



I LINE FISHERMEN AT WORK

Catching small cuttle-fish: part of each man's catch lies in front of him. The round pedestal-boxes contain food, the rectangular boxes hold betel materials, hooks, etc. The Photograph was taken soon after dawn, about 10 miles off the Kelantan coast.

[frontispiece

MALAY FISHERMEN

Their Peasant Economy

by

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IN THE

UNIVERSITY OF LONDON

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PREFACE TO FIRST EDITION

This book is a study of some Far Eastern peasant problems, based mainly on field research. As originally planned, it was intended to demonstrate four main points. The first is the need for much more attention to the "native" fishing industry in tropical regions; though forming the livelihood of large numbers of people, by comparison with the "native" tropical agriculture it has suffered from neglect by both scientists and governments. The second point is the need for more studies of the economics distinct from the technology of these peasant systems; before the war the investigation and handling of peasant economic affairs tended to fall between the two stools of the administrative and the technical departments—each was interested but its major job lay elsewhere, with the result that the economic aspects of the problems were not approached in an integrated way. The third point is the need for basing generalizations about a peasant economy on systematic, planned research of an intensive kind. Just as a sound policy in matters of public health or of agriculture must be founded on a great deal of factual knowledge, carefully accumulated by trained personnel working on the spot, so also policy aimed at improving the economic conditions of peasant communities should rely to a large extent on a body of factual inquiries made by people whose special job is to make such inquiries and who have been trained for the work. The fourth point is the importance in such work of collaboration between two or more spheres of interest or scientific disciplines. Research into peasant economic systems—for which even ordinary statistics are usually not obtainable—demands special techniques for collecting the information. Some kind of fusion between the theoretical apparatus of the economist and the field techniques of the anthropologist seems called for, as one type of attack on the problems. This book is an essay in this kind of approach. Whatever may be its short-comings, I do think that it shows the need for more work of a similar nature.

At the present time much attention is being given to the ways in which anthropology can be of help in dealing with administrative problems. I think it will be generally agreed that no scientist should have his work dictated to him by considerations which appear to be purely "practical"; that he should be free

to choose what he regards as the most significant lines of research to elucidate general principles in his field of study. At the same time it is reasonable to ask in these days that the scientist should indicate what, if any, are the practical implications of the work that he is doing. I have accordingly attempted to point them out in the first and last chapters of this book. But a warning is necessary here. "Science" has now acquired a kind of mystical value for the layman. There is a tendency to put to the scientist almost any type of problem, ask him to take a quick look at the conditions, and to give an answer which will help to solve it almost at once. Often it is not realized that to give an answer which is worth anything—particularly on a social question—requires a mass of basic information has to be systematically collected, and this may take months of inquiry. It may demand a study by several people in a number of different areas. If therefore the results of one man's work may seem inconclusive and disappointing from the practical point of view, this is often not an argument for abandoning scientific inquiry, but for having much more of it. Moreover, even a large-scale scientific investigation cannot necessarily result in the solution of a pressing social problem. Some of the conditions for settling it may lie outside the scientist's province. To raise the standard of living of a peasant society as in Malaya, for instance, involves major questions of social and economic policy—on capital expenditure; on the relations which it is desired to maintain between Malays and Chinese; on the plantation system and on industrialization; on the aims of colonial government itself. The scientist may have his ideas about what should be done, but he is usually in no position to implement them, even if he were competent to do so.

The first draft of this book was written in 1940-1, before the entry of the Japanese into Malaya; its completion has been delayed by war conditions. The bulk of the book has therefore been left as a description of how a Malay fishing economy ordinarily functions. It is probable that it is not simply of historical interest, but will serve as a general guide to the kinds of conditions that will operate when a peace-time regime is once more established. It will, I hope, give some idea of the adaptive nature of these peasant economic systems, of the value of their traditional forms of coöperation, and of the claims of such types of society to survival in the face of pressure from forces which threaten to disrupt them while offering them no alternative forms of communal existence. I hope also that it may

possible to follow this work by another now in preparation, on Malay peasant agriculture, which will carry the economic analysis into the complementary field.

In carrying out the field-work on which the greater part of this book is based, assistance was received from many sources. Acknowledgement is due in the first place to the Committee of the Leverhulme Research Fellowships, whose award to me made the investigation possible, and to whom I am deeply indebted for their help. I am indebted also to the Governors of the London School of Economics for their liberal help in giving me a year's leave of absence from teaching duties. To Messrs. Alfred Holt, Ltd., and to the management of the Federated Malay States Railways thanks are also due for the assistance they gave in travel facilities to my wife and myself.

Of the many people from whom we received help in Malaya it is impossible now to think without emotion—some are missing; others are in Japanese hands; and others are scattered through many countries. To mention by name all who gave us hospitality, information and other help is not possible, but acknowledgement, however inadequate, must be made to a few: to Sir Alexander Small, formerly Colonial Secretary, Singapore; to Captain A. C. Baker, M.C.S., formerly British Adviser to the Government of Kelantan; to G. A. de C. de Moubray, Esq., M.C.S., formerly Acting British Adviser to the Government of Trengganu; to S. W. Jones, Esq., M.C.S., formerly Colonial Secretary, Singapore; to G. S. Rawlings, Esq., M.C.S., District Officer, Kota Bharu; to Anker Rentse, Esq., of the Kelantan Civil Service; to Tenggku M. Mahyiddeen, then Director of Education, Kelantan; to Nik Mustapha bin Nik Mahmud, then Assistant District Officer, Bachok; to Dato' Jaya Perkasa, O.B.E., then Principal Officer of Customs, Trengganu; to David Somerville, Esq., M.C.S., then Assistant Adviser, Besut; to Mrs. Anthony Walker, of Kota Bharu; to W. A. Bangs, Esq., of Kuala Pergau; to W. Birtwistle, Esq., Director of Fisheries, S.S. etc.; to Dr. F. N. Chasen, Director of the Raffles Museum; to Noel Ross, Esq., M.C.S., formerly Assistant Adviser, Besut; to Dr. J. L. Strachan, Medical Officer, Tampin; to Dr. H. J. Lawson, Chief Medical Officer, Kelantan. Lastly, but by no means least, to Dr. H. D. Noone, Director of the F.M.S. Museum, Taiping, and to D. W. Le Mare, Esq., Assistant Director of Fisheries, S.S., I am indebted for much technical and other help.

