It is unfortunate that more constructive methods were not taken to implement these intentions. Throughout this period the Pahang government was short of funds and it regarded mining as the only activity which could provide sufficient short term returns to cover the cost of administration and repay the debts incurred in the Semantan military operations. Thus while its mining policies were carried through with a certain amount of boldness it was unwilling to spend money on small scale Malay agriculture. In actual fact the efforts made to raise a moderate amount of land revenue with a minimum of expenditure hindered its plans for agricultural development. The officials concerned failed to realise the cost-benefits which could have accrued from a modest investment in small irrigation schemes, and in their reluctance to release better land to the fishing communities they missed an opportunity to establish a more soundly based industry.

The development of commercial agriculture took place within the enclaves of economic development created by mining activities. After a decade marked only by some small scale experiments, several tapioca and coconut estates were established near the East Coast points of entry at the turn of the century. At a time when rubber cultivation was becoming increasingly important in the western States its introduction into Pahang came slowly. In the Raub and Bentong districts, closely linked to Selangor by the Pahang Trunk Road, the first rubber estates were opened up by outside companies from 1905 onwards. At Kuantan the initiative was taken by enterprises already established there, but development was slow until local investment was supplemented by outside capital in 1909. In both areas immigrant Malays quickly responded to the new opportunities and planted smallholdings with rubber. Soon they were followed by local Malays and other immigrant entrepreneurs. Later, as the alluvial tin deposits of Tras and Bentong showed evidence of exhaustion, there was a transfer of Chinese capital and labour from mining to this new form of agriculture.

Any propensity for a dual economy to exist in the mining districts was quickly broken down by the introduction of rubber cultivation and the willingness with which it was accepted by Malays, whether as a cash crop or as a speculation. Away from the mining areas the new economy had relatively



little effect on Malay agriculture. Any dichotomy which existed at this stage was a geographic one rather than a distinction between a commercial economy and a Malay economy. For this reason the reconstruction of Pahang in 1909 which follows in the next chapter is based on a regional division.

In 1909 the foundations for the future expansion of rubber cultivation were well established. The first experimental plots had reached maturity, a number of estates had been cleared and planted, and there was a rapidly increasing demand for rubber land in all of the accessible areas. During that year the government made decisions to proceed with the long-discussed East Coast Railway and to extend the Pahang Trunk Road through the centre of the State to Kuantan. While the limitations of Pahang's mineral wealth were widely recognised, her future as an agricultural State now seemed assured. Pahang in 1909 had arrived at the threshold of the rubber era.



## CHAPTER 7

### PAHANG IN 1909. THE EVE OF RUBBER EXPANSION.

In the first two decades of British administration there was a modest flow of population and capital into Pahang. During this period the British officials had been primarily concerned with orderly administration, and their plans for development were incidental to the raising of revenue to meet the expenses of government. In the previous two chapters dealing with the period 1889 to 1909 it has been shown that the most significant changes which took place were associated with mining while the traditional Malay agricultural economy was little changed. By the first decade of the present century mining was well established in Pahang, it provided over 90 per cent of Pahang's exports, and the greater proportion of State revenue came directly or indirectly from the mining population. Towards the end of the decade, however, the situation was changing. It was widely realised that mining in Pahang offered limited possibilities for further expansion and could never assume the importance that it had in the western States. Attention was now turning to commercial agriculture and rubber cultivation was already established within the enclaves of mining development. The present chapter is a regional description of Pahang as it was on the eve of rubber expansion.

### THE BASIS OF RECONSTRUCTION.

The year 1909 was not a census year but it is the most suitable year for a geographic reconstruction. Firstly it marks the watershed between two different periods of economic development but is in itself a year of relative stability; employment and output from mining were fairly constant throughout 1908 and 1909 and the demand for rubber land was more modest in 1909 than in 1910. Secondly, 1909 was the eve of important developments in the field of communications; prior to 1909 there were no road or railway communications in the centre of Pahang but in that year the railway from Gemas was opened as far as Triang in Pahang and construction was started on the new east-west road that was to link the Kuantan District to the Pahang Trunk Road. Thirdly there is the fact that two important map sources are available for 1909 but not for earlier years.

The first of these maps, entitled *Preliminary Map of Pahang, Federated Malay States*, shows rivers, towns, lines of communication, and the names of Malay kampongs<sup>1</sup>. This last information was not recorded elsewhere and is used in figure 29 to show the distribution of Malay kampongs in 1909. While this map has certain limitations<sup>2</sup>, it is considerably more accurate and more

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1. F.M.S. Surveys: *Preliminary Map of Pahang, Federated Malay States*, 1909, 4 miles to 1 inch.

2. The kampong names are not accompanied by any location symbol, and there is no indication as to the threshold size of the settlements named.



complete than that reconstructed for 1888 (fig. 15). In the absence of census data for small administrative units, this map is the most valuable source of information about the distribution of Malay population at this time.

The second map provides useful information about the pattern of economic activities at this date. It is called *Pahang 1909* and was compiled from Revenue Survey information<sup>3</sup>. It shows all the areas of mining and agricultural land which had been formally alienated up to the end of 1909. The information contained on this map is redrawn in figure I. The value of the map is limited by the time lag which took place between the occupation of land and its final alienation<sup>4</sup> but this defect can be minimised by using it in conjunction with the maps of land alienation which have been reconstructed for selected mukims.

The 1911 census is a valuable adjunct in spite of the fact that the information collected was tabulated only by states or districts and not by mukims<sup>5</sup>. The population for each District of Pahang is shown according to racial groups in figure 30. By noting the population changes which took place in the intervening years, this information can be adapted for use in the 1909 reconstruction<sup>6</sup>. The remaining sources of information are mainly the annual reports, the office files, and the land records discussed in the introduction. The files of the *Malay Mail*, published in Kuala Lumpur, were searched systematically for the year 1909 but yielded little information about this State. Pahang in 1909 was much better known than Pahang in 1888 but the general public was little interested, with the result that source material for 1909 is largely confined to administrative records.

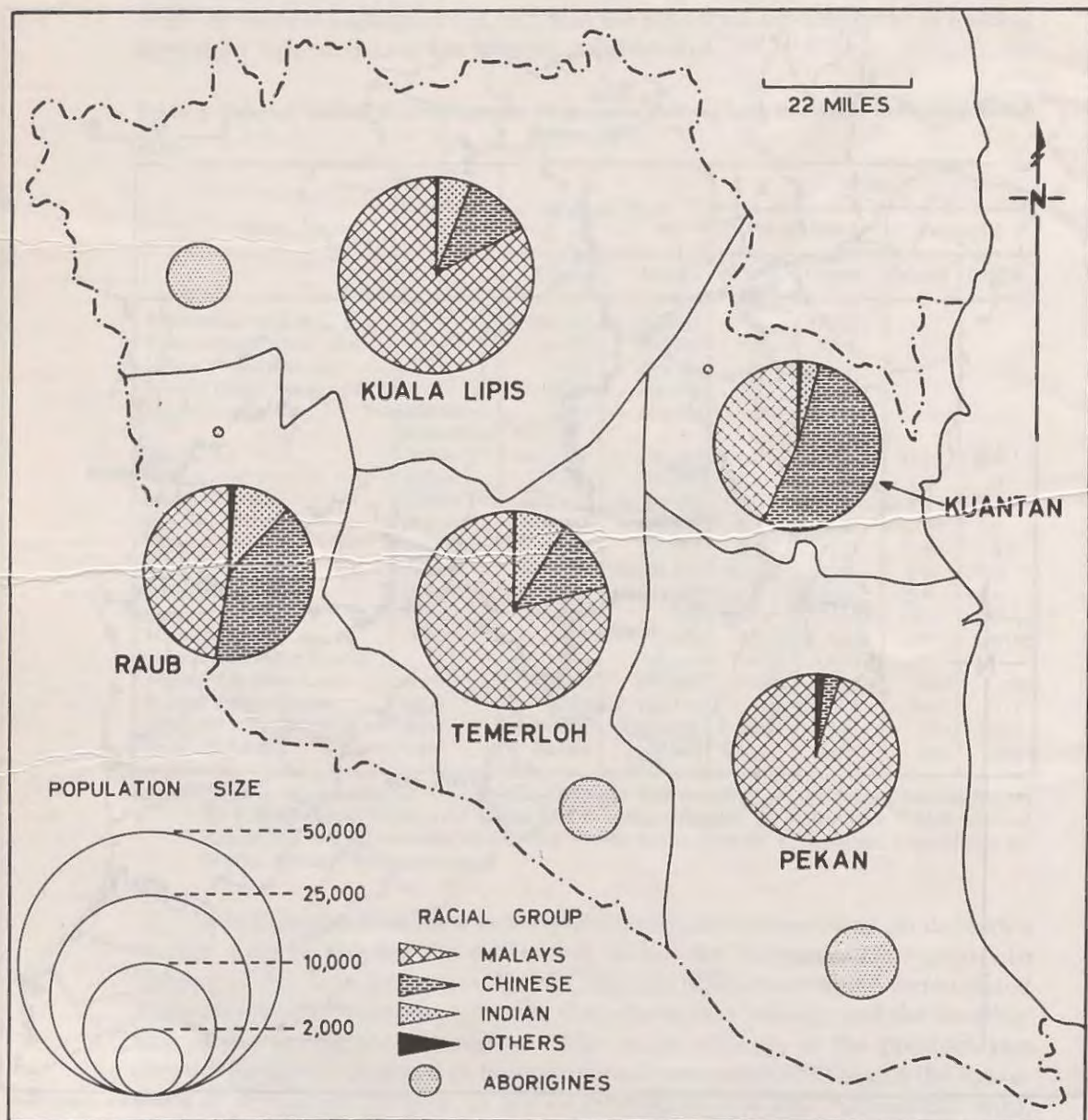
### PAHANG'S RETARDED DEVELOPMENT. SOME INDICES OF COMPARISON

Using the 1909 Annual Reports of the Federated Malay States, and the 1911 census, it is possible to prepare a number of indices which compare the economic importance of Pahang with that of the West Coast States of Perak,

3. F.M.S. Surveys: *Pahang* 1909, 1910, 8 miles to 1 inch.
4. See page 8. In 1909 the arrears for survey of mining land and agricultural grants amounted to 18 and 62 months respectively while those for agricultural smallholdings were calculated to be 359 months. *F.M.S.A.R.* 1909, p. 18.
5. Pountney, A.M.: *The Census of the Federated Malay States in 1911*.
6. The most important changes between 1909 and 1911 took place in the Raub and Temerloh Districts. In Raub there was a decrease in the number of Chinese employed in mining and a proportion of these left the District. Over the same time there was an increase in the number of Indians employed on rubber estates. In both cases the numbers are estimated to fall short of one thousand and the two movements may have balanced out. In Temerloh there was a considerable influx of Indians and Chinese who arrived with the commencement of rail construction work. A comparison with the Pekan District suggests that the numbers of Indians and Chinese in the Temerloh District in 1909 was probably not greater than one hundred and five hundred respectively. In the Kuantan District the most important change was the arrival of 179 indentured Javanese to work on the Pahang Consolidated Company rubber estates in 1910.



FIGURE 30 PAHANG 1911. POPULATION BY RACIAL GROUPS





## THE REGIONAL DIVISION.

In 1909 Pahang was divided into five administrative Districts which, with some slight modification, are a useful basis for a threefold regional division (fig 1.) The largest of the three consists of the Lipis, Temerloh, and Pekan Districts and is termed the Central Region. These three Districts were tied together by the Pahang waterway and they contained the bulk of the indigenous Malay population. The second region is the Western Mining Periphery and comprises most, but not all, of the Raub District. Originally it had been part of the Ulu Pahang District but, with the growth of mining in the vicinity of Raub, Tras, and Bentong, it was separated from the Lipis area and given its own administrative centre at Raub. Since the Raub mukims of Segu, Dong, and Ulu Dong were little influenced by the adjacent mining development, and since their population was almost exclusively Malay, they are included in the Central Region. The remaining region is the Kuantan District which formed the North-eastern Mining Periphery. It was linked to the rest of Pahang only by sea communications and it thus formed a self-contained economic unit. Included with it is a small portion of the Pekan District adjacent to the Gambang mining area<sup>7</sup>.

## THE CENTRAL REGION.

The Central Region of Pahang had been little changed by the first 21 years of British administration but the pattern of settlement and the pattern of agricultural activity which could be seen only in vague outline in 1888 were more plainly visible in 1909. The majority of the people were still to be found in the kampongs which lined the Pahang River and its major tributaries (fig. 29).

The population of this region was predominantly Malay (fig. 30) and there is evidence to suggest that this Malay population was more settled than at any time in the past. Although some Malays in the region had shown a marked reluctance to take up land for padi cultivation they had not been hesitant about obtaining proper titles for other land as is evidenced by the *Mukim Registers* and even the *Pahang* 1909 map (figs. 25, 28 and I). Furthermore the information regarding place of birth given in both the 1901 and 1911 census returns reveals that recent migration into this region had been very small<sup>8</sup>. If the areas adjacent to the sea shore are excepted, it is probable that the proportion of locally born Malays was higher in 1909 than it had been in the centuries prior to the arrival of the British. Now that roads were opened

7. In 1910 this small area was actually transferred from the Pekan District to the Kuantan District.
  8. The 1901 census records the number of foreign Malays (i.e. Malays born outside of Pahang) per thousand of Malay population in each District:-
- |       |     |         |     |          |    |
|-------|-----|---------|-----|----------|----|
| Lipis | 45  | Pekan   | 105 | Temerloh | 13 |
| Raub  | 245 | Kuantan | 437 |          |    |

The 1911 census does not give comparable figures on a district basis but other evidence contained therein suggests that the pattern persisted.



up in other States, and also in other regions of Pahang, the stream of immigrants that in earlier days had arrived by the Pahang River and settled along its banks was no longer attracted to this region.

The Malay kampong economy had changed little since 1888. The forest, the river, and a small area of land adjacent to his dwelling, provided the Malay with most of his needs. Under pressure from the administration he now refrained from growing hill padi in freshly felled clearings but he was still reluctant to increase the area of wet padi. Money was needed to pay quit rents and buy rice and household goods from the local trader but this could be earned by collecting jungle produce or panning for gold. Sometimes, when larger sums of money were required, he might seek employment in one of the administrative towns or mining areas but once his immediate needs were satisfied, he would return to his kampong. Some Malays, usually those in kampongs closer to the administrative centres, grew coconuts for sale, thus making a tree with which they were already familiar the first cash crop to be integrated into the kampong economy.

At the same time there were important variations in the agricultural self-sufficiency of the Malay communities. The area with the most purely subsistence economy was that bordering the banks of the Pahang River from Kampong Chenor in the Temerloh District to Mukim Pedah in the Lipis District. Away from here subsistence agriculture was more commonly supplemented by some form of cash income. In the down-river areas there was less padi cultivated and the yields were considerably lower. In 1911 the District Officer at Pekan estimated that the amount of padi produced in a normal year was only the equivalent of sixty days consumption. "Fishing, rattan collecting, coconuts, etc." he added, "pay for the rest which is imported"<sup>9</sup>. In the upriver areas of Ulu Pahang the agricultural base was stronger but the people here had more ample opportunity to earn an additional income by mining for alluvial gold or seeking casual wage employment. Since their output of padi had been maintained it would appear that the standard of living in the mukims adjacent to the Pahang Trunk Road had improved in comparison with those elsewhere in the region.

In 1909 there was some urban development in this Central Region. Pekan, Temerloh, and Kuala Lipis all had carefully laid out commercial and administrative areas which contrasted not only with the villages existing there in 1888 but also with the rural kampong settlements found elsewhere in the region. Penjom, the former trading village, had lost its importance with the establishment of Kuala Lipis, the construction of the Trunk Road and the closing of the gold mines. In 1909 it was indistinguishable from other small kampongs in the District. Each of the administrative towns contained several large wooden buildings which served as offices and quarters for the government staff, and rows of identical shop houses, each built of brick and in most cases occupied by Chinese. Kuala Lipis, the State Capital, was the largest of these and had a

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9. *P.A.R.* 1911, p. 6.



population of approximately one thousand, of whom seven hundred were Chinese and Indians. Unlike the other two district centres, Kuala Lipis was linked to the outside world by the sole road which penetrated this region of the State. All three were joined by the Jelai-Pahang river system which remained the main line of communication within this region even though it had long since ceased to serve the mining areas.

This Central Region of Pahang had seen surprisingly little change in the first 21 years of British administration. By and large, these areas of long established Malay agriculture had remained outside the growth sector of the economy. In spite of the creation of the new administrative towns, and the effects of the new land regulations, the overall pattern of settlement and agriculture in 1909 had more in common with Pahang in 1888 than it did with the Peripheral Mining Regions in 1909. At the end of 1909, however, it was clear that far-reaching events were about to take place. Both of the newly planned lines of communication would cut through the centre of the region; the railway from south to north and the road extension from west to east. The interior of Pahang would shortly be opened up to the outside world and more closely linked to the enclaves of development already established within the State.

### THE WESTERN MINING PERIPHERY.

This region consisted of the eastern slopes of the Main Divide and the adjacent valleys and foothills between Ulu Lipis in the north and Ulu Triang in the south. Apart from the agricultural mukims of Segu, Dong, and Ulu Dong, already included in the Central Region, it was identical with the Raub District as defined in 1909<sup>10</sup>. It was distinguished from the Central Region by its mining, its towns and communications, its population, and its newly established rubber industry. Table 5 shows certain indices which compare the Raub District with the other Districts of Pahang and with the western states of the Federated Malay States.

Table 5. Comparison between Districts of Pahang and the Western States of the F.M.S. 1909

District	Miles of road per sq. mile	Miles of road per capita	Tin output per capita in piculs	Urban population as % of total popn.
Raub	.108	.0073	.85	18.07
Kuantan	.001	.00008	1.36	10.9
Lipis, T'loh. Pekan	.0015	.0002	nil	2.5
Other States in F.M.S.	.123	.0018	.84	23.5

Source of data: Annual Reports, 1909, and Census, 1911.

10. This District was subdivided in 1921 to form the present Raub and Bentong Districts.



The Western Mining Periphery was important for two very different types of mining; the first was the production of gold from the Raub Australian Gold Mines and the second was the production of tin from a large number of smaller alluvial mines.

The Raub Australian Gold Mining Company in 1909 worked four underground mines in the valley north of Raub town. With a labour force of 870, and two sets of crushing and milling equipment driven by electricity, they were able to treat 70 thousand tons of ore and produce some 15 thousand troy ounces of gold during the year<sup>11</sup>. Although the mine was highly mechanised, with such devices as electric hoists and a self dumping skip, the company maintained a policy of letting out as much work as possible on a contract basis. Almost all of the underground work was done by Chinese contract gangs<sup>12</sup>. Each contractor was responsible for recruiting and housing his own labour force and the company thus reduced to a minimum the difficulties inherent in employing and training Chinese labourers who spoke a variety of dialects. The mining at Raub was thus a curious blend of the old and the new. Arnold Wright described it thus:-

"The only gold mine now working in the state...is worked almost entirely by electricity generated at a station on the banks of the Sempam River, the power being transmitted through the jungle a distance of seven and three quarter miles to Bukit Koman, the headquarters of the mine, two miles from the town. Not only are the pumps and hoists power driven, but the shafts and the houses are lit by electricity. It is a curious thing to see native atap huts illuminated by this means, in a place where elephants are employed to carry the ore to the town—to note the contrast between the jungle and civilised life"<sup>13</sup>.

In spite of the individual importance of the Raub Gold Mining Company, alluvial tin mining was a more important economic activity in this region. During 1909 it employed an estimated labour force of 6,521 and produced almost 17 thousand piculs of tin. This represented just under 40 per cent of the total tin produced in the State and, by value, it formed 30 per cent of Pahang's total exports<sup>14</sup>. In this region the up-valley movement of tin mining was nearing its culmination. The Assistant Warden of Mines for Ulu Pahang wrote in the following terms:-

"Mining in Ulu Pahang is now almost entirely confined to lampan workings in the hills, none of these on any scale but they are widely distributed. There is scarcely a hill on the Main Range from Ulu Lipis in

11. The exact production figures for this year vary from source to source. Richardson, J.A. in *The Geology and Mineral Resources of the Neighbourhood of Raub* quotes 15,763 in one table and 14,510 in another (pages 89 and 95).

12. Warnford-Lock, C.G.: *Mining in Malaya for Gold and Tin*, p. 37.

13. Wright, A.: *Twentieth Century Impressions of British Malaya*, p. 889.

14. P.A.R. 1909 provides statistics for tin production, mining employment, and value of exports.



the north to the hills at the Ulu of the Sungei Telemong in the south that is not being—or has not at one time been—worked for tin. The deposits of tin are as a rule of no great extent but of considerable richness—many lampans returning a picul a month for every coolie working; against this transport is very expensive, as much as four dollars per picul being charged for bringing stores up the hills from Bentong and bringing ore down on the return journey; and owing to the elevation of the workings, many of them being over 3,000 feet in altitude, the water question is always a difficulty”<sup>15</sup>.

In view of the small size of the deposits, and the high transport costs which made it impossible to work any but the richest sections, it was not surprising that most of the mining was done by small groups of Chinese working on a share basis. Since they operated with a minimum of capital investment they were extremely mobile and could successfully work deposits that would have been impossible to work under any other system. One of the less fortunate results of this mining was the fact that vast quantities of tailings were discharged into the rivers of Ulu Pahang and Ulu Semantan and the solids in suspension found their way into down-river padi fields. The seriousness of this was not realised for another decade but by 1909 much of the damage was already done and its effects were to be felt increasingly in the years that followed<sup>16</sup>.

While access to the Main Range might be difficult, the lowland areas of this region were better served by roads and urban centres than either of the other regions in Pahang (fig. I). Indeed in this respect the Raub District resembled the western States of the Federated Malay States more closely than it resembled the other Districts of Pahang (Table 5). Raub, Tras, and Bentong were all well established towns linked to each other, and to the western States, by metalled roads and motor transport services. With the decline in alluvial mining, Tras and Tranum towns had ceased to expand but Bentong, founded only twelve years before, had a population of two thousand and ranked with Kuantan as one of the two largest towns in Pahang<sup>17</sup>. Raub, the administrative centre for the District, was only half as large but even so it was equal in size to the State Capital, Kuala Lipis.

Within this region the indigenous population was well outnumbered by recent immigrants. In the Raub District in 1911 the Malays were outnumbered by the immigrant communities (fig. 30). Had the enumeration been made in 1909 and the predominantly Malay mukims of Segu, Dong, and Ulu Dong excluded, the Chinese alone would have made up more than half the total population of the region. Similarly a large proportion of the Malay population

15. *P.A.R.* 1909, p. 6.

16. There was one exception where the damage was realised and remedial action taken. This was in the Sempam valley where tailings discharged by the Bukit Fraser Mining Company threatened the Raub Australian Gold Mining Company's power station. Mining, and consequently revenue, was threatened and the administration took action.

17. In 1911 the population of Bentong was 2,050 and Kuantan 2,102. Pountney *op.cit.*, Table 5. In 1909 Bentong may have been slightly larger (see note 6 of this chapter).



consisted of recent arrivals<sup>18</sup>. Among the Malays in the mukims of Bentong, Tras, and Gali the number of immigrants was certainly greater than the number of indigenes.

In 1909 the Western Mining Periphery, well served with roads and comparatively close to the railheads at Kuala Kubu and Kuala Lumpur, was already established as one of the two bases from which the future expansion of rubber cultivation could take place. Work had been commenced on ten rubber estates. The largest of these, at Cheroh and Karak, were owned by large American and European companies who employed indentured Indian labour. Smaller estates—at Gali, Liang, Raub, and Sungei Bilut—were owned by individual Europeans or smaller companies, and engaged a local labour force. In the vicinity of Tras, Trantum, and Bentong, other small estates were owned by Chinese mining capitalists who had transferred their own labour force from mining to agriculture. In order to facilitate the transport of the rubber when the trees reached maturity, all of the estates were located adjacent to one or other of the new roads which had been constructed in the previous fifteen years. At end of 1909 the estates had cleared large areas of forest and the first two thousand acres of young rubber had been planted.

Except at Kampong Benus, near Bentong, and in the north near the Lipis valley, Malay agriculture had never been important in this region. In 1909, however, there were large areas of smallholding cultivation owned by Malays, Chinese, and Indians who had taken up land in the vicinity of the mining towns and the new roads. Many of the older established smallholdings provided fruit and vegetables for the urban market and a number of the recently developed ones were planted with para rubber or getah rambong (*Ficus elastica*), an ungainly tree which yielded a similar product. It was clear that commercial agriculture, on smallholdings as well as estates, was well established in the Western Mining Periphery and could be expected to play an increasingly important role in its future.

### THE NORTH-EASTERN MINING PERIPHERY

In 1909 the coastal District of Kuantan had no land links with the rest of Pahang. Whereas the Raub District was closely tied to the economy of the western States, Kuantan's regular trade links were with the British Colony of Singapore at the southern tip of the Peninsula. Political control was, however, effected through Kuala Lumpur and Kuala Lipis and the views of the Kuantan District Officers carried little weight in the formulation of policy and the apportionment of expenditure<sup>19</sup>. Kuantan stood in political and economic isolation from the rest of the State and it is not surprising that expenditure had

18. See note 8 of this chapter.

19. Recommendations by the Kuantan District Officers were often curtly over-ruled by the British Resident, Pahang. Many of the Kuantan office files and even the Kuantan Annual Report for 1909 contain pathetic pleas for more expenditure, particularly on roads. The junior status of the civil servants appointed to Kuantan, and the unimportance of this District in the eyes of the Malay rulers, made it easy for the B.R. to decline such requests at times when he was endeavouring to keep State expenditure to a minimum.



been limited to the provision of administrative buildings and the dredging of the Kuantan harbour.

The indices in Table 5 highlight the differences between the two mining regions of Pahang. In spite of a lack of internal roads, and the high cost of river transport to Gambang<sup>20</sup>, the minerals produced in the Kuantan District were of greater value than those produced by Raub; alluvial tin production from the Gambang field was only slightly less than that from the Raub District and the value of the tin produced by the Pahang Consolidated Company was greater than that of the gold produced by the Raub Australian Gold Mines.

Alluvial tin mining at Gambang was concentrated into a much smaller area than that on the eastern slopes of the Main Range (fig. 1). This field employed fewer miners in 1909 but the actual output of tin was almost as great<sup>21</sup>. *Lombong* mining on the flats was still more important than *lampanning* in the hills and the three *lombong* mines owned by Loke Yew together employed over 1,700 workers. Three European companies owned properties but only one was directly engaged in mining<sup>22</sup>. Loke Yew's employees refined 6,000 piculs of block tin in smelters at Belat village while the European companies and other Chinese miners exported a total of 12,630 piculs of tin ore between them. The December census of mining showed that the labour force employed on this field was almost exclusively Chinese and that very little mechanical power was used<sup>23</sup>. Mining at Gambang was still in the labour intensive stage.

Although Gambang was well established as a mining area, other facilities were poorly developed. With the road still uncompleted, supplies for the mines were still being taken up the small Belat River from Kuantan or, in the case of some mines further west, up the Lepar River from Pekan. Loke Yew ran a steam launch service on the Belat and a number of Sumatran Malays and their employees worked smaller boats which they poled up and down the two rivers<sup>24</sup>. Five years previously the government had proposed to lay out a new town at Gambang but in 1909 no action had been taken and the District Officer at Kuantan lamented that "the Chinese naturally assume that the idea is abandoned and they continue to build at Blat, a site that is objectionable in many ways"<sup>25</sup>.

20. The 20 mile road from Kuantan to Gambang had been started in 1905 but was still uncompleted in 1909.

21. At Gambang 4,294 miners produced 15,902 piculs of tin according to *Mines, (Coast District) A.R.* 1909. In the Raub region, 6,251 miners produced 16,988 piculs. *P.A.R.* 1909.

22. Bruang Limited were attempting to introduce hydraulic mining with monitors. Most of their land, together with that owned by the Belat Tin Mining Company and the Kuantan Tin Mining Company, was worked by tributors or contract gangs. The monthly reports of these three companies were published in the *Malay Mail* during 1909.

23. The results of this census are contained in *Mines, (Coast Districts) A.R.* 1909.

24. *Kuantan* 633/10.

25. *Kuantan A.R.* 1909. The old village of Blat or Belat was located on the Belat River at the point where the track from Godown Rasa crossed it. *Kuantan* 216/05.



While the tin mining operations at Gambang were on a modest scale compared with those of Selangor and Perak, the lode mines at Sungei Lembing were without equal in the Malay Peninsula. All of the mines on the Ulu Kuantan Concession were combined under a single company which employed over 1,600 Asian workers and a European staff of twenty. In contrast to the labour intensive methods used in alluvial mining, these were fully equipped underground mines with mechanical hoisting equipment, stamps and mill all driven by diesel engines and steam boilers. In 1909 the reorganisation of the company was well advanced and work was concentrated on Bell's and Wil-link's Lodes. During the year they milled over 67 thousand tons of stone and exported 14,964 piculs of tin with an approximate value of \$700,000<sup>26</sup>.

The Company's light railway was complete as far as Kuala Reman on the Kuantan River and from there the journey to Kuala Kuantan was completed in a sternwheel steamboat. Further improvements were still needed but access to Sungei Lembing was at this stage better than access to Gambang. The population living in the vicinity of the mines at Sungei Lembing was at least 2,500 and represented one of the largest concentrations in the State. Most were Chinese but there were, in addition, many Javanese and Malays and some Indians. The village of Sungei Lembing itself was described as "a straggling collection of atap huts" but it may well have housed as many people as any town in the State.

Although Kuala Kuantan was well removed from both mining areas it was the only point of entry to the region and the sole commercial centre of any importance. The majority of its two thousand inhabitants lived in two streets of brick shop houses which paralleled the river frontage. Chinese made up 65 per cent of the population but there were more Malays in Kuantan than in any other urban centre in Pahang. Roads leading out of Kuantan were few and poorly formed but commercial agriculture was already established in its hinterland (fig.1).

Two European coconut estates, located on opposite sides of the river near the town, showed little evidence of prosperity or even activity; the soil had proved to be infertile and the crops were unsatisfactory. Further away from the town, on the better soil and slightly higher land around the foot of Bukit Galing and Bukit Beserah, were several rubber estates. At Talam the Pahang Consolidated Company's five hundred acre estate was fully planted and the processing plant was ready for tapping to begin on twenty-five acres of rubber which had reached maturity<sup>27</sup>. Adjacent to this estate a number of Malay rubber holdings had been purchased and combined into the Ruby Estate and some of the trees here were also nearing maturity. Nearby, at Sungei Talang, and further north at Semambu, the two former tapioca estates were being

26. *P.A.R.* 1909, p. 7. Fitch, who draws on information obtained from Company sources, provides a different set of statistics. The reason for this particular discrepancy is the fact that the Company's financial year ended in June.

27. *Kuantan* 982/09.



planted with rubber while the Chinese estate at Jeram was being cleared in preparation for interplanting with rubber and tapioca.

In the vicinity of these estates and round the margins of the town were many occupied smallholdings. These were owned by settlers of all races and contained a variety of vegetables and trees, both subsistence and commercial. Many older ones were planted with coconuts while numbers of the more recently occupied were planted with rubber after the pattern already observed in the Western Mining Periphery.

Elsewhere in the region there was very little agriculture. At several points on the Kuantan River and along the coast, more especially to the north of Kuantan, there were Malay kampongs with land alienated either for kampong cultivation or for coconuts. In each case, however, the area taken up for agriculture was inadequate for the needs of the settlers. At Beserah, Tanjong Lumpur, and other coastal settlements, the people relied mainly on fishing, while those from the riverine kampongs depended on boatwork and other forms of casual employment to supplement their subsistence income. The amount of land alienated for padi was negligible (fig. 27). The return for land under cultivation on Jan. 1st, 1910, includes 300 acres of dry padi and 600 acres of wet padi<sup>28</sup> but almost all of this was grown in *ladangs*<sup>29</sup>.

Since the Kuantan District had attracted immigrants at a faster rate than any other area of Pahang in the period before 1909, it is almost certain that well over half the population of the region was Chinese and that most of the Malays came from areas outside of Pahang<sup>30</sup>. The main concentrations of Chinese population were in the mining areas of Gambang and Ulu Kuantan and in the town of Kuala Kuantan. In addition they were to be found as labourers on the estates, storekeepers and traders in the Malay coastal villages, and smallholders in the vicinity of the estates and the town. The main nucleations of Malay population were to be found on the fringes of Kuantan town, at various points along the Kuantan River as far inland as Sungei Lembing, and at the mouths of the various small rivers along the coast. A considerable proportion of those who fished off the Pahang coast during the period from March to October each year still returned to their homes in Kelantan and Trengganu during the north-east monsoon season but the number of permanent settlers in the coastal area was considerably greater than it was two decades before. The population of the North-eastern Mining Periphery had been transformed to a much greater extent than that of any other area of Pahang.

28. *Kuantan* 10/10.

29. The cultivation returned as wet padi was mainly those forms of cultivation known as *paya chedong* and *paya labor*. Swamps were cleared and burnt during the dry season and two or three consecutive crops were taken off before the land was allowed to revert to *belukar*. Since 1909 was an unusually dry year the area cleared was larger than usual. For a description of padi planting methods in Kuantan see *Kuantan* 650/99.

30. The percentage population increases for the Kuantan District during the intercensal periods 1891-1901 and 1901-1911 were as follows: Malay population 62.5 and 61.5 per cent; Chinese population 85.7 and 326 per cent; total population 60.7 and 153 per cent. See also figure 30.



## CONCLUSION

In 1909 those forces which had earlier transformed the West Coast of the Peninsula had made an indelible impact on the geography of Pahang. The effects of tin mining, the influx of Chinese immigrants, and the growth of new roads and new towns had produced a pattern of change in the western periphery of Pahang that was almost identical to that which had taken place in Selangor in earlier decades. Any regional geographer writing in the year 1909 could well have included the Raub-Bentong area as an eastern extension of the West Coast Tin and Rubber Region. In the Kuantan District on the East Coast the changes were even greater but because of its isolation, its lack of roads, and its orientation away from the centres of political control, Kuantan in 1909 was a region without counterpart elsewhere in Malaya. Away from these two peripheral regions the larger central area of Pahang was as yet little changed. The forest and the rivers were still the dominant features and the racial composition and the economy of the people were remarkably similar to what they had been in 1888. Such, however, could not remain the case for long. The historical geographer may pause to study Pahang as it was in 1909 but the forces which had begun the transformation of this State did not pause and by the end of 1909 it was clear that they were advancing at an even greater pace. At this time the points of entry had been made and the bases for the new expansion had been established. The next chapter will continue with the narrative of the expansion of rubber cultivation in Pahang.



## CHAPTER 8

### THE PERIOD OF RUBBER EXPANSION, 1910 to 1921

At the end of 1909 it was widely realised that Pahang was about to follow the western States into a new phase of development, where rubber rather than tin would occupy the centre of the stage. In the previous decade the techniques of cultivation and estate organisation had been evolved in the western foothill zone between Province Wellesley and Malacca, and the problems of exporting the natural rubber had been solved by the mercantile establishments in the large towns of the west coast. In Pahang the pioneer ventures at Raub, Bentong, and Kuantan had demonstrated that the local soils and climate were suitable for rubber, and that the same methods of cultivation could be used. New lines of communications would soon allow further areas of the State to share the commercial facilities provided by Kuala Lumpur, Malacca, and Singapore. The world demand for rubber was still increasing and anticipated returns from cultivation were considerably higher than the cost of opening up and developing accessible land.

Between 1909 and 1921 there was, in fact, a moderate expansion of rubber cultivation in Pahang. Extensive areas of tropical rainforest were felled and burned, to be replaced by the perennial tree crop; natural plant communities with a multitude of species gave way to a new man-controlled community where a single species was dominant but where the all-important nutrient cycle could be preserved<sup>1</sup>. The acreage planted with rubber increased more than twenty fold and by the end of the period stood at 87,000 acres<sup>2</sup>. During the same time the area of land approved for agricultural occupation trebled from 81,000 acres to over 240,000 acres. There was, however neither a steady advance of the agricultural frontier nor a careful selection of the best available land. In their appraisal of Pahang the rubber cultivators recognised only the crudest of environmental variations; low-lying and swampy areas were to be avoided as, in general, were the steeper and higher hills; the massive transformation of all the intervening areas could be made with equal facility, regardless of finer variation of soil or vegetation. The directions of advance were determined largely by access and the location of other economic activities which could supply or attract capital for investment in rubber cultivation. Economic factors were of primary importance in determining the pattern of change.

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1. Tempany H. and Grist D.H.: *An Introduction to Tropical Agriculture*, pp. 39-53. There were, nevertheless, many instances where clear felling and the cultivation of catch crops did serious damage to soil fertility before the new cover was established.
  2. This was the total returned in the 1921 Rubber Census as contained in Figart, D.M.: *The Plantation Rubber Industry in the Middle East*, p. 274.



The first sections of this chapter draw attention to four factors which played major roles in determining the new agricultural patterns which emerged during this formative period. These factors are mining, the development of communications, the investment of outside capital, and the activities of the administration. On the basis of this discussion the main section of the chapter then traces the expansion of large and medium scale rubber cultivation against a background of changing economic conditions. Separate attention is then given to the responses made by the smallholding cultivators, both immigrant and indigenous, and the chapter concludes with a summary of the main conclusions reached. Detailed discussion of the new patterns of occupation which emerged is reserved for the following chapter which reconstructs the geography of Pahang at the close of this period.

### MINING.

During this period mining was no longer the pioneer activity which brought large influxes of labour and capital into hitherto undeveloped areas of the state. In spite of the forebodings expressed at the end of the previous period, however, both production and revenue continued to expand and the industry made important contributions to the development of commercial agriculture. Gold production from the Raub Australian Gold Mines was maintained at a relatively stable level (fig. 20) while tin production continued to increase until the end of 1920 when the price slumped (fig. 21).

The greatest increase in mineral production came from the tin mines of the Pahang Consolidated Company at Ulu Kuantan (fig. 21). The Company improved communications between Sungei Lembing and Kuala Kuantan and continued to introduce new equipment except for a period during and after World War I when machinery was not available. In addition, it steadily increased the labour force until in the latter years of the period it employed over three thousand in mining and at least a thousand others in ancillary occupations. The Company diverted much of its money, both working capital and profits from mining, into rubber cultivation, and much of the income earned by its staff, both European and Asian, was also invested in the agricultural development of the Kuantan district. Moreover, it made rail and steamboat facilities available to other settlers along the Kuantan River and made very substantial contributions to State revenue.

At Gambang, the anticipated decline in production of tin set in from 1914 onwards and in the latter years of the period the number of mining labourers at work ranged between five hundred and one thousand<sup>3</sup>. The main exodus took place in 1915 when some labourers moved on to a new tinfield at Mersing in East Johore and others returned to China. Many, however, remained in the Kuantan district and went either to the mines at Sungei Lembing, the town at Kuala Kuantan, or to new areas being opened up for rubber cultivation.

3. Kuantan A.R. 1914 in *Kuantan* 47/15. The decline was precipitated by the failure of the Kwan Yik Bank in 1914 but the best of the deposits had all been worked out by then.



Several mine owners from Gambang invested money in rubber estates both before and during the period of decline. In 1917 a major opportunity was lost when the death of Towkay Loke Yew occurred soon after he had filed an application for 10,000 acres of rubber land at Gambang<sup>4</sup>.

In the vicinity of Raub and Tras the output of alluvial tin continued to decline in spite of an extension of mining northwards into Mukim Batu Talam. From 1914 onwards the most regular producer was a European company using hydraulic methods<sup>5</sup>. At the end of the period annual production from all mines in this area was less than four thousand piculs or 10 per cent of that produced by the Pahang Consolidated Company at Kuantan. The number employed in mining fell off even more steeply but the Chinese population of the subdistrict increased between 1911 and 1921 thus suggesting that many of the former mining labourers sought local employment in the towns and agricultural areas.

In the Bentong area the expected decline in tin mining did not eventuate. Production from *lampan* mining in the Perting and Repas valleys, behind Bentong town, continued throughout the period and a number of older mining areas were rejuvenated by European companies which introduced more highly mechanised forms of mining. Several small lode mines were opened up from 1910 onwards and, in 1917, Bentong Tin (No Liability) erected an electric power station near the town and floated a bucket dredge to work in the bed of the Perting River near the town. Individually these new companies were small when compared with the Pahang Consolidated Company but their aggregate production and employment made a big contribution to the prosperity of Bentong during this period<sup>6</sup>.

With the opening up of the Mersing tinfield of Johore in 1914 there was a renewal of interest in the southern interior of Pahang and prospecting was carried out in the upper reaches of the Rompin, the Pontian and the Endau. These sparsely settled areas were remote from the nearest administrative centre at Pekan and when tin was discovered in the Ulu Endau it was mined for several years before it came to the notice of the Pahang authorities at the end of 1918. Tin deposits here were not rich and when regular titles and facilities for the collection of revenue were introduced further mining was suspended, at least until the officials concerned had returned to Pekan. In the same year the Conservator of Forests gave permission for a number of miners

4. *Kuantan* 118/17.

5. This was the Sempam Hydraulic Tin Mining Company which produced ten thousand piculs between 1914 and 1921. These and other statistics are found in Richardson, J.A.: *The Geology and Mineral Resources of the Neighbourhood of Raub, Pahang*, pp. 139-142.

6. A table of production from the Bentong sub-district using Richardson *op. cit.* and other sources was prepared, but as there was insufficient evidence to reconcile all the discrepancies contained therein, this table is not included. It would appear, however, that production doubled between 1909 and 1913 and thereafter remained fairly constant at about 14 thousand piculs per annum until the end of 1920 when the price fell and the output from Chinese mining tributors fell off sharply. The Bentong dredge produced about four thousand piculs annually.



to work deposits which had been found within the limits of the Gunong Lesong Forest Reserve in Ulu Pontian. Surface mining on a small scale was carried out by about one hundred miners and, in the years which followed, the Pahang Annual Reports recorded a small but regular output of eight hundred to one thousand piculs per year. None of these developments were large enough to encourage the construction of new lines of communication and there was no associated development of urban settlement or commercial agriculture. Production from these mines was of very small importance compared with that from other areas of the state but they did serve to remind the administration that its domain extended far to the south of the Pahang River<sup>7</sup>.

Throughout this period mining in Pahang provided much of the capital which made other forms of development possible. Mining revenue for the period 1909 to 1921 was more than double land revenue and the Chinese mining population contributed a large share of other revenues since they were the largest consumers of dutiable imports including chandu and spirits<sup>8</sup>. Much of the revenue which was used to provide urban facilities and build roads thus came from the mining industry of Pahang while rail construction work was financed by similar revenues collected in the western States. Many of the Chinese who engaged in mining—as wage earners, contract workers, or capitalists—invested some of their savings in Pahang. Some invested directly in agriculture but others used their savings to establish a wide range of urban businesses; later on as these prospered, and further opportunities arose in agriculture, further profits might be reinvested in land<sup>9</sup>. A number of Europeans employed by mining companies and estates also invested in land from time to time.

The mining industry also provided much of the labour force required for agriculture and other activities. In the early years of this period there was an acute shortage of labour in the Federated Malay States and only those employers with considerable capital resources could afford to introduce Javanese or Indian labourers into Pahang. The demand for labour was temporarily met by ex-miners who were employed in many of the contract gangs which cleared the forest for road or rail construction work and opened up the rubber estates. The Chinese contract gangs were extremely versatile and flexible organisations which could readily switch from mining, to jungle clearing or timber extraction, to road construction work or the planting of agricultural products. Without this supply of labour much of the development which took place in Pahang at this time would not have been possible.

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7. *Mines, Kuantan* 107/22, enclosure 5, p. 2.

8. For the years 1910 to 1921 inclusive, tin duty alone averaged \$486,000 as compared with land revenue which averaged \$207,000. Government did not publish separate revenue figures for gold duty.

9. Many hundreds of applications for land in the District Office and Survey Office files contain a brief note about the applicant, his experience, and the nature of the capital at his disposal. The pattern outlined above is also revealed in the life history of older Chinese residents of Kuantan, Raub, and Bentong.



During this period the established mining areas of Pahang thus formed the bases which supplied labour and capital for the expansion of urban facilities, communications, and commercial agriculture. In some areas, as at Tras and Gambang, the labour and capital were released by a decline in mining; in others, such as Sungei Lembing and Bentong, the mining industry attracted a steady stream of new immigrants and generated more capital for investment. The new patterns of economic activity which emerged between 1909 and 1921 were thus closely linked to the mining development which had been initiated during the previous period.

### COMMUNICATIONS.

The existence of good communications was an essential prerequisite for the expansion of rubber cultivation during this period. Rubber was a bulky product compared with tin or gold and its cultivation required a moderately large labour force. Unless good transport facilities were available it was impossible for Pahang to compete with the well developed western States. In almost every case road or rail facilities were essential to the opening up of a large rubber plantation; the only exceptions were in the Kuantan district which had regular steamship communications with Singapore and where the Pahang Consolidated Company steamboat served areas adjacent to the Kuantan river<sup>10</sup>. The progress of road and rail construction is shown in figure 31. Between 1909 and 1921 the mileage of metalled road was increased from 192 miles to 358 miles, and 101 miles of open railway were built in Pahang.

Rail construction was carried out by the federal government for motives political as well as economic; in 1909 the British extended their control over the states of Kedah, Perlis, Kelantan, and Trengganu, and the new branch railway to the East Coast was intended to strengthen administrative links with Kelantan, the State furthest removed from Kuala Lumpur. The western States provided most of the capital for rail construction and it can thus be claimed that the project represented a spread effect of the development that had already taken place in the west of the Peninsula<sup>11</sup>. Compared with roads, the railway was a more substantial line of communication and the economic effects of the actual construction work were much greater. As the railhead advanced, the labouring population increased, new construction towns grew up, and much of the money expended passed into the hands of contractors and labourers who were eager to reinvest it in other profitable activities. At the same time the construction gangs assembled for railway work could readily be transferred to other forms of development work.

In 1910 the railway was opened as far as Triang in the Temerloh district and thereafter work proceeded rapidly until the outbreak of World War I in 1914 (fig. 31). At this stage work was suspended and the contract gangs

10. No similar services were available on the Pahang River and Pekan had long since ceased to be a port of call for steamships. *P.A.R.* 1902, p. 1.

11. Compare Myrdal, G.: *Economic Theory and Under-developed Regions*, pp. 31-33.



engaged on the section from Tembeling to Kuala Lipis were paid off. In 1917 work was resumed but the pace of construction was slower and by 1921 the line was opened only as far as Padang Tunku, six miles beyond Kuala Lipis.

The building of roads was a State concern, financed out of slender and fluctuating revenues. There is no evidence that road construction formed part of any comprehensive scheme of development; rather it would appear that roads were built to link together the administrative centres and facilitate travel between the established towns. In addition to this, a number of minor roads and tracks were constructed to link the Pahang River system to both the railway and the west-east road (fig. 31).

The construction of roads and railways alone was not sufficient to bring about an expansion of commercial agriculture, but it did open up new areas of the State and provide access to land which could be taken up when economic conditions were favourable. Both the west-east road and the railway were of major significance in the opening up of the interior but of the two, the road was the less significant. It linked together the two mining enclaves which themselves offered considerable scope for agricultural investment and were more favourably located with respect to Singapore and Kuala Lumpur. In contrast, the railway brought central Pahang into direct contact with the other States and urban centres of south-west Malaya. Since the line of the railway was selected to avoid areas liable to seasonal flooding, it passed through land that was devoid of Malay population and well suited for rubber cultivation. The railway thus opened up the agricultural interior of Pahang to any outside investors who might be turned away from the western States by the growing shortage of suitable land.

### EXTERNAL INVESTMENT.

The availability of outside capital influenced both the rate and the distribution of agricultural investment in Pahang. During this period there was a considerable flow of European and American capital into Malaya. The extent to which Pahang shared in this investment varied with the availability of land in the western States and with the anticipated net return from rubber cultivation.

From 1909 onwards there was an increasing shortage of good rubber land in the western zone between Province Wellesley and Malacca. Increasingly, attention was turned to the new areas that were being opened up by the expansion of communications into the less developed States. Pahang, however, was more distant than either Johore or Kedah and these two States shared in the main expansion at an earlier stage.

In theory it was the anticipated net return from rubber cultivation which governed the decision of outside interests to invest or not to invest<sup>12</sup>. Since rubber takes some seven or more years to reach maturity this anticipated net

12. The anticipated net return from rubber cultivation can be expressed as the difference between the price of rubber and the unit cost of production.



FIGURE 31  
PAHANG. PROGRESS OF ROAD AND RAIL CONSTRUCTION 1910-1921

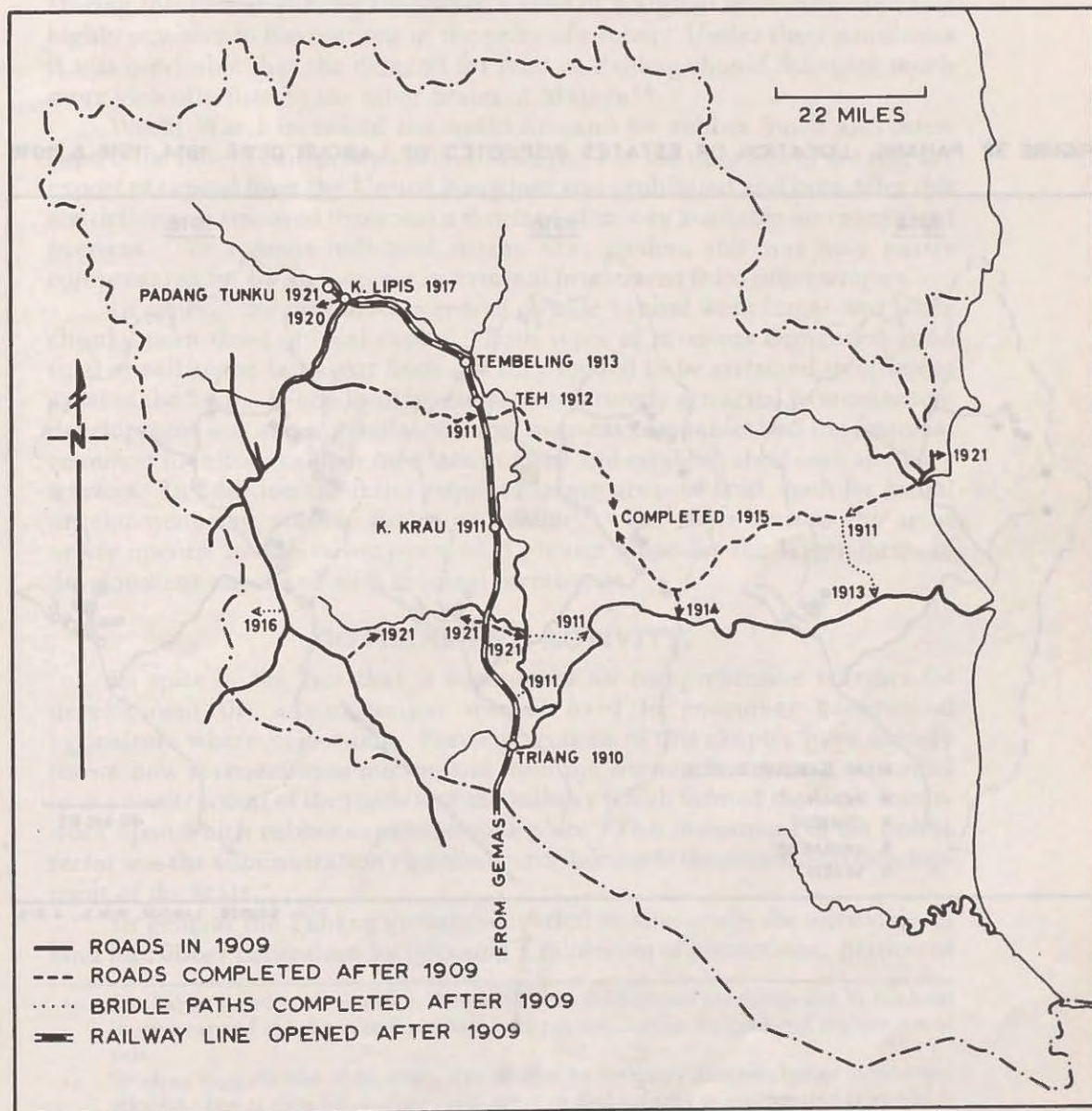
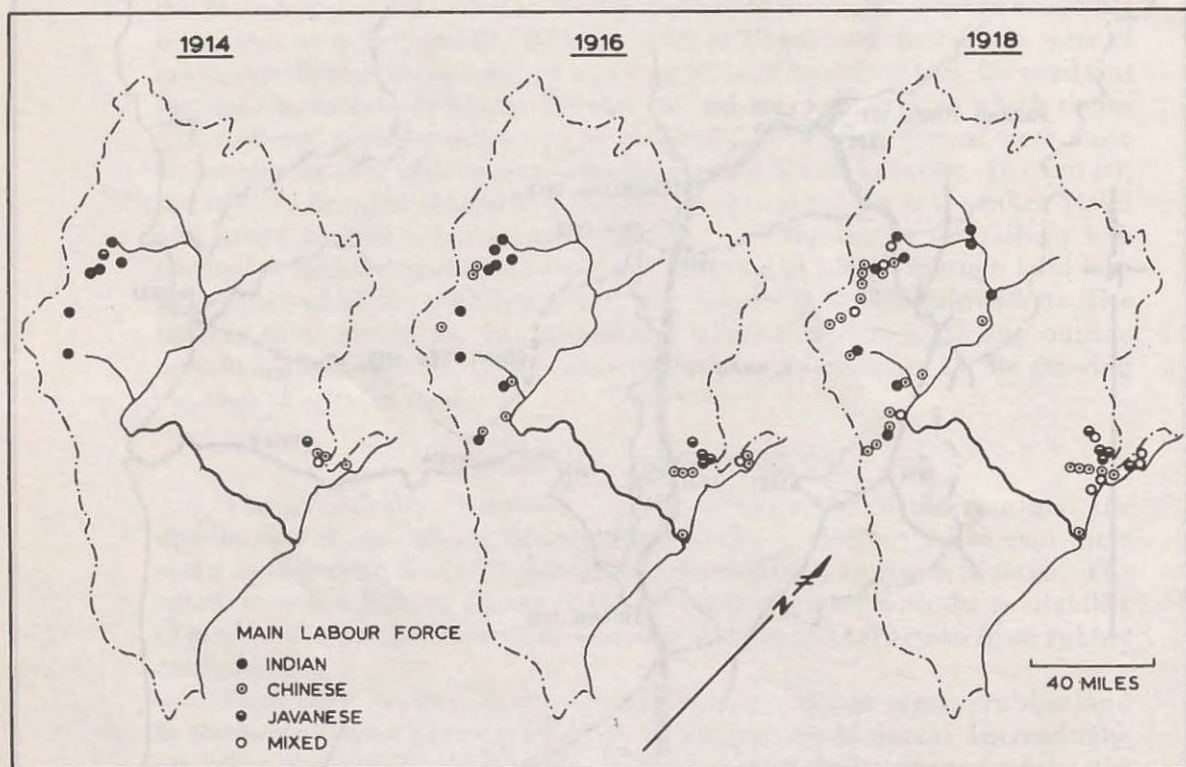




FIGURE 32 PAHANG. LOCATION OF ESTATES INSPECTED BY LABOUR DEPT. 1914, 1916 & 1918



SOURCE. LABOUR, F.M.S., A.R.'S.



return included expenditure during the whole of this interval. In practice it was calculated on current rubber prices and each fluctuation in price involved a reassessment of the anticipated net return. Higher transport costs to and from Pahang reduced its anticipated net return as compared with that of the western States but as land became scarcer in the latter the importance of this aspect was lessened. More significant, however, was a theoretical threshold price of rubber below which Pahang could not hope to attract outside capital. During this period Pahang lay within a zone of marginal investment and was highly sensitive to fluctuations in the price of rubber. Under these conditions it was inevitable that the demand for land in Pahang should fluctuate much more violently than in the other States of Malaya<sup>13</sup>.

World War I increased the world demand for rubber but it also interrupted the flow of British capital into Malaya. For the duration of the war the export of capital from the United Kingdom was prohibited and even after this restriction was removed there was a shortage of money available for investment overseas. For reasons indicated in the next section, this was only partly compensated for by an increase in external investment from other sources.

In general the unit investments of outside capital were larger and more chunky than those of local capital. Both types of investors demanded good road or rail access but apart from this they tended to be attracted to different areas of the State. While local investors were strongly attracted to areas where development was already initiated, large overseas companies had the financial resources to introduce their own labour force and establish their own ancillary services. In addition the latter required larger areas of land, both for initial development and possible future expansion<sup>14</sup>. For these reasons the areas newly opened by the railway provided greater scope for the larger forms of development associated with external investment.

### GOVERNMENT ACTIVITY.

In spite of the fact that it formulated no comprehensive schemes for development the administration worked hard to encourage commercial agriculture wherever possible. Previous sections of this chapter have already shown how revenues from mining and from the western States were expended in the construction of the roads and the railway which formed the basic framework upon which rubber expansion took place. This investment in the public sector was the administration's greatest contribution to the subsequent development of the State.

In general the Pahang government tried to encourage the alienation of land for rubber cultivation by imposing a minimum of restrictions. Settlers of

13. See Tables 6 and 7. As shown in these tables, the fluctuations are dampened by (a) local investment and (b) the irregular delays between application for land and registration of title.

14. In many cases the size of the estate was decided by company directors before the site was selected. It was then left to their local agent to find an area of unalienated land which fitted the specifications laid down. Compare *Temerloh* 410/19 and *Temerloh* 478/19.



all races were allowed to take up land and the rentals and premia charged were lower than those ruling in the western States of the Federated Malay States. Since large areas of unoccupied land were available, shifting cultivation was officially banned, and forest reserves were set aside, there was no obvious conflict between the needs of the Malays and the commercial agriculturalists. Each applicant selected the area of land he required for his purpose and in due course survey was completed and title granted. In the years prior to 1917, occupation was normally permitted in anticipation of survey.

There were, however, significant reversals to this policy of "laissez faire". The first occurred during World War I when British commercial interests became concerned that American and Japanese companies were alienating large areas of rubber land at a time when British investment was not permitted. In 1917, in response to strong pressure, the Federated Malay States passed the *Rubber Lands (Restriction) Enactment* which prohibited the alienation of holdings in excess of 50 acres to any who were not British or Malay subjects. Although many of the Chinese in Malaya were British subjects by birth, the District Officers in Pahang tended to interpret the enactment as a blanket prohibition on the alienation of any holdings in excess of 50 acres. This was only a temporary measure which was revoked in 1919 but it seriously affected the rate of alienation in the intervening months.

A second major reversal was one of expediency rather than policy. The Land Offices often fell into arrears with their work and there were several occasions during the latter years of the period when they were unable to process all the applications received. Unable or unwilling to enlarge their staff, and reluctant to streamline their system of alienation, they simply closed their books to new applications for rubber land<sup>15</sup>. There were thus several extended periods when prospective investors were unable to obtain land in Pahang.

### **The Expansion of Estate and Medium Holding Cultivation.**

In tracing the expansion of rubber cultivation, it is convenient to consider first the establishment of larger holdings and reserve discussion of smallholder cultivation for the section which follows; holdings in excess of ten acres were alienated by Grant and recorded in the *Register of Grants* which is the fundamental document supporting this section of the work<sup>16</sup>. Information abstracted from the *Register of Grants* is presented in Tables 6 and 7.

15. The system of alienation which enabled every applicant to choose his own land broke down in times of peak demand. The Land Offices wasted much time in investigating unsuitable applications, the applicants suffered when, after a long delay, their first application was refused and they had to reapply, and the Survey Department spent much time surveying a large number of scattered holdings. Some scheme of planned alienation, as a supplement to normal procedure, would have benefitted all concerned. The District Offices could, for example, have selected suitable areas and had them surveyed into convenient blocks before calling for applications.
16. The terms "estate", "medium holding", and "smallholding" are defined in the glossary. It should be noted, however, that the limitations of the source material make it impossible to apply these definitions rigidly and they should be used only as a general guide.



From 1909 onwards the two main obstacles which held back the agricultural development of Pahang were progressively removed; the attractions of Perak, Selangor, and Negri Sembilan diminished as the best land in those States was alienated and Pahang's isolation was broken down by the new lines of communication. In the wake of these changes there was a sporadic expansion of rubber cultivation in Pahang.

In 1910 the price of rubber reached a record level of over \$4.40 per pound and there was a very considerable demand for rubber land. In the same year the East Coast Railway was opened as far as Triang (fig. 31). Considerable areas were alienated in the Raub, Bentong, and Kuantan districts but the only large applications in the Temerloh District were made by two Chinese rail contractors. The mining districts had capital resources of their own and in addition provided urban facilities and a reservoir of labour that was not available at Temerloh. Large outside investors capable of initiating development in the latter District found better opportunities in the newly opened areas, adjacent to the same railway, between Singapore and Bahau in Negri Sembilan.

An increase of alienation in the central district of Pahang might have been expected in the years which followed but in 1911 the price of rubber fell and the anticipated net return dropped sufficiently to deter new investors<sup>17</sup>. For the next three years most new applications were made by existing estates, and the main expansion thus continued to be in the peripheral regions. The largest single extension was in the Kuantan District where the Pahang Consolidated Company opened up a five thousand acre estate at Kuala Reman,

Table 6. Issue of Grants according to Date and Mukim, 1908-1924.

Mukim and District	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924
Kuala Kuantan (K)	1	5	5	5		2	1	2	3	9	14		28	46	15	3	
Beserah (K)			5									9					
Gali (R)		3		9	1	2			1	6				1	1		
Tras (R)	4		2	7	4	3			3	18	7	2			2	1	
Bentong (R)	2		1	8	5	4	1	4	9	15	12	5		1	23	15	1
Sabai (R)			1	5		1		1	1	2	3	9	1	1	8	4	1
Mentakab (T)						9	1		13	8		15	7	14	1	5	6
Triang (T)						3	4	1	1	20	29	11	10	36	1	12	4
Jenderak (T)							3	1	9	7	18	2	1	1		2	
Kerdu (T)										13		7	9	4		3	
Penjom (L)										2	5		9		3		
Cheka (L)													1		11		
Others						1	2	1	1	4	10		8	4	23	7	6
Total	7	8	14	34	10	25	12	10	41	104	98	60	74	108	88	52	18

Note: This table includes all of the agricultural grants in the reconstructed *Register of Grants* (see appendix 1) and is thus an incomplete selection. Land Office work fell into arrears from 1916 onwards and many holdings occupied prior to 1920 were not given titles until 1921 or later.

17. The average price for rubber in 1910 was \$3.15, in 1911 \$2.05, in 1912 \$1.80 and for 1913 \$1.10.



**Table 7. Issue of Grants according to Date, Size, and Race of Owner.**

Date	Holdings under 100 acres					Holdings 100 acres and over			Total
	European	Chinese	Malay	Indian	Other	European	Chinese	Indian	
1909	2	3				1	2		8
1910	2	4	2			4	2		14
1911	5	19	7	1	1	1			34
1912	2	4		2	1	1			10
1913	3	17	2			1	1	1	25
1914		8	1			1	2		12
1915	1	7				1		1	10
1916	1	28	2	4	1	2	3		41
1917		76	3	10	2		13		104
1918	5	69	8	4		3	9		98
1919	3	53				1	3		60
1920	1	60	1	8			4		74
1921	3	94	2	1		2	6		108
1922	3	60	6	8		6	5		88
1923	5	28	2	4		8	5		52
1924		10		1		1	6		18
Total	36	540	36	43	5	33	61	2	756

Note: See note for Table 6.

just inside their mining concession<sup>18</sup>. Along the railway line in the Temerloh District there was little more than token development. Two Chinese estates which had been opened up were planted with tapioca as a catch crop, and a number of other grants issued to Chinese and Indians were left unopened while the owners completed their contracts with the railway<sup>19</sup>. None of the Temerloh estates employed a large enough labour force to warrant inclusion in the annual return which the F.M.S. Labour Department made at the end of 1913 (fig. 32). At Kuala Tembeling, in the Lipis District, the Forestry Department had planted over two hundred acres of rubber on a small estate they had opened in 1910 but commercial interests were as yet unwilling to follow their example<sup>20</sup>.

The outbreak of the World War in 1914 caused a temporary disruption of trade which lasted for several months and was followed by a rising demand for all raw materials including rubber. The remission of funds from Britain was suspended for some time and rail construction on the East Coast line was halted. By 1915 Malaya had recovered from the initial disruption and the demand for new land for rubber cultivation began to rise again. This time the Europeans were fully preoccupied with the war and the drive came mainly

18. The P.C.C.L. also obtained a 770 acre extension to their Sungei Talam Estate. *Kuantan* 89/12.

19. *Temerloh* 179/10 and *Temerloh* 131/12.

20. *Forestry, F.M.S. Annual Reports* 1910 to 1914.



from the Chinese and to a lesser extent the Indians and the Malays (Table 7). Most applications for grants were received in those districts where communications were good and surplus Chinese labour was available. Increasing numbers of Chinese from Negri Sembilan and Selangor sought to buy land in Pahang and for the first time applications for land in the vicinity of the railway were on a scale comparable with those in the mining districts. Within a matter of months the land offices were unable to keep pace with demand and many of the holdings occupied in 1915 and 1916 were not formally alienated until several years later (Table 6).

The demand for land continued throughout 1916 and by 1917 was beginning to reach boom proportions. Had alienation been allowed to proceed freely there would have been a large scale transformation of all the accessible areas of Pahang, more especially the Temerloh District and that section of the Lipis District centred on Jerantut. However, the brake was applied by the passing of the *Rubber Lands (Restriction) Enactment* in 1917 and the inability of the Land Offices to cope with the flood of smaller applications which followed. First Temerloh, and then the other District Offices, closed their books to all applications save those for land on which foodstuffs were to be grown<sup>21</sup>.

In 1918 there was a brief crisis in the rubber industry when the United States reduced its imports but by 1919 the demand for rubber had recovered. The Land Offices had not long reopened their books after dealing with the earlier influx of applicants when the improvement in the price of rubber and the repeal of the *Rubber Lands (Restriction) Enactment* engulfed them in a whole new flood of applications. By now the railway was extending further into the Lipis District and for the first time the rate of alienation in the central districts was greater than in the mining areas. In spite of the removal of the restrictions on European and American investment most of the land was still taken up by Chinese (Table 7). In the Lipis, Raub, and Kuantan Districts the Land Offices were able to receive all applications but the Temerloh and Bentong Land Offices were both over-extended and forced to close their application books again<sup>22</sup>. The Pekan District was still unaffected by the increasing demand for land and at the end of 1920 had only one grant of 25 acres awaiting registration as compared with 214 grants totalling over 19 thousand acres still to be registered in the remaining Districts<sup>23</sup>.

In 1920 the demand for land in Pahang had reached similar proportions to that experienced in the western States a decade earlier. The administration thus decided to raise rents and premia to a level equivalent to that of the other

21. Temerloh closed its books during 1917 (*P.A.R.* 1917, p. 4) and the other Districts the following year (*P.A.R.* 1918, p. 4). Pekan, unlike the other Districts, had not received a large number of applications but followed suit in order to ease the pressure on the State departments which processed such applications.

22. By this date the Raub District was divided and a sub-District Office established at Bentong.

23. These were distributed as follows:—Lipis—52 grants of 11,662 acres; Raub—26 grants of 983 acres; Temerloh—44 grants of 3,250 acres; Kuantan—92 grants of 3,750 acres. *P.A.R.* 1920, appendix B.



States. This had not long been done, however, when the world demand for rubber fell off and the price slumped from \$1.15 per pound to 32 cents per pound. Production was suspended on many holdings, new planting stopped and the demand for new rubber land ceased abruptly. Many of the more speculative applications for rubber land were withdrawn and by the end of 1920 the rubber industry was making requests for the government to impose compulsory restrictions on rubber output. The situation in 1921 showed no improvement and only served to confirm the view that the rubber boom had passed and that no further expansion of rubber cultivation was likely to take place in the immediate future.

The years 1910 to 1921 thus represent the period when rubber cultivation extended into Pahang and the majority of the present day estates were established. During this time, however, there were few years when the rate of expansion was not impeded by economic conditions or legal and administrative restrictions. When the era of rubber expansion came to a close in Malaya the agricultural development of Pahang still lagged far behind that of the western States.

### THE SMALLHOLDER RESPONSE.

Accompanying the expansion of rubber cultivation on estates and medium holdings, there was an increase in its cultivation on the smallholdings which were alienated by entry in the *Mukim Registers*. Although the pattern of alienation and the actual use to which the holdings were put were far from simple certain generalisations can be made from a study of the land alienation records (fig.25 to 28).

In broad outline the expansion of smallholder rubber cultivation by Chinese, Indians, and immigrant Malays followed that of the larger scale cultivation; in the early years of the period many smallholdings were opened in the mining districts and from 1914 onwards considerable development also took place along the line of the railway. In general the smallholders filled in the interstices in the vicinity of the towns and the areas of larger scale cultivation already established. Many Chinese took up rubber holdings in the immediate vicinity of alluvial mining areas at Gambang, Tras, and Bentong. The Chinese holdings were usually larger, between five and ten acres, and apart from an initial period when catch crops were grown, they were exclusively given over to rubber cultivation. In contrast, the Malay holdings were smaller and frequently combined rubber with subsistence cultivation. When prices for rubber land were high some immigrant Malays took up land and planted it as a speculative investment to be sold when the trees reached maturity, rather than a crop to be tapped for a regular income<sup>24</sup>.

24. There is, for example, the case of a Mendeling Malay whose application for a third block of land is contained in *Kuantan* 108/12. Described as a trader and planter he had sold his first block of land for \$12,000, had fully planted up a second and was applying for additional land. Two similar applications which figure in the same file were from Kampar Malays.



The rate of expansion of smallholder cultivation of rubber was more even than that of larger holdings. Potential smallholders were less sensitive to downward fluctuations in the price of rubber and the decision to plant often reflected a lack of opportunity in other fields. In addition, the Land Offices gave lower priority to the processing of smallholding applications and these were subjected to a longer delay in times of peak demand.

Many of the Pahang Malays in the more accessible areas also added rubber to their kampong economy. From those mukims studied in greater detail it would appear that their interest came at a slightly later stage. In Mukim Lebak and Mukim Dong, areas peopled by Pahang Malays with very little recent immigration, it was not until 1914 and 1915 that any widespread interest was shown in rubber cultivation (fig. 25). The Pahang Malays in areas such as this did not plant large areas of rubber and while there were accusations that they often neglected their rubber<sup>25</sup> there is no evidence to suggest that other forms of cultivation were neglected when rubber was planted. Indeed the returns of padi cultivation would suggest that there was a steady increase in food production during this same period<sup>26</sup>. Rubber cultivation fitted easily into their existing pattern of life and gave them the opportunity to earn a cash income without having to go as far afield as many had done in the previous period. As a result all forms of cultivation benefited.