I am also indebted, for advice before going to Malaya, to A. S. Haynes, Esq., C.M.G., and to W. W. Skeat, Esq., from whose long experience of the Malay peasant I derived great help. My thanks are also due to Sir Richard Winstedt, K.B.E., C.M.G., unrivalled in his knowledge of Malay history and language, for reading the original manuscript of this book and making various helpful suggestions.

Work of this detailed kind would have been impossible without the active coöperation of the people of the community studied. To Awang Lung, Awang Muda, Awang-Yoh and Pa' Che Ma of Pantai Damat; Awang-Me' Sari of Paya Mengkuang; the late To' Mamat Mindo' of Kubang Golok, and many others I owe much for patient explanation and help in gathering information. To the assistance of my wife at every stage of the investigation no adequate acknowledgement can be made; all that can be said here is that we worked together on many aspects of the inquiry, that her special studies of the local domestic economy covered a field that I could not have entered alone, and that my friendly relations with the village people owed a very great deal to her presence.

RAYMOND FIRTH.

CAMBRIDGE,

June, 1944.

PREFACE TO SECOND EDITION

In issuing a second, revised edition of this book my aim is much the same as before—to offer a contribution both to economic anthropology and to the economic history of Malaya. As far as I know, though the major field research was carried out in 1939–40, this is still the only detailed analysis of production, marketing and distribution in a Malay fishing community, related to community structure and values. But modern anthropologists have become increasingly interested in studies of conservatism and change, linked with a clearer recognition of the significance of the time dimension of their subject. When my study was made this Malay fishing industry and community had just begun to be affected by the War, though the country had not yet been invaded and come under Japanese occupation. Even before the War some changes had seemed imminent, with the development of more advanced technology and increase of contact with the world outside. As I emphasized at the end of the first edition of this book, radical economic, social and political modifications in the society of Malaya were inevitable, with consequent effects upon the conditions of the fishermen.

In 1947 I revisited Malaya for three months to examine generally the social and economic conditions of the Malay peasantry, particularly with a view to suggesting priorities in problems for research. The results of this survey were published as a *Report on Social Science Research in Malaya* (see Bibliography). Unfortunately, the onset of the Communist "Emergency" set back most of these plans for a number of years, and in the Malay field only the studies by Djamour and to some degree Swift were the result. As part of my own survey in 1947 I was able to live for about a fortnight in the area my wife and I had investigated formerly, and to see how the local fishing industry and the community had accommodated themselves to the Japanese occupation and then to the complex conditions of re-establishment of ordinary civilian life.

In 1963 my wife and I were able to return to the same area. After a quick look at conditions on some parts of the Kelantan-Trengganu coast, we worked for about six weeks in the same village as before, living in a Malay house rented from the widow of Po' Su (p. 175), a fisherman well known to us. With friends of

twenty-odd years before again as neighbours, and using again the vernacular (if rather awkwardly), we found it relatively easy to collect a great deal of information on recent local conditions and to note the main social and economic changes which had taken place since our earlier stay. In particular, while my wife studied again the Malay domestic economy, and the broader changes made by education and the social services, I concentrated on detailed observation of the local fishing industry and marketing. To back up all this material with some quantitative data we repeated a sociological census, surveying a series of households occupying about half of the same area as we had examined in 1940. This part of the work was carried out with the very effective help of Abdul Aziz bin Ismail and Wan Yusoff bin Wan Ismail, undergraduates from the University of Malaya and both from Kelantan; to them our most grateful thanks are due.

For the new edition of this book the central chapters (III-VI) dealing with the particular community studied, in the vicinity of Perupok, have been kept in their original form. They constitute a body of empirical record and a mode of analysis which can be used for comparison by any future student. But much of the general observations in Chapters I and XI, and some of the beginning of Chapter II, have now become well out-of-date and have been revised. The present version is designed to bring out more clearly the structural aspects of a fishing economy and to examine their relation to the modern social situation in Kelantan, with particular reference to the rural Malay society of the coastal area which we studied intensively. In the course of the revision Chapter XI has been considerably expanded. The original appendices have been retained; the bibliography has been modified and enlarged.

Other claims have interfered with the completion of the work on Malay peasant agriculture referred to in the original preface. With the bulk of new material now available on the subject there is little point now in producing the work in the form then drafted, though I hope it will be still possible to publish some of my field data as a contribution to Malay social and economic history. The domestic side of the Malay peasant economy, together with other important social and economic aspects of the life of the people studied by us in 1939-40, was dealt with by my wife—Rosemary Firth, *Housekeeping Among Malay Peasants*. London School of Economics on Social Anthropology, no.

London, 1943. This work, which she has now revised, should be read in conjunction with the present analysis. (For printing convenience, this work is referred to unchanged in the body of the text of my book; the new edition of 1965 should be consulted for further details.)

For facilities in carrying out my study in 1963 I am very much indebted to grants from the Research Committee of the London School of Economics and Political Science, and from the Central Research Fund of the University of London. Our work was also greatly helped by a grant to my wife by the London Committee of the London-Cornell Project for Social Research in Southeast Asia.

In carrying out my further studies I have as before received much help from people in Malaya. Many of those named in the original preface are no longer living. But I would like to pay tribute to the late Anker Tentse and to the late Tengku M. Mahyiddeen, Kelantan friends who were both of great assistance to me in 1947. I am also glad here to reaffirm my obligation to D. W. Le Mare, former Director of Fisheries, Malaya and Singapore; to Noel Ross, M.C.S.; to Haji Mubin Sheppard and to Dato' Haji Yusoff Bangs who did much to smooth my path and provide me with information on various occasions.