In the Pekan District comparatively few Malays planted rubber during this period. Away from the railway and the roads that had opened up the other Districts to the outside world, they were removed from the influences of the estates, the Chinese, and the immigrant Malays from beyond the Peninsula. In addition, they were firmly controlled by the District Officers who refused to alienate rubber land to applicants who did not have padi land regularly planted<sup>27</sup>. The administration gave much attention to increasing the cultivation of padi and coconuts but they viewed rubber with considerable suspicion<sup>28</sup>. The encouragement of coconut cultivation was well justified by results but the same cannot be said about their efforts to increase the output of

25. A typical opinion was expressed by the District Officer, Raub, in *P.A.R.* 1916, p. 5, where he states "The unfortunate thing about the boom in rubber during the last year is that the local Malays have not benefited very much, the gainers being the much more industrious Javanese, Sumatran Malays, and Chinese who seldom neglect their cultivation to the same extent. A Pahang Malay who plants rubber considers it essential to abandon the land to *lalang* for a year or so before doing anything to assist the struggling plants."

26. Padi acreages for the various Districts were published in *P.A.R.* 1913, *P.A.R.* 1921, and in Jack, H.W.: *Rice in Malaya*, Table II. Returns for individual mukims are sometimes found in the district office files:—*Kuantan* 120/15, 69/17, 157/18 and 102/20; *Raub* 242/21 and 208/22; *Temerloh* 109/17 and 384/24.

27. *P.A.R.* 1917, p. 5. The term used in the official report was "discouraged" but the usual form for such "discouragement" was a terse minute from the District Officer to his Chief Clerk "Application refused. Inform applicant".

28. Both the British Administration and the Malay Sultanate were wedded to a policy of preserving Malay agriculture in its traditional form. The present research has thrown no light on the motives behind this policy nor discovered which of the two parties initiated it. The subject is worthy of more detailed investigation.



rice. Although the acreage of padi was increased over the years, the yields remained uneconomic in terms of the manpower that was required to produce it<sup>29</sup>. Since rubber was a product which did not require elaborate processing equipment, and could be readily transported by small boat or bicycle, it was one of the few crops which could have been successfully cultivated by small-holders in this District. The Malay population of the lower Pahang region was considerably less prosperous than that of the interior districts where padi yields were much higher and the access to markets for kampong produce was much easier. It is almost certain that a cautious encouragement of rubber cultivation in the Pekan District would have done more to raise the standard of living than the efforts which were expended in increasing the area which was regularly planted with padi.

### SOME GENERAL CONCLUSIONS.

The years between 1905 and 1921 represented the main period of agricultural expansion in Malaya. From 1909 onwards Pahang was able to share in this expansion but, because of its location away from the west coast points of entry and its generally lower level of economic development, the anticipated net return from rubber cultivation was lower here than in the western States. Fewer outside investors were attracted to Pahang, especially during the earlier years of the period when land was readily available in the western States. In addition Pahang lay within a zone of marginal investment and the demand for land fluctuated violently with changes in the price of rubber. This impeded steady development and on two critical occasions resulted in breakdowns in the machinery of land alienation which diverted potential investors to other areas of Malaya.

These detrimental effects were partly offset by a moderate level of local investment. Mining and construction work made internal capital accumulation possible and the occupational mobility of Chinese capital and labour made it easy for these to be transferred to agriculture. The Chinese, with their flexible economic organisation and their versatile labour force, continued development at times when European investment was curtailed, and provided a temporary estate labour force when Indian or Javanese labour was not available. In times when outside capital was moving into Pahang, the local Chinese capital filled in many of the interstices between chunkier forms of agricultural investment.

In spite of this, only a proportion of the available land was actually alienated and opened up for commercial agriculture. Conversely the rate of social capital formation was faster than the rate of agricultural expansion. The prosperity which resulted from mining in Pahang, and spilled over from

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29. In *P.A.R.* 1917, p. 6, the British Resident wrote "Such lands as will not produce a minimum yield of 200 gantangs per acre with improved methods and seed should be used for other purposes or abandoned". The average yield in the Pekan District rarely exceeded 120 gantangs.



the rapid growth taking place in the western States, helped to provide a wide range of commercial and transport facilities and public services in the developing areas of Pahang. When the rubber boom halted abruptly at the end of 1920 the infrastructure for development was well advanced but much of the slack remained to be taken up.

The year 1920 was one of changing fortunes and confusion. The year 1921 was a year of stability, albeit depression, where the emphasis was on retrenchment and stocktaking. For several years after 1921 there was very little change in the geography of Pahang. It is thus both convenient and appropriate to pause for a reconstruction of Pahang as it was in 1921.



## CHAPTER 9

### PAHANG IN 1921

The year 1921 was a year of assessment. The period of rubber expansion had ended; the prices of tin and rubber had fallen to depression levels and there was no prospect of an early improvement. During this year the regular population census was taken and a census of rubber cultivation was commenced. The annual returns published at the end of 1921 were more accurate than those for any year during the previous decade since the collection of statistics was no longer outpaced by continued change. In this chapter the available material is used for two purposes: firstly, to look back at the previous period and compare rates of expansion in Pahang with those in the other Malayan States, and secondly, to reconstruct the new patterns of occupation which had emerged by 1921.

#### RUBBER EXPANSION IN RETROSPECT

The results of the 1921 population census and the census of rubber cultivation both provide quantitative measures which support the main conclusions reached in the previous chapter.

In 1921 the total population of Pahang had increased to 146,064<sup>1</sup>. Compared with the 1911 census this represented an increase of 23.0 per cent, a figure which was far below the average for the Federated Malay States and considerably lower than that for Kedah and Johore (Table 8). The rate of growth in the more developed States of Malacca, Negri Sembilan, Selangor, and Perak had slowed down as compared with the previous intercensal period but this table shows clearly that the main stream of development had been diverted to Johore and Kedah rather than to the more distant Pahang<sup>2</sup>.

**Table 8 Percentage Increase in the Population of Selected States 1911-21**

Malacca	23.7	Selangor	36.3
Johore	56.4	Negri Sembilan	37.2
Kedah	37.7	All F.M.S.	27.7
Perak	21.2	Pahang	23.0

**Source:** Nathan: *Census of British Malaya* 1921, p.18. Aborigines are not excluded from the calculations in this table.

The census of rubber cultivation in 1921 reveals a similar pattern when compared with earlier returns (Table 9). Even during the years 1914-21 the absolute expansion in Pahang was on a smaller scale than that in any western State except Perlis. In spite of its large reserves of good agricultural land and

1. Nathan, J.E.: *Census of British Malaya* 1921.

2. The main component of population increase was that from migration. Natural increase played a minor role. Nathan (*op.cit.*, p.18) goes even further and suggests that without migration the population would have decreased.



improved communications, Pahang stood further behind the western States in 1921 than it had in 1909. The events of the previous period had clearly demonstrated Ullman's general location principle: initial location advantages at a critical stage of change are magnified in the course of development<sup>3</sup>. Growth in the western States had been encouraged by their location with respect to the initial points of entry and the main alluvial tinfields, and was sus-

**Table 9. Acreage of Rubber Planted in the States of Malaya, 1909, 1913, and 1921.**  
(rounded to 1,000 acres)

State	Department of Agriculture Return		Rubber Census, 1921	
	31/12/1909	31/12/1913	Estates only	Total
Perak	68,000	143,000	254,000	469,000
Selangor	94,000	195,000	303,000	399,000
Negri Sembilan	32,000	86,000	226,000	279,000
PAHANG	3,000	10,000	46,000	87,000
Penang	{ 58,000	{ 111,000	48,000	94,000
Malacca		{ 45,000	118,000	175,000
Kedah			109,000	104,000
Kelantan	4,000		v	33,000
Perlis	v	v	v	2,000
Trengganu	v	2,000	v	7,000
Johore	33,000	117,000	224,000	439,000
TOTAL	292,000	709,000	v	2,168,000

a. Penang here includes both Prov. Wellesley and Dindings. v. not available.

Sources:- *Agriculture, F.M.S. A.R.* 1909 and *Agriculture, F.M.S. A.R.* 1913; Figart, D.M.: *The Plantation Rubber Industry in the Middle East*, tables 129, 130, and 131. The acreages returned by the Agriculture Department omitted many smallholdings and the estate acreage in 1921 is thus included for comparison. In this tabulation the term estate is applied to all holdings of 25 acres or more, except for Johore where it is applied to holdings of 100 acres or more (Figart, *op.cit.*, p. 275.)

tained by internal and external economies<sup>4</sup>. Growth in Pahang was hindered by its location beyond the Main Divide and, even when communications were improved, the economic response was less vigorous than in the western States. As a result, the development gap had widened still further during the very period when growth in Pahang was most marked.

### THE RECONSTRUCTION FOR 1921

This reconstruction differs from the earlier ones in that it is supported by a much greater volume of statistical information. Apart from the rubber census, which records no information for subdivisions of the State, most of the returns

3. Ullman, E.L. in Ginsburg, N.S.: *Essays on Geography and Economic Development*, p.28.

4. Myrdal, G.: *Economic Theory and Under-developed Regions*, pp.26-27.



available are tabulated by administrative Districts. These tabulations include the population census<sup>5</sup>, buffalo returns<sup>6</sup>, annual padi statistics<sup>7</sup>, land alienation returns<sup>8</sup>, and estimates of areas under different forms of cultivation<sup>9</sup>. They vary considerably in their reliability; the population census was highly accurate in its basic enumeration of all races except the Aborigines; the land alienation figures were accurate but need careful interpretation; padi statistics were based on estimates made by *penghulus* but were more reliable than the other estimates for cultivated area which require numerous adjustments before they can be accepted, even with reservation. The population of each District is shown according to racial composition in figure 33 and the main statistics relating to land occupation are summarised in Table 10.

**Table 10. Pahang 1921. Area of Land Alienated and Under Cultivation (in acres)**

AREA	AREA CULTIVATED						Alienated but not cultivated
	Alienated	Rubber	Wet Padi	Dry Padi	Misc. Mixed	Total	
Lipis	63,500	21,000	6,000	2,000	25,500	54,500	9,000
Raub	26,000	10,000	5,000	—	1,500	16,500	9,500
Bentong	21,600	11,000	1,200	—	500	12,700	8,900
Temerloh	70,500	22,000	11,000	—	16,000	49,000	21,500
Pekan	40,700	1,000	3,500	2,000	21,000	27,500	13,200
Kuantan	43,600	22,000	1,500	500	3,500	27,500	16,100
Total	265,900	87,000	28,200	4,500	68,000	187,700	78,200

- a. The Pekan District total included three agricultural leases totalling 13,624 acres. Two of these were largely undeveloped and 8,465 acres were subsequently surrendered.

On the basis of these statistical sources a set of indices has been prepared and is presented in Table 11. These indices are selected to assist in the isolation of the new regional variations which resulted from the expansion of rubber cultivation, as with earlier indices. No one value, or combination of values derived from a single source, can be regarded as significant unless it is independently verified. Items (a) to (i) as a group provide information about the role of rubber cultivation in each District of Pahang and at the same time indicate some of the variations in the organisation of rubber production. The second group, items (j) to (p), compares the importance of padi cultivation and its adequacy as a base for Malay agriculture. The remaining items are all derived from population census data; they are concerned with the degree of urban development, the extent of recent migration and the population density.

5. Nathan, J.E.: *op.cit.*

6. *P.A.R.* 1921, p.4.

7. *Agriculture, F.M.S. A.R.'s* 1921, 1923, and Jack, H.W.: *Rice in Malaya*.

8. "Return of Area Held and Form of Title", *P.A.R.* 1921, appendix B, Table V.

9. "Area under Different Forms of Cultivation", *ibid*, Table VIII.



FIGURE 33 PAHANG 1921. POPULATION BY RACIAL GROUPS

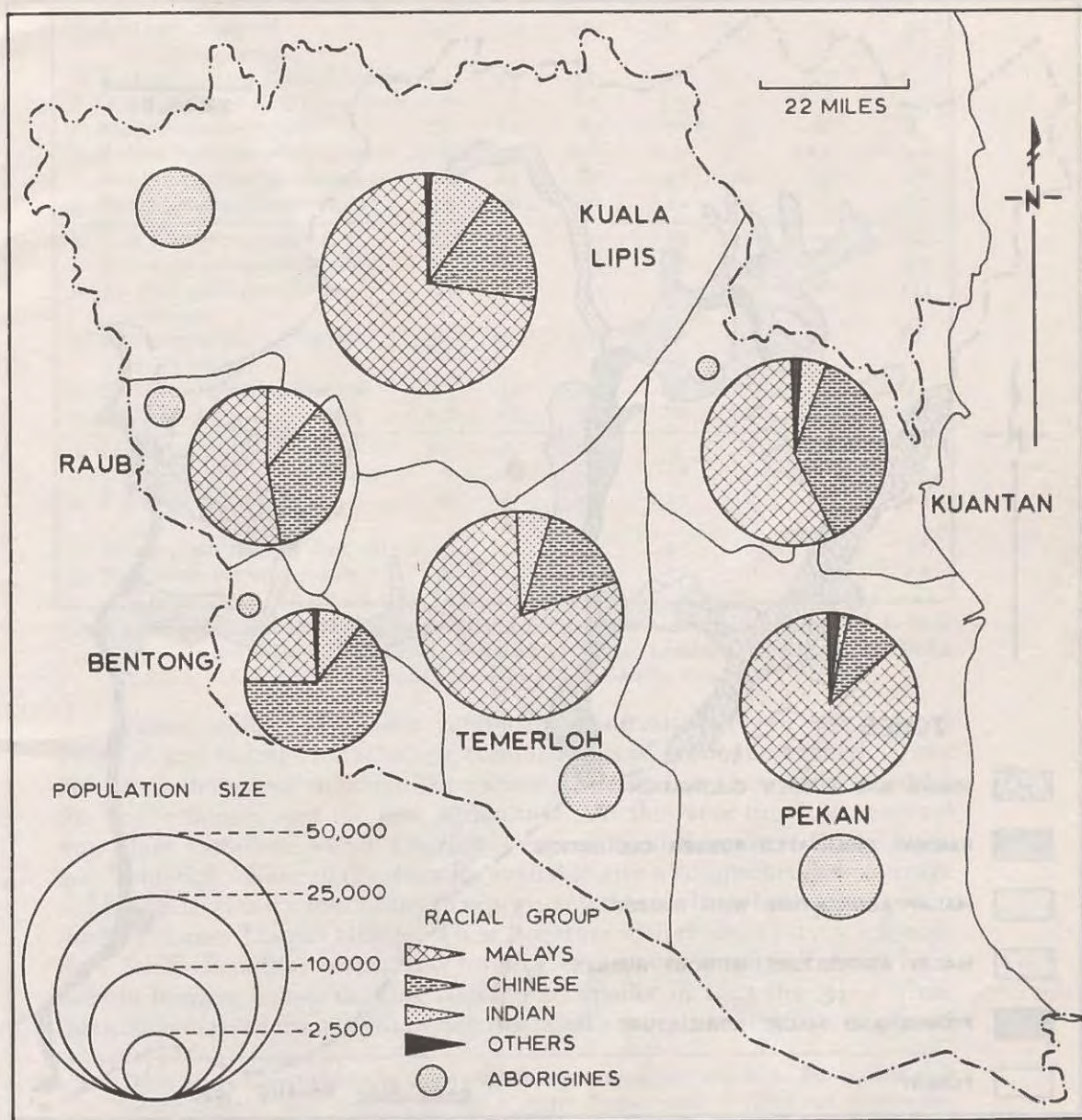
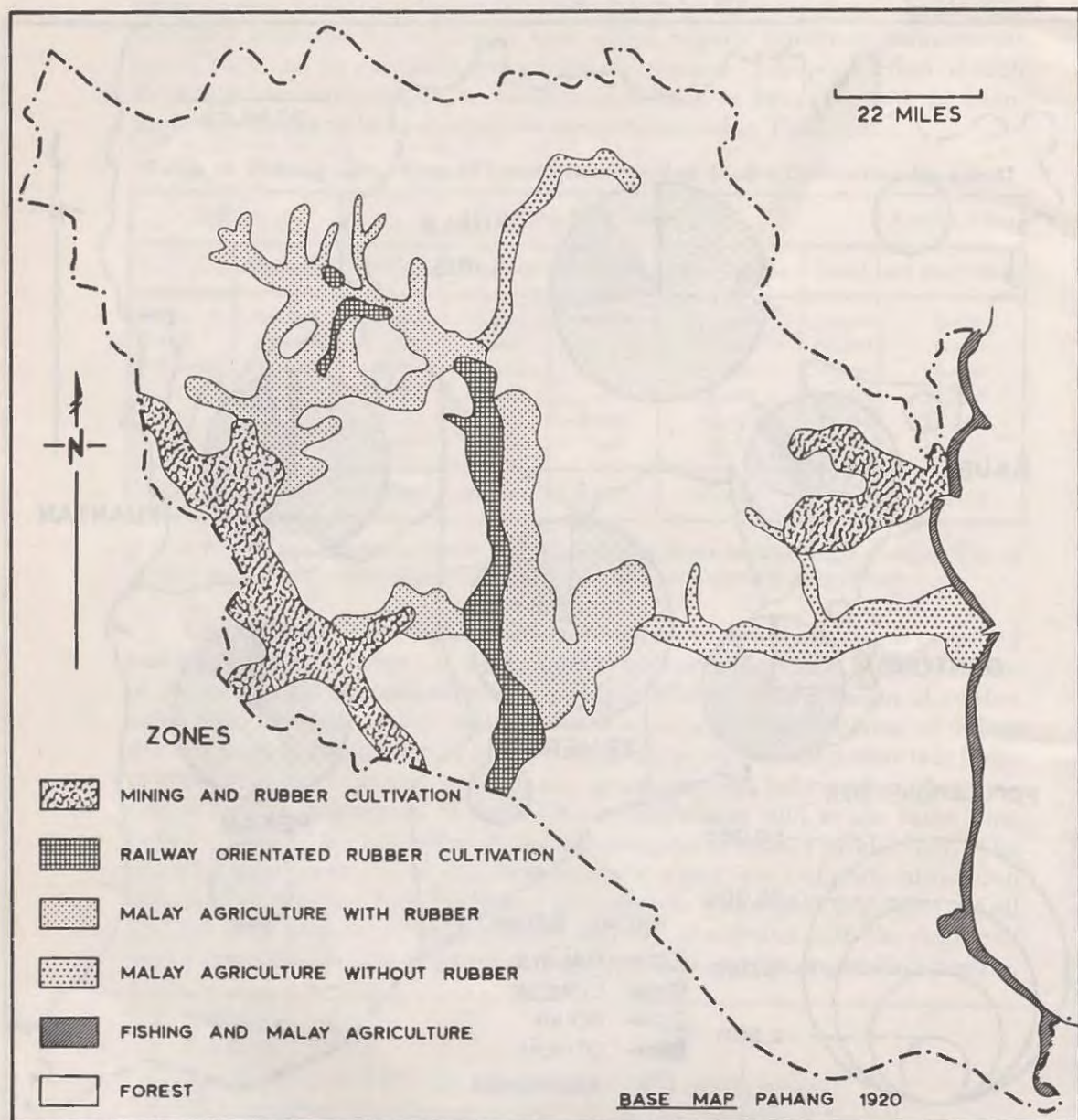




FIGURE 34 PAHANG. ZONES OF OCCUPANCE 1921





**Table 11. Selected Indices for the Districts of Pahang, 1921.**

Index	Lipis	Raub	Bentong	T'mloh	Pekan	Kuantan	Pahang
(a) Alienated acres per capita	2.0	1.6	1.8	2.4	1.9	1.9	1.9
(b) Cultivated acres per capita	1.5	1.0	1.0	1.8	1.3	1.2	1.4
(c) Cultivated acres per alienated acre	.76	.64	.59	.74	.70	.62	.70
(d) Average acreage of agricultural grant	197	574	422	81	174	104	90
(e) Average acreage of small holding	3.2	3.0	3.7	2.7	3.1	3.7	3.1
(f) Grant acres per capita non-Malay	2.5	1.3	0.9	5.3	1.2	2.2	2.2
(g) Rubber acres per capita	.65	.62	.89	.76	.05	.96	.65
(h) Rubber acres per estate worker	13.9	11.3	20.8	22.1	n.a.	12.9	15.2
(i) Rubber acres per cultivated acre	.38	.61	.87	.45	.04	.80	.46
(j) Padi acres per cultivated acre	.14	.30	.09	.21	.19	.07	.17
(k) Padi acres per capita	.25	.31	.10	.38	.25	.09	.24
(l) Padi acres per capita Malays	.35	.60	.39	.48	.28	.19	.37
(m) Av. padi yield per acre in gantangs	188	164	133	173	121	87	144
(n) Padi production—g's per capita Malays	79	77	36	74	37	25	60
(o) Buffaloes per capita Malays	.35	.52	.24	.38	.25	.04	.31
(p) Buffaloes per acre of padi	1.0	.85	.62	.80	.90	.20	.83
(q) Chinese per cent of population	16	35	64	14	6	37	23
(r) Urban per cent of population	6	18	33	7	3	31	13
(s) Popn. increase per cent, 1911-21	26	42	57	11	4	21	23
(t) Malay popn. inc. per cent, 1911-21	7	26	24	13	10	62	17
(u) Population per square mile	7	22	19	17	6	15	10

*Note:* Land held under Approved Application is included in items (a) and (c) to (f). In item (r) estimates were made for the population of Sungei Lembing, Temerloh, and Bukit Koman. Aborigines are excluded from the calculations in item (t).

These indices emphasise significant contrasts between the various Districts and isolate characteristic combinations of economic activity. They also show the extent to which the various Districts have been influenced by the new economy and the new agriculture. At the same time they conceal important variations within Districts—especially in the case of Raub, Lipis, and Temerloh. None of the statistics available give a comprehensive coverage at Mukim level but a miscellany of reports and returns have been preserved in the files of some District Offices. These, together with revenue survey information, land alienation maps, and forestry exploration records<sup>10</sup> have been used to prepare a map showing zones of occupance in 1921 (fig. 34). While this map is derived from the materials discussed above, the categories employed

10. There was a large increase in forest exploration work about this date. Six unemployed rubber planters were engaged by the Forestry Department to carry out exploration surveys. Much of this new information was incorporated into Cubbitt, G.E.S.: *Wood in the Federated Malay States*, appendix D to 1923 Supplement.



have been chosen to permit comparison with both the 1888 zones of occupation map (fig. 13) and the 1909 regional division (fig. I).

In 1921, as in 1888, the tropical rainforest was still the dominant feature of the geographical scene. The population had trebled in the intervening years and man had built new lines of communication and established new towns. Rubber had been successfully introduced as a commercial crop while the area used for Malay subsistence cultivation had more than doubled. Nevertheless the total impact on the forest cover remained slight; only 2.5 per cent of the State had been cleared and most of the remaining forest remained untouched by timber cutters who could operate only in the vicinity of navigable rivers and existing lines of communication. Five of the six zones of occupation shown in figure 34 still contained large proportions of forest while the sixth and largest was almost completely unchanged by the developments of the previous four decades. Pahang in 1921 was still a land of forest but again the attention of the historical geographer is turned to those smaller areas modified and utilized by man.

### ZONE 1. MINING AND RUBBER CULTIVATION

This was the zone of most intensive economic activity, a zone with a well integrated economy. Two separate types of primary production, both export-oriented, shared urban and transport facilities and, in many instances, were tied together by capital linkages. Four different ethnic groups each made a distinctive contribution to the economy of the zone but any dichotomy between the western and native worlds was minimised by the activities of Chinese entrepreneurs and the willingness of the Malay population to combine subsistence and commercial forms of agriculture. While mining was the main activity distinguishing this zone from other zones in Pahang, there were significant differences also in agriculture, in urban development, and in the composition of the population.

The distribution of mining had changed little since 1909; over 98 per cent of the mining population in Pahang still worked in the two peripheral mining regions recognised in the reconstruction for that year (fig. I). Gold mining and the Raub Australian Gold Mines remained synonymous<sup>11</sup>, but the structure of the tin mining industry had changed. Mines under European ownership now accounted for 75 per cent of the total tin production and the number of workers employed on a wage or contract basis exceeded the number of tributors. Tin production was 31 per cent higher in 1921 than in 1909 despite the fact that the labour force had decreased by 25 per cent<sup>12</sup>.

The increase in the importance of the European mining sector was partly the result of expanded production by the Pahang Consolidated Company at Sungei Lembing, in the eastern portion of this zone. This company was the

11. In 1921 the Raub mining company produced 14,681 oz. of gold valued at almost £500,000.

12. The annual returns of the mining industry, from which these calculations are made, are contained in *P.A.R.* 1921 and *Mines, F.M.S. A.R.* 1921.



largest economic enterprise in Pahang; it operated over half the mechanical horse-power used in the State and produced 57 per cent of the total tin output. Miners employed numbered 3,162 and when the population census was taken there were 5,345 people living in the vicinity of the mines<sup>13</sup>.

Four European owned tin mines were established in the western portion of the zone. In terms of the capital employed, and the degree of mechanisation, they resembled the older company at Sungei Lembing or the gold mining company at Raub but the scale of operations was much more modest. The two most efficient were the Bentong bucket dredge and the Murai lode mines which respectively produced 6.9 and 8.2 per cent of Pahang's tin exports.

In 1921 the era of small scale mining by Chinese tributors was rapidly coming to a close. The labour force and hence the output were inflated by unemployment in other occupations but most of the *lampan* mines were under notice to erect tailings retention schemes by the end of the year or suspend operations. This effectively sounded the death knell of those small enterprises whose success previously had depended on their low capital investment and their mobility. From this time onwards Chinese alluvial mining could only legally continue where tailings were controlled by natural features, or where the size and permanency of the workings justified the expense of retention works.

The main area of alluvial mining was in the Perting and Repas valleys behind Bentong. Here government proposed to construct retention works and recoup the cost by a cess on future production. North of Tras, in the valleys of the Liang, the Gapis, and the Sempam, European companies were erecting similar works in order that mining by Chinese tributors could continue. Elsewhere in the zone the prospects were discouraging. The Assistant-Warden of Mines visited Gambang to investigate the possibility of a government scheme but his report held out little hope for this once flourishing tinfield:-

"The Gambang area consists of a number of small Chinese mines employing five hundred to six hundred coolies. There are no mines of sufficient size to warrant dumping areas on a large scale. There are no instances where land has been fertilized and reclaimed in this decadent and isolated village which I understand was once a prosperous mining town. The majority of the residue tailings pass into a large swamp which would require very considerable expenditure before it could be reclaimed and rendered suitable for anything"<sup>14</sup>.

Most of the cultivated land in this zone was planted with rubber (Table 11). Other areas of Pahang may have contained a similar acreage of rubber but most of the plantations here were longer established and the proportion of immature rubber was much smaller. While most of the planted area in this zone was found on estates, either European or Chinese owned, there were also

13. This figure does not include a further 1,456 on the company's rubber estate at Kuala Reman. *Kuantan* 854/20.

14. Report by Assistant Warden of Mines contained in *Mines, Pahang* 107/22.



numerous small and medium holdings in the vicinity of the towns, the mining areas and the lines of communication. Some of the estates were owned by companies formed solely for rubber cultivation; other estates and many medium holdings were owned by companies, or syndicates, with additional interests in mining or commerce. Estates under European management, including at least one which was Chinese owned, employed a labour force which was specially recruited and trained for the purpose<sup>15</sup>. In the Kuantan District several estates had a Javanese labour force while in the Raub and Bentong Districts Indians were usually preferred. Local labour, mainly Chinese but also including Malays, was employed on most other estates and larger holdings.

Many of the Malay settlers in this zone combined the cultivation of rubber with that of kampong crops such as coconuts and fruit trees. Not infrequently, rubber was planted illegally on holdings alienated for subsistence forms of cultivation<sup>16</sup>. Padi production was of little importance either in the Kuantan and Bentong Districts (Table 11, items (m) to (p),) or in the Mukims of the Raub District included in this zones<sup>17</sup>.

In 1921 this zone of mining and rubber cultivation contained the largest proportion of the urban population in the State; if the large nucleated mining settlements at Sungei Lembing and Bukit Koman are included, the figure stood at 70 per cent; if they are excluded it was still over 60 per cent. All of the towns here were well established and dominated by rows of substantial Chinese shophouses. Some, such as Bentong and Kuantan, were still expanding. Others, such as Tras, Trantum, and Gambang had lost population with the decline in alluvial mining but were finding a new role as centres for areas of smallholding and medium holding rubber cultivation. Bentong, whose population had doubled again since 1911, was the biggest and most bustling of all. The urban centres of this zone were sustained, not only by the commercial and administrative functions which they performed, but also by the re-investments which many of their Chinese businessmen had made in mining and agriculture.

As the foregoing discussion would imply, this was the zone where immigrant peoples were in a clear majority (fig. 33). During the previous decade this zone had maintained a rate of population increase comparable with those of Kedah and Johore<sup>18</sup>. Continued migration had maintained the population characteristics previously noted in the peripheral mining regions recognised in 1909. In 1921, approximately half of the people in the zone were

15. The Chinese owners of the Jeram Estate appointed a European manager in 1915. (*Kuantan* 47/15 and *Kuantan* 870/20). Returns of the labour employed on estates are contained in the Annual Reports of the Department of Labour (cf. fig. 32).

16. This fact is readily confirmed by a comparison of the *Mukim Registers* with the *Rubber Registers* held in the District Offices.

17. Padi returns for Raub Mukims are contained in *Raub* 208/22, buffalo returns in *Raub* 43/23.

18. Compare Table 8 with Table 11, items (s) and (t). The lower rate in the Kuantan District is accounted for by a partial exodus of Chinese from the Gambang tinfield.



Chinese and the majority of the Malays were either immigrants or the children of immigrants. The Malays were fairly evenly distributed through the settled areas but showed a preference for rural areas adjacent to the towns. Indians were found in nucleated settlements on some of the larger estates and also in the towns. Chinese predominated in the towns and mining settlements and were widely distributed in the rural areas. Some Chinese were found on rubber plantations, some were engaged in logging work in the forested areas and others were shopkeepers and traders living among the Malays. The majority of the people, Malays and non-Malays, immigrants and indigenes, were integrated into the money economy.

Judged by the values of the immigrant communities, there is no doubt that this was the zone of most mature economic development in 1921<sup>19</sup>. Its mines and its agricultural areas produced by far the greatest portion of the State's exports and its towns and commercial facilities were correspondingly well developed. The primary road system in the western portion of the zone was adequate for the needs of existing enterprises while in the east the development of private communication facilities partly compensated for deficiencies in the public network. The influences of the world commercial economy had spread to all sections of the population. Around the fringe of the cultivated areas agricultural pioneering and timber extraction continued, but the amount of accessible, unalienated land was diminishing, especially in that portion of the zone adjacent to the western States. The economic development which characterised the tin and rubber regions of the western Federated Malay States was, in effect, duplicated in these two portions of Pahang.

## ZONE 2. RAILWAY-ORIENTATED RUBBER CULTIVATION

In the second zone commercial rubber cultivation was orientated, not to the mining districts, but to the new East Coast Railway. The availability of well drained, unoccupied land, and the access to outside markets provided by the railway had been the most critical location factors. The zone extended along the railway from the Negri Sembilan border to the Selbourne Estate, near Padang Tunku. In the Temerloh District it was bordered in the east by the swampy land adjacent to the Pahang River. At several points in the Lipis District it was pinched out where the railway ran through areas of irregular topography and Malay settlement. Roads were locally important near Kuala Lipis and Jerantut, not because they allowed communication with the western States, but because they provided a link with the railway. Compared with the previous zone, this was an area of pioneering development. In 1921 most of the estates and the towns still bore a frontier appearance.

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19. J.E. Spencer provides a timely reminder that "the development of any region can only be in terms of its own population and culture". See "The Cultural Factor in 'Under-development'. The Case of Malaya", in Ginsburg, N.S. (ed.): *Essays on Geography and Economic Development*, pp.35-48.



A very large proportion of the rubber plantations in this zone were owned by Chinese<sup>20</sup>. The ratios of estate rubber land to other rubber land was lower here in spite of the fact that one Chinese estate at Mengkarak ranked with the Kuala Reman Estate as the largest in Pahang<sup>21</sup>. The outstanding characteristic of the zone was the very large number of medium holdings and small estates. Most of these were owned by Chinese who had taken up land during the currency of the *Rubber Lands (Restriction) Enactment*. Later, when the land was planted and railway construction halted, many of the owners left their holdings in the care of local agents and returned to Selangor and Negri Sembilan<sup>22</sup>. Except for the European owned Benta Estate, on the Kuala Lipis to Jerantut road, the estates were all located adjacent to railway stations while the greatest concentrations of medium and smallholdings were found in the vicinity of towns such as Triang, Mentekab, Kuala Krau, and Kuala Lipis, which had acted as bases for rail construction work.

Although the area planted with rubber was almost as great as that in Zone 1, the acreage of immature rubber was much greater. In addition there were large areas of forest which had been felled but not cleared, and further areas which had been cleared and not planted. Some of the latter carried catch crops of tapioca, others lay bare to the sun and the rain. In between were large areas of forest, representing land that was still available for alienation. In many of these, Chinese contractors were busily engaged in extracting logs that were exported to the western States or sawn into timber at Triang or Mentekab. Everywhere there were signs of recent rapid expansion and uncompleted development.

Apart from Kuala Lipis, all of the towns in this zone had a frontier appearance. They were, in effect, railway construction camps struggling to emerge in more permanent form. Triang, Kuala Krau, Teh, Tembeling, and Padang Tunku, which now served adjacent areas of commercial agriculture, were developing but slowly. Mentekab and Jerantut were more strategically located and already showed evidence of more rapid expansion. The declining State Capital at Kuala Lipis had been rejuvenated by the advent of the railway and had 13 hundred more people than in 1911. Now that the railway was opened it was well located to link together the disparate elements which made up the settled areas of Pahang. Its location away from the centre of gravity

20. No exact figure can be given. The assumption is, however, supported by land alienation records and present day observation. In 1924 there were 48 estates in the Temerloh District and 23 in Lipis according to *Health on Estates in the F.M.S. Report of the Commission of Enquiry*. Only two of the former and three or four of the latter appear to have been European owned. *Temerloh* 348/15, *Temerloh* 870/23 and *Lipis* 353/23.

21. At Mengkarak, Gan Sang and others owned several large holdings under various names including Teng Hock, Teng Aik, Mentri, and Fung Fil. In 1923 there were between five thousand and six thousand acres under rubber (*Temerloh* 870/23). Because of his British citizenship Gan Sang had been exempted from the provisions of the *Rubber Lands (Restriction) Enactment* and was able to take up an additional 5,000 acres in 1918.

22. Application from many such people, together with correspondence relating to changes of address, are contained in the Temerloh files for 1916 and 1917.



of economic activity was offset by the fact that the major road, rail, and river communications all met at this point.

### ZONES OF MALAY OCCUPANCE

The zones already discussed had absorbed almost all of the immigrant population and the greatest share of capital investment. In a span of little over three decades, the landscapes of these zones had been transformed and the new economy introduced. In the remaining areas the changes were less obvious; the distribution and composition of the population was almost identical with that in 1888 and to a large extent the old patterns of occupance had persisted. Nevertheless, these areas were also influenced by the economic changes which followed in the wake of British administration.

#### Zone 3. Malay Agriculture with Rubber.

This zone embraced the Malay agricultural areas of the Temerloh, Raub, and Lipis Districts, with the exceptions of the more remote Tembeling valley, and lay in close juxtaposition with the areas of commercial rubber cultivation in the same Districts. Previous reconstructions have shown that this zone had a long tradition of padi cultivation. Nonetheless, in 1921 rubber was widely cultivated on Malay smallholdings and formed an important adjunct to subsistence forms of agriculture. At the same time production of padi per head of Malay population was highest in the three Districts which contained this zone (Table 11, item (n) ) and a study of padi returns for the seasons following the end of World War I shows that sufficient was produced to meet the needs of the local Malay population. The subsistence base of Malay agriculture in this zone was thus stronger than it had been in 1888 and, in addition, rubber cultivation allowed the Malays to raise their standard of living without the need to abandon their padi or kampong land. Provided a market for natural rubber was available, this perennial crop offered a complete solution to the problems of shifting cultivation and the collecting mentality.

#### Zone 4. Malay Agriculture without Rubber.

In this zone, bordering the lower Pahang and the Tembeling Rivers, the position was less satisfactory. Padi cultivation in the Pekan District had never reached a high standard; yields from *tenggala* land were low and the cultivation of the deeper swamps beside the lower Pahang River involved water control problems that were not found in the narrower valleys of the interior districts. In the Tembeling Valley, physical conditions were not unlike those of the Jelai and the Lipis Valleys but the population density was far too low for the people to maintain irrigation works or control pests and animals. In spite of the efforts which the administration, supported by the Malay rulers, had made to increase padi cultivation, the returns in 1921 were far from adequate; yields were among the lowest in Pahang and the rice produced was not sufficient to last the Malays for more than six months of the year (table 11, item (n) ).



Commercial cultivation was insufficient to ease the situation. In some areas, near Pekan and Kuala Pahang where transport facilities were better, coconut cultivation had increased and a small scale copra industry existed<sup>23</sup>. For the majority of the settlers, however, agriculture provided no cash income with which to buy additional rice and they were able to achieve a minimum standard of living only by collecting jungle produce and planting poorer quality food crops such as tapioca, yams, millet, and sweet potatoes<sup>24</sup>.

### Zone 5. Fishing and Malay Agriculture.

In this coastal zone agriculture played a very subsidiary role. It was, however, sufficiently well established to ensure permanent settlement. Maps produced by the Survey Department about this date show that there were at least twenty settlements located on the Pahang coast<sup>25</sup>. In three of these—Penor, Bebar, and Kuala Rompin—the settlers had opened up small patches of wet padi land<sup>26</sup> and at Kuantan and Beserah a number of fishermen owned rubber land some distance inland<sup>27</sup>. Fruit cultivation at Endau was the subject of favourable comment in 1933 and it is possible that the trees were established in 1921<sup>28</sup>. Elsewhere, coconut trees were the only form of cultivation. Except at Kuala Pahang these provided no cash income. Agriculture had established a precarious foothold but it was an inadequate base to support the fishing population during the months when fishing was not possible. With few exceptions, the fishermen were still bound to the old-established custom of receiving advances from those who controlled the fishing industry.

## ZONE 6. THE FOREST ZONE

While the extent of this zone had diminished since 1888, it still constituted the largest portion of the State (figs. 13 and 34). Records are neither complete nor precise but it would appear that the rate of exploitation and the density of settlement in 1921 were little different from those at the earlier date. A reduction in the number of lumbering gangs in 1921 was balanced by the presence of several small groups of Chinese miners, while the size of the Aboriginal population and the extent of jungle produce collections were similar at both dates.

In 1921 most of the lumbering in Pahang took place in the forested portions of Zones 1 and 2 rather than in this forest zone. Most of the Chengal (*Balanocarpus heimii*) and Merbau (*Intsia palembanica*) timber had been removed

23. P.A.R. 1919, p. 8.

24. *Idem*.

25. F.M.S. Surveys: *Reconnaissance Map of South East Pahang*, 1922, 2 miles to an inch. F.M.S. Surveys: *Pahang Trengganu Boundary*, 1923, 1 mile to an inch.

26. Jack, H.W.: *Distribution of Padi Areas in Malaya*, 1923, 40 miles to an inch.

27. Government policy had been to refuse applications for rubber land in the vicinity of coastal settlements and to insist on padi and coconuts. *Kuantan* 80/16.

28. "Report on Survey of Cultivated Fruits in Pahang" in *Lipis* 568/34.



from those areas of the coast districts which could be reached by rivers. Only at Aur and Gunong Lesong, where Forest Reserves had been constituted, had the rate of exploitation been controlled. The new lines of communication in the interior of the State gave access to forests hitherto inaccessible and most of the timber cut in 1921 was obtained from areas immediately adjacent to the roads and the railway. The only lumbering recorded within Zone 5 was that carried out by Chinese licencees at work within the Gunong Lesong Forest Reserve<sup>29</sup>.

There was some tin mining carried out in the south of the Pekan District in 1921. Since the impact on the forest cover was slight and the numbers employed were small, no separate mining zone is included in the occupation map. Within the Gunong Lesong Forest Reserve, Mungo Park employed 71 Chinese but mining simply consisted of "small, shallow open-casts in three widely separated groups which are shifted as the ground becomes unremunerative"<sup>30</sup>. In a second area in the upper reaches of the Endau and the Kinchin Rivers the Mining Department counted 20 miners but it is possible that others were mining illegally and that tin produced was taken across the State border to Johore. It was clear, however, that the development of any large scale mining in that area was considered unlikely by the Assistant-Warden of Mines who wrote that "there are certainly indications of more mineral wealth in the Ulus of the Endau and the Kinchin but the reports of these, in my opinion, have been greatly exaggerated. The cost of transport is well nigh prohibitive and I do not believe the inaccessibility of this region has ever been sufficiently realised"<sup>31</sup>.

**Table 12. Aborigines Enumerated in Pahang, 1911, 1921, and 1931.**

District	1911	1921	1931
Lipis	2,562	3,971	6,007
Raub	734	871	838
Bentong	243	262	572
Temerloh	2,444	2,554	2,835
Pekan	3,923	3,974	4,057
Kuantan	307	366	225
Total for Pahang	10,213	11,998	14,622

The most numerous inhabitants of this zone were the Aborigines. The 1921 census was more complete in its enumeration of these people than the 1911 one but a comparison with the census for 1931 would indicate that as many as two thousand went unrecorded in the Lipis District in 1921 (Table 12). The majority of the Aborigines were in the north-west and south-east portions of

29. *Forestry, F.M.S. A.R.* 1919 and *Forestry, F.M.S. A.R.* 1920.

30. *Mines, Pahang A.R.* 1921, p.8.

31. Report by the Assistant Warden of Mines contained in *Mines, Pahang* 107/22.



the State (fig. 35). The author of the relevant section of the census reported a tendency for many of them to settle down. "In Ulu Pahang," he wrote, "it is not uncommon to see coconut trees in bearing in an aboriginal settlement showing that the owners have lived in one place for more than six years"<sup>32</sup>. Judging by those Districts where enumeration was almost complete in both 1911 and 1921 it appears that the Aboriginal population was almost static in numbers. To a large extent this may be attributed to a high mortality rate but an important secondary factor was the tendency for those Aborigines who lived in close proximity to Malays to intermarry with the latter and be absorbed into the Malay kampongs where they would be regarded as Malays in any subsequent census<sup>33</sup>.

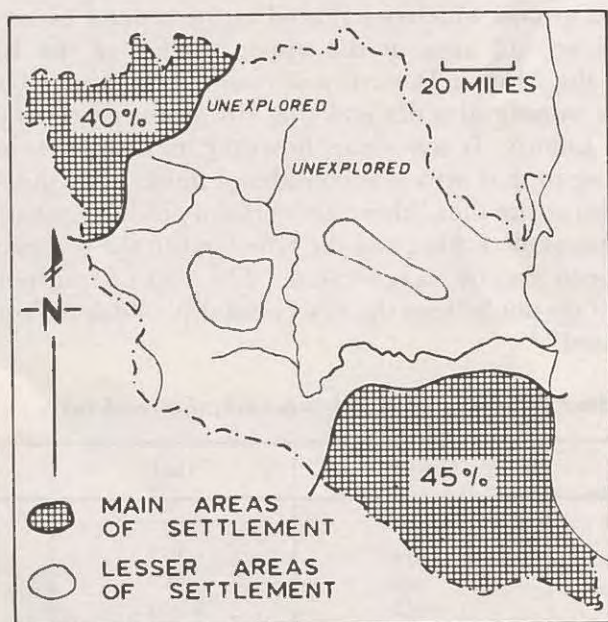


FIGURE 35 DISTRIBUTION OF ABORIGINES 1921

32. Nathan: *Census of British Malaya 1921*, p.125. This comment also applied to Negri Sembilan.

33. A well documented example of this was in the area proposed as the Sungei Tekam Forest Reserve in 1917. The author of the formal proposal wrote as follows:- "There are traces of recent Sakai tapioca cultivation near the sources of the Sungei Batu, Sungei Thr, Sungei Siang, and along the banks of the Sungei Tekam itself but habitations are scarce owing to the Sakais of this locality being friendly with the Pulau Tawar Malays with whom they are gradually merging. Many have now taken to cultivating proper padi fields at Pulau Tawar and it will not be long before the tribe is absorbed by the Malays." *Forestry, Pahang* 60/17.



The collection of jungle produce was still an important occupation in 1921. Many Malays, especially in the coastal districts, and a large proportion of the Aborigines, were engaged in the collection of rattans, guttas, and resins of many kinds. Most of these were sold to Chinese traders who lived and travelled in many remote localities within this zone. Hitherto most products had been exported from Pahang in raw form but in 1921 C.J. Windsor of Kuantan was in the process of erecting a factory to refine *Gutta Taban* and *Gutta Jelutong*. At the same time the Forest Department was increasing its supervision over the removal of forest products and was taking steps to ensure that trees were not killed by the tapping methods used.

### LAND UNLIMITED?

Pahang in 1921 was no longer remote, undeveloped, and inaccessible. Mining and commercial agriculture were well established and large areas of accessible agricultural land were available for alienation. Good, well-drained land was available along the railway line and the ratio of alienated land per mile of metalled road was lower in Pahang than in the western States of the Federated Malay States<sup>34</sup>. In the vicinity of the Benta to Gambang road, the Karak to Kuala Pilah road, and the almost completed road from Karak to Mentekab (fig. 31), there were large unsettled expanses with an agricultural potential similar to that of the developed areas of western Malaya.

Given favourable economic conditions, Pahang in 1921 offered considerable scope for agricultural expansion. For half a century Pahang had lagged far behind the western States in the race for development. Now, however, the main pioneering phase was completed and the infrastructure for further development laid down. Towns, commercial firms, social services, and communications were well established. Large areas of agricultural land were available for immediate occupation and greater reserves remained for subsequent expansion. Economic conditions were not, however, favourable. The expanding demand for rubber had collapsed and the future was full of uncertainty. In 1921 the essential infrastructure for development was complete, Pahang was ready and waiting, but the opportunity had passed.

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34. In Pahang there were 744 acres of alienated land per mile of metal road. The figures for Selangor, Perak, and Negri Sembilan were 858, 999, and 1,053 respectively.



## CHAPTER 10

### THE YEARS OF RESTRICTION, 1921 to 1939.

In the two developmental periods between 1889 and 1921 the forces making for change in Pahang were strong and the patterns of growth were comparatively clear cut. After 1921 the forces making for growth were weaker, and their effects diffused, with the result that the patterns of change are more difficult to discern. If the present study were solely concerned with a description of geographical change in a past age there would be little justification for continuing the narrative beyond the climax which occurred at the end of the second decade of this century. Since, however, this study also aims to provide background material for a study of contemporary geography, it is continued through to the eve of the Japanese Occupation.

Development during the first two periods had been stimulated by favourable prices for tin and rubber; during most of this third period it was depressed by low prices and international schemes designed to restrict the output of these two commodities. The major impetus for expansion was removed after 1920 but not all the spread effects of earlier development were stifled. A proliferation of lesser geographical changes clamour for simultaneous treatment in the developmental narrative for the third period, thus emphasising the fundamental problem of the historical geographer. In the present chapter a number of topics are woven into a chronological narrative and the inherent strains are reduced by recognising four shorter periods and pausing to discuss the 1926 flood, a natural calamity of considerable significance.

#### 1921 to 1926. DEPRESSION AND GRADUAL RECOVERY.

Whereas the latter years of the previous period were highlighted by a strong demand for rubber and a rapid expansion of the area of alienated land, this period opened with a depression which was felt most severely in the rubber industry. In 1921 the price of rubber fell to 21 cents per pound and tapping was suspended on many estates and the majority of those smaller holdings which employed hired labour. Between November, 1920, and April, 1921, over seven thousand people left the estates alone<sup>1</sup>. Malays who relied on rubber cultivation for their livelihood were able to turn back to subsistence agriculture but the Chinese and Indians who lost their jobs were less fortunate. Some were employed by the government in the construction of a hill station and recreation centre at Fraser's Hill, some turned to vegetable cultivation, while the remainder moved into the towns or returned to their homelands.

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1. This figure is the difference between the preliminary census returns for estates and the final enumeration. Nathan, J.E.: *Census of British Malaya*, 1921, p. 135.



New alienation of rubber land was suspended and very little rubber was planted on land already occupied.

This uncertainty in the rubber industry persisted until the end of 1922 when the Stevenson Restriction Scheme was adopted by the governments of Ceylon, Malaya, and certain other lesser producers of rubber. In spite of the fact that the Netherlands East Indies was not a party to the agreement, the Federated Malay States passed the *Export of Rubber (Restriction) Enactment* in October and the Rubber Restriction Department began work at the beginning of 1923. The aim of the scheme was to raise the price of rubber by restricting production according to a system of quotas and to prohibit the alienation of further land for rubber cultivation<sup>2</sup>. The introduction of the scheme coincided with an improvement in the world economic situation and increased rubber consumption in the automobile industry. The net result was a gradual recovery in the price of rubber and by the end of 1924 most of the estates and smaller holdings had resumed tapping. New planting was permitted on land that was already alienated for rubber cultivation and during the next few years there was a modest expansion of the planted acreage in areas where rubber cultivation was already established (Table 13). By 1926 the industry had recovered a measure of prosperity but the rate of growth was on a subdued scale compared with that of the previous period.

The price of tin also dropped sharply at the end of 1920 but superficially it appeared that the mining industry was less affected by the depression than was the rubber industry. Production of tin fell off by less than one quarter (fig. 21) and employment was maintained at a comparatively high level in spite of the closure of a number of labour-intensive *lampan* mines following the enforcement of the government's tailings retention policy<sup>3</sup>. The European mines curtailed the scale of their operations and reduced their labour force but many of the Chinese intensified their efforts to increase output and thus compensate for the lower price (fig. 36).

The return of prosperity from 1924 onwards was not accompanied by an increase in the scale of mining activities. During the depression, development work and prospecting had been kept to a minimum and the delayed effects of this were felt at the time when prices were recovering. In addition the government was steadily enforcing its tailings retention policy. In areas such as the

2. In Malaya each rubber holding was assessed and given a standard production figure which determined its share of the allowable exports each quarter. When the quarterly quota was decided, estates over 100 acres were given licences to export and smallholders were issued with coupons which entitled them to sell rubber to licenced dealers. Since these coupons were transferrable they soon acquired a cash value and less efficient or less industrious producers tended to rest their trees and sell the coupons when the quota or the price of rubber was low. The scheme was effective for a time in that supply was reduced and the prices rose but the long term result was a large expansion of rubber acreage in the Netherlands East Indies and other countries which remained outside the agreement. For a full discussion of the wider implications of rubber restriction see Bauer, P.T.: *The Rubber Industry, a Study in Competition and Monopoly*.

3. See Chapter 9, page 101



Ulu Lipis and the Ulu Jelai some mining was allowed to continue until the expiry of the existing leases but after that no new leases or prospecting grants were issued for areas where tailings control was considered to be impracticable<sup>4</sup>. It is significant that these anti-erosion measures were first enforced at a time when it was in the interests of the European mining community to restrict the supply of tin exported.

**Table 13. Planted Area of Rubber on Pahang Estates, 1918 to 1927.**

Year	Area of Rubber in acres	Year	Area of Rubber in acres
1918	29,634	1923	38,728
1919	33,780	1924	39,570
1920	35,971	1925	40,257
1921	37,076	1926	42,725
1922	37,555	1927	45,744

*Source:* This information is tabulated from *Rubber Restriction, F.M.S.A.R.* 1927. The earlier reports of the same department give what is allegedly the same information but the totals for each year are revised in successive reports.

Between 1920 and 1926 the structure of the tin mining industry changed considerably. The exhaustion of the best alluvial deposits, and the enforcement of regulations which discouraged the methods of mining employed by the Chinese, resulted in a decline in production by the Chinese sector. The results of geological surveys in south-east Pahang discounted the possibility that any large deposits of alluvial tin would be found in that area<sup>5</sup>. In 1925 and 1926 the Pahang Consolidated Company and the Bentong dredge both maintained production at a high level but output from all other sources declined. By 1926 the Pahang Consolidated Company alone accounted for 95 per cent of the tin produced in Pahang (fig. 21). To a greater extent than ever before, this company was the paramount economic enterprise in the State.

With the collapse of the rubber market there was an increase of interest in other forms of commercial cultivation. The administration attempted to encourage oil palm cultivation by offering special premia and rentals. In spite of a number of enquiries there was only one large alienation<sup>6</sup>. By the end of 1925 only 323 acres had been planted and as confidence in rubber recovered so interest in oil palm fell off in Pahang<sup>7</sup>. Attempts were also made to cultivate arghan fibre and an area of 5,000 acres was taken up by the Arghan Company at Kuala Tembeling in 1923. The venture was soon abandoned,

4. See discussion on the "Report of the Committee appointed to enquire into the question of mining upstream of Kuala Tembeling" which is contained in *Mines, Pahang* 221/25.

5. *Geological Survey, F.M.S.A.R.* 1925, p. 7.

6. This was at Budu, near Kuala Lipis. *Lipis* 315/23.

7. *Agriculture, F.M.S.A.R.* 1925, Acreage of Miscellaneous Minor Crops.



FIGURE 36  
LABOUR FORCE IN MINING 1921-1939

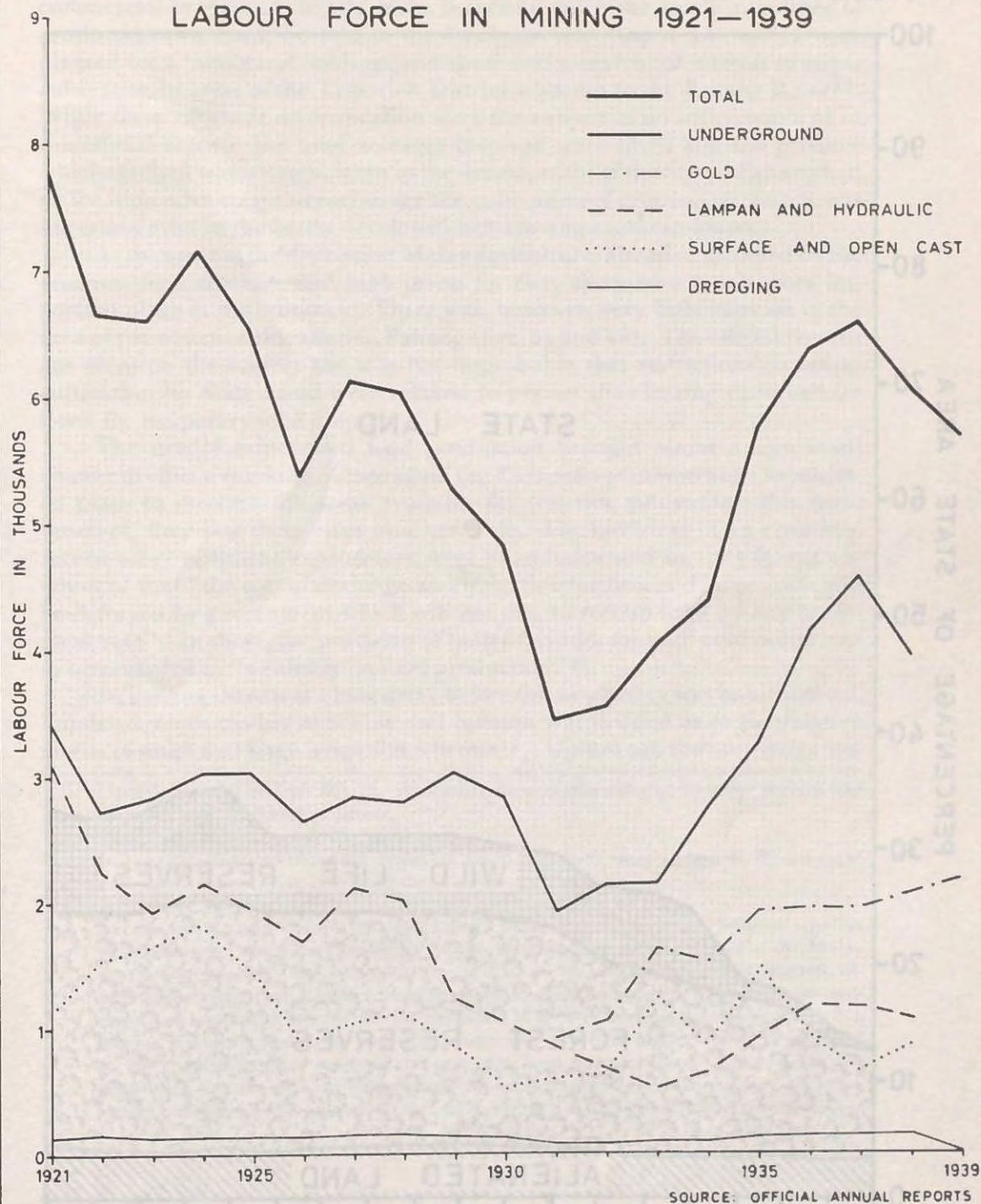
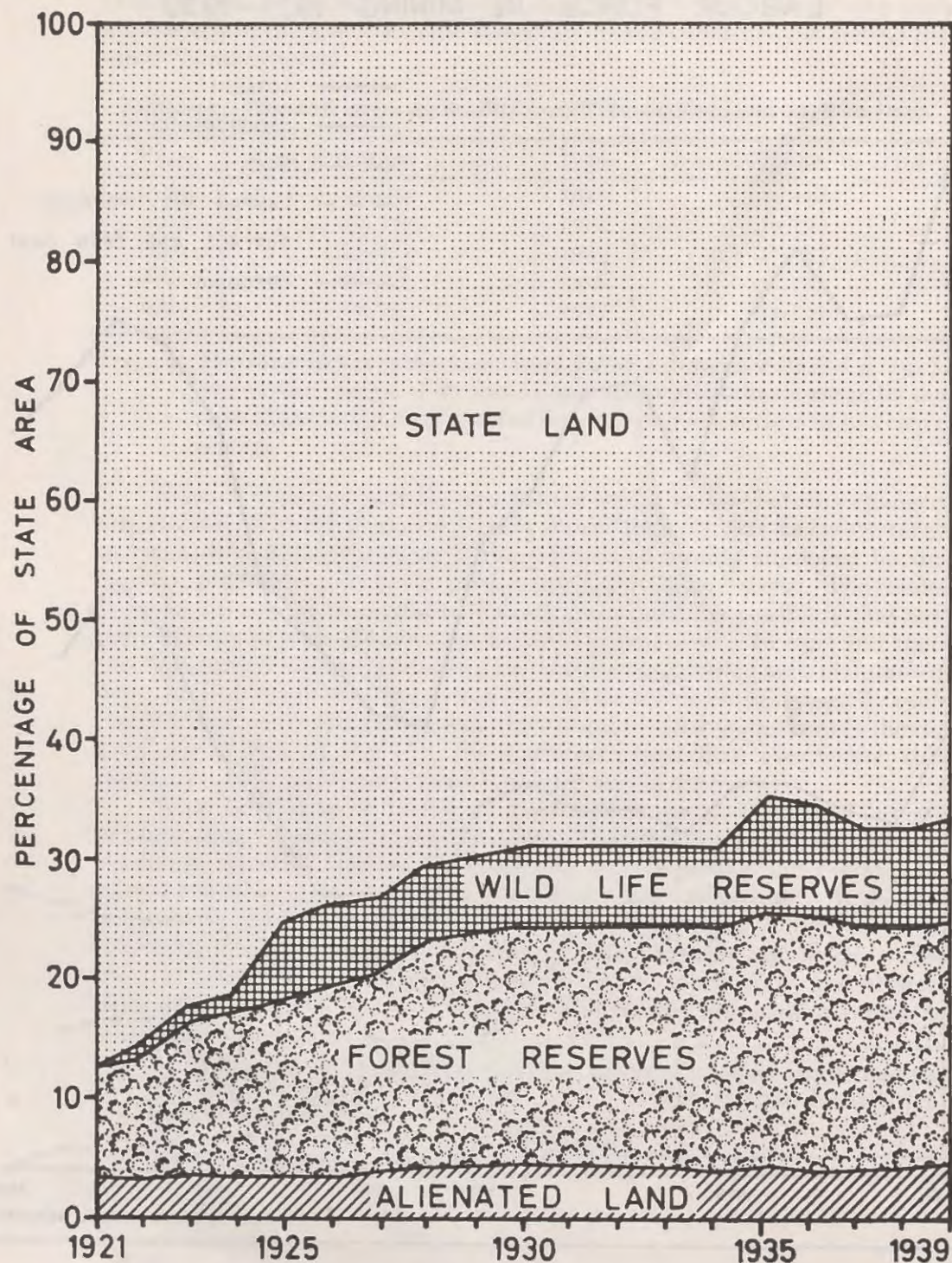




FIGURE 37 PAHANG: PROGRESS OF  
ALIENATION AND RESERVATION 1921-1939





however, and the land reverted to government in 1926<sup>8</sup>. Tapioca continued to be grown on Chinese rubber estates in the Temerloh District but there was no significant increase in the area planted<sup>9</sup>. Smallholder cultivation of commercial crops was slightly more successful since the small quantities of produce grown could be sold to the local market. Kapoc and coffee were planted on a number of holdings and there was a revival of interest in sugar cultivation in areas of the Temerloh District adjacent to the Pahang River<sup>10</sup>. While these efforts at diversification were the subject of no little comment in the official reports, the total acreages involved were small and the produce which resulted was not significant in the development of the State. Pahang had no location advantages to encourage the cultivation of crops whose future was uncertain even in the better developed western and southern States.

At the onset of the depression Malay agriculture, already expanded by the post-war food shortage and high prices for rice, assumed a much more important place in the economy. There was, however, very little increase in the area of permanent cultivation in Pahang (figs. 25 and 28). The official records are silent on the subject but it is not improbable that restrictions on *ladang* cultivation on State Land were relaxed to permit the clearing of secondary forest for temporary food crops.

The need for increased food production brought about a significant change in official thinking. Once again the European administrators formulated plans to increase the areas available for wet rice cultivation; this time, however, they saw themselves in a new role. The old ideas of an economic return on government expenditure were abandoned and in 1923 it was announced that "the cost of drainage and irrigation for new and large areas will be defrayed by government which will not seek to recoup itself by any assessment rate". In short, the provision of better facilities for padi cultivation was to be regarded as "a subsidy on food production"<sup>11</sup>.

In Pahang there was a long delay before this new policy was implemented. Funds were not readily available and opinion was divided as to the relative merits of small and large irrigation schemes<sup>12</sup>. Up to 1926 the only irrigation

8. Lipis A.R. 1926 in *Lipis* 865/26. An earlier unsuccessful attempt to grow arghan had been made in the Rompin district.

9. *Temerloh* 1118/24.

10. In 1923 the District Officer for Temerloh noted that there were 46 buffalo-driven sugar mills at work producing unrefined sugar. *Temerloh* 870/23.

11. *F.M.S.A.R.* 1923, p. 15.

12. In 1920 and 1924 the District Officer for Pekan put forward a strong case for small schemes when he wrote, not without emotion, that "something must be done to assist the Malay population, probably the poorest in the F.M.S. at the present time. The stunted, ill-nourished children are a sufficient indication of the general poverty. I would not recommend any ambitious scheme for the irrigation of a large area in this District. Such a scheme take years to develop and, if successful and attractive to the Malays, would lead to the abandonment of much of the kampong land now occupied. There is not the population to cultivate a large area of new land and maintain existing holdings" (*Phg. Sec.* 247/27). Similar sentiments were expressed by other District Officers but officials further

(Continued on next page)



work undertaken by the government was an abortive attempt to irrigate a large area at Pulau Tawar in the Lipis District<sup>13</sup>, and two replacement dams in the Raub District. Other schemes were considered but little progress was made because of a lack of technical staff in the Hydraulic Branch of the Public Works Department<sup>14</sup>. The administration was more aware of the problems of subsistence agriculture but they were not as yet stimulated into effective action.

Except for the completion of the hill station at Fraser's Hill, public works came to a halt during the worst years of the depression. In 1923 work was recommenced on the railway line and in November this opened as far as Chegar Perah, midway between Kuala Lipis and the Kelantan border. The road from Karak to Mentekab was at last completed in 1924 and construction commenced on a new road from Kuantan to Pekan. About the same time a Federal Committee began a survey of the remote north-west of Pahang with a view to establishing a hill station at Cameron Highlands<sup>15</sup>.

The most far reaching change which took place during these years of depression and recovery was the extension of the area reserved for forest and wild life (fig. 37). During the previous decade conservation policies had been formulated at federal headquarters in Kuala Lumpur and the machinery for reservation created. The success with which these policies could be implemented in the western States of the Federated Malay States was limited by the fact that the best land there had been exploited for timber or alienated for agriculture before sufficient reserves had been established. Increasingly the Forest Department, and later the Game Department, looked to Pahang as an area where large reserves could still be established. Between 1921 and 1926 there was a negligible demand for land for mining and agriculture and the establishment of new reserves met with little opposition. Large areas of average to good agricultural land in the vicinity of the Karak to Mentekab road and the Benta to Maran section of the Benta-Kuantan road were set aside as Forest Reserves; for better or for worse potentially valuable agricultural land was to be withheld from occupation and preserved intact until such time as the Forestry Department was prepared to release it for controlled timber extraction on a permanent basis. Wild Life Reserves were established in less accessible areas but the protection of Malayan wild life for the benefit of licenced big-game hunters was not viewed with enthusiasm by those settlers who had already established padi fields or rubber estates in adjacent areas<sup>16</sup>.

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up the administrative hierarchy held the view that "no area of less than five hundred acres is worth considering as an irrigation area". The size envisaged varied directly with the distance of the official from the padi field.

13. This scheme was completed in 1923 but "did not pass tests for efficiency" (*P.A.R.* 1923, pp. 6-7.) and was subsequently abandoned.

14. *P.A.R.* 1924, p. 8.

15. *Lipis* 104/25 and *Lipis* 1043/31.

16. From 1923 onwards District Office files contain many letters requesting the destruction of elephants or tigers which were damaging crops and houses or attacking livestock and

(Continued on next page)



It was during these same years that the policy of establishing Malay Reservations was initiated on a widespread scale (fig. 38)<sup>17</sup>. The aim was to secure to the Malays land which was suitable for subsistence or semi-subsistence agriculture<sup>18</sup>. For the most part the land selected was better suited for padi and kampong cultivation than for large scale commercial cultivation. Had the reservations been established at a time when there was a strong demand for land, it is almost certain that greater attention would have been given to topographic detail. In Mukims Chenor and Pulau Tawar reservations were made which extended many miles inland from existing areas of settlement and each was given a long frontage on the Benta-Kuantan road. In the Lipis District large reservations were established adjacent to the same road between Tanjong Besar and Jerantut<sup>19</sup>. In each of these cases the reservation permitted the eventual expansion of Malay settlement into areas that may otherwise have been occupied by commercial agriculture.

By and large the establishment of reserves and reservations had no immediate effect on the geography of the State. By 1926, however, when the depression was passed and the Land Offices re-opened their books to applications for rubber land, it was realised that the area of land that was both accessible and suitable for alienation by commercial interests was considerably reduced. Since that date the pattern of expansion has been much influenced by the existence of Forest Reserves and Malay Reservations. At the end of 1926, at a time when the area of commercial cultivation was again increasing, there occurred a natural event which disposed many of the Malay settlers to move from their riverside homes in the Lipis District and open up new areas adjacent to the roads.

### THE 1926 FLOOD.

Peak rainfall normally occurs in Pahang during the period December 15th to January 15th and floods at this time are a regular occurrence. At the end of

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human beings. Invariably the Game Department investigation involved a long administrative delay and invariably the conclusion reached by the Department was that the damage done was very small and the animals concerned were harmless creatures (see for example *Raub* 352/25, *Lipis* 825/34, and *Lipis* 840/34).

17. The progress of reservation was as follows:—

Prior to 1921	2 reservations of 35,640 acres.
1921 to 1926	20 reservations of 399,245 acres.
1927 to 1931	16 reservations of 266,756 acres.
After 1931	11 reservations of 17,805 acres.

Information provided by CLM, Pahang in *Lands, Pahang* 68/60 encl. no. (50).

18. Land within reservations could only be alienated by Malays and could not be sold to persons of other races. There were no restrictions on Malays owning land outside the reservations. The draft proposals for this legislation are contained in *Kuantan* 672/15.
19. The Semantan Reservation was also given a long frontage on the Karak to Mentekab road but in this instance the road was close to the river and the land reserved was more suitable for Malay agriculture. Its inclusion in the Reservation did, however, protect it from the attention of less discerning commercial interests who may have been attracted by its accessibility.



1926 the monsoonal rain was unusually heavy and resulted in floods of unprecedented severity. The Pahang Annual Report for 1926 records that the fall commenced on December 17th and light to moderate rain continued until the 23rd, 24th, and 25th, when the rain became considerably heavier. The next four days, "the 26th to the 29th," wrote the British Resident, "will probably figure as the wettest four days of which there are any record. Heavy rain occurred all over the Peninsula, the 27th having the heaviest falls. At Kuantan 20 inches were recorded on that day and 54 inches on the four days 26th to 29th. Moderate rain was general on the 30th and light rain on the 31st". The rain was heaviest in north Pahang; Kuantan on the coast received 70 to 75 inches during the period December 17th to 31st; inland in the catchment areas of the Tembeling and the Jelai the fall was unrecorded but the Jelai River rose by a measured 50 feet at the Bukit Betong railway bridge<sup>20</sup> and the Tembeling River was reported to rise 80 feet at the *kuala* and 120 feet further upstream<sup>21</sup>. Downstream the rise of the Pahang River was less spectacular but the agricultural areas of the Pekan District remained under flood water until February.

The immediate result was widespread damage to crops and property. In the Tembeling Valley almost every house was destroyed by drift timber which was stacked fifteen to twenty feet high along the banks. A detailed return of 23 riverine mukims in the Lipis and Temerloh Districts revealed that 3,736 houses were destroyed or damaged and 6,222 buffaloes killed<sup>22</sup>. In the Lipis District the Forestry Department reported that 11 out of 14 Forest Checking Stations were destroyed while the Railway Department lost a passenger train at Krambit<sup>23</sup>. Damage to railway track was very extensive and it was not until June that the line was restored and services resumed. At the mining village of Sungei Lembing damage by silt as well as water was very severe; 270 buildings were destroyed and many of the two-storied shop houses which survived were filled with silt to a depth of twelve to fifteen feet. Two of the mines were flooded and operations were suspended for three or four months while the whole of the labour force was employed in restoring the damage and re-opening communications with Kuantan<sup>24</sup>.