For field research in 1963 I and my wife owe a particular debt to Professor Ungku A. Aziz, head of the Department of Economics, University of Malaya, Kuala Lumpur, and to Inche' Mokhzani bin Abdul Rahim, Lecturer in Rural Economics in that Department, who helped us greatly in the planning of our programme and in many other ways. I am greatly obliged also to the Director of Fisheries, Malaysia, for kindly supplying me with copies of statistical returns for 1963 from his Department. For more local advice and assistance I was indebted also to: Dato' Hashim bin Haji Mohamed, State Secretary, Kelantan; Nik Hussein bin Nik Ali, President, Sessions Court of Kelantan; Inche' Nasir bin Yusoff, Assistant State Secretary, Kelantan; Inche' Abdul Rahim bin Abdul Kadir (then Secretary Town Council, Kota Bharu), now Assistant State Secretary, Kelantan; Inche' Admad Noordin bin Wahab, District Officer, Bachok; Tengku Adlin bin Tengku Mahmood (then Assistant District Officer, Bachok), now Assistant State Secretary, Kelantan; Inche' Ayoub bin Zakaria, Social Welfare Officer, Headquarters, Social Welfare Department, Kelantan; Inche' Abdul Salam bin Haji Ibrahim, Co-operative Marketing Officer, Kelantan; Inche'

Abdul Malim Baginda, State Welfare Officer, Trengganu ; Syed Mansur bin Syed Salim, Coöperative Marketing Officer for the East Coast, Kuala Trengganu.

I also benefited considerably from the opportunity to present sections of my material for discussion in a field seminar on social research in Malaya and Indonesia which took place in Kuala Lumpur, September 9th-11th, 1963. This seminar I organized with the help of A. R. Mokhzani under the auspices of the Cornell Committee of the London-Cornell Project for Social Research in Southeast Asia, to whom I am indebted for the invitation and facilities.

I wish to acknowledge also the kindness of Inche' Abdul Rahim bin Abdul Kadir in reading and commenting upon parts of my revised text, and the help of Mrs. D. H. Alfandary generally in the preparation of this new edition.

Finally, as before I am greatly indebted to my wife, with whom I had constant fruitful discussion of the problems examined in this book, and whose friendships in the village lightened immeasurably the fieldwork task. Without the help of our Malay friends—our housekeeper Che' Minoh, her son Che' Nur, her niece Che' Limoh, Che' Awang Lung, Che' Awang bin Awang Hitam and his wife Che' Yoh, this book could not have been re-issued in its present form. Parallel to it is a new edition by Rosemary Firth of her *Housekeeping Among Malay Peasants*.

RAYMOND FIRTH.

LONDON,

December, 1964.

CHAPTER I

FISHING ECONOMY AND MALAY RURAL SOCIETY

For Malays in both town and country rice and fish are staple foods. The primary producers of these commodities are therefore of great importance to the nation in which Malays are a major component, and at the present time a high proportion of Malays are still engaged in these occupations. Proper studies of their economy and society should therefore be available, both as a matter of scientific interest and as a basis for planning any attempts to help them to take fuller advantage of their resources and improve their position. It is hoped that this study will be a contribution to a better understanding of Malay fishing economy and Malay rural society.

The field chosen for study has been the coastal Malays of Kelantan, the north-easternmost state of the Malay Peninsula, in the Federation of Malaysia. As a general background the first two chapters of this book discuss some of the salient characteristics of Malay rural society, especially in the coastal area, in Kelantan ; the main features of Malay marine fishing ; and the particular situation of the fisheries in Kelantan and Trengganu. The body of the book then deals with what is in effect an historical case study in economic anthropology, of one fishing community analysed in detail in 1939-40. Finally, an account is given on a comparative basis of recent developments in the same community, to bring out some of the underlying social and economic forces that have been at work during the past generation.

MALAY FISHERMEN OF KELANTAN

Ethnically the structure of the population of the Kelantan coast is overwhelmingly Malay. In the whole state, according to the census of 1957, the last taken, the " Malaysians ", i.e. primarily Malays, numbered over 460,000, or over 90 per cent., out of a total population of just over half a million. The greater part of this population was a rural one ; out of the half a million, only 115,000 people lived in (gazetted) areas of 1,000 population and over, and less than 50,000, or less than 10 per cent., in urban

areas of 10,000 population and over. The capital and large town, Kota Bharu, had in 1957 a population of only just over 38,000.¹ In the thickly populated coastal district of Bachau (where our particular study was located), with an area of 10 sq. miles and a total population of 51,500, Malays numbered 50,000 or about 97 per cent., nearly all locally born; the rest were mainly Chinese.

Kelantan is predominantly an agricultural state,² with rice as the principal crop and with some production of rubber and copra for export as well as of fruit and vegetables and forest products for local consumption. But about 6,500 Malays, or 10 per cent. of the Malay male population, is engaged in the fishing industry as fishermen, and many others are employed as dealers, curers or carriers of fish.

The economy of a fishing community, while it shares many of the general characteristics of an agricultural economy, has some special features arising from its specific technical conditions. By contrast with agriculture they may be summarized as follows.

Whereas agricultural yield is largely seasonal, with long gaps during which no direct income is received,³ the yield from fishing is largely one of daily increments. Since each day's labour commonly gives its return on the spot, with no question of waiting as is inherent in the growing of crops, the fisherman's planning of production can take different forms. Long-term planning is still essential for the accumulation of technical equipment and other capital and for preparation against seasonal changes. But there is more room for short-term planning. In particular, there is more opportunity for the entry of the marginal worker whose main interests lie elsewhere. Fishing can be used like casual day labour, to give an agriculturalist a little extra food or cash immediately, or to fill a gap in another task.