The administration acted quickly to meet the needs of the distressed areas. Supplies of rice were distributed and Malays were given seed to plant emergency crops of maize and dry padi on land made available under temporary occupation licence. Restrictions on the removal of timber from State Land and Forest Reserves were relaxed to enable Malays to rebuild their houses with a minimum of delay. The initial hardships were reduced to a

20. *Railway A.R.* 1926, p. 28 et. seq.

21. "Final Report of the Relief Commissioner, Oct. 1927" in *Raub* 345/27.

22. *Idem.*

23. *Forestry, F.M.S.A.R.* 1926, p. 8, and *Railway A.R.* 1926, p. 28. The train was first marooned by land slips and subsequently submerged after the passengers were evacuated.

24. Fitch, F.H.: *The Geology and Mineral Resources of the Neighbourhood of Kuantan*, p. 72.



minimum through the strenuous efforts of the officials and the co-operation of all sections of the community.

The long term effects of the 1926 flood were of considerable importance. In many areas the padi growing base of the Malay economy was seriously threatened. The losses of buffaloes were particularly heavy and were felt most acutely in those areas of the Pekan and Lipis Districts which employed *tenggala* methods of cultivation<sup>25</sup>. In some local areas in the Luit and the Semantan Valleys, silt deposition caused changes in the water table which resulted in the abandonment of padi land either immediately or after an interval of several crop failures<sup>26</sup>. Most serious of all was a general loss of confidence in wet padi cultivation, particularly in the riverine mukims of the Lipis and Pekan Districts which suffered most damage<sup>27</sup>. This loss of confidence was further reinforced by a smaller flood in March, 1927, which destroyed supplementary crops of padi and was followed by a drought which hindered further planting. At the end of 1929 the British Resident reported as follows:

"Food crops such as maize, sweet potatoes, tapioca, banana, yams, and various types of vegetables are increasingly planted by the Malays of the riverside mukims in view of the uncertainty of the padi crop from season to season. Comparatively large areas of maize were to be seen early in the year along the river banks and on some of the islands. Furthermore, hill padi and maize are invariably planted as catch crops by Malays engaged in opening up new areas for rubber"<sup>28</sup>.

It is not unusual for natural disasters to release forces for change which hitherto remained dormant. Such was the case with the 1926 flood in Pahang; the planting of rubber by the Pekan Malays and the internal migration of Malays in the Lipis District both date from this event.

The need for a suitable commercial crop in the Pekan District had long been apparent<sup>29</sup>. After the flood the administration relaxed restrictions on land use and for several seasons allowed Malays to hold land under temporary occupation licence and to clear *ladangs* for padi and other food crops. Chinese were unable to own land within the Malay Reservations which now extended along both sides of the Pahang River (fig. 38) but enterprising traders supplied rubber plants to the Malays who thus took the opportunity to plant rubber on

25. Many buffaloes which escaped the flood were slaughtered during the food shortage or killed by epidemics of rinderpest which followed. An Official scheme to import buffaloes from Siam was only partly successful.

26. When the Assistant Advisor of the Drainage and Irrigation Department visited the Semantan Valley in 1937 he commented that Paya Tualong, which had rarely been flooded prior to 1926, had been flooded annually since that time with the result that the planted area was much reduced. Similarly Paya Pamah was abandoned after the 1926 flood. *Phg. Sec* 2058/37.

27. The Temerloh District escaped the worst effects of the flood since most of its mid-year crop was harvested before the onset of the monsoon. In addition the methods employed there were less dependent on buffaloes.

28. *P.A.R.* 1929, p. 3.

29. See Chapter 8, page 93



their kampong land or in their *ladangs*. By the time the officials realised what had happened the holdings were well established<sup>30</sup>.

The pull effects of roads and railway in the Lipis District had existed for many years but it was not until after this flood that there was any large scale movement of people from the riverine kampongs. When this started it was most marked in the area between Kuala Lipis and Jerantut Ferry. By 1935, when the State Agricultural Officer made a tour of the riverine mukims, many of the kampongs had been reduced in size or abandoned. He reported that the largest and most important padi areas were not visited during his tour since they lay adjoining the roads or the railway<sup>31</sup>. These short distance migrations were set in motion by the 1926 flood but continued long after the immediate damage was made good.

### 1926 to 1929. THE INTERLUDE OF NEW RUBBER EXPANSION.

In 1926 the world demand for rubber was strong and for the last three quarters of that year the quota releases were 100 per cent of "standard production". The demand for land reached a high level and the administrations of the Malayan States reversed their policy of refusing to alienate new land for rubber cultivation<sup>32</sup>. In Pahang the land books were re-opened in July and by the end of the year applications for 32,000 acres had been approved<sup>33</sup>. In 1927 alienation continued at the same rate and it appeared that Pahang was entering a new phase of agricultural expansion. The effects of the recent reservation programmes were soon apparent and concern was expressed about the shortage of accessible State Land<sup>34</sup>. At the end of 1927 the administration began to consider "a road and rail programme to open up large under-developed areas"<sup>35</sup>. The work was never initiated, however, because of a

30. In August, 1931, the Agricultural Field Officer reported rubber holdings scattered throughout the secondary growth which had sprung up on the former *tenggala* land in Mukims Pulau Manis and Temai (*Agriculture*, Pahang 207/31) while more recent fieldwork has revealed that rubber was first introduced into Mukim Pulau Rusa in the years immediately following the flood (Wikkramatilake, R.: "Mukim Pulau Rusa. Land Use in a Malayan Riverine Settlement", *J.T.G.* Vol. 2, 1958, p. 25). At the same time large areas of new rubber were planted in Cheka and other downriver mukims of the Lipis District ("Report on Tour of River Mukims by S.A.O." *Lipis* 810/35.)

31. "Report on Tour of River Mukims by S.A.O." in *Lipis* 801/35.

32. The chief external factors influencing this change of policy were pressure from the United States which feared that a shortage of rubber was imminent (see Figart, D.M.: *The Plantation Rubber Industry in the Middle East*, especially the Foreword by Herbert Hoover) and the realisation that the Netherlands East Indies was rapidly expanding its planted area.

33. *Lands, F.M.S.A.R.* 1930, Table showing the Number and Acreage of Approved Applications for Rubber Land, 1926-1930.

34. At Bentong the District Officer received applications for the entire area of available land and was forced to reduce the areas of larger applications in order to leave room for the expansion of Malay settlements not included in reservations. *Raub* 38/27.

35. *P.A.R.* 1927, p. 10. Although the rail link to Kelantan was still uncompleted, ideas of a branch line to Kuantan were revived and ambitious plans were formulated for a road from Negri Sembilan to Pekan via Ulu Rompin.



serious deterioration in the rubber market from 1928 onwards<sup>36</sup>. The Stevenson scheme had failed and on October 31st, 1928, restriction was abandoned. Limited alienation and new planting, chiefly among smallholders, continued until 1930 by which time Malaya was engulfed in a worldwide depression even more severe than that of 1933.

In Pahang the amount of new rubber land planted during this brief interlude of expansion was considerable. It is estimated that the area of rubber on estates increased from 40,000 to 55,000 acres, while that on smaller holdings increased from 58,000 to 75,000 acres<sup>37</sup>. The increase in the estate acreage took place mainly on established estates which planted up land already alienated or alienated adjacent areas of State Land; no important new areas of the State were pioneered and no large migrations of labour occurred. The increase which took place in the small and medium holding acreage was more significant. Many Chinese from the western States took up land in the Bentong and Temerloh Districts. Even more important, rubber land was alienated by Malays in almost every mukim of the State<sup>38</sup>. Whereas in 1921 the cultivation of rubber by Malays was confined to certain Districts, by 1931 it was found in almost all of the areas where there was permanent Malay settlement. The enterprise of Chinese traders and the effects of the 1926 flood had combined to complete a process of diffusion that had commenced over two decades before. Rubber was now an integral part of the Malay economy in all areas of the State.

### 1930 to 1938 DEPRESSION AND RECOVERY

The depression of the 1930's came more gradually to Malaya than to the industrial nations. The prices of tin and rubber were declining because of over-production for many months prior to the Wall Street Crash of 1929, and even after this event the production and sales of both commodities continued at a reduced level. In 1931 Malaya joined other tin producing countries in an international quota scheme; by reducing output price fluctuations were minimised but it was some years before consumption recovered sufficiently for the price to improve. The labour force employed in tin mining in Pahang fell to 2,523 by December, 1931, and did not rise again until 1934<sup>39</sup>. Negotiations

36. This was the result of increased production from the Netherlands East Indies and a reduction of consumption by the United States. Ooi Jin Bee: "The Rubber Industry of the Federation of Malaya", *J.T.G.* Vol. 15, 1961, p. 48.

37. Estimates for planted acreages in 1925 and 1930 are based on *Rubber Restriction, F.M.S.A.R.* 1925, *F.M.S.A.R.* 1930 and Grist, D.H.: "Review of Malayan Rubber Planting Statistics," *Malayan Agricultural Journal*, Vol. 22, No. 10, 1934, p. 475.

38. No applications were received from the remote Keratong Mukim in Ulu Rompin but when the Pekan District Officer made a personal visit to the area in 1936 he discovered that a number of holdings had been illegally planted with rubber some six or seven years before. "Report on a visit to the upper portions of the Keratong and Endau Rivers" *Phg. Sec.* 435/36. In the following year 63 applications for title were received. *Phg. Sec.* 1627/37.

39. Figures quoted here for employment in tin mining and rubber production are from *P.A.R.* s.



to restrict rubber production were more protracted. There was little reduction in output until 1931 when the price fell to 10 cents per pound. At this stage the return was insufficient to repay the cost of hired labour and tapping ceased on many properties. During 1931 and 1932 the labour force on holdings larger than 25 acres was reduced by 4,500. International agreement was reached in 1934, this time with all producing countries, and the Rubber Regulation Scheme initiated. From 1934 onwards gradual economic recovery took place with the two main industries operating under conditions of strict control which regulated production according to world demand and precluded the establishment of new producing units.

In the early years of the depression the government continued with construction work already commenced. The East Coast Railway to Kelantan was finally completed in 1931 and the Kuantan to Pekan road in the same year. After that, construction work was suspended except at the Cameron Highlands where the access road from Perak was completed and work on internal roads continued. As these latter were completed large areas of land were alienated for tea and coffee cultivation and smaller areas for fruit, vegetables, and experimental crops. The Sungei Boh Estate, elevation 4,000 feet, planted tea from 1930 onwards while Chinese at Ringlet planted fruit and vegetables. Although the Cameron Highlands were within the administrative boundaries of Pahang they were isolated from that State; economically they were part of the western States and played no part in the development of Pahang<sup>40</sup>.

Under the terms of the International Rubber Regulation Scheme, all new planting of rubber was prohibited from July, 1934, onwards. The government again attempted to encourage the cultivation of other commercial crops but their success was very limited. Oil palm, derris root, coffee, gambier, tapioca, kapoc, and tobacco were planted in various parts of the State and a number of small coconut kilns were erected in the coastal districts. Complete figures giving acreage and production are not available for many of these crops but it is doubtful if the total planted area reached as much as 5 per cent of the area under rubber<sup>41</sup>. Measured in terms of verbiage in official documents these crops assumed a significance which was out of all proportion to their productive value. During this period little new land was alienated for commercial cultivation and large areas alienated during the previous decade reverted to State<sup>42</sup>.

The most important changes which took place during the 1930's were those affecting Malay agriculture. In 1932 the Malay States and the Straits

40. Even after 1932, when the Federal Development Committee completed its work and returned administrative control to the Pahang Government, administrative duties were performed by officers of the Perak State Government acting on behalf of the Pahang Government. *Lipis* 1043/31.

41. This estimate is based on miscellaneous figures published in the Pahang Annual Reports and excludes commercial cultivation at the Cameron Highlands.

42. The area of land alienated for building and agriculture fell from 409,000 acres in 1930 to 347,000 acres in 1936. By 1938 it had recovered to 364,000 acres.



FIGURE 38 THE ESTABLISHMENT OF MALAY RESERVATIONS 1921—1939

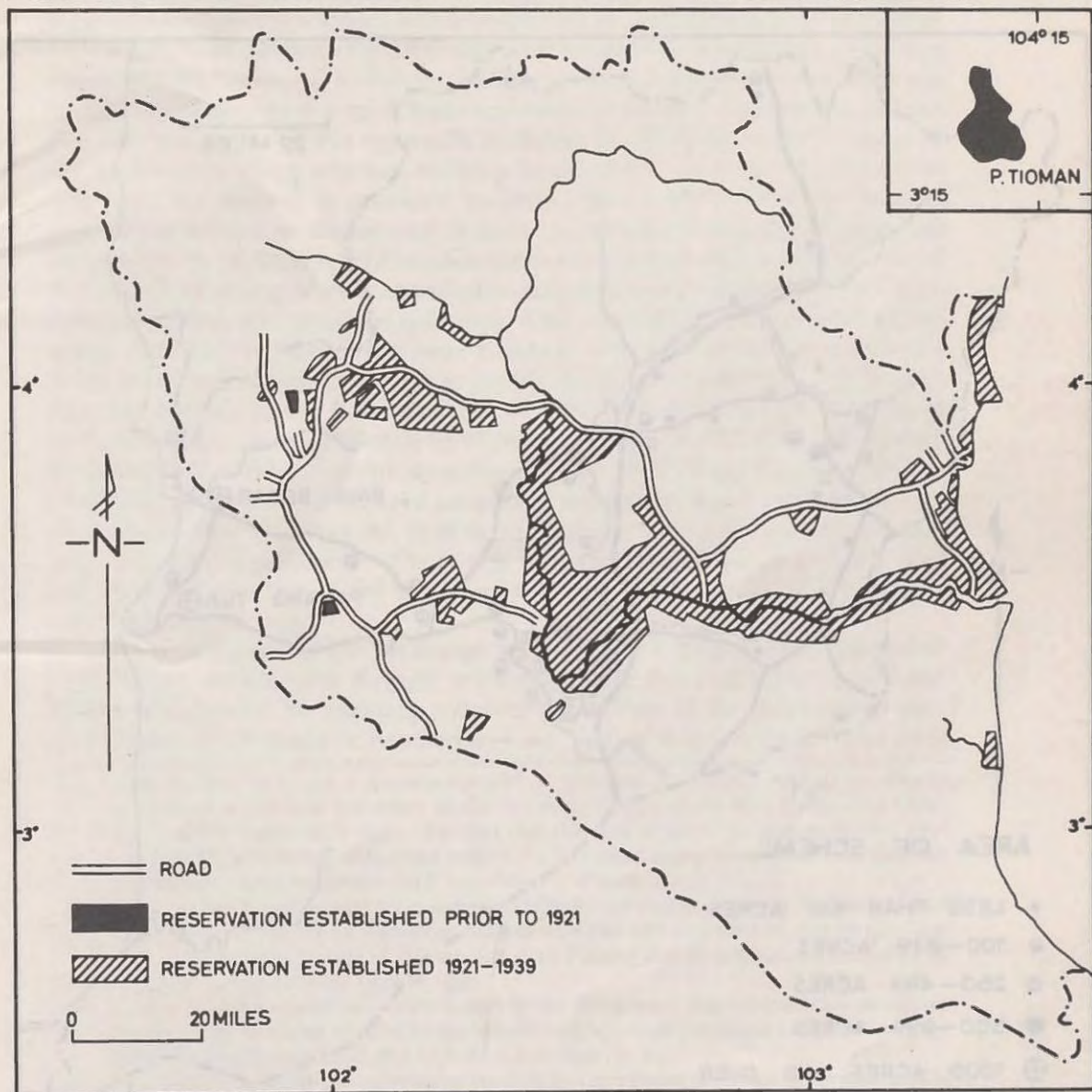
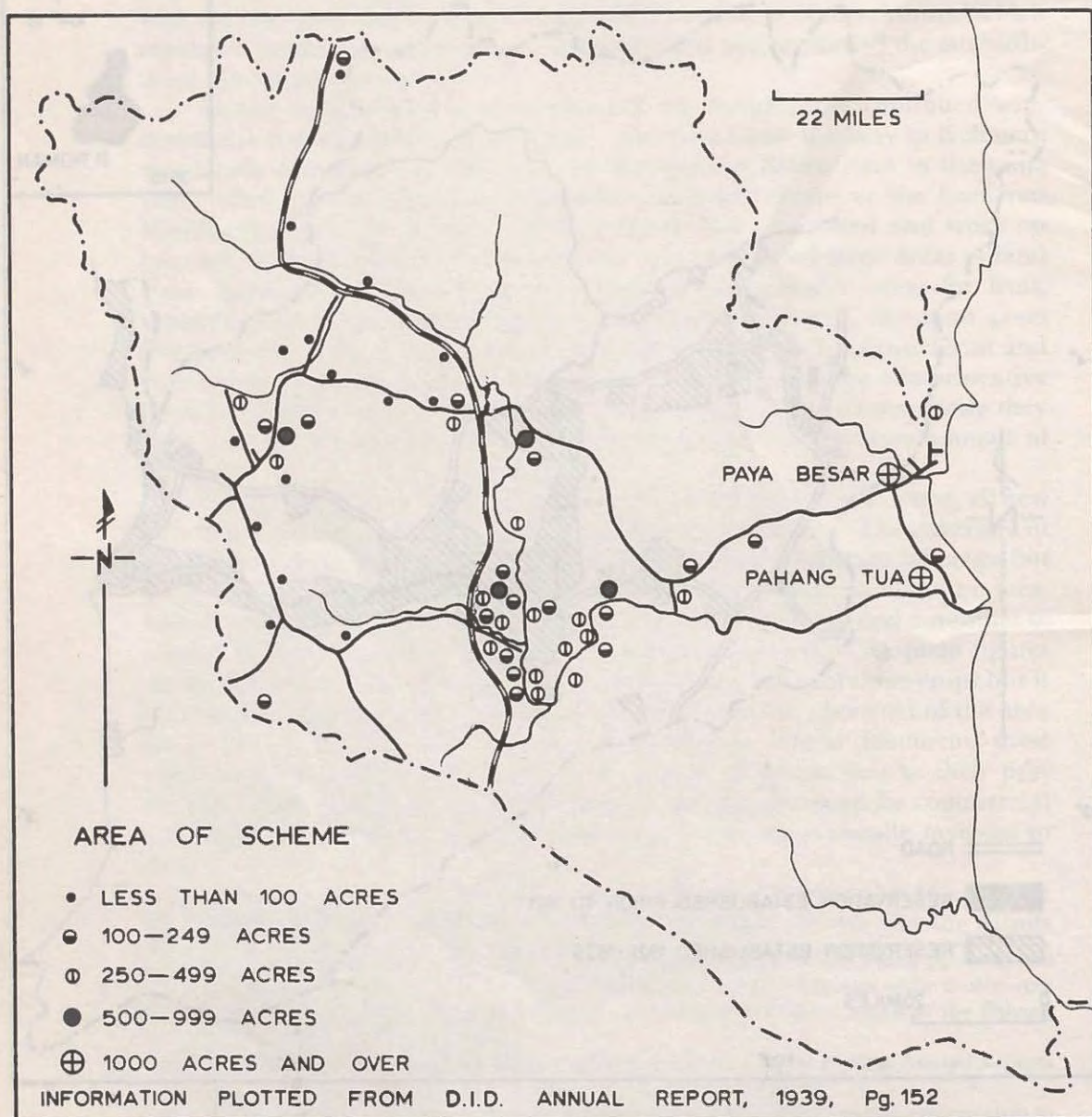




FIGURE 39 PAHANG  
DRAINAGE AND IRRIGATION DEPARTMENT SCHEMES 1932-1939





Settlements set up a Drainage and Irrigation Department and thus gave practical expression to their long publicised desire to improve the facilities for padi cultivation<sup>43</sup>. Old ideas of concentrating expenditure on a few large schemes were abandoned and a multi-pronged policy was adopted; the activities of the new department ranged from the provision of technical advice and materials for the improvement of existing small schemes, to the complete development of large new schemes which could only be undertaken by government.

From 1932 onwards the Drainage and Irrigation Department in Pahang operated with an annual budget in the order of \$100,000 to \$150,000. This was modest compared with a total State expenditure ranging between \$4,000,000 and \$10,000,000 but it was eventually sufficient for the department to take over the supervision of 53 schemes ranging in size from 10 acres to 3,000 acres (fig. 39). In general it provided assistance for small schemes in areas of existing settlement: in the interior districts perennial schemes were made more reliable by the replacement of brushwood dams with permanent headworks; in the Middle Pahang Valley inundation schemes were enlarged by the construction of concrete gates and spillways. Only two larger schemes were undertaken. The first at Paya Besar, near Kuantan, was commenced in 1933 but it failed to attract sufficient settlers to justify the large expenditure involved<sup>44</sup>. Too few Malays in the Kuantan District were interested in padi cultivation and the soils were not sufficiently fertile to attract immigrants from other areas. Realising this, the department turned its attention to Pahang Tua in the Pekan District in 1936. Here it selected an area of several thousand acres which had been abandoned following the 1926 flood, began to dig canals and drains, and erect a pumping scheme<sup>45</sup>. There was a strong local demand for padi land and the recolonisation of the area began before the first stage of the scheme was completed in 1939.

These activities of the Drainage and Irrigation Department reinforced those factors which were already producing some internal migration of the Malay population. In selecting schemes the officers of the department preferred areas which could be reached by road, rail, or steam launch<sup>46</sup> and they

43. This decision to set up a department with a technical staff and a budget specifically committed to this task was made on the recommendation of the Rice Cultivation Committee which reported in 1931. The fact that this new department was set up at a time when others were being retrenched reflects the increased importance which food production assumed when prices for staple exports were at their lowest.

44. By 1937 some two thousand acres were available for cultivation but only six hundred had been occupied, mainly by Sumatran Malays who had earlier settled in that locality (see page 77). Detailed reports of the progress of all Pahang D.I.D. schemes are contained in *F.M.S. D.I.D. A.R.s* from 1932 to 1939.

45. In this area the conditions which followed the flood were aggravated when mosquito vectors of the *Mansonia* sp. bred in the abandoned *payas* and produced a marked increase of the disease elephantiasis. *D.I.D. F.M.S.A.R.* 1937, p. 2.

46. Good access made regular supervision possible and facilitated the delivery of construction materials. Suitable areas were not, however, available in the mining Mukims of the Raub and Bentong Districts. Here a number of existing padi areas were abandoned as a

(Continued on next page)



avoided areas which were vulnerable to flood damage. They gave priority to areas where the demand for padi land was greatest and were reluctant to support small schemes in areas where the population was too small to prevent damage by pests and wild animals. As a result the movement of population away from the upriver kampongs continued and there was a small but steady increase of Malay population in the Temerloh District and the roadside Mukims of the Lipis District<sup>47</sup>.

The combined effects of depression and government expenditure resulted in a moderate increase in the acreage of padi cultivated annually. The average acreage of 27,957 acres for the 1920's increased to 35,952 acres in the 1930's<sup>48</sup>. Of greater and more lasting importance was the increase in the average yield per acre (Table 14). In this case the increase was unrelated to the economic situation and full credit must go to the Drainage and Irrigation Department. By 1939 it had extended its maintenance services to half the padi areas of the State and the increased reliability of schemes under its control was the main factor making for improved yields. The greatest increase in production took place in the Temerloh District which produced a saleable surplus in the latter 1930's. As a result of government encouragement during this period, the padi base of the Malay economy was much consolidated and the returns from labour expended in padi cultivation were higher than at any other time since the commencement of the British administration.

**Table 14. Average Yield of Padi in Gantangs per Acre,  
1912, 1921, 1930, 1938**

1912 <sup>a</sup>	151
1921 <sup>b</sup>	149
1930 <sup>c</sup>	142
1938 <sup>d</sup>	199

*Note:* a. Average for two seasons 1911-12 calculated from *P.A.R.* 1913, p. 11.

b. Average for three seasons 1918-19 to 1920-21 calculated from *Agriculture, F.M.S. A.R. s*

result of silting and new padi areas were opened up in areas remote from existing settlement. One such, opened up in 1931 by Malays from Kampong Benus, was at Janda Baik at an elevation of 1,400 feet and over four miles by path from the Bentong to Kuala Lumpur road. In spite of its inaccessibility the department was so impressed by its potential that they extended their assistance to the cultivators in 1939. *D.I.D. F.M.S. A.R.* 1939, p. 48.

47. In many cases the migration took place within the confines of a Mukim but the Census returns for 1931 and 1947 show that the Malay population was increasing faster in Mukims served by roads than it was in Mukims which were purely riverine. A study of records of land alienation and reversion supports the conclusion that migration was a significant factor in this difference. See also *Lipis A.R.* 1947 for comments on the results shown by the 1947 Census.

48. Both these figures are the average of nine years; data for the 1929-30 and 1939-40 seasons were not available.



- c. Average for three seasons 1928-9, 1930-1, 1931-2. 1929-30 not available.
- d. Average for three seasons 1936-7 to 1938-9 calculated from *Malayan Agricultural Statistics* for 1937, 1938, and 1939.

The two existing branches of the mining industry reacted in different ways to the depression and the measures taken to offset it. The tin restriction scheme introduced in 1931 cut back production to the lowest level since 1908 (fig. 21) and employment was even more severely reduced. In the same year Great Britain abandoned the gold standard and the price of this metal began to rise. Thus while prospecting for tin was curtailed, a new phase of prospecting for gold was initiated.

The operation of the tin restriction enabled existing mines to continue production but the closing of the application books to new mining enterprises tended to concentrate production in the hands of a smaller number of producers. Lode mines tended to have a longer economic life with the result that these mines, almost all owned by Europeans, came to represent an increasing proportion of total production.

Under these circumstances a number of Chinese mining capitalists turned to gold mining which for three decades had been represented only by the Raub Australian Gold Mining Company. No new discoveries were made but the opening up of former mining areas proved to be economic; the price of gold was higher, communications were much improved and wage rates were very low. Eight small mines, mainly of the gravel pump type, were reopened in 1935 and a further 12 commenced work in the next four years<sup>49</sup>. Among the ancient workings thus reopened were several in the north-west of the State which were made accessible when the railway was completed through to Kelantan. Production from these alluvial mines was not large, however, and at no time did the Raub Australian Company's share of total State production drop below 85 per cent. The value of output and the numbers employed in the gold mining industry increased during this period but not to the point where they rivalled the tin mining industry in importance (fig. 36).

As a result of the reduction of employment in tin mining and other industries, many Chinese moved into rural areas where they began to grow food crops on a semi-subsistence basis. In Pahang this movement of local people was supplemented by a small scale migration from the western States. Normally they settled in areas adjacent to the towns, or the railway, or in localities where Chinese had previously been engaged in mining or rubber cultivation. In some cases they were given permission to occupy State Land or mining land on a temporary basis; in other cases they simply selected a secluded area and occupied it without title or permit. In the Raub, Bentong, Temerloh, and Kuantan Districts these settlers subsisted on a characteristic

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49. *P.A.R.* 1935, p. 19, and *P.A.R.* 1939, p. 17.



combination of food crops and pig production; tapioca, bananas, and sweet potatoes were the key crops which provided food for both settlers and livestock. Later, as economic conditions improved, increasing quantities of meat and vegetables were marketed in the urban centres on both sides of the Main Range. In the remoter areas of the Lipis District, many days journey from the administrative centre, such settlers combined food production with illegal gold mining. Working without titles, and thus unhampered by mining regulations, these illicit miners employed crude *lampan* methods which destroyed the banks of the rivers and deposited large quantities of silt in the river beds. By the time the authorities became fully aware of these activities it was estimated that 1,500 people were involved<sup>50</sup>.

From the point of view of subsequent development the investigation of iron ore deposits ranks among the most important developments of the 1930's. Japanese firms had begun mining in Trengganu and East Johore during the previous decade and in 1932 they extended their prospecting to the Rompin Valley in south Pahang. In 1936 the Ishihara Sangyo Koshi Company proved between 20 million and 30 million tons of ore in the vicinity of Bukit Iban, one hundred miles up the Rompin River. A scheme of development envisaging the construction of a railway from the coast and an annual output of one million tons of ore was drawn up and an application for a mining lease was filed in 1938 or 1939. The government geologist who examined the proposals found them technically sound but by this time the political situation had deteriorated and approval of the application was withheld<sup>51</sup>.

### THE CLOSING SPURT.

In the period between the outbreak of war in Europe in 1939 and the invasion of Malaya by the Japanese in 1941 there was a renewed burst of economic activity in Malaya. The actual declaration of war in 1939 was presaged by an erratic but rising demand for raw materials; as a result the quota releases for both tin and rubber increased for several years before restrictions were abandoned in the last few hectic months. In both industries employment and production increased steeply as existing producers strove to achieve full capacity. At the same time the government and the Malay rulers launched an intensive campaign to increase the area planted with padi and other food crops and large areas of secondary forest were made available under Temporary Occupation Licences<sup>52</sup>.

In the midst of this intense activity the only permanent expansion which took place appears to have been in the rubber industry where a limited amount

50. "Report on Gold Stealing and Other Subversive Activities" in *Phg. Sec.* 492/40 and "Memorandum on the Subject of Gold Stealing in Ulu Pahang" in *Phg. Sec.* 896/41.

51. "Report on the Iron Ore Deposits of Ulu Rompin" by Fitch, F.H. in *Phg. Sec.* 427/41.

52. *Phg. Sec.* 1390/39.



of new planting was permitted from January, 1939, onwards. New planting permits for a total of 31,000 acres were issued in Pahang but by no means all of this was planted prior to the invasion<sup>53</sup>. Much of the new planting in Pahang took place on land already alienated but many Chinese from the western States applied for new land in this State. The main demand for such new land was in the Bentong District where alienations for rubber exceeded nine thousand acres. At the close of the period Pahang was thus attracting a moderate amount of new agricultural investment but any further growth was abruptly halted when the Japanese forces occupied Malaya at the end of 1941.

### POPULATION

The year 1939 lies midway between the 1931 census and the first post-war census taken in 1947. It is possible, however, to estimate the population of Pahang for the year 1939 by extrapolating from the 1931 census figures. The population of Pahang in 1931 was 112,000. The population of Pahang in 1947 was 150,000. The population of Pahang in 1939 was 125,000.

Table 1. Estimated Population of Pahang by Racial Groups, 1939

Racial Group	Estimated Population, 1939
Malay	60,000
Chinese	40,000
Indian	15,000
Others	10,000
<b>Total</b>	<b>125,000</b>

In 1939 the population of Pahang was 125,000. The population of Pahang in 1931 was 112,000. The population of Pahang in 1947 was 150,000. The population of Pahang in 1939 was 125,000.

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53. New planting permits for the whole of Malaya totalled 162 thousand acres and Pahang's share was second only to that of Johore. *Phg. Sec.* 1164/39 and *Rubber Restriction A.R.* 1939, p. 1. Reliable figures for the amount actually planted are not available.



## CHAPTER 11

### PAHANG IN 1939. THE EVE OF JAPANESE OCCUPATION

The development which took place in Pahang between 1921 and 1939 resulted in a consolidation of the spatial patterns already evident at the earlier date. Almost all of the changes discussed in the preceding developmental chapter took place within the existing regional framework. Thus, in order to minimise repetition of material presented in the two previous reconstructions, this chapter is organised within a systematic framework. One factor, population, is introduced as a central theme and then related in turn to the commercial economy, the Malay economy, urban development, and communications. The study then concludes with an assessment of the stage of development which Pahang had reached in 1939.

#### POPULATION

The year 1939 lies midway between the 1931 census and the first post-war census taken in 1947<sup>1</sup>. It is possible, by comparing calculations made by the Registrar-General of Statistics with certain other data, to make a satisfactory estimate for the population of the whole State, but not for the individual Districts<sup>2</sup> (Table 15).

**Table 15. Estimated Population of Pahang by Racial Groups, 1939.**

Malays	108,000	Europeans	500
Chinese	85,000	Others	1,500
Indians	17,000	Total	228,000
Aborigines	16,000		

In 1939 one in every three inhabitants of Pahang was Chinese and the Malay population, excluding the Aborigines, was only slightly larger than the total for Chinese and Indians combined. Even more far-reaching was the fact that a large proportion of the Chinese were permanent settlers; they owned

1. Del Tufo, M.V.: *A Report on the 1947 Census of Population*.
2. The Registrar-General of Statistics made his estimate by adjusting the 1931 census figures according to the annual returns of births and deaths, arrivals and departures. This method ignored migrations within Malaya and after calculating birth rates using these estimates the Registrar-General acknowledged that the figure of 70,720 given for Chinese in Pahang was an underestimate. By assuming that the Chinese birthrate in Pahang was the same as that for the F.M.S. as a whole, this figure can be revised to 85,097. This compares favourably with a total of 85,893 obtained by a Japanese enumeration in 1943 (see Del Tufo: *op.cit.* appendix D and his discussion on pp.34-5). No separate figures were given for the Aborigines who are included with Malays. A comparison with the 1921, 1931, and 1947 census returns suggests that the Aboriginal population was within the limits 16,000  $\pm$  1,000 in 1939.