The problems of planning are affected in other ways also. The agriculturalist, receiving the majority of his crop in bulk at one time, can plan in advance, decide what he will retain and what he will sell, estimate his margin of saving against his con-

¹ Federation of Malaya, *Year Book* (1962), pp. 37, 39, 463.

² See Raymond Firth (1943), pp. 193-205. For some modern accounts of Kelantan, see E. K. C. Dobby (1957), pp. 3-42; R. E. Downs (1960). A useful summary of the major features of Malay society in general is given by M. Freedman and M. G. Swift (1959); a detailed study of an agricultural Malay society and economy is given by M. G. Swift (1965).

³ This refers primarily to cereal cropping; the situation is different for example with rubber. See M. G. Swift (1957), p. 336.

sumption months ahead, and narrow or expand the one at the expense of the other in terms of his bulk supplies in hand. The fisherman, with his daily income, often very irregular, must calculate against greater uncertainty. He must think of saving in smaller increments; he cannot set aside so much in bulk and divide for daily consumption the remainder into appropriate fractions. For both, saving lies in abstention. But while for the agriculturalist it is the problem of abstention from drawing on a store already there, for the fisherman it is the problem of abstention in order to accumulate a store. Each has its difficulties, but the type of foresight demanded differs. Again, the question of storage is different. The agriculturalist's seasonal crop normally needs more space, but the fisherman's catch, if it is to be stored, needs more labour and outlay in equipment for its preservation. Hence the tendency to a greater development of middlemen who take these matters off his hands.

The nature of the yield in relation to nutrition and food habits also tends to give a different economic bias to each occupation. The agriculturalist's main crop is usually also his staple food, but the fisherman does not live mainly on fish. He must also have rice or similar vegetable food as his staple. Hence for him exchange of his product, or part-time agriculture, is a necessity; full-time fishing, therefore, tends to be more definitely associated with an exchange economy than does full-time agriculture. The nature of the production unit is different also. In agriculture there is more scope for complete family activity at all stages; in fishing the work at sea, partly by tradition but mainly by physical necessity, is primarily restricted to men—though women and children can participate in the secondary processes on shore. Again, there is more scope in fishing for permanent day-to-day coöperation in moderately large groups, with this there is more tendency for complex systems of distributing the earnings to arise. Finally, there are differences in the opportunities for investment. Investment in agricultural land has a permanency not found in fishing enterprises; and fishing-boats and gear, though perhaps as durable as agricultural implements and cattle, are, on the whole, more liable to sudden damage and loss. Hence the provision of capital is apt to involve risks of a different order, and to attract investors of a different type.

In Kelantan, the people directly associated with fishing, especially the actual fishermen, are known as *orang ka laut*, the

folk who go to sea ; they distinguish themselves from the *orang darat*, the inland folk, who from their point of view are land lubbers. The fisherfolk regard themselves as specialized in the life of boats, nets and fishing ; they contrast themselves with the rice-planters and say they are not adept in agriculture. They own neither buffalo nor plough, the symbols of the cultivator, and only rarely an ox or cow. There is some notion here akin to the mediaeval idea of a "calling" to which one is bound. One fisherman complained to me of his hard lot, but when I asked him why he did not go and tap rubber he answered, "If I did how would the inland folk get fish ? When I die my children too will go to sea, just as when *orang darat* die their children too will work rice."

Yet while technologically different the fisherfolk are not rigidly separated economically from the agriculturalists. Rural Malays live in small aggregates, rather than in isolated dwellings. *Kampung*, meaning literally a grouping or gathering together, is the term commonly applied to a village or hamlet, and includes not merely the cluster of buildings but also the mass of coconut palms, fruit trees and other appurtenances of the settlement. Our detailed study in 1963, as in 1939-40, comprised major sectors of three contiguous *kampungs*, and though the boundaries of our survey area do not correspond with these, the location is referred to for convenience by the name of one *kampung*, Perupok. A *kampung* is not normally an administrative or religious unit but it is a social unit with some degree of solidarity and neighbourly feeling. In the area we worked 70 per cent. of the adult and practically all the children were locally born.

In this small area of about 180 households, more than 100 had no rice lands, but 60 odd did, getting from them annually in the region of 12,000 gallons of rice. (Comparable figures for an earlier period are given on p. 284.) About two-thirds of this was gained from leasing the land to be worked by agriculturalists, especially in cases where the fields were not local but some distance away, usually inherited. But about one-third of the rice was produced personally by about a score of households. People outside were hired to do the ploughing, but at the planting, weeding and harvesting was done, in nearly every case, by men—usually with their wives' help—who were for the greater part of their time fishermen. In a couple of cases where

¹ Our survey area is thus not the same as "Perupok Village", a local government unit. Perupok is also the name of a *daerah*, a larger administrative sub-division.

the rice planter did not go to sea, his or her son was a fisherman. Moreover, the fishermen had economic relations with agriculture in another way—through the coconuts from the palms growing alongside their houses. The nuts for these were collected periodically, five or six times a year, by copra makers, using monkeys to climb the palms for them. Some fishermen also were vegetable planters for the market.

Thus the fisherfolk of the Kelantan coastal area live side by side with people of other occupations, including agriculturalists ; they have economic relations through leasing land or its product to them ; and do in some limited cases plant rice themselves. Moreover, they have elaborate and intimate social relations with the agricultural sector of the population. Not only have they in nearly every case close kin in the inland rice plain, whom they visit occasionally and whom they invite to weddings and other gatherings ; they may intermingle fishermen and agriculturalists in their own families. For instance, the wife of the man quoted above came from a fisherman's family and two of her mother's brothers were also fishermen ; yet another, their elder sibling, was a rice planter and vegetable planter of ordinary agricultural style.