FIGURE 40 MALAY SETTLEMENT IN 1937

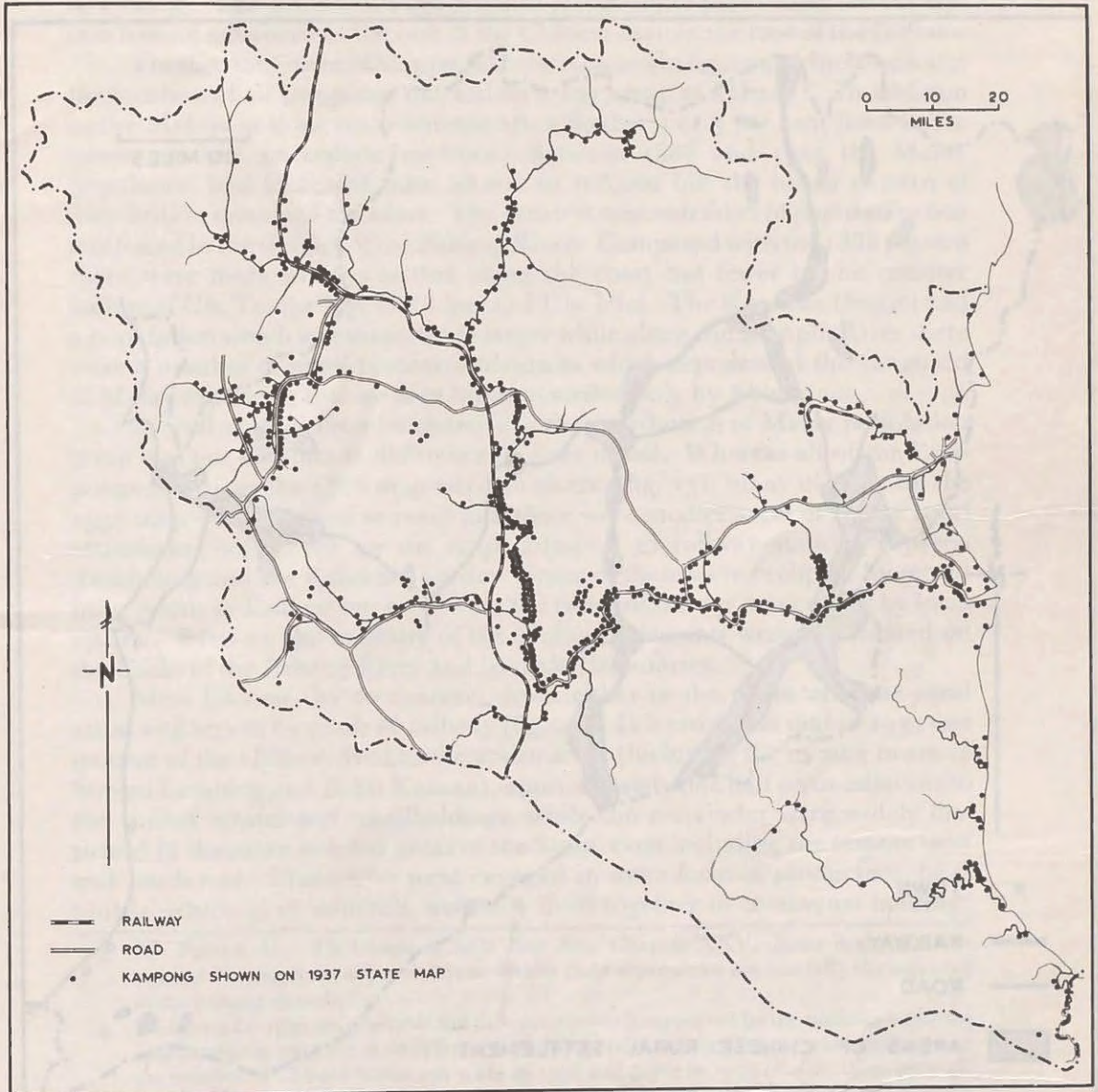
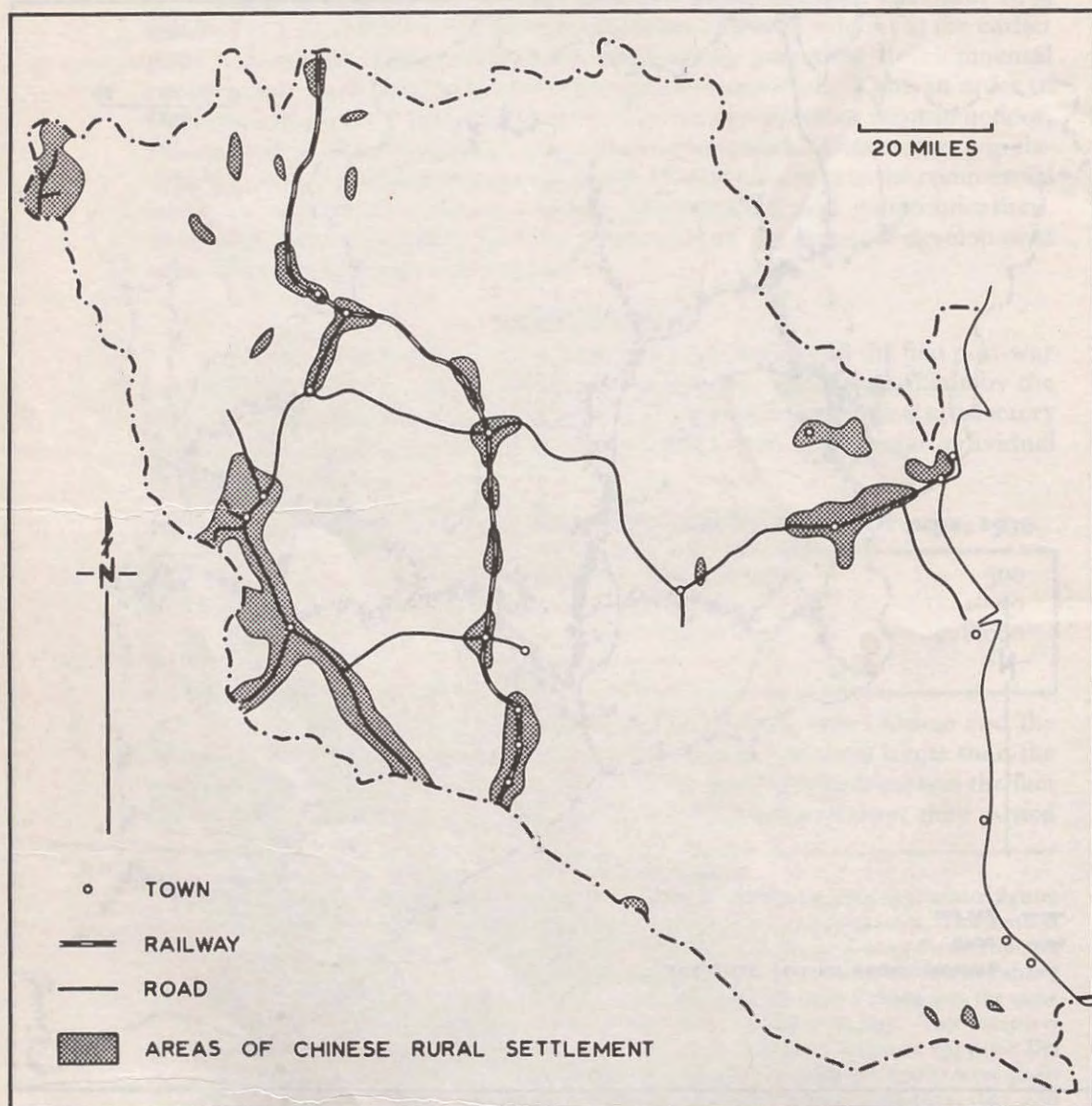




FIGURE 41 PAHANG: MAIN AREAS OF CHINESE SETTLEMENT 1939





fixed assets—land planted with rubber or urban business—and they were bringing up their families in Pahang. As a result of recent female migration<sup>3</sup> the Chinese sex ratio in 1939 was more normal than it had been at any previous time during the period covered by the study<sup>4</sup>. The sex structure of the Indian population was not dissimilar to that of the Chinese in 1939 but the majority of the former were wage labourers who accumulated no fixed assets in Pahang. The transition from migrant labourers to permanent settlers was much more advanced in the case of the Chinese than in the case of the Indians.

The distribution of Malay population is shown in figure 40 which indicates the location of all kampongs marked on a 1937 map of Pahang<sup>5</sup>. In addition to the Malays in these rural settlements, a further 4 or 5 per cent lived in the towns or their immediate environs. Between 1888 and 1939 the Malay population had increased from 48,000 to 108,000 but the broad pattern of distribution remained the same. The greatest concentration of population was still found in the vicinity of the Pahang River. Compared with the 1888 pattern there were more Malays settled along the coast but fewer in the remoter valleys of Ulu Tembeling, Ulu Lipis and Ulu Jelai. The Kuantan District had a population which was many times larger while along the Rompin River there were a number of small pioneer settlements which represented the vanguard of Malay expansion into an area hitherto settled only by Aborigines.

As well as these broader changes in the distribution of Malay population there was one significant difference in finer detail. Whereas all of the kampongs shown on the 1888 map were on rivers, (fig. 15), many of those on the 1937 map were adjacent to roads and there were smaller areas of Malay rural settlement, not shown on the map, adjacent to railway stations between Tembeling and the Kelantan border. Some of these were occupied by recent immigrants to Pahang but most were the result of shorter movements by local settlers. Even so, the majority of the Malay settlements were still located on the banks of the Pahang River and its major tributaries.

Most Chinese, by comparison, lived either in the towns or those rural areas well served by roads or railway (fig. 41). It is estimated that in 1939 one quarter of the Chinese lived in the urban areas (including the mining towns of Sungei Lembing and Bukit Koman), approximately one half on or adjacent to the rubber estates and smallholdings, while the remainder were widely dispersed in the more isolated areas of the State, even including the remote west and south-east. Those who were engaged in some form of production, be it timber, jelutong, or minerals, normally lived together in communal housing;

3. See Purcell, V.: *The Chinese in South East Asia*, Chapter XXV. Since many Chinese entered Pahang from adjacent Malay States their movements are not fully documented in the Pahang records.

4. No figures for 1939 are available but this assumption is supported by the statistics for births and deaths: in 1939 the ratio of female deaths to males among Chinese was 623:1032 and the number of Chinese births was 3,414 in 1938 and 3,964 in 1939 (*P.A.R.* 1939, pp.3-4). When the 1947 census was taken there were 711 Chinese females per thousand males (Purcell: *op.cit.* p.277).

5. F.M.S. Surveys: *Pahang* 1937, scale 1:200,000.



those who lived by trade were scattered in all of the areas settled by Malays or lowland Aborigines. Reports by officials who visited remote areas often contain mention of isolated Chinese shops or trading rafts and the 1931 census records that there were at least one or two Chinese enumerated in every Mukim of the State<sup>6</sup>. The widespread unemployment of the previous decade was reflected in the fact that there were small groups of Chinese engaged in semi-subsistence agriculture, usually in the vicinity of the towns, the mines, the railway line, or the rubber estates, but sometimes deep in the jungle, beyond the reach of authority. Apart from these latter, the Chinese were deeply involved in the commercial economy and it was the nature of the economic opportunities available, rather than any other factor, that accounted for these divergent tendencies in the distribution of Chinese population.

Numerically the other racial groups were much less important than the Malays and the Chinese. Of the total Indian population, estimated at 17 thousand (Table 15), there were almost 11 thousand living on the estates and a further two thousand employed by the government, mainly on public works<sup>7</sup>. Only 364 Javanese were employed on estates and it is no longer considered important to distinguish this community from other immigrant Malays. The broad distribution of Aborigines had not changed significantly since 1888 or 1921 (fig. 33), but locally there was strong pressure by the Forestry Department to exclude them from Forest Reserves and to contain them within areas where the forest cover was inferior. In the lowland areas at least, the population decline had halted and the District Officer, Pekan, and the Forest Officer, Kuantan, both noted an increasing tendency for the Aborigines in the Rompin Valley to settle down to permanent cultivation as a result of increasing friendly intercourse with the Malays<sup>8</sup>. Any increase of population in terms of births and deaths was almost certainly offset by increased intermarriage and absorption into the Malay community.

In 1939 the number of people fully dependent on the commercial economy was in the order of eighty to one hundred thousand. Most, but not all, of these belonged to the immigrant communities. Over thirty thousand lived in the towns and a further forty thousand workers, together with their families in many cases, derived their income from employment in mining, rubber cultivation, and timber extraction. Among the Malays there were some who depended mainly on commercial production and a larger group, in the order of forty thousand, who combined subsistence agriculture with some form of regular commercial production. The remainder of the Malays, and some of the Aborigines, relied more on subsistence cultivation but offered their goods and services to the commercial world as the need and the opportunity arose. While for the purposes of analysis it is convenient to separate the commercial sector from the Malay sector, it must be emphasised that the two were closely

6. Vlieland, C.A.: *British Malaya. A Report on the 1931 Census*, Table 19.

7. *F.M.S. Registrar-General of Births and Deaths A.R.* 1939, pp.27-8 and *P.A.R.* 1939, p.29.

8. *Phg. Sec.* 435/36 and Pahang Forestry: *Pahang East Exploration Records*, "Report on a Journey from Chini to Endau", 1935.



integrated and that the latter contained an even graduation from the mainly commercial to the mainly subsistence.

The commercial economy of Pahang in 1939 was dominated by production for export of two minerals and one agricultural crop. Despite efforts to develop other products, tin, gold, and rubber, still contributed the major

**Table 16. Estimated Value of Commercial Production in Pahang 1939 (in dollars).**

	Pahang Production exported from British Malaya	Remaining Pahang production	Total production
<b>Minerals</b>			
Tin Ore	4,068,000		4,068,000
Gold	1,612,000		1,612,000
<b>Forest Produce</b>			
Wood & Timber	149,000	851,000	1,000,000
Sleepers		200,000	200,000
Rattans	11,000	4,000	15,000
Jelutong	86,000		86,000
<b>Fish</b>			
Dried, salted, and fresh	240,000	240,000	480,000
<b>Agricultural Produce</b>			
Rubber	4,538,000		4,538,000
Gutta Percha	316,000		316,000
Tea	72,000	60,000	132,000
Fruit & Veggies.		100,000	100,000
Derris		82,000	82,000
Gambier	39,000	39,000	78,000
Tapioca		60,000	60,000
Palm Oil		53,000	53,000
Copra	39,000		39,000
Livestock		100,000	100,000
<b>Manufactured Goods</b>			
Bricks, Tiles & Lime		11,000	11,000
<b>Total</b>	<b>11,170,000</b>	<b>1,790,000</b>	<b>12,960,000</b>

*Note:* Figures for exports were collected by the Central Trade Registry and published in *P.A.R.* 1939, p.28. Estimates for other commercial production are made from miscellaneous information contained in *P.A.R.* 1938, *P.A.R.* 1939, *Malayan Agricultural Statistics* 1939, and *Malayan Year Book*, 1939. Tea production was almost all from the Cameron Highlands and most of the livestock were pigs and buffaloes sold for human consumption.



share of total production and aggregate production of crops other than rubber was less than that from forestry and fishing which ranked third and fourth in importance behind mining and rubber cultivation. The extent to which the commercial economy was export dominated is clearly shown in table 16.

In 1939 the mining industry of Pahang was more highly capitalised and more labour intensive than at any previous date. Less than six thousand workers were employed but the value of production exceeded that of the rubber industry which employed at least five times that figure. During 1938 and 1939 the gold mining industry, with an average labour force of only 2,126, produced more gold than ever before (fig. 20). The output of tin was restricted by international agreement but the 3,469 labourers employed in 1939 produced almost as much tin as 12,448 labourers had produced in 1909. European lode mines dominated both branches of the industry and the majority of the Chinese miners who were still active employed hydraulic or gravel pump methods rather than the

**Table 17. Production of Gold and Tin according to Method of Working, 1939.**

	Gold in ounces	Tin in piculs
Lode Mining	29,159	33,388
Hydraulic	1,277	2,311
Gravel Pump	2,505	1,561
Dredging	8	808
Open Cast (alluvial)	219	217
Dulang Washing	217	551
Other Methods		3
Total	33,385	38,839

*Source:* P.A.R. 1939, p. 17. Detailed figures for individual mines have not been located for the year 1939 but those for 1938 are contained in Mines, Pahang 1938, which is contained in *Phg. Sec.* 260/39. The appendix to this latter contains a detailed description of the main workings in the State.

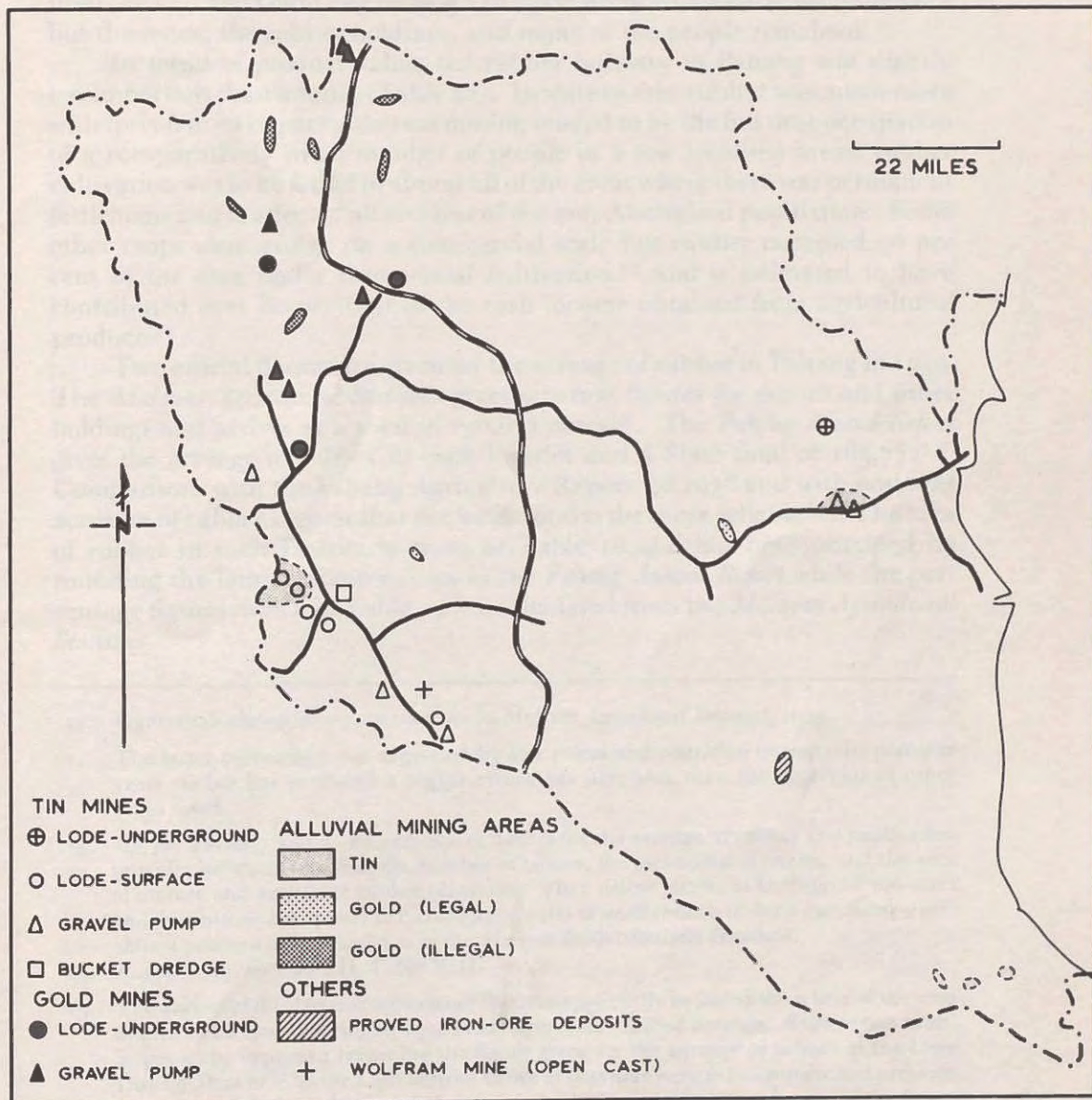
more labour-intensive open cast or *lampanning* (Table 17). The Raub Australian Gold Mining Company produced 85 per cent of the recorded gold output while the Pahang Consolidated Company produced 74 per cent of the tin exports<sup>9</sup>. Most of the remaining tin production came from four smaller European lode mines and from the Bentong dredge<sup>10</sup>.

9. P.A.R. 1939, p. 17.

10. The Bentong Tin (No Liability) dredge ended its career in August, 1939. During 22 years of working it had produced 87,000 piculs of tin ore. P.A.R. 1939, p. 17.



FIGURE 42 PAHANG: MINING IN 1939









The structure of the industry in 1939 contrasts strongly with that described in earlier reconstructions but most mining was still confined to localities known and exploited prior to 1888 (figs. 17 and 42). But whereas in 1888 Raub, Tras, Bentong, Gambang, and Sungei Lembing were, at best, small outposts of temporary settlement, in 1939 they were the foci of important lines of communication and the centres of commercial agriculture and population. At Tras and Gambang mining had again declined almost to insignificance but the roads, the rubber holdings, and many of the people remained.

In terms of product value, the rubber industry in Pahang was slightly less important than mining (Table 16). In spite of this, rubber was much more widespread in its impact; whereas mining tended to be the full time occupation of a comparatively small number of people in a few localised areas, rubber cultivation was to be found in almost all of the areas where there was permanent settlement and it affected all sections of the non-Aboriginal population. Some other crops were grown on a commercial scale but rubber occupied 90 per cent of the area under commercial cultivation<sup>11</sup> and is estimated to have contributed over 80 per cent of the cash income obtained from agricultural products<sup>12</sup>.

Two official figures are given for the acreage of rubber in Pahang in 1939. The *Malayan Agricultural Statistics* gives separate figures for estates and other holdings and arrives at a total of 200,672 acres<sup>13</sup>. The *Pahang Annual Report* gives the acreage of rubber in each District and a State total of 185,772<sup>14</sup>. Comparisons with the Pahang Agriculture Report for 1938 and with post-war acreages of rubber suggest that the latter total is the more reliable<sup>15</sup>. The area of rubber in each District is given in Table 18 and has been obtained by rounding the District figures given in the *Pahang Annual Report* while the percentage figures shown in Table 19 are calculated from the *Malayan Agricultural Statistics*.

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11. Figures calculated from crop statistics in *Malayan Agricultural Statistics*, 1939.

12. The latter percentage was depressed by low prices and restricted output. In post-war years rubber has produced a higher return per unit area than the aggregate of other crops listed.

13. *Op. cit.* Tables 7 and 8. In addition to figures for the acreage of rubber this publication provides information about the number of estates, the ownership of estates, and the area of mature and immature rubber on estates. They define estates as holdings of 100 acres and over but do not appear to include aggregates of smaller units under a common ownership, a practice now adhered to in the *Malayan Rubber Statistics Handbook*.

14. *P.A.R.* 1939, appendix D, Table VIII.

15. The author of the *Malayan Agricultural Statistics* apparently included the whole of the area approved for new planting in 1939 in his figures for planted acreage. Reservation must, however, be expressed regarding the figure given for the acreage of rubber in the Lipis District; data held by the Lipis District Office at that date were so incomplete and previous acreage statistics so inconsistent that it is impossible to assess the accuracy of the figure published in the *P.A.R.* The *Malayan Agricultural Statistics* can claim no greater accuracy since it relied on the District Office for data relating to holdings other than estates.



**Table 18. Acreage of Rubber in the Districts of Pahang, 1939.**

District	Acres	Temerloh	52,000
Lipis	28,000	Kuantan	30,000
Raub	25,000	Pekan	5,000
Bentong	45,000	Total Pahang	185,000

In Malaysia as a whole the acreage of rubber on estates was much greater than that on smaller holdings but in Pahang the two were much more evenly divided (Table 19).

**Table 19. Percentage of Total Area of Rubber on Estates and Other Holdings, 1939.**

	European Estates	Chinese Estates	Other Estates	Total for Estates	Total for Other Holdings
Pahang	29	18	4	51	49
F.M.S.	53	7	3	63	37
All Malaya	46	10	5	61	39

Here the latter acreage was boosted by the large number of medium holdings established during the currency of the *Rubber Lands (Restriction) Enactment* and found in the mining Districts of Kuantan, Raub, and Bentong, or adjacent to the railway line between the Negri Sembilan border and Tembeling. More than half the estate acreage in Pahang was owned by Europeans but the proportion of Chinese estates was higher here than elsewhere on the mainland of Malaya. Most European estates dated back to the years prior to 1914 and were located in the Raub and Kuantan District while the greatest concentrations of Chinese estates were found in the Temerloh and Bentong Districts where the main expansion had taken place after 1915. In the Lipis District there were some estates in the vicinity of the railway line and the Kuala Lipis to Jerantut road but at Pekan there was no estate cultivation except for one area of less than two hundred acres, the sad remnant of a former agricultural concession.

Small and medium rubber holdings were distributed more widely throughout the State with the main concentrations in the alluvial mining Districts, along the older stretch of railway line, and in the vicinity of the towns. Most medium holdings were Chinese owned, but smallholder cultivation was more evenly divided between Chinese and Malays, the larger average size of Chinese smallholdings being balanced by the greater number owned by Malays.

Other commercial crops were grown on both estates and smaller holdings. The two largest units were the Selbourne Gutta Percha Estate, located on the



Jelai River opposite the Padang Tunku Railway Station, and the three thousand acre Boh Tea Estate in the Cameron Highlands. Oil palm was grown on three estates at Kerdau, Mengkuang, and Niram Tunggal, all adjacent to the railway line, and there were several small coconut estates in the coastal districts. Coconuts, coffee, tobacco, spices, and kapoc were grown on smallholdings and most of the commercial production from these was consumed locally. The apparent care with which these crops were noted in the official reports and statistical returns was more a symptom of the uncertainty of the rubber market than a reflection of their actual or potential importance<sup>16</sup>.

Pahang, at this time, ranked among the most important timber producing States in Malaya. Johore and Perak, with larger local markets, produced greater quantities of inferior softwoods and fuel, but Pahang was the premier producer of hardwood timber<sup>17</sup>. In 1939 Pahang produced 4,485,000 cubic feet of wood and timber and, if firewood is excluded, the greater proportion of this was sold outside the State. The main markets were Selangor and Singapore. Exports from the western districts of Pahang went by road to Selangor, those from the central districts by rail to west coast States and to Singapore, while those from the eastern districts went by sea to Singapore. Although over 20 per cent of Pahang was included in Forest Reserves, 95 per cent of the wood and timber came from State and alienated land. The Forest Administration wisely encouraged the early removal of timber from land that was likely to be cleared for cultivation. In the coastal districts, however, most accessible timber was already removed and some Reserves, including Bukit Goh at Kuantan, were open to controlled exploitation.

The production and marketing of logs and sawn timber was carried out exclusively by small Chinese *kongsis*, or syndicates. As many as two hundred individual licencees were involved in extraction and the total labour force was probably in the order of two or three thousand workers<sup>18</sup>. In the vicinity of the Endau, the Pontian, and the Rompin Rivers in south Pahang extraction was by *panglong*. These were long wooden runways along which the logs were hand hauled. In the Bukit Goh Reserve a light tramway was in operation. Elsewhere buffaloes were used to haul logs to collecting depots which were located at the roadside, the railway, or the bank of a navigable river. Because of the high specific gravity of tropical hardwoods, it was impracticable to float logs on smaller streams and since the maximum haul using buffaloes or *panglong* was one mile the amount of timber available for extraction was strictly limited and logging operations were confined to areas accessible by road, rail, or river<sup>19</sup>. In 1939 the greatest volume of production came from the Temerloh

16. See *Malayan Agricultural Statistics*, 1939 and *P.A.R.* 1939, pp. 19-22.

17. Pahang accounted for 10 per cent of the total timber and fuel produced in Malaya in 1939 and 31 per cent of the sawn primary hardwoods. *Forestry A.R.* 1939, pp. 84-5

18. In *P.A.R.* 1938, par. 101, it is estimated that 500 men were employed in the seven sawmills which produced half the output of sawn timber. From this it is estimated that at least 1,500 were engaged in extraction and bandsawing.

19. These points are well expressed in Desch, H.E.: "The Forests of the Malay Peninsula and their Exploitation", *The Malayan Forester*, Vol. 7, 1938, p. 179.



District where the improvement of communications had been more recent and where there had been no previous demand for timber and fuel for mining purposes. Production of sawn timber within the States was evenly divided between seven sawmills, all located on the railway, and a large number of small depots where timber was hand sawn. In the majority of cases these depots were located at the terminus of the first line of extraction. A further quantity of wood, equivalent to about half the sawn timber produced, was exported in log form and milled in Singapore or Kuala Lumpur.

Pahang in 1939 was the main source of jungle produce in the Malay Peninsula and the total value of her exports was slightly in excess of \$100,000. With the exception of jelutong collecting, however, the industry was far less important than in earlier decades. The range of products collected was narrower than in the previous century and the number of people involved in collection was smaller. Rattans and bamboos were still exported in moderate quantities but the demand for many other products was now met by cultivated or synthetic substitutes. In contrast to the haphazard collection methods employed for other products in earlier days, the jelutong industry was carefully controlled by the Forestry Department and well organised by the licensees. In the north and west, collection and marketing were done by Chinese while in the east Malays and Aborigines were employed by a European who operated a processing factory at Kuantan. Jelutong collection was well described in the *Pahang Annual Report* for 1938:—

“Unlike the plantation rubber tree (*hevea braziliensis*) the jelutong is one of the biggest and most impressive jungle trees, the largest specimen measured being no less than 26 feet in girth and over 200 feet high. Tapping is carried out in much the same way as with plantation rubber and yields of up to 100 kati a day are common. Trees are scattered and seldom occur more frequently than one tree to four acres. The areas licenced for tapping are consequently very large often covering as much as a hundred square miles, and as they are generally in remote regions with which the only communication is by river or jungle path, adequate control is difficult. But control there must be as intensive tapping will in time kill the trees and to conserve supplies it is necessary to enforce a rule that no tree less than seven feet in girth shall be tapped”.

Of the 3,408 fishermen at work on the Pahang coast in 1939 all but 27 were Malays<sup>20</sup>. Marketing and distribution facilities were provided by Chinese entrepreneurs and, as a result of their recent innovations, a considerable proportion of the catch was now sold commercially. The export of dried and salted fish was still important but the use of refrigeration and motor vehicles made it possible to market fresh fish in the interior of Pahang and even further afield. During 1938 the governmental fishing vessel acted as parent ship to the Pahang fleet and catches delivered to this ship were refrigerated and taken

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20. Estimate contained in *P.A.R.* 1939, p. 24



to Mersing from whence they could be delivered to Singapore by lorry<sup>21</sup>. Similarly, fish landed at Beserah, Kuantan, or Kuala Pahang could be delivered by road to Kuala Lumpur or even Ipoh. Compared with mining or rubber cultivation, fishing was a minor industry but the success of these innovations showed that the prospects for further expansion were favourable.

### THE MALAY SECTOR.

In 1939 there were few Malay families in Pahang which did not receive a cash income of some kind. Without this they could not pay land rents, let alone purchase the necessities (salt, cotton goods, and kerosene) or the luxuries (imported rice and manufactured goods) which were on sale in every kampong<sup>22</sup>. With it they could buy fruit, fish, eggs, coffee, or sugar rather than produce the whole range of such products within the family unit. Those who depended most upon a cash income were the coastal fishermen, while those best able to combine traditional agriculture with commercial employment were the owners of small rubber holdings. Settlers who preferred subsistence cultivation to cash cropping or wage employment were able to obtain their minimum cash requirements by selling surplus produce to local dealers or at one of the 23 local fairs which were organised by the government and held each week<sup>23</sup>. In the east of the State several hundred Malays were employed in jelutong collection and the Malay colonists in the Rompin basin relied mainly on this income while they established their agricultural settlements. Many individual Malays in Pahang engaged in a wide variety of occupations but the two most important were the cultivation of padi and the growing of rubber; the one almost entirely for family consumption, the other wholly for the export market.

The cultivation of wet padi was firmly established as the main base of the Malay subsistence economy. There were 36,670 acres of padi planted in 1939 and all but 960 of these were wet padi; not only was the total acreage higher than in 1921 but the proportion of wet padi was much greater<sup>24</sup>. The average yield in 1939 was 199 gantangs as compared with 149 in 1921. Compared with other States in Malaya, however, the position was still far from favourable. Methods of cultivation employed in Pahang were still acknowledged to be more primitive than those used in any other State except Johore and Trengganu<sup>25</sup>. The area of padi land might have compared favourably with that of the other States but yields were among the lowest and only in Johore, Trengganu, and Selangor did the Malays produce less of their own padi needs

21. P.A.R. 1938, p. 42. It is not clear whether this service was available in 1939.

22. Land rents ranged upwards from 60 cents per acre depending on the cultivation stipulated and the locality. The lowest rentals applied only to land for wet padi. *Phg. Sec.* 1164/39, enclosure 14.

23. *Agriculture, Pahang A.R.* 1938.

24. *Malayan Agricultural Statistics*, 1939, table 26. (Compare table 10 in chapter 9).

25. "Padi Planting Methods in Malaya", *Malayan Agricultural Journal*, Vol. 27, No. 2, 1939, pp. 40-59.



(Table 20). Improved facilities provided by the Drainage and Irrigation Department, better seed selection by the Agriculture Department, and greater care and attention by the Malay farmers had improved the standard of cultivation in Pahang but local production was still insufficient for even the Malay section of the community<sup>26</sup>.

**Table 20. Comparison of Selected Indices for Padi Production, States of Malaya, 1939**

State	Area of Padi in acres per thousand Malays	Average yield of padi in gantangs per acre	Average yield of padi in gantangs per Malay
Perak	358	298	107
Selangor	143	243	35
Negri Sembilan	396	295	117
PAHANG	372	199	74
Penang & Prov. Wellesley	305	327	100
Malacca	335	381	128
Johore	34	154	5
Kedah	890	352	310
Perlis	1,017	274	278
Kelantan	442	214	94
Trengganu	255	157	40
All Malaya	403	288	116

*Note:* The acreage and yield figures are the averages of the three seasons 1936-37 to 1938-9 calculated from *Malayan Agricultural Statistics* for 1937, 1938, and 1939. The Malay population is the "Malaysian" population recorded in the 1931 census with the figures for Aborigines deducted.

The persistence of earlier patterns of Malay settlement and the continued importance of padi in the Malay economy are reflected in the fact that the distribution of padi cultivation in 1939 was also broadly similar to that in 1888. The highest standard of cultivation and the best yields were still to be found in the smaller valleys which opened out on either side of the Lipis Valley, and in similar valleys at Ulu Luit and Ulu Lepar. In the Pahang Valley there was little *tenggala* or *ladang* cultivation in 1939 but the area of wet padi was much greater there than in 1888. The most extensive areas of padi were grown in the

26. In 1938, a year of greater than average production, the British Resident estimated that the yield was sufficient to meet only three quarters of the Malay requirements. Indians and Chinese had long relied on imported rice. *P.A.R.* 1938, p. 26.



inundation *payas* of the Temerloh District and the yields recorded here were not far short of those obtained in the narrower interior valleys where perennial irrigation systems were used. Since inundation dams were easier to construct and maintain, irrigation in the Temerloh District was already approaching maximum efficiency and the prospects of further increases in yield were therefore less favourable in this area.

Adjacent to these established padi areas were a number of areas of pioneer cultivation. With a few exceptions settlement was focused on irrigation facilities provided by the Drainage and Irrigation Department and the colonists were drawn from nearby kampongs. Many such schemes were located within Malay Reservations adjoining the Benta to Kuantan road and the railway line in the Lipis District. At Pelangai, near the Negri Sembilan border, the tide of migration had again reversed and the pioneers here had come from kampongs beyond the State boundary<sup>27</sup>. In the south of the Pekan District, beyond the reach of government assistance and supervision, small areas of padi were to be found in *ladangs* opened up by both Malays and Aborigines.

The acreage of rubber owned by Malays in 1939 is not recorded but a study of selected Mukims and a comparison with more recent statistics<sup>28</sup> suggests that this was in the order of forty thousand acres. Rubber was not grown by all Malays but it was grown by some Malays in every Mukim of the State, even including such remote areas as Ulu Jelai, Ulu Tembeling, and Keratong<sup>29</sup>. It was popular not only in the areas where Malays were settled among rubber holdings owned by other races, but also in areas where the population was predominantly Malay. The extent to which Malays combined rubber with other forms of cultivation is well seen in the case of Mukim Lebak (figure 25). Here, in a predominantly Malay Mukim with some two hundred households and seven hundred alienated lots, the total area of rubber was between three hundred and four hundred acres<sup>30</sup>. By comparison the area of padi, and the area of other forms of cultivation, were both in the order of six hundred acres. Rubber was found on 176 lots but only half of these were alienated specifically for rubber cultivation. On 30 per cent of the lots which were recorded in the Rubber Register, the rubber occupied less than half the area of the lot. Since some households owned more than one rubber lot, there was a moderately large proportion who owned no rubber land.

Individually other forms of food production in Pahang were much less important than padi but collectively they rivalled it in importance. In 1939, as in 1888, the Pahang Malays cultivated most of the crops grown by their counterparts in the other States but the level of production was lower. Even in the old established kampongs in the vicinity of the Lipis and Pahang Rivers there were fewer fruit trees than in the kampongs of western Malaya and the

27. *P.A.R.* 1938, p. 61, and *Bentong* 545/40.