It was for this reason that in the original edition of this book I represented these fishermen as forming part of a peasant economy : with relatively simple, non-mechanical technology ; small-scale production units ; and a substantial production for subsistence as well as for the market. The major features of such an economy may be outlined.¹

Such a peasant economy is not necessarily either a closed economy or a pre-capitalist economy in the literal sense of these terms. It commonly has external market relationships. There is production of a limited range of capital goods, with some degree of individual control over them ; there is some lending of them out to people requiring them, and interest in commodity or money form may exist as an economic category. There may even be some persons whose major economic rôle is the provision of such capital goods for the processes of production. But the economy does not function mainly by its dependence on foreign markets, nor do its providers of capital constitute a separate class, nor has its elementary capitalism developed any concomitants of extensive wage labour and complete divorce of the worker from control of the means of production.

¹ See also Raymond Firth, *Elements of Social Organization* (3rd ed., 1961), pp. 87-92.

The technical factors in this peasant production—whether tools and traction in agriculture, or boats and gear in fishing—are relatively simple. The equipment is not mechanized, and it is not integrated with any complex scheme of ideas in which mechanization is envisaged as a desirable and attainable end. The actual production units are small, even though the community as a whole may be large. Though in function the age of production can be recognized according to ordinary economic analysis, in form they are often not clearly separable into the categories which commonly appear in a capitalist organization. Instead of the familiar pattern of capitalist-rentier, organizer of production, and worker, in fairly clear-cut divisions, the one person often fulfils all three functions. The capitalist works with his hands; the labourer provides part of the capital; and both participate in organizing the activity. Their functions are grade almost imperceptibly into one another, as far as personal interest is concerned. Linked with this, the system of distribution tends to take on a form quite different from that of a capitalist economy where, institutionally, wage relationships assume great importance. In a peasant economy the manner of apportioning the product of the economic process is in some cases not very clearly defined in an overt way—as when the producing unit is an individual family; in other cases it may be laid down by definite rules of custom, and be quite complex (see pp. 236–54). In all cases the broad principle operates, that units of resources are evaluated, and receive direct or indirect equivalent for their participation in production. But the difficulty which is recognized in the analysis of a capitalist economy, of dividing the equivalents into clear-cut categories of rent, interest, profits and wages, is much greater in that of a peasant economy. Again, inequalities in the possession of capital goods are often levelled out or at least lessened by free borrowing or the exercise of communal rights, on a scale or of a kind not ordinarily operative in a capitalist economy.

Economic ties between peasant producers tend to reach out into spheres beyond their immediate common interest in the age of production and its associated rewards; similarly also with the ties between producers and consumers. The factors which they take into account in making their decisions include some of a very long-term character—such as permanent kinship obligations, or the network of village coöperative services. In one sense their economic relationships may be said to have a more

personal content than do those of parties to an economic transaction in a Western capitalist society; in another sense they may be said to have a more social content. The choices of the parties are governed by their total relationship to one another, not simply by their immediate relationship in the exchange situation. They are thus often willing to forgo some elements of present satisfaction in favour of future satisfactions, even though these be less well-defined. Such behaviour is sometimes regarded by a Westerner as “non-economic”, but the term is misapplied. The economic aspect is still there, but the decisions are taken on a wider range of preferences than is apparent to the observer.

But a classification that could be justified twenty years ago is more difficult to apply today. One of the reasons for this is political: “peasant” has come to be regarded in some of the new nations as a term of disrespect, implying not merely a low economic level and small-scale semi-subsistence production, but also a low cultural, even intellectual position. It should hardly need to be said that in the extensive literature by historians, anthropologists and other social scientists no such meaning was intended by the term. But leaving this issue aside, there are more objective reasons for modifying this categorization as applied to the Malay fishermen. As will be shown later, modern Malay fishermen in Kelantan have to a considerable extent adopted mechanization of their fishing fleets, and side by side with this has come a change in the capital structure of the local fishing industry which has affected also the relation of the ordinary fisherman to the control of the enterprise in which he is engaged. The result is a closer approximation of much Malay fishing on the Kelantan coast to business enterprises of other kinds rather than to Malay agriculture. It is no longer so appropriate therefore to label the economy a peasant one now as it was in 1940. But the label has been retained in the title of the book as a description of a situation that obtained a generation ago.

But what about the rural coastal society in general? Whether or not one uses the description of “peasant”, how far may it be characterized in terms of “folk-society” or “folk-culture”?¹

¹ One of the most sensitive analyses of this is by Robert Redfield, *Peasant Society and Culture* (Chicago, 1956); cf. also the very useful categorization by Eric R. Wolf, “Types of Latin American Peasantry”, *American Anthropologist*, vol. 57, pp. 452–71 (1955).

RURAL SOCIETY OF COASTAL KELANTAN

The coastal community is still very much of a rustic community, remote from modern urban facilities such as a reticulated water supply and a corresponding sewage system. Electric light has been proceeding through the countryside, but has not yet reached the Bachok area, which uses kerosene pressure lamps for illumination on public occasions, as in the celebration of the Prophet's birth month. Modern transport in the form of buses, taxis and pedal-propelled trishaws have come to the area, and a school system has developed with most striking effect. But domestically and in their ordinary social contacts the Malays of the Kelantan coastal region still retain a great deal of the traditional culture.

Market relationships are of prime importance to these coastal people and are one of the most significant elements in the incorporation in a larger society. They rely on the market to dispose of the greater part of their catch of fish, and to supply them with not only their fishing equipment but also a range of consumers' goods such as cloth, tobacco, matches, crockery, lamp oil and many foods. It would be possible of course for these fishermen and their families to have such essential market relations and yet remain relatively isolated from the wider society, if they were served completely by an alien group of middlemen, who were the unique intermediaries with the outside world. But this is not the case with the Kelantan fishermen. They are served with consumer goods by local shopkeepers of whom a large proportion are alien Indians and Chinese, and even the local Malay shopkeepers are supplied by alien wholesalers. But the fish dealers are almost without exception Malays, and local residents at that, so that they spread a network of communications, of a social as well as of an economic order, over a great part of the more accessible inhabited area of the state. In answering the question as to how far a coastal community composed largely of fishermen is to be regarded as having a society and culture of its own, clearly the character of the middlemen is highly significant.

Again, the fishing community does not rely solely on middlemen for its economic relations with the outside market. No coastal village in Kelantan is very far from a town—either Kota Bharu or Pasir Puteh (Fig. 2)—and though fishermen and their wives may go there only infrequently, these urban contacts for purchases or visits to kin are important to their social percep-

tions. They play no part in the sophisticated society of the Court officials and businessmen—though they may have relatives therein, with whom some contact may be maintained. But they go into the coffee-shops, the cloth shops, the goldsmiths and, above all, they frequent the market-place. For the market—the physical market—depends on the country-folk. It is normally the centre of the town—only with the growth of the towns and the raising of standards of municipal sanitation and traffic improvement is there a tendency to shift the market away from the centre. There the country-folk bring their fruit, vegetables, eggs, basketwork and other products, the dealers bring their fish, fresh and dried, and there both urban and rural buyers assemble from an early hour in the morning, streaming in by bus, taxi, trishaw and on foot to the number of several hundreds or it may be thousands. In this urban environment of the market square and its surrounding shops fishermen and their wives may not be completely at ease. But it is an environment in which they can move freely, among people many of whose ways of life, language and jokes they share, so relations with the town are in supplement rather than in opposition to their own social sector.

Kelantan fishermen and their families are then enmeshed in a wider society. They have their own technological subculture, with which landmen, particularly urban dwellers, are almost totally unfamiliar. But this is only in the technological field; economically, politically, socially and religiously they are part of a larger universe. Their economic relationships will be described in some detail later; here a brief outline will be given of the structure of their relationships in the other fields.

Politically, the Kelantan fishermen are enclosed within a state structure, itself a part of the larger unit of Malaysia. Kelantan, with the Sultan as Ruler, is divided for administrative purposes into eight districts (*jajahan*), and further into sub-districts (*daerah*) and parishes (*mukim*). The districts are controlled by officers of the Federation or State Civil Service, posted and transferred in the ordinary steps of a career. Under them the sub-districts and parishes are in the charge of salaried local officials of the Government (the *penggawa*). Assisting them in the control of affairs in the *mukim* are the *penghulu*, who are not Government officials, but are government-nominated and receive a small annual income. The *penghulu* do their work part-time, combined with some other occupation. The *penghulu* for the area where our

study was conducted, for example, was an agriculturalist with a large amount of rice land, which he cultivated himself, and two buffaloes, six cattle and two wives. The post was not hereditary; his father had not been a *penghulu*, though a rich man. His functions include registration of cattle, hunting up defaulters on land tax, making arrangements for permission to hold shadow plays, spirit-medium performances and other entertainments, investigation of assault or other trouble in the villages. For these and many other public services he received in 1963 a salary of \$240 a year, and he regarded himself as greatly underpaid—he alleged that \$70 or \$100 a month would be more equitable. A *penggawa*, and to a greater degree a *penghulu*, the official with whom the ordinary rice cultivators and fishermen come most into contact. He is the intermediary between them and the District Officer, often a comparative stranger to him and the District Officer, often a comparative stranger to him; he has power of arrest if need be. He represents in one aspect the amorphous and mysterious *Kerajaan*, the authority of Government, but in another aspect he is a fellow-villager and perhaps kinsman. He is thus treated with a mixture of respect, fear, confidence, jocularly and even (behind his back) with that tinge of disdain apt to be felt for those who have gone over to the other side.

Outside the immediate administrative framework the Kelantan fisherman's acquaintance with political institutions is as yet not great. Party politics have developed in Malaya since the war, and the fisherman is able to vote in both State and Federal elections, as also for a local Council where such exists. But the functioning of government in Kelantan has been complicated in recent years by the fact that the majority party which controls the affairs of the State, the Pan-Malayan Islamic Party (PMI or PAS), has had a very different policy in some of its aspects from that of the Alliance Party which supplies the Government of Malaya. This has resulted in some difficulties in regard to allocation of federal funds for economic development, and perhaps at times some divided loyalties for officials of the Federation stationed in Kelantan. But little of this has reached the ordinary fishermen, for whom the issues involved are often oversimplified or obscure. Political sophistication varies greatly. Typical of many of her sex, perhaps, was the woman who when very shrewd in ordinary affairs said only half-laughingly that all parties were alike to her—she did not understand them. The respective graphic symbols for identification by the illiterate in

the countryside were a boat under sail (Alliance), bull's head (Socialist Front), bunch of rice in grain (Party Negara) and crescent and star (PMIP), and this woman voted (she said) for the one whose symbol most appealed to her—the bundle of rice, which represented her staple food. But there are others, like the line fisherman who, nearly illiterate, could argue with political knowledge and skill, on the pros and cons of the setting up of the Federation of Malaysia, defending the Kelantan government's policy against what he conceived to be the dangerous inclusion of alien elements in the Federation.

What the political parties have done in Kelantan, as elsewhere in Malaya, is to provide new foci of social as well as political leadership. For the most part the Kelantan social system lacks some of the institutional framework for leadership, notably any general system of corporate descent groups. Negri Sembilan has its named matrilineages and clans, in one or other of which every Negri Sembilan Malay is a member. In Kelantan there is a royal lineage, that of the Ruling House, all the members of which bear the title of Tengku, by patrilineal descent. There are also what may be termed aristocratic lineages, not named and not of a highly corporate character, in which membership is patrilineal and which exist primarily for the perpetuation of title and status, and in some cases the transmission of office. These include the families of men who in the *ancien régime* would have been territorial chiefs holding their fiefs from the Ruler, and who in modern times have titles of honour conferred upon them and exercise ceremonial functions at the Court or play a prominent part in the councils of the State.¹ They also include families of Syeds, descended from the Prophet. They may be regarded as including too the families of men with the title of Raja, putatively descended patrilineally from an ancient royal house long since ousted from power, the members of which now live and work as ordinary agriculturalists and fishermen; as also the bearers of other titles such as Nik and Wan, deemed to have originated in hypogamous marriages of women of royal blood with non-royal husbands. But the great body of Kelantan people, the *orang kebanyakan*, the multitude, have no such descent groups; they operate a bilateral kin system alone. They are thus without one important source of built-in patterns of leadership. In former times the Court, the territorial chiefs and other

¹ For discussion of such "lineages" in the Western States in a wider political context see J. M. Gullick (1958).

aristocrats holding positions of power provided stimulus incentive, aided by a system of patronage and clientship, which the remnants were still visible in the coastal areas in 1940.