28. As, for example, *Rubber Statistics Handbook*, 1953, Table 28 (ii) "Smallholdings, Planted Area by Race of Owner".

29. *Phg. Sec.* 1627/37 and *Lipis* 1006/34.

30. *Register of Rubber Assessments*, Vol. 24, Lebak, held in the Temerloh District Office.



quality of the fruit was inferior<sup>31</sup>. In the coastal Mukims south of Kuala Pahang there was no fruit cultivation except at Endau. Coconut cultivation in the kampongs lining the Pahang and Jelai Rivers compared less than favourably with that in 1888 since many of the trees destroyed in the 1926 flood had not been replanted<sup>32</sup>. Vegetable production was almost negligible since Malays would not buy fertilizer and were loath to collect animal manure<sup>33</sup>. The kampongs were well populated with sheep, goats, and poultry, but the quality of these and the standard of husbandry were low, even by Malay standards<sup>34</sup>. Pahang had more buffaloes per acre of padi than any other Federated Malay State but these were employed mainly to trample the padi fields before cultivation or were retained for prestige purposes<sup>35</sup>. In many areas of Pahang, particularly in the upriver areas of the Pekan and Lipis Districts, cultivation of temporary crops of tapioca, maize, and sweet potatoes was so frequently necessary that it could be regarded as a normal part of the agricultural cycle. In all these branches of subsistence agriculture Pahang compared unfavourably with the western States. Nevertheless they played an essential role in the economy of the Pahang Malays; along with padi production they had made survival possible during the years of depression and rubber regulation and they were later to cushion the people from the disruption of the Japanese Occupation.

### URBAN DEVELOPMENT

Even compared with the better developed western States, Pahang in 1939 was well provided with urban facilities. On the basis of estimates made in Table 21, one person in every seven lived in an urban centre with population in excess of one thousand. In addition to these nine larger centres there were a similar number of smaller centres which were largely commercial in function and which ranged between three hundred and one thousand in population. In addition to transport, marketing, and service facilities, many of the towns were also administrative centres and provided medical and health services. A large number of the rubber plantations and the smaller mines were owned or financed by Chinese businessmen resident in the urban centres. The development of mining, urban settlement, and commercial agriculture had been closely interrelated in the past and many of the capital linkages remained. In addition, there were many wage workers on the estates and smallholdings, and in the mines near Bentong and Raub, who lived in the towns and travelled each day to their place of employment.

31. "Report on Survey of Cultivated Fruits in Pahang, 1933" *Lipis* 568/34.

32. Agriculture, Pahang A.R. in *Lipis* 54/39.

33. There were omens of better things to come. The State Education Officer reported that "over 1,600 boys had 'home gardens' in 1939 and cases are recorded in which their zeal has affected even their parents: gardening is not an avocation of the average kampong Malay of Pahang". *P.A.R.* 1939, p. 36.

34. In the case of poultry, for example, it was noted that an annual production of 100 to 120 eggs per bird was considered good. *P.A.R.* 1938, p. 40.

35. For a discussion on the role of the Pahang buffalo see *P.A.R.* 1938, pp. 38-39.



The three largest towns were Kuantan, Bentong, and Raub-Bukit Koman<sup>36</sup>. Each of them served nearby mining and rubber communities and acted as commercial, transport, and administrative centre for its District. The two towns in the second group had less in common. Kuala Lipis, as State Capital and railway centre, had important administrative and transport functions but its tributary region was of less commercial importance, with the result that its market functions were less developed than those of the towns in the first group. Sungei Lembing was the residential and administrative centre for the Pahang Consolidated Company Mines and at this time it supported one of the most important market gardening areas in the State. It had capital links with

**Table 21. Urban Centres in Pahang According to their Estimated Population, 1939.**

Group	Name of Centre	Approximate Population
(a) 5,000 and over	Kuantan	7,000
	Bentong	6,000
	Raub—Bukit Koman	5,000
(b) 3,000 to 4,999	Kuala Lipis	4,500
	Sungei Lembing	3,500
(c) 1,000 to 2,999	Mentekab	2,500
	Temerloh	1,500
	Pekan	1,500
	Beserah	1,500
(d) Smaller Commercial Centres	Jerantut	800
	Triang	800
	Tanjong Lumpur	800
	Rompin	500
	Gambang	500
	Mengkarak	500
	Tras	400
	Tanah Rata	400
	Karak	300

*Note:* These estimates are based on the populations recorded in 1931 and 1947 and take into account the changes known to have occurred between those dates. In general it is assumed that the rate of urbanisation during the years 1931-9 was greater than that during the years 1939-47 which include the Japanese Occupation period.

36. The town of Raub and the adjacent settlement at Bukit Koman were not grouped together for census purposes but the functional relationships between the two were such that they are here considered as a single unit.



some of the rubber plantations along the Kuantan River but these latter looked to Kuantan for their supplies and services.

The remaining urban centres also varied in their functional emphases. Temerloh and Pekan were District administrative centres and included within their boundaries many Malays whose way of life was rural rather than urban. Mentekab, Triang, Jerantut, and Mengkarak were no longer railway construction camps but instead were commercial centres for the sawmilling and rubber growing areas of central Pahang. Gambang and Tras performed similar functions for their localities but were much reduced in importance now that alluvial tin mining had declined. The coastal settlements of Beserah, Tanjong Lumpur and Rompin owed much of their new commercial importance to the recent improvements in the marketing of fish. In the Cameron Highlands, Tanah Rata was a youthful tourist centre with 30 new shop houses, the same number of hotels, and a nine hole golf course.

### TRANSPORT AND COMMUNICATIONS

The lines of road and rail communication in 1939 were the key to the pattern of commercial agriculture and the distribution of the non-indigenous population. In contrast to the network of roads that existed in the western States, the road pattern in Pahang was still a primary outline with very few secondary roads (fig. 43). Compared with 1921 the changes were few; the railway had been completed and several short stretches of road had been added to improve communications between urban centres. Pekan and Kuantan were now joined, not only by coastal shipping services, but also by a road which gave the former town its first land link with the rest of the State.

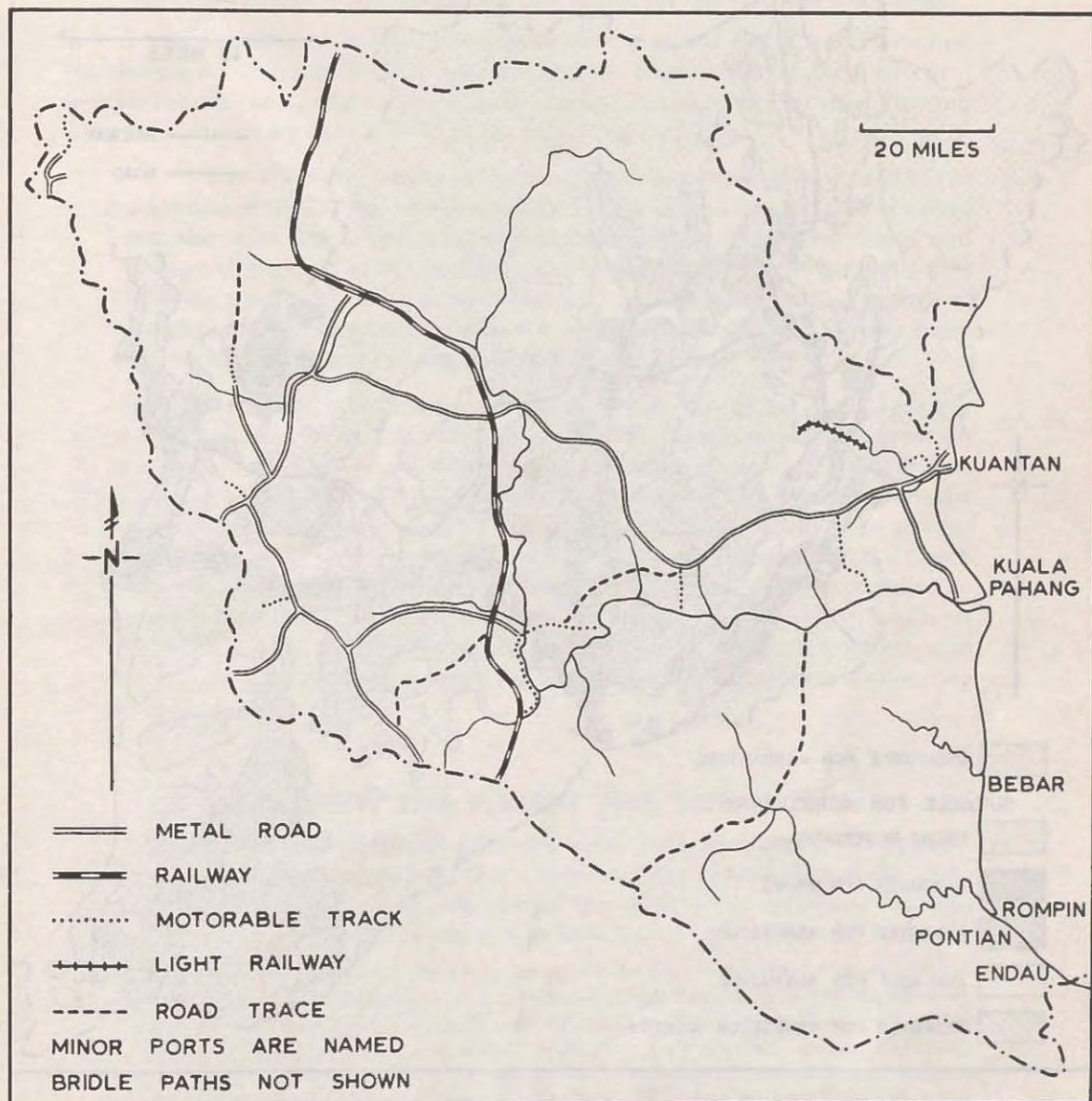
The rivers were still important lines of communication for the Malays but their role was now being shared with the roads, the railway, and the unmetalled paths. The distribution of Malay population was still largely a reflection of the river patterns but the new trends which have been noted were the result of the new communications.

The main contrast between transport in 1921 and transport in 1939 was not so much in the pattern of roads and railway as in the modes of travel. During the intervening years Pahang had experienced the effects of a transport revolution brought about by the internal combustion engine and the cheap bicycle. The effects of this revolution were felt equally by the Malays and the immigrant communities. The introduction of motor lorries stimulated trade in general and was of special importance to the coastal fishing industry and to the logging industry in western Pahang. Three other forms of transport were particularly important in breaking down the isolation of the rural areas and increasing the tempo of life in the Malay kampongs. The first of these was the outboard motor. Its role is well described by C.C. Brown in the 1938 Pahang Annual Report:—

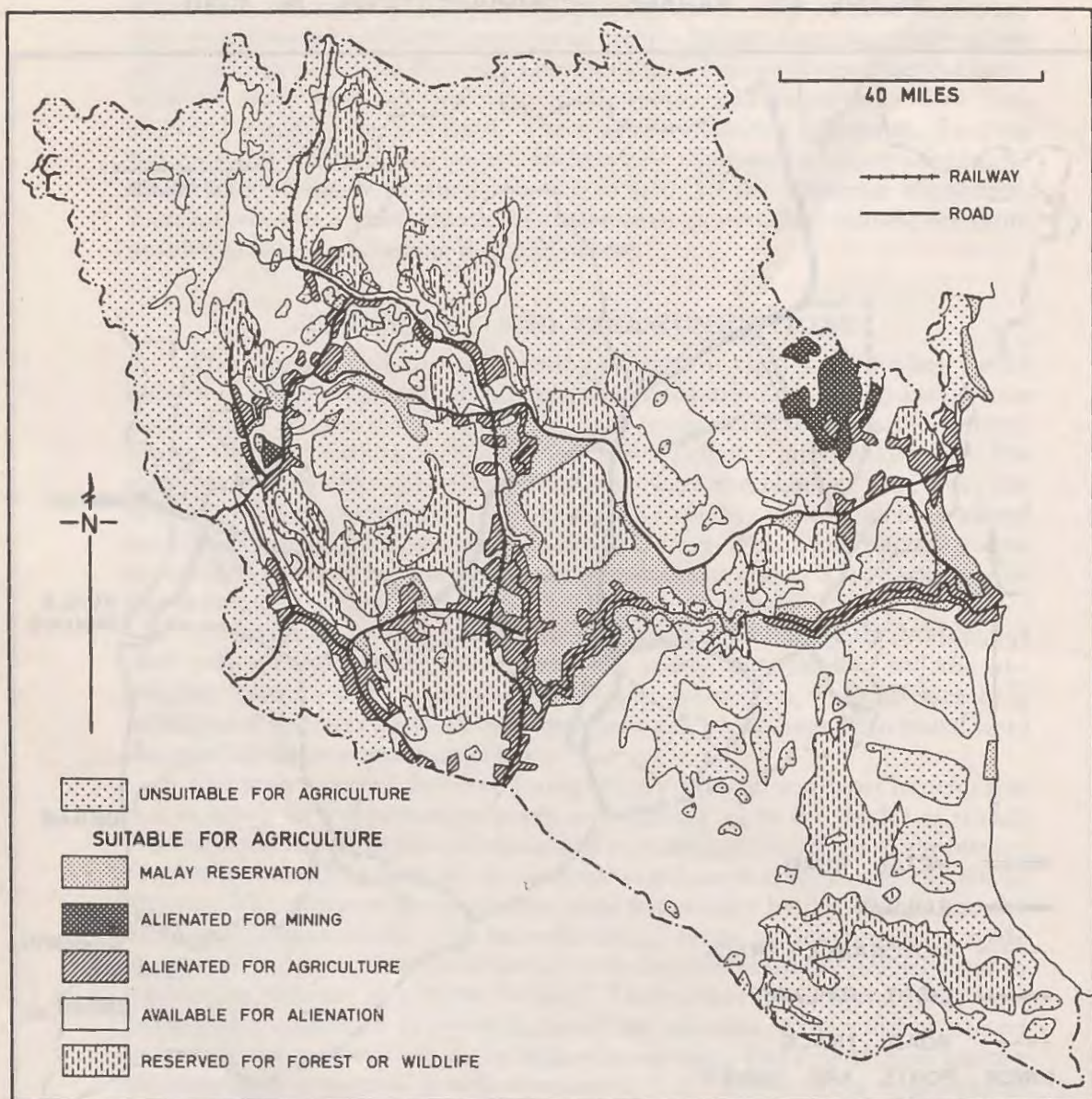
“The boat fitted with the outboard motor is visibly and audibly meeting a growing demand for more speedy locomotion. Capitalists are



FIGURE 43 PAHANG: COMMUNICATIONS IN 1939









few and far between on the banks of the Pahang rivers, and motor launches are expensive things to buy, but the small boat fitted with an outboard motor is a much more modest enterprise and it is little exaggeration to say that these craft have revolutionised river transport. Not only are they speedy but their shallow draft enables them to go up streams inaccessible by launch, and they are used for purposes ranging from the transport of heavy garden or forest produce to joy riding for the belles of the village."

In similar fashion the bicycle represented a minor social and economic revolution for the smallholder and tradesman classes, particularly in rural areas served by kampong paths or earth tracks. In the report for the following year the same writer pays tribute in the following terms:-

"There are 462 miles of (bridle-paths) in Pahang and thanks to the adoption of the bicycle by persons of all nationalities irrespective of age or sex, they afford comparatively rapid communication between village and village, village and river, or village and main road, not only for the cyclist and his passenger or passengers but also for the transport by bicycle of freight not ordinarily associated with these machines, varying from a baby on the handlebars to livestock on the luggage carrier."<sup>37</sup>

The third member of this important trio was the motor bus. In 1939 licences were issued for no less than 121 of these. Not only did they operate on the metalled roads but also on widened tracks such as those from Temerloh to Chenor, and Temerloh to Triang via Lebak. Between Rompin and Endau the lack of roads was no great obstacle to an enterprising Chinese who ran a regular car service along that portion of the beach which was uncovered at high tide. In spite of its regular timetable and fixed charges, both concepts alien to the rural Malays, the motor bus had become an accepted institution throughout the roaded areas of Pahang<sup>38</sup>. The combination of these three, outboard motor, bicycle, and motor bus, served to bring most Malay settlers within easy reach of the urban markets.

### CONCLUSION: THE FOREST AND THE FUTURE

The five decades of British administration between 1888 and 1939 had been a time of transformation for the population, the economy, and the communications pattern. During this period the population increased fourfold and the influx of immigrant communities from China and India had radically

37. *P.A.R.* 1939, p. 44. The bicycle was first introduced into Pahang in the previous century and forms the subject of one of Hugh Clifford's short stories ("Alfred Huxley's Ride" in *A Corner of Asia*, p. 27 et seq.) It was not until the 1930's that large numbers of cheap bicycles became available. Winstedt suggests that the Japanese exported large numbers of bicycles to Malaya just prior to the Second World War in order to facilitate the movement of their invading troops. *A History of Malaya*, p. 246.

38. *P.A.R.* 1938, p. 63.



changed its composition. Many mining ventures had been established and two, the Raub Australian Gold Mines, and the Pahang Consolidated Company, had persisted. Revenue from mining had helped to construct new lines of communication and numbers of immigrants who came to work in the mines or on the railway remained to settle in the towns or on the land. A new crop had been introduced and, through the combined efforts of indigenous Malays and commercial agriculturalists, the cultivated area had increased six times. These changes were significant and far reaching but it is important once again to step back from the finer details of the study and consider their impact on the total scene.

It was the forest which still dominated the landscape in 1939. Man had extended the cleared area to embrace a mere 6 per cent of the total<sup>39</sup>. The results of logging and the collection of jungle produce had wrought little visual change in the remaining 94 per cent. The activities of careless jelutong tappers had killed an occasional tree but 90 per cent of the forest was still beyond the reach of the logging contractor. Thus, while the composition of the forest was slightly impoverished, the cover remained unbroken and the appearance unchanged except to the trained eye of the forester or the botanist.

To the outside observer it may have appeared that Pahang in 1939 stood on the threshold of a new phase of expansion. Economic conditions were recovering with an increase in demand for tin, rubber, and other agricultural products. The agricultural development of the western States had reached the point where they had few areas of unalienated land comparable with the large expanses which existed in Pahang. The mineral potential of Pahang was modest by the standards of Selangor and Perak but her agricultural potential was considerable. The time now seemed opportune for this to be realised. Such, however, was not the case. The land was there but, until administrative problems were grappled with, no large areas could be occupied.

In contrast to the situation in 1921, there was little accessible land which could be occupied for commercial agriculture. Although only 4.74 per cent of the State was alienated, large areas were now reserved for other purposes (Table 22). When excessively steep and swampy land is excluded, and the area of reserves and reservations subtracted, it can be seen that only 25 per cent of the State was available to non-Malay applicants (fig. 44). Since most of this land was remote from roads or railway, many holders of permits to plant new rubber in 1939 experienced great difficulty when they tried to find suitable land in Pahang.

In a situation such as this it was clear that no large expansion of commercial agriculture could take place without some initiative on the part of the administration. There appeared to be two possible avenues of solution. One involved reassessment of the area reserved for forest and game purposes

39. From the returns of land alienated, cultivated and reserved for specific purposes (P.A.R. 1939, pp. 12, 158, and appendix D), and the exploration records of the Forestry Department, it is estimated that 12,995 sq. miles of Pahang was still forested at the end of 1939.



**Table 22. Percentage of the State Area Alienated and Reserved for Special Purposes, 1939.**

Alienated Land <sup>a</sup>	4.74
Forest and Game Reserves <sup>a</sup>	28.97
Unalienated Malay Reservation <sup>b</sup>	7.31
P.C.C.L. Concession <sup>a</sup>	2.06
Remaining State Land	56.92
Total	100.00

**Sources:-** (a) *P.A.R.* 1939, p.12, and (b) *P.A.R.* 1939, p. 58

and the release of areas which were both accessible and suitable for agriculture; in theory the Forestry Department was committed to such a policy but in practice the areas so released prior to 1939 had been minimal. The other was to resume road construction and, in particular, to build new roads along traces which had been surveyed in the late 1920's. Of the two policies the latter involved to greatest expenditure but it was strongly advocated by three unofficial members of the Pahang State Council<sup>40</sup>.

For the Malays there was no such shortage of land. The area of the Malay Reservations was seven or eight times greater than the area already alienated within them and all were accessible either by road, railway, or navigable river. Along the Pahang River the Reservations were large enough for many decades of expansion in the vicinity of existing settlement. In the Raub District new land was available in the Batu Talam Mukim, well served by road and river communications. Malays in the Bentong District were less fortunate in that they were forced to move to remoter areas in order to find padi land to replace that despoiled by mining. In the Lipis District the most serious problems were those of isolated communities too small to control the pests and wild animals which destroyed their crops and preyed upon their domestic animals; for those willing to move from the remoter kampongs there was ample land available in the more accessible Mukims. In all Districts the slow colonization of Drainage and Irrigation Department schemes showed that the basic problem of the Malays was not lack of land but inadequate returns from the land already used. Until standards of cultivation could be improved, Pahang was unlikely to attract Malay immigration and no large expansion of Malay subsistence agriculture could be expected.

Pahang in 1939 had reached a developmental barrier. The initial impetus which had come with high prices, first for tin and then for rubber, had been lost and no new products were felt to offer equivalent prospects for renewed growth. The full benefits of the infrastructure provided by the government

40. These three men, V.B.C. Baker, R.G. Young, and Saiyid 'Abdul-Rahman, put forward detailed proposals for development which in many respects foreshadowed the policies now followed the Alliance Government. *Phg. Sec.* 1164/39.



during the years of greatest prosperity were either claimed or had been foregone by the establishment of an overabundance of reservations. People were looking not to the investor but to the government for new initiative in development. Unless the administration could unleash new forces for change it seemed that the existing patterns would ossify and Pahang would stagnate. But the administration in 1939 was in no position to initiate new schemes for development. Britain was already at war in Europe and war with Japan was imminent. Officials were fully occupied with maintaining the existing machinery of administration and encouraging the cultivation of greater quantities of padi and other foodstuffs. This situation persisted until the Japanese invaded Malaya at the end of 1941 and the curtain fell on the first period of British administration in Pahang.



## APPENDIX 1. LAND ADMINISTRATION IN PAHANG

In 1889 the British replaced Malay customary ownership of land by a system of registration which was a temporary measure based on demarcation without survey. Settlement Officers met each Malay occupier of land to demarcate his holding and enter his name in a register. Title was in the form of a *Malay Certificate*, a foolscap form printed in *jawi* script. When new applications for land were approved, the procedure was similar except that the title issued was called an *Agreement to Lease*. In neither case was reliable record kept of the size of the holding or its exact location.

The present system of land alienation has evolved since the *Registration of Titles Enactment* was passed in 1897. In principle it is based on the Torrens System as applied in Australia and New Zealand. The aim of this system is to provide security of title with ease of transfer. The standard authority on the subject is Bridges<sup>1</sup> and what follows is largely based on his manual. The functioning of the system is based on:-

- (a) The precise survey and undisputed location of every holding on maps held by Revenue Survey and the maintenance of sufficient records to facilitate relocation in case of dispute. No legal and binding title can be issued until the holding has been plotted on the Revenue Survey maps.
- (b) The existence of duplicate titles, one held by the owner of the land and one bound in a register at the Land Office. No transaction regarding the land to be valid unless endorsed on both copies.

Unless land was formally alienated it remained the property of the Ruler of the State and was known as State Land. Provided this was not reserved for some specific purpose it could, on payment of the prescribed fee and subject to the approval of the British Resident, be alienated under one of the following forms of title:-

- (a) *Agricultural Grants*. Normally issued for holdings in excess of ten acres, these were registered at the office of the Commissioner of Lands and Mines, Pahang. The duplicate titles were bound together to form the *Register of Grants*. As long as annual rentals were paid and any stipulated conditions observed, rights were held in perpetuity.
- (b) *Town Grants*. These were issued for building lots within gazetted Towns and villages. The form of title and the registration were identical with (a) above.

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1. Bridges, W.F.N.: *Survey for Title in the Federated Malay States*.



- (c) *Town and Agricultural Leases*. These were similar in all respects to (a) and (b) except that they permitted occupation for a specified number of years and not in perpetuity. These forms of title were not commonly used. Bound in the *Register of Leases*.
- (d) *Entry in the Mukim Register* or *E.M.R.* These titles were issued for agricultural holdings of ten acres or less. They were registered at the appropriate District Office and the duplicate copies bound into *Mukim Registers*, one for each Mukim.
- (e) *Certificate of Title* or *C.O.T.* Issued in continuation of a *Grant* or *Lease*, these were equal in all respects to the original document. If, for example, a *Grant* was subdivided, or if the original title was lost, the new title issued was known as a *Certificate of Title*.
- (f) *Mining Leases*. These conveyed mining rights and were normally for 21 years. They were issued at District Offices and the duplicate copies bound into *Registers of Mining Leases*.

Agricultural activity was not confined to alienated land. In addition to illegal occupation and Aboriginal shifting cultivation, there were two ways in which State Land could be legally occupied for agriculture:-

- (a) *Approved Application* or *A.A.* Once an application for land was approved and the plot demarcated, occupation could be permitted in advance of survey and in anticipation of permanent title. For practical purposes land held under *A.A.* could, and frequently was, regarded as alienated land<sup>2</sup> but boundaries were subject to adjustment and legal alienation did not take place until survey was completed and recorded and the document of title registered. The majority of holdings in Pahang were held under *A.A.* for one or more years prior to alienation and in some cases where survey was delayed, this period extended to twenty or thirty years or even longer. *Rolls of Approved Applicants* were bound and preserved and when an *A.A.* was replaced by a permanent title the existence of the former was entered on the new title and hence in the register.
- (b) *Temporary Occupation Licence* or *T.O.L.* These were temporary documents issued at the discretion of the District Officers. They permitted occupation for one year but could be renewed if the land was not required for any other purpose. In the early years of the administration they were used to regularise shifting cultivation and ensure that revenue was collected. Later, when shifting cultivation fell into disfavour, they were used to permit market gardening on land which the administration wished to retain for mining or urban purposes. In some Districts they were issued to Malay settlers who were

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2. The District Offices normally included such land in their returns of land alienated. For example see *P.A.R.* 1939, appendix D, Table V.



pioneering new areas for wet padi. In this case the settlers were required to apply for permanent title as soon as the first successful crop was harvested. Since *T.O.L.s* gave the occupier few legal rights, records were not regarded as important; no maps were made and *Registers of T.O.L.s* were not retained after the licences expired.

Much valuable information was recorded on the permanent titles and hence in the registers which were compiled when the duplicate copies were bound together into volumes. The lay-out of the titles has varied over the years but the following information can be abstracted in almost every case:—

- (a) The location of the holding; the District, Mukim, and the survey reference number which is unique for each holding within a Mukim.
- (b) The number and nature of any former title, whether Malay Certificate, Agreement to Lease, Grant, E.M.R., C.O.T., or A.A. In most cases this is sufficient to date the initial occupation; for example A.A. 137/27 indicates that the former title was an A.A. issued in 1927.
- (c) The area of the holding in acres, roods, and perches.
- (d) The race of the owner. This is indicated by both his name and his signature which makes it immediately clear if the owner is Chinese, Indian, or Malay.
- (e) Any special conditions including stipulations regarding crops to be cultivated or not to be cultivated.
- (f) The premium and rental paid and any revisions of the rental.
- (g) Subsequent changes or division of ownership.
- (h) Any charges or mortgages against the property.
- (i) The date of registration of the title.
- (j) The number of the title.

The Land Offices have also compiled a number of other registers which do not have the authority of legal documents but which facilitate cross reference. The most useful of these are the *Indexes of Settlement Work* which were compiled for each Mukim and organised with the survey numbers in sequence, in contrast to the Mukim Registers which have the title numbers in sequence. In addition, the former include the title numbers of all Grants, C.O.T.s, Mining Leases, and Reserves within the Mukim. Against each survey number they also give the information listed in items (a), (b), (c), (i), and (j) above.

The Land Officers were also involved in the restriction and regulation of rubber production from the 1920s onwards. They compiled *Rubber Registers* which listed smallholdings planted with rubber and estimated the area of rubber on each. Since these registers were not legal documents, they were not preserved with the same care as the *Mukim Registers*. In many cases, however, reference numbers from the *Rubber Registers* were inserted into the *Mukim Register* and it is thus possible to ascertain from the latter whether or not a given holding was planted with rubber, even though the *Rubber Registers* have not been preserved.



## APPENDIX 2

### STATISTICAL INFORMATION

During the period of British administration prior to the Second World War, six population enumerations were made, and a great amount of other statistical information was collected from the Mukims and Districts of Pahang and recorded in the statistical appendices which were an important part of every annual report. In more recent decades the Federated Malay States published a number of annual statistical volumes which are listed in the bibliography. In general the published returns gave State totals only, although in some cases District figures were also included. Information for individual Mukims, and District figures which were not published, were normally filed in the offices concerned, but for reasons discussed elsewhere only a small proportion of these have survived. It is thus rarely possible to obtain the same item of information, for the same year, from the files of more than one District Office<sup>1</sup>.

The census data, which will be discussed below, is surprisingly accurate, but the other statistical materials has serious limitations even when the original figures are still available. Most of these limitations arise from a widespread tendency for writers of reports to present figures baldly without giving any background information about the manner in which they were collected, the exact nature of what was measured, the units of measurement, the geographic area to which the statistics referred or the estimated accuracy of the totals. Comparisons between similar returns published in the reports of different offices, and wide fluctuations in figures for successive years, reveal that discrepancies of considerable magnitude often occurred<sup>2</sup>.

This appendix does not attempt to discuss the nature and the limitations of all the statistical material available. Attention is given to three aspects, namely the population census data, mining statistics, and rubber statistics.

#### Census Reports.

The first Pahang Census was taken in 1891 and subsequent enumerations were made at ten years intervals until 1931. Plans for the 1941 Census were abandoned because of a lack of personnel and the first post-war census was not

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1. For example it is known that figures for padi acreages and yields were collected in each Mukim for every season from 1911 onwards, but this information, in the form of totals for individual Mukims, has only been located for Kuantan in 1920, for Raub in 1920, 1921, 1925, and 1927, for Lipis in 1931 and 1935, for Temerloh in 1916 and 1923, and for Bentong in 1931.
  2. Figures for padi acreages, for example, are sometimes available in the *P.A.R.s.* and sometimes in the *Agriculture, F.M.s., A.R.s.* For the 1912 and 1913 seasons the former gives totals of 15,356 and 21,441 acres, while the latter gives 4,628 and 7,620.



held until 1947. Practically no census data other than the published Census Reports listed in the bibliography have survived<sup>3</sup>. The 1891 Census enumerators, it would appear, noted the race of each person but nothing more. From 1901 onwards an increasing amount of information was collected on such topics as race, place of birth, sex, age, occupation, and literacy. In view of the large area of the state, and the generally low level of development, the accuracy of the enumerations is a tribute to the painstaking efforts of the European supervisors (usually district officers) and the Asian enumerators. Apart from some carefully acknowledged omissions in the 1891 Census<sup>4</sup> the enumeration of the non-Aboriginal population would appear to be substantially correct for every census. In contrast with this, the enumeration of the Aborigines has never been complete and a comparison of the various reports suggests that the percentage enumerated has fluctuated considerably, not only from census to census, but also from District to District. For the purposes of the present study, the main defects to be noted relate to the organisation of the material in the published reports.

The basis of classification of population into racial groups has varied from census to census, particularly in the case of Malays. The most serious aspect of this problem is the fact that the Aborigines, only partially enumerated, have been grouped in with the Malays or "other Malaysians" in almost every tabulation. Sometimes, on the basis of this unreliable combination, the authors of the census reports have even calculated the rate of increase of Malay population<sup>5</sup>. For the purpose of the present study, all such calculations have been set aside and the Aboriginal population excluded from the data before any new calculations have been made. In addition, certain other adjustments, relating for example to estate Javanese, have been made to ensure that the data are as nearly comparable as possible before any calculations of ratios or increase rates are made.

The occupational data have not been used to any great extent, partly because the tabulations are not given by Districts, and partly because of the difficulties inherent in such a classification. Comments made in the census reports make it clear that the way in which occupational classifications were applied varied considerably from State to State, District to District, and presumably enumerator to enumerator.

Probably the most serious limitation of all, for the purposes of geographical study, is the lack of tabulation for small areas. For 1891 the information is only available by Districts and it is not until 1931 that any figures for individual Mukims were published. As census divisions the Districts were too large and too heterogeneous to permit any detailed study of migration patterns. The value of the 1931 Mukim tabulation is minimised by the inclusion of Aborigines along with "other Malaysians".

3. There are some district returns in the Kuantan files. See *Kuantan* 71/91, *Kuantan* 91/01, and *Kuantan* 854/20.

4. Straits Settlements: *Census of Pahang*, 1891.

5. For example in Nathan, J.E.: *Census of British Malaya*, 1921.



For these and other reasons, census information has played a subordinate role in the organisation of the study and the selection of reconstruction dates. In the case of 1891 and 1911 census, the information was adapted for reconstructions of Pahang in 1888 and 1909 respectively while in 1921 the date of the reconstruction coincides with that of the census. The other census reports have been used to measure the changes which were taking place and the information is thus incorporated into the developmental chapters rather than the reconstructions.

### **Mining Statistics.**

A great volume of statistical information relating to mining in Pahang was collected by the Wardens and Assistant Wardens of Mines, the District Officers, and the customs officials. Much of this is contained in the surviving annual reports. The statistics relate mainly to the area of land alienated for mining, the labour employed, and the annual production. The former are of little value since the extent of mining in any area bore little relation to the area alienated. The latter, relating to labour and production, are of much more interest but the figures given in different reports, or for successive years, contain many discrepancies. Where the same information is compiled from different sources, the variations which arise are commonly as great as 25 per cent and as a result the conclusions made must be couched in very general terms.

In the case of production figures, discrepancies commonly arise in one or more of the following ways:-

(a) There is confusion between tin ore and tin equivalent. Any given set of production figures may refer to the weight of tin ore produced or to the mineral content of the ore which is usually calculated by applying a standard conversion figure (65%, 70%, 72%, or 75%). In some cases the figures are given without stating whether they are tin ore or tin equivalent and in other cases a conversion factor is given without any indication as to whether or not it has been applied. In some instances state production figures appear to have been obtained by adding together totals for tin and tin ore without first applying a conversion factor.

(b) Production and export are often confused. In earlier years this was no problem since only exports were recorded. In later years larger companies recorded their production and during the currency of the tin restriction scheme there were some years when stockpiling took place and other years when stockpiles were reduced. As a result there was a divergence between actual production and production measured by exports (see fig. 21).

(c) Where later writers have compiled tables using both company and government records, production figures may refer either to the company year ending in June or the administration year ending December. This applies especially to the tables in the *Geological Survey Memoirs*.

(d) The geographical units used vary from year to year. When any given administrative report was written it was clear to the writer and his superiors which areas were referred to, but after an interval of several decades there is



room for considerable uncertainty. It is thus not clear whether some figures for Kuantan relate to the Coast Districts of Pekan and Kuantan, to that area which exported through Kuantan, or to the Kuantan District alone. Similar difficulties arise in Ulu Pahang where the Assistant Warden was stationed at Raub and where there were a number of changes in the administrative divisions.