But now that the administrative apparatus of a modern state has replaced the system of government focused on the Court, the hereditary aristocracy tend to exercise power and provide leadership side by side with men and women of non-aristocratic origins, operating largely through the bureaucratic machinery. Whereas in 1940 the number of children receiving education in Kelantan was still very small, by 1963 schools of various grades had been established throughout Kelantan, as elsewhere in Malaya, and literacy both in English and in Malay was rapidly growing. Social mobility is still perhaps not very marked, but there are distinct opportunities for bright boys and girls from rural areas to obtain higher education and governmental positions in a manner almost impossible twenty years before. The rise of these has been greatly facilitated by spectacular modern developments in education.

The State Legislative Assembly and even the local council through their control of expenditure, also offer avenues to power and leadership, which the search for votes provides incentive to use. One aspect of this is sometimes a tendency to division of authority, between the District Office, whose officials were formerly responsible for much local development work, and the central and local elective councils, whose sanction is now needed before the proposals can be put into effect and who in their turn may have conflicting proposals of more popular appeal. Hence if a State Councillor or a local councillor be resident in a coastal village the inhabitants are provided with a social personality whose opinions tend to have weight. Incidentally somewhat unexpected in a state governed by an orthodox Islamic party, the performance of shadow-plays and of spirit-medium séances, both anathema to scholarly pious Muslims, has been allowed to continue—presumably because if they were forbidden the elected representatives of the people would lose votes, both locally and state-wide.

But if the secular leadership of the Kelantan fisherman has become more diffused, the spiritual leadership has remained firmly in the hands of the Muslim hierarchy. True, the spirit-medium performances have not been prohibited, as was rumoured they would be, but Islam seemed to play in 1963 a more obvious and formal part in the life of the fishermen than in, say, 1940.

Kelantan is not a theocracy, but as in the other Malay States, Islam is the State Religion, and the Sultan is the Head of Religion, his authority being delegated to the Majlis Ugama, the Religious Board. This body is in charge of the religious treasury, the collection of tithes and religious head tax, is trustee of all property dedicated for religious or charitable purposes, is in charge of all mosques in Kelantan and gives rulings on points of religious doctrine. For religious purposes the state is divided into districts and parishes (*mukim*, but not identical with the administrative units of the same name). Each district has its central mosque (*masjid*) and each *mukim* one or more local mosques (*surau*). Each set of mosque officials is in charge of an Imam, whose duties include leading the Friday prayers and having some pastoral care of the congregation.

Islam is one of the most powerful bonds linking the fishermen together with other members of their local community into a social unit. Not only do they attend the mosque regularly, and keep the fasting month of Ramadan, but they gather together at religious festivals, publicly or in private houses, and they may support a prayer-house (*surau*) or house for teaching the Koran (*madrassa*) in the immediate vicinity, going there to pray and helping in its upkeep. Moreover, the bond of Islam links the members of the local community with other sections of Kelantan society and even further afield, as may be seen when visiting religious dignitaries come from outside the state to participate in formal chanting of the Koran at a coastal mosque to celebrate the birthday of Mohammed. Islam, like politics and commerce, has benefited from the coming of the radio and the amplifier; religious chants compete over the air with popular songs and pulpits wired for sound allow the words of the preacher to reach an almost unlimited audience of the Faithful.

In one respect, however, in the religious field there is still a division of authority—between the Imam, representative of orthodoxy and the hierarchy, and concerned for the care of souls; and the spirit-medium healer (*bomor*) concerned for the care of the body, but operating through the soul. The relation between them is asymmetrical, in that whereas the Imam as a rule opposes the efforts of the spirit-medium and declares him to be trafficking with evil powers, the medium respects the Imam and declares himself a good Muslim, assisting the work of Allah. The Kelantan fishermen are not alone in supporting both. Like the Kelantan country-folk in general, they believe firmly

in the existence and the power of spirits of various types, so hurt and others to heal. In time of bodily or mental then, either before trying Western medicine or after it proved unsuccessful to deal with some refractory illness, resort to the spirit-medium and follow his injunctions. Conflict with the orthodox religious authorities does not appear to do very often, possibly because these authorities themselves in villages are either not completely convinced of the falsity of the medium's claims or are unwilling to move frontally against the opinion, which for the most part tolerates and shares the medium's views. It is in this particular field above all that the traditional elements of Kelantan folk-culture still display themselves.

GENERAL CHARACTER OF MALAY SEA FISHING

I turn now to a consideration of Malay sea fishing in general as an introduction to the analysis of the situation in Kelantan.

In Malaya, according to the census of 1931 (the last before our original study was made) there were over 36,000 Malays employed in fishing. By the census of 1947 the number had risen to about 41,000. By 1963 their number seemed to have slightly decreased, the official figure being nearly 36,200.¹ In each case the figure does not include the considerable number of men who divide their time between fishing and agriculture, nor, despite the fact that it includes a small number of women, does it take account of the fishermen's families, fish dealers and carriers of fish, who depend on the industry for a livelihood.