The Mines Department carried out a bi-annual census of mining labour and some very detailed tables were prepared. Similar difficulties arise, however, since it is not made clear exactly who was included and who was excluded from a given table or a given total. When a total is given for the mining population of Pahang or some lesser subdivision, it usually includes all labour employed in alluvial tin mining and may, in addition, include any of the following:-

- (a) Mining labour employed by the Pahang Consolidated Company.
- (b) Other labour employed by the Pahang Consolidated Company in connection with mining (e.g. woodcutters, boatmen, and tramway operators).
- (c) Holders of Individual Mining Licences.
- (d) Holders of *Dulang* Passes.
- (e) Labour employed in large scale gold mining (e.g. R.A.G.M.)
- (f) Labour employed in small scale gold mining.
- (g) Miners working under licence from the Forestry Department in Forest Reserves.

Sometimes the numbers employed in mining are given by the total for the December census and sometimes by the average for the June and December census. Frequently different reports for the same area, for the same year, give widely diverging figures for the same item of information<sup>6</sup>.

### Rubber Statistics.

There are a number of publications which contain statistics relating to rubber cultivation in Pahang. The most complete series is that in the *Agriculture, F.M.S.A.R.s* from 1906 onwards which is broken only during war years when returns were not made. From 1921 the *P.A.R.s* have a return of the area under different forms of cultivation including rubber. For the years 1924 to 1928 statistics of the areas planted with rubber were also published in the *Rubber Restriction Department A.R.s* and for some years these also give the

6. A typical example of this may be found for employment in mining in 1909: *Mines, F.M.S. A.R.* gives the mining labour force for Pahang as 9,850 while *P.A.R.* gives a total of 10,819 employed in alluvial mining alone and records that 6,521 of these were in Ulu Pahang. The *Mines, Kuantan A.R.*, however, supplies the information that there were 5,923 employed in the Coast districts and the number employed by the Raub Gold Mines is given in the *P.A.R.* as 871. The figure given by *Mines, F.M.s. A.R.* 1909 is obviously wrong and in their 1910 report they supply a new figure of 11,783 for 1909 which still falls short of the totals for the two subdivisions of Pahang.



acreage of rubber planted in each of the preceding nine years. More recent publications are the *Malayan Agricultural Statistics* and the *Rubber Statistics Handbook*. In general these published sources give only State, or occasionally District, totals. Those unpublished District annual reports or statistical files which still exist contain District and even Mukim totals, but at no date do they give a complete coverage of the state. They do, however, yield much information about the way the published returns were compiled and the types of errors which arose.

There is sufficient overlap in the periods covered by the various published sources to compare their accuracy. It is also revealing to study the figures published in successive issues of the same publication. Many of the phenomenal fluctuations which are recorded relate only to the methods used to collect statistics and compile returns. These variations in the figures are rarely discussed in the reports concerned but can usually be attributed to one of the following factors:-

- (a) Failure to distinguish between land alienated for rubber, land cleared for rubber and land actually planted with rubber. Many figures for the area of rubber in Pahang prior to World War I contain varying proportions of land in the former two categories although they purported to include only the latter.
- (b) Many of the figures published before 1920 appear to include estate rubber only and ignore rubber planted on smallholdings.
- (c) Prior to 1921 many of the totals published were estimates only but this fact is rarely mentioned and a false impression of accuracy is given when a measured amount of new planting is added to the estimated area for the previous year. Thus, for example, a round estimate of 5,000 acres for 1911 could become an apparently precise figure for 1912 when  $831\frac{3}{4}$  acres of new planting were added to give  $5,831\frac{3}{4}$  acres.
- (d) After 1921 figures for estates were compiled from returns posted in by the owners or managers. Not only did the accuracy of these returns vary but more serious discrepancies arose in some years when totals were obtained from an incomplete number of returns.
- (e) During periods of regulation the areas of smallholdings were recorded by inspectors but with the possible exception of 1921 and 1922 the staff available was inadequate in the larger Districts and the totals were never accurate.
- (f) Data about the proportion of rubber on mixed holdings was usually unavailable and these were variously classified as rubber holdings or kampong holdings. Thus in the Temerloh District between 1928 and 1929 the area of rubber as given in the *P.A.R.* increased from 37,000 to 62,000 while the area of "fruit trees and general kampong cultivation" dropped from 16,000 to 2,000.



In 1921 a comprehensive census was taken of all the rubber planted in Malaya but it is characteristic of the state of the public records that no copies of this are available in the files or the publications of any official body in Malaya. Fortunately the information was made available to the United States Department of Commerce and the figures for each state were subsequently published in an account of the rubber industry by D.M. Figart<sup>7</sup>.

By comparing all the published and unpublished figures available the present writer has arrived at the table of estimated rubber acreages given below. The datum figure for the earlier years of the table is the state total of 86,977 acres obtained by the 1921 rubber census and recorded by Figart. The 1939 total of 185,000 acres is based on the return contained in the *P.A.R.* for that year; and alternate figure of 200,000 acres given in the *Malayan Agricultural Statistics* was discarded because it could not be reconciled with post-war figures<sup>8</sup>. The estimates are all given in rounded form and the table is given here in its entirety since the figures for the intermediate years are not directly utilized in the text of the thesis.

**Table 23. Estimated Area Planted with Rubber in the Districts of Pahang, 1921-39. (acres)**

	1921	1925	1930	1935	1939
Lipis	21,000	23,000	27,000	26,000	28,000
Raub	10,000	11,000	19,000	21,000	25,000
Bentong	11,000	15,000	37,000	38,000	45,000
Temerloh	22,000	24,000	49,000	50,000	52,000
Pekan	1,000	2,000	3,000	5,000	5,000
Kuantan	22,000	23,000	29,000	29,000	30,000
Total	87,000	98,000	164,000	169,000	185,000

From the above it can be seen that the statistics recorded, particularly those relating to production and areas under cultivation, have serious limitations. They are, however, all that is available and, except in the case of data relating to land alienation, it is impossible to reconstruct more accurate ones. While they are an inadequate basis for sophisticated statistical analysis they can, in some cases, be used to map and chart the changing patterns of occupation. The selection of some statistics, and the relegation of others, is often a subjective business but they are nonetheless a valuable supplement to the information obtained from verbal and map sources and make a worthwhile contribution to the reconstruction of Pahang during the first period of British administration.

7. D.M. Figart: *The Plantation Rubber Industry in the Middle East*.

8. *Rubber Statistics Handbook* for 1947 and later years gives the total acreage of mature rubber and the acreage of rubber destroyed during the occupation.



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### II. Official Records

#### (a) Government Offices

The following is a brief statement of the records held in the various government offices, together with a note on which series of files were consulted by the writer. It is impracticable to list the titles of all the files which yielded information but those of greater substance or more general importance are listed individually at the end of this section.



(a) Government Offices (cont.)

State Secretariat, Pahang

Offices at Kuantan. A few files 1909-1933. Incomplete series 1934-41. Files after 1941 were held but were not available for research purposes. All available files were studied. This office also holds an incomplete series of *Pahang Annual Reports*, *F.M.S. Gazettes*, and a miscellaneous collection of other official publications.

Forestry Department, Pahang

Office at Kuantan. Records held include the *Annual Reports* (unpublished) from 1915 onwards. *Exploration Files, Pahang West*, 1911 onwards, *Exploration Files, Pahang East*, 1911 onwards and a bound typescript volume *Pahang East. Exploration Records and Notes from D.F.O's Diaries*. All of these listed were studied.

Veterinary Department, Pahang

Office At Raub (1963) but is due to be moved to Kuantan. Several dozen files 1928-47. All available files studied.

Agriculture Department, Pahang

Office at Kuantan. Some files were located at Paya Besar, Kuantan (1962). Due for removal to the Public Records Office, Petaling Jaya. Very few files 1931 onwards. All available files 1931-1951 studied.

Survey Department, Pahang

Office at Kuala Lipis. The series of files appears to be continuous from 1900 onwards. Not studied in detail. 1909 files scanned for typical applications for land.

Mines Department, Pahang

Located at Kuantan. Annual Reports for the Mines Departments, East and West Pahang (unpublished). Incomplete series from 1906 onwards. All available reports were studied.

Lipis District Office Files

Held in Land Office, Kuala Lipis. Incomplete series 1922-1939. All available files were studied.

Bentong District Office Files

Originally held at Bentong (1963) Since removed to the Public Records Office, where they have been indexed. 1923-30, only 47 files have survived. 1931-41 incomplete series. All relevant files studied.



## (a) Government Offices (cont.)

## Raub District Office Files

Held at Raub (1963). Due for removal to Public Records Office. Incomplete series 1921 onwards. 1921 to 1929 files studied. 1930 onwards not consulted.

## Temerloh District Office Files

Originally held at Temerloh (1963) Since removed to the Public Records Office. A few files 1889-1909. Fuller but incomplete series 1910-1939. All available files up to 1931 were studied.

## Pekan District Office Files

Held at Pekan (1963) Incomplete series 1925 onwards. Not studied.

## Kuantan District Office Files

Held in Public Records Office, Petaling Jaya. This series is almost complete for the following years:— 1889-1920, 1930, 1932, 1935-6, 1945. Many of the enclosures are, however, not contained in the covers. All files 1889-1920 were studied.

## Forest Research Institute, Federal

Headquarters and Library at Kepong, Selangor. Published Annual Reports. Exploration Surveys (unpublished)—also available at Kuantan. Publications as listed elsewhere in the Bibliography. Library contains much published material not available elsewhere in Malaya.

## Mineral Department, Federal

Office in Kuala Lumpur. No prewar files. Published Annual Reports and Publications as listed elsewhere in the bibliography. Current file on the History of Mining in Malaya contains copies of extracts from Annual Reports and other published sources.

## Agriculture Department, Federal

Office and Library in Kuala Lumpur. Published Annual Reports and publications as listed elsewhere in the bibliography. Library contains much published material not available elsewhere in Malaya.

## Geological Survey, Federal

Library and Archives at Ipoh. Some pre-war files, Records of Prospecting Results, Journals of Government Geologists (unpublished from 1903 onwards), publications listed elsewhere in the bibliography, maps and tracings (both published and unpublished from 1903 onwards.)



### List of individual files

#### State Secretariat, Pahang

- 1982/24 "Gunong Tahan Game Reserve".
- 171/25 T.R. Hubback "Overland to the Ulu Rompin from Sungei Bera, July-August 1924".
- 435/36 "Report on a visit to the upper portions of the Keratong and Endau Rivers".
- 2058/37 "Report by the Assistant Adviser, Drainage and Irrigation, on his visit to Pahang, Nov. 1937".
- 1013/38 "Notes on a visit to Pahang by Adviser on Agriculture, 1938".
- 1912/38 "Encouragement of Rice Production in East Pahang".
- 79/39 "Committee to study the problem of Soil Erosion".
- 575/39 "Inspections by the State Agricultural Officer, Pahang, during 1939".
- 1164/39 "Evidence for Committee to reconsider the present Land Alienation Policy in Pahang".
- 1392/39 "Increasing Padi Production".
- 124/40 J.A. Richardson "Report on Selinsing Consolidated Gold Mines, Ltd. Pahang".
- 492/40 "Report on Gold Stealing and other Subversive Activities in Ulu Pahang".
- 1117/40 "Report on the Rompin Iron Area by Japanese Company".
- 427/41 F.H. Fitch "Report on the Iron Ore Deposits of Ulu Rompin, Pahang".
- 896/41 "Memorandum on Gold Stealing in Ulu Pahang".

#### Veterinary Department, Pahang

- 171/39 "Pahang Livestock Census, 1938 and 1939".

#### Agriculture Department, Pahang

- 207/31 "Report of a River Tour of Inspection, 1931".
- 180/48 "Reports on Shifting Cultivation".

#### Lipis District Office

- 315/23 "Description of Lipis District, 1923".
- 104/25 "Cameron Highlands".
- 530/28 "Notes by Chief Secretary on a visit to Cameron Highlands".
- 1043/31 "Minutes of meeting re Cameron Highlands".
- 513/34 "System employed in collecting Rubber Statistics".
- 568/34 J.W. Jolly "Report on Survey of Cultivated Fruits in Pahang".
- 614/34 "Report of Visit to Pahang by Director of Agriculture".
- 801/35 "Tour of River Mukims by State Agricultural Officer, 1935".



## Lipis District Office (continued)

- 659/36 "Report on Pahang Visit by Adviser, Drainage and Irrigation Dept. 1936".
- 760/39 "Temporary Occupation Licences".

## Bentong District Office

No substantial files of general interest.

## Raub District Office

- 487/22 "Recommendations Regarding the Alienation of Land in Pahang".
- 523/23 "Description of the Raub District, 1923".
- 38/27 "Government Policy in Alienating large areas of land in the Bentong District for Rubber Cultivation".
- 247/27 "The need to help Padi Planting along the Pahang River by Irrigation".
- 345/27 "Final Report of Relief Commissioner in Distributing Funds for the Malaya Flood Relief Committee, 1927".

## Temerloh District Office

- 172/97 "Loke Yew's Concession, Bentong".
- 518/99 "Report on Demarcation of Johore-Pahang Boundary, 1899".
- 848/15 in 848/14 "List of Estates over 25 acres in Temerloh District, 1915".
- 600/24 "Malay Reservations".

## Kuantan District Office

- 7/89 "Copy of Kuantan Concession, 1888".
- 71/91 "Kuantan District Census, 1891".
- 95/91 "Schedule of Details of Mines in Pahang".
- 363/92 "Description of Kuantan District, 1892".
- 340/94 "Report on Pahang Fisheries, 1894".
- 650/99 "Padi Cultivation in Kuantan District".
- 91/01 "Kuantan District Census, 1901".
- 208/01 D.H. Wise "Report on the system of Rice Cultivation practised in Pahang".
- 58/05 "Loke Yew's Gambang Concession".
- 670/07 "Information about the Kuantan District to be embodied in a proposed guide to intending planters".
- 49/14 "List of Penghulus and Assistant Penghulus in Pahang, 1 April 1914".
- 672/15 "Draft Amendment to preserve to the Malays the use of their kampong lands."
- 854/20 "Kuantan District Census, 1921".
- 870/20 "List of Estates over one hundred acres in Kuantan District".



# Annual Report Files

State Secretariat, Pahang: 168/35, 137/36, 209/37, 260/39, 92/41, 265/41.

Veterinary Department, Pahang: 10/28, 96/30, 103/33, 347/37, 123/39, 171/39.

Lipis District Office: 864/26, 1006/31, 1159/31, 19/38, 54/39, 1858/39.

Raub District Office: 582/21.

Temerloh District Office: 77/98, 304/98, 45/08, 650/09, 380/12, 735/16, 13/18, 15/20, 870/23, 1258/24, 586/31, 876/31, 896/31.

Kuantan District Office: 176/90, 43/91, 33/92, 45/93, 115/94, 19/97, 81/98, 93/99, 12/00, 39/02, 53/03, 45/04, 16/05, 17/05, 59/06, 60/06, 104/06, 45/07, 97/07, 30/08, 49/09, 50/10, 110/10, 931/10, 119/11, 79/12, 71/13, 49/14, 82/14, 86/14, 47/15, 48/15, 80/16, 59/17, 11/18, 77/18, 28/19, 80/19, 747/19, 14/20, 890/20.

See also *Forestry Department, Pahang* and *Mines Department, Pahang*.

## (b) Land Records

Office of the Commissioner of Lands and Mines, Kuantan.

*Register of Grants.* (incomplete)

*Register of Certificates of Title.*

*Register of Leases.*

District Offices: Kuala Lipis, Raub, Bentong, Temerloh, Pekan, Kuantan, Jerantut and Cameron Highlands. (The latter two Districts were not formed before 1939 but hold Land Records transferred from the Kuala Lipis Office.)

<i>Mukim Registers</i>	}	Available for all Mukims.
<i>Indexes of Settlement Work</i>		
<i>Registers of Mining Certificates</i>	}	Available but not consulted systematically.
<i>Registers of Mining Leases</i>		
<i>Volumes of Malay Certificates</i>	}	Only extant for some Mukims. Not consulted systematically.
<i>Rubber Registers</i>		
<i>Rolls of Approved Applications</i>		
<i>Rent Rolls</i>		



## (c) Published Annual Reports

(Not all of these are readily available in Malaya and additional notes are made regarding their location. The following abbreviations are used.

PRO. P.J. Public Records Office, Petaling Jaya.

FMS. G.G. F.M.S. Government Gazette).

## State of Pahang

1888-94. Singapore National Library (contained in the "Straits Settlements Government Gazette")

1895-1939. PRO. P.J.

## Federated Malay States (Administrative)

1895-1939. PRO. P.J.

## Agricultural, F.M.S.

1905-08, 1911-17, 1931, 1935-39. PRO. P.J.

Others available at the Library of the Department of Agriculture K.L. or in FMS. G.G.

## Chinese Affairs, F.M.S.

1901, 1905-08, 1910-12, 1914, 1935-38. PRO. P.J.

See also FMS. G.G.

## Drainage and Irrigation, F.M.S.

1932-34. FMS. G.G.

1935-39. PRO. P.J.

## Education, F.M.S.

1901-3, 1905, 1907-8, 1911-14, 1935-39.

PRO. P.J. See also FMS. G.G.

## Fisheries, F.M.S.

Reports are available at PRO. P.J. but this Department was not active in Pahang.

## Forestry, F.M.S.

1901-39. Forest Research Institute Library, Kepong.

## Geological Survey, F.M.S.

1905-08, 1910-14, 1931, 1935-9. PRO. P.J. Others at Geological Survey Library, Ipoh and in FMS. G.G.

## Immigration, F.M.S. (also known as Indian Immigration, F.M.S.)

1905, 1908, 1910-11. PRO. P.J. See also FMS. G.G.

## Labour, F.M.S.

1912-17, 1931, 1935-39. PRO. P.J. See also FMS. G.G.

## Lands, Mines and Surveys, F.M.S.

1896, 1901-3, 1905-7. PRO. P.J.



(c) Published Annual Reports (cont.)

Malayan Railways

1910-14, 1925, 1929-31, 1935-39. PRO. P.J.

Minese, F.M.S.

1903, 1905-08, 1910-17, 1935-39. PRO. P.J.

See also FMS. G.G.

Public Works, F.M.S.

1901-3, 1905-8, 1911-14, 1916. PRO. P.J.

See also FMS, G.G.

Registrar of Births and Deaths, F.M.S.

1931-40. PRO. P.J.

Rubber Restriction, F.M.S.

1924-28. FMS. G.G.

Surveys, F.M.S.

1901-3, 1905, 1907-14, 1935-39. PRO. P.J. Others available at Survey Office, Kuala Lumpur. See also FMS. G.G. Map appendices are often missing.

Trade and Customs, F.M.S.

1906-08, 1911-14, 1916-17, 1931, 1935-39. PRO. P.J.

Veterinary, F.M.S.

1935-39. PRO. P.J.

(d) Microfilms

Colonial Office Records,

*C.O. 273 Series.* These are held at the Public Records Office, London and are available on microfilm at the Library of the University of Malaya, Kuala Lumpur. They deal with the period 1867 onwards but only those from 1880 to 1889 were used for the present study.

Clifford, H.

*Report on the State of Pahang and its Inhabitants, Oct. 1st 1887,* Colonial Office Records, Series 273, Vol. 148.

Clifford, H.

*Report on Pahang and its Inhabitants, April 3rd 1887,* Colonial Office Records, Series 273, Vol. 146.

Clifford, H.

*Journal of Mission to Pahang,* Colonial Office Records, Series 273, Vol. 144, Contained in despatch Governor to Sec. of State, April 28th, 1887.



## Microfilms (cont.)

## Bonham

*Report of Proceedings Relating to Piracy Suppression by H.M.S. Andromache*, East India Company Records, Vol. Q8, 1836. (Microfilm 2791, University of Malaya Library).

## Weld, Sir F.A.

*Address at a Meeting of the Legislative Council, Oct. 13th, 1887.* Colonial Office Records, Series 273, Vol. 148.

## (e) Census

## Straits Settlements

*Census of Pahang*, 1891. One version is contained in the Pahang Annual Report for 1891 (Straits Settlement Gazette, 1892, p. 2401) and a slightly different version is contained in the 1901 Census (see Hare, G.T.) Both of these consist of a single table but it is believed that a more detailed version may originally have been published. The writer has, however, been unable to locate such in Malaya.

## Hare, G.T.

*Federated Malay States Census of Population* 1901, Kuala Lumpur, 1902.

## Pountney, A.M.

*The Census of the Federated Malay States* 1911, London, 1911.

## Nathan, J.E.

*Census of British Malaya*, 1921. London, 1922.

## Vlieland, C.A.

*British Malaya. A Report on the 1931 Census.* London, 1932.

## Del Tufo, M.V.

*Malaya, Comprising the Federation of Malaya and the Colony of Singapore. A Report on the 1947 Census of Population*, London, 1949.

## Fell, H.

*1957 Population Census of the Federation of Malaya*, 14 Vols. Kuala Lumpur, n.d.

## (f) Statistical Publications

(Those listed here deal with the F.M.S. or larger political units. More detailed statistics for Pahang are to be found in Annual Reports and unpublished sources.)

## Federated Malay States

*Manual of Statistics*, 1923, Kuala Lumpur, 1924.



(f) Statistical Publications (cont.)

Federated Malay States

*Manual of Statistics*, 1930, Kuala Lumpur, 1930.

Malayan Agricultural Statistics

(Agricultural Department F.M.S. and S.S. Economic Series).

Kuala Lumpur, 1930 + .

Federated Malay States Rubber Statistics Handbook

(subsequently the Federation of Malaya etc.) Kuala Lumpur, 1930? + (copies from 1947 onwards held in Geography Library, University of Malaya).

Statistics Department, S.S. and F.M.S.

*Malayan Year Book* 1939, Singapore, 1939.

Malayan Metrological Service

*Climatological Summaries*, Singapore, n.d.

Grist, D.H.

"Review of Malayan Rubber Planting Statistics", *M.A.J.*, Vol. XXII, No. 10, 1934, pp. 474-83.

(g) Occasional Reports

Allen D.F.

*Report on the minor ports of Malaya*. Singapore, 1953.

Federated Malay States

*Health on Estates in the F.M.S. Report of Commission of Enquiry*, Part 2, Kuala Lumpur, 1924.

Fermor, Sir L.L.

*Report upon the Mining Industry of Malaya*. Kuala Lumpur, 1939.

Rice Cultivation Committee

*Report of the Rice Cultivation Committee*, 2 Vols., Kuala Lumpur, 1931.

Scrivenor, J.B.

*Geologist's Report of Progress* 1903-1907, duplicated, n.d., Geological Survey Library, Ipoh.

Scrivenor, J.B.

"A Preliminary Report on the Gold Mines of the F.M.S." *Selangor Government Gazette*, June 24th 1904.

(h) Geological Survey Memoirs

Fitch, F.H.

*The Geology and Mineral Resources of the Neighbourhood of Kuantan, Pahang*, Kuala Lumpur 1952.



Geological Survey Memoirs (cont.)

Richardson, J.A.

*The Geology and Mineral Resources of the Neighbourhood of Raub, Pahang*, Kuala Lumpur, 1939.

Richardson, J.A.

*The Geology and Mineral Resources of the Neighbourhood of Chegar Perah and Merapoh, Pahang*, Kuala Lumpur, 1950.

Roe, F.W.

*The Geology and Mineral Resources of the Fraser's Hill Area*, Kuala Lumpur, 1951.

(i) Other Publications

Proceedings of the Federal Council of the Federated Malay States.

Kuala Lumpur, 1909-1940.

Straits Settlements Government Gazette

(Issues 1888-94 contain information relating to Pahang)

Federated Malay States Government Gazette

1909-1940 (Available at Public Records Office, P.J. this gazette contains most, but not all, of the published Annual Reports of the States and Departments of the F.M.S.)

Pahang Government Gazette

1898-1909 (afterwards the F.M.S. Government Gazette)

### III. Journals and Newspapers

(a) Scientific and Academic

The Agricultural Bulletin of the Federated Malay States. Kuala Lumpur, 1912-1921. (afterwards the Malayan Agricultural Journal)

Journal of the Federated Malay States' Museums

Taiping and Kuala Lumpur, 1906-40.

Journal of the Indian Archipelago and Eastern Asia.

Singapore, 1847-59.

Journal of the Malayan Branch, Royal Asiatic Society.

Singapore, 1847-59.

Journal of the Malayan Branch, Royal Asiatic Society.

Singapore, 1923 .

Journal of the South Seas Society.

Singapore, 1940 .



### III. Journals and Newspapers (cont.)

Journal of the Straits Branch, Royal Asiatic Society.  
Singapore, 1878-1922.

The Journal of Tropical Geography.  
Singapore and Kuala Lumpur, 1958 . (formerly the Malayan  
Journal of Tropical Geography).

The Malayan Agriculturist  
Kuala Lumpur, 1961 .

The Malayan Agricultural Journal  
Kuala Lumpur, 1922-41, 1947 . (formerly the Agricultural  
Bulletin of the Federated Malay States).

The Malayan Forester  
Kuala Lumpur, 1933+ .

The Malayan Historical Journal  
Singapore 1954-56. (afterwards Malaya in History).

Malaya in History  
Singapore, 1957+ . (formerly The Malayan Historical Jour-  
nal.)

The Malayan Journal of Tropical Geography  
Singapore, 1953-57.+ (afterwards The Journal of Tropical  
Geography).

#### (b) Others

(There were none of these published in Pahang but those  
listed circulated in Pahang and sometimes contain information  
about the State).

The Malay Mail  
Kuala Lumpur, 1896+ . (Copies from 1896 onwards held in  
the Public Records Office, Petaling Jaya).

The Selangor Journal  
Kuala Lumpur, 1892-96

The Straits Times  
Singapore, 1845+ . (An incomplete series of early numbers  
is held by the Singapore National Library).

### IV. Books and Articles

#### (a) Prehistory

Braddell, Dato Sir Roland

'Malayadvipa, a Study in early Indianization', *J.T.G.*,  
Vol. IX, 1956, pp. 1-20.



## IV. Books and Articles (cont.)

Douglas, F.W.

*Notes on the Historical Geography of Malaya and Sidelights on the Malay Annals.* Kuala Lumpur, 1949.

Loewenstein, J., Prince

"The Origin of the Malayan Metal Age", *J.M.B.R.A.S.* Vol. XXIX, Pt. 2, 1956, pp. 5-78.

Matthews, J.

*A Check-list of "Hoabinhian" Sites Excavated in Malaya 1860-1939.* Singapore, 1961.

Richardson, J.A.

*Tui Gold*, Geological Survey (Ipoh) file 156/46.

Scrivenor, J.B.

'Geological and Geographical Evidence for changes in Sea-level during Ancient Malay History and Prehistory' *J.M.B.R.A.S.*, Vol. XXII, Pt. 1, 1949, pp. 107-14.

Southwood K.E.

"Lake Chini-A Lost Settlement in Pahang", *Malaya in History* Vol. VI, No. 1, 1960, pp. 24-30.

Sieveking, G. de G.

"The Iron Age Collections of Malaya", *J.M.B.R.A.S.*, Vol. XXIX, Pt. 2, 1956, pp. 79-138.

Tweedie, M.W.F.

"The Stone Age in Malaya", *J.M.B.R.A.S.* Vol. XXVI, Pt. 2, 1953. pp. 4-90.

Tweedie, M.W.F.

*Prehistoric Malaya.* Singapore, 1955.

Tweedie, M.W.F.

'Prehistory in Malaya', *Journal of the Royal Asiatic Society*, 1942, pp. 1-9.

Wales, H.G.Q.

'Archaeological Researches on Ancient Indian Colonization in Malaya', *J.M.B.R.A.S.*, Vol. XVIII, Pt. 1, 1940, pp. 1-85.

William, R.E.F.

*Notes on the Gold Deposits of Pahang and their association with Pre-historic Implements*, Geological Survey (Ipoh) file 163/38.



IV. Books and Articles (cont.)

(b) Others pre 1500 A.D.

Tibbetts, G.R.

"The Malay Peninsula as Known to the Arab Geographers",  
*J.T.G.*, Vol. XIX, 1956, pp. 21-60.

Tibbetts, G.R.

'Early Muslim Traders in South East Asia', *J.M.B.R.A.S.*,  
Vol. XXX, Pt. 1, 1957, pp. 1-45.

Wang Gung Wu

'The Nanhai Trade', *J.M.B.R.A.S.*, Vol. XXXI, Pt. 2, 1958,  
pp. 1-135.

Wang Gung Wu

"An early Chinese Visitor to Kelantan", *Malaya in History*,  
Vol. VI, No. 1, 1960 pp. 31-35.

Wheatley, P.

'Panarikan', *Journal of the South Seas Society*, Vol. X, Pt. 1, 1954,  
pp. 1-16.

Wheatley, P.

*The Golden Khersonese. Studies in the Historical Geography of the  
Malayan Peninsula Before A.D. 1500.* Kuala Lumpur, 1961.

(c) 1500-1800

Abu Bakar bin Seman

"A Note on the Origins of a Malay Kampong on the Pahang River",  
*M.H.J.* Vol. I, No.1, 1954, pp. 49-50.

Albuquerque, A. de

*The Commentaries of the Great Alfonso Dalbuquerque.* 4 Vols.  
(Haklyut Society Edition) London, 1875-84.

Corteseo, A.

*The Suma Oriental of Tome Pires.* Vol. 2 London, 1944.

Caldecott, A.

"The Malay Peninsula in the 17th and 18th Centuries",  
*J.S.B.R.A.S.* No. LXXXII, 1920, pp. 129-36.

De Jong, P.E. De J.

"Malayan and Sumatran Place-Names in Classical Malay  
Literature", *J.T.G.* Vol. IX, 1956, pp. 61-70.

Eredia, E.G. de

"Report on the Golden Chersonese or Peninsula. 1597-1600",  
(Translated by J.V. Mills) *J.M.B.R.A.S.* Vol. VIII, Pt. 1, 1930,  
pp. 1-288.



## IV. Books and Articles (cont.)

Hamilton, A.

*A New Account of the East Indies*, first published Edinburgh, 1727, republished London, 1930.

Macgregor, I-A.

"Notes on the Portuguese in Malaya", *J.M.B.R.A.S.*, Vol. XXVIII, Pt. 2, 1955, pp. 4-47.

(Malay Annals)

"Bustan as-Salatin", *J.S.B.R.A.S.*, No. LXXI, 1920.

(Malay Annals)

"Sejarah Melayu", *J.M.B.R.A.S.*, Vol. XVI, Pt. 3, 1938 and *J.M.B.R.A.S.* Vol. XXV, Pts. 2 and 3, 1952.

Rentse, A.

'A Historical Note on the Northeastern Malay States', *J.M.B.R.A.S.*, Vol. XX, Pt. 1, 1947, pp. 23-44.

Sheehan, J.J.

"Seventeenth Century Visitors to the Malay Peninsula", *J.M.B.R.A.S.*, Vol. XII, Pt. 2, 1934, pp. 71-107.

(d) 1801-1900

Abdullah bin Abdul Kadir, Munshi

*The Story of the Voyage of Abdullah (from Singapore to Kelantan in A.D. 1838)* (translated by A.E. Coope), Singapore, 1949.

Becher, H.M.

"The Gold-Quartz Deposits of Pahang (Malay Peninsula)", *The Quarterly Journal of the Geological Society of London*, Vol. IL, 1893, pp. 84-8.

Begbie, P.J.

*The Malayan Peninsula*. Madras, 1834.

Cameron, W.

"Kota Glanggi or Klanggi, Pahang", *J.S.B.R.A.S.* No. IX, 1882, pp. 153-60.

Cameron, W.

"Extract from a letter to H.E. the Acting Governor dated 4th, Sept. 1885)", *J.S.B.R.A.S.*, No. XV, 1885, pp. 155-7.

Clifford, H.

*Diary*, (unpublished) 1888, held by the Public Records Office, Petaling Jaya.



IV. Books and Articles (cont.)

Clifford, H.

*Diary*, (unpublished) 1893, held by the Public Records Office, Petaling Jaya.

Clifford, H.

'A Journey through the Malay States of Trengganu and Kelantan', *Geographical Journal*, Vol. IX, No. 1, 1897, pp. 1-37.

Clifford, H.

*Since the Beginning*, London, 1898.

Clifford, H.

*In A Corner of Asia*, London, 1899.

Clifford, H.

*In Court and Kampong*, London, 1903.

Clifford, H.

*Further India*, London, 1904.

Clifford, H.

*Bush-whacking and other Asiatic Tales and Memories*, London, 1929.

Cowan, C.D.

*Nineteenth-Century Malaya*, London, 1961.

Crawfurd, J.

*A Descriptive Dictionary of the Indian Islands and Adjacent Countries*, London, 1856.

Daly, D.D.

"The Metalliferous Formation of the Peninsula", *J.S.B.R.A.S.*, No. II, 1878, pp. 194-8.

Daly, D.D.

*Surveys and Explorations in the Native States of the Malayan Peninsula*, 1875-1882, London, 1882. (copy held by Public Records Office, Petaling Jaya).

Davison, W.

"Journal of a trip to Pahang with H.E. the Governor (1889)", *J.S.B.R.A.S.*, No. XX, 1889, pp. 83-90.

Dennys, N.B.

*A Descriptive Dictionary of British Malaya*, London, 1894.

Derrick, W.H.

"Notes on Lode Tin Mining in the Malay Peninsula" *Transactions of the Institution of Mining and Metallurgy* Vol. VII, 1899, pp. 12-16.



## IV. Books and Articles (cont.)

- De Silva, J.D.  
*British Relations with Pahang*, 1884-95, unpublished Academic Exercise, Department of History, University of Singapore, 1953.
- Duria Raja Singam, S.  
 "Bygone Kuantan", *Malayan Historical Journal*, Vol. III, No. 1, 1956, pp. 21-25.
- Gray, C.  
 'Journal of a Route overland from Malacca to Pahang across the Malayan Peninsula', *J.I.A.*, Vol. VI, 1852, pp. 369-375.
- Groeneveldt, W.P.  
 'Notes on the Malay Archipelago and Malacca', *Miscellaneous Papers relating to Indo-China and the Indian Archipelago*, Second Series, Vol. I, 1887, pp. 126-262.
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## (V) Map Bibliography

The majority of the maps listed were originally published but in view of the limited number of surviving copies available in Malaya the location of each historical map listed is indicated in brackets following the reference. For this purpose the following abbreviations are used:-

ps.	Photostat copy
or.	original issue
c.m.	current map
HMC. UM.	Historical map collection, Dept. of Geography, University of Malaya.
ML. UM	Map Library, Dept. of Geography, University of Malaya.
Survey, Pahang	Pahang Survey Office, Kuala Lipis.
Survey, K.L.	Head Survey Office, Kuala Lumpur.
G.S. Ipoh	Geological Survey, Ipoh.
B.M.	British Museum, London.
C.O.L.	Colonial Office, London.
PRO. P.J.	Public Records Office, Petaling Jaya.

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(c) *Pahang District Maps*

These are in black and white and are printed on poor quality paper. They are mainly concerned with showing property boundaries and reserve boundaries and use no symbols or key to indicate the nature of the areas demarcated. No topographic detail other than streams and trig. points. The date of publication and the date of revision are only printed on a few sheets.

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(f) *Other Maps, 1910 onwards (cont.)*

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2 WEST-EASTERN MINING PERMIT

3 WESTERN MINING PERMIT

1 CENTRAL

REGIONS

WATER RESERVE

MINING LAND

AGRICULTURAL LAND

LAND SURVEYED PRIOR TO 1910





MILES 10 0 10 20 MILES

- AGRICULTURAL LAND
- MINING LAND
- FOREST RESERVE
- GAME RESERVE AND NATIONAL PARK
- ROAD
- RAILWAY
- STATE BOUNDARY
- DISTRICT BOUNDARY