The kinds of equipment and technique used in fishing in the waters around Malaya show considerable variety.² They include: seines (hauling-nets, including purse-nets) for use on the shore or at sea; drift-nets; gill-nets and lift-nets (ground-nets). There are several varieties of all these, with different weights, cord and mesh. Though usually much smaller than analogous types in Europe, these nets may be 100 fathoms more in length. Small hand-nets include casting-net and scoop-net (scoop-net). In Malaya in 1963 there were about 500 cast-nets, 2,200 seines, 5,000 gill and drift-nets, 2,300 bag-nets, 500 push or scoop-nets. Netting is most highly developed on the east coast, which is exposed to the force of the north-

¹ Federation of Malaya, *Year Book* (1962), p. 281; statistical return, Directorate of Fisheries, Malaysia (1963).

² For description see M. L. Parry (1954); also T. W. Burdon (1955), pp. 10-11; G. L. Kesteven (1949), pp. 47-57; D. G. Stead (1923).



HAULED UP DURING THE MONSOON

A fishing boat of kolek lichung type. The bow, with its crutch (bangar) to hold spars, is hauled up towards the camera.



"PRAYERS OF HOPE" (Sembahyang Haiat)

A service of prayer in the boats before the new fishing season begins, to promote good catches. These taking part are men with some religious learning (orang lebai); they are rewarded with a meal and a few cents each.



III A A MASTER FISHERMAN

Aceang Lang, a lift-net expert (juruselam takur) of Pantai Damat, Kelantan.



III B AT THE END OF THE DAY

A fisherman goes home with his kit and a pair of Spanish mackerel (tenggiri) on the paddle. The woman has small fish in the baler.

monsoon and has few good harbours, though long stretches of clear sandy beach. Traps of many kinds are used, from small portable ones (Plate VIIA) to fixed palisaded constructions of stakes and rattan. These last, which are sometimes very large, are especially common around Singapore and in the Straits of Malacca, where there is less exposure to the monsoon than on the east coast. In 1963 there were in the States of Malaya (excluding Singapore) about 5,000 small traps and pots, over 1,200 small stake-traps and about 670 large stake-traps. These last were mainly in Johore. Hand-line, rod and line, and long-line (both baited and unbaited) are also used. The long-lines, like the nets, are much smaller than in Europe, being only about 200 fathoms long instead of several miles. In 1963 there were about 3,000 lines licensed in Malaya.

Most of these methods necessitate the use of boats, which until recently were mostly shallow undecked craft, sailed to and from the fishing grounds and then handled by paddles. While the large areas of shallow seas around the coasts facilitated fishing, the boats used to depend very much on the wind and had a comparatively limited range. But the fisheries of Malaya have for some years been in a transitional state. Until about 1950 there were very few powered fishing craft in Malaya, but by 1963 out of a total of about 22,700 registered fishing boats, about 10,500 were powered by either outboard or inboard engines. In the early stages of mechanization outboard engines, which could be used in the traditional craft with little modification, were installed mainly, but these are being replaced by inboard diesel engines, which are more reliable, more powerful and more economical. Whereas in 1955 inboard engines made up only about 13 per cent. of the total number of engines in use, by 1960 the percentage had risen to 44 per cent., and by 1963 to 60 per cent.¹ In 1963 whereas boats with outboard engines (*prahu sangkut*) were still in use at places such as Beserah in Pahang, inboard engines (*prahu motor*) were generally in vogue to the north. These modern developments are likely to convert much of Malayan fishing from operations in near coastal waters to much more far-ranging efforts.

Each type of fishing demands knowledge of local conditions, considerable skill, and often arduous work for small return. The element of chance plays a large part in the result, but over

¹ Federation of Malaya, *Year Book* (1962), p. 28; statistical return, Director of Fisheries, Malaysia (1963).

and above this the margin between success and failure is frequently not great; a small error in judgement or skill, and shooting of a net, the setting of a trap or the operation of a net is in vain. Malay fishing is a traditional occupation, and faced with these risks of nature's variability or man's fallibility the industry has developed a respect for certain specialist accomplishments and rules of behaviour in the work, which are believed to minimize the dangers. They are especially noticeable in forms of coöperative fishing such as the handling of a large net, where a slip by one man may threaten the success of the whole crew. In this work the direction of affairs is commonly entrusted to an expert, often given a special title, who is apt to combine technical knowledge and ability with some knowledge of the ritual procedure believed to be necessary in order to propitiate spirits and attract fish. Associated with this may be certain ritual observances by the crew, as, for instance, the avoidance of the use of the names of some specified land animals when at sea—a custom which obtained not only in Malaya but also, for example, among the Achehnese and on the north coast of Java.

The manufacture of some fishing equipment is commonly a local activity, forming a set of ancillary crafts which yield a considerable income to women and other members of the community who do not go to sea. But small and isolated as they often are, the various fishing communities are not autonomous economic units. The coastal areas provide few of the materials they require, and they import many supplies, in all stages from the raw form to the fully made-up article. Take, for example, the east coast of Malaya, which until recently has been comparatively remote from the large commercial centres. Bamboo for fish-curing trays, baskets and net-drying rests; rattan for occasional fish-traps and many kinds of lashing; pandanus leaves for sheets for covers; resin for caulking boats; timber for boat building, are all brought from inland districts. Mangrove bark for dyeing nets is imported from the west coast. Ramie twine for certain kinds of nets, and even some ready-made nets of this material, were imported before the war, ultimately from China, and from China too came large amounts of cotton yarn to be manufactured locally into nets and hand-lines. Nowadays both ramie and cotton nets, especially drift-nets, are increasingly being replaced by nylon or other synthetic materials, which are imported ultimately from abroad. The outboard and inboard engines are also imported, as is their fuel and paraffin for torches

or, latterly, pressure lamps for night fishing. Paint, copper nails and various other accessories all come from outside. Though all the boats are made on that coast their building is concentrated mainly in recognized centres, and there is much buying and selling of boats all along the region; Kelantan fishermen even import some boats from Patani in Siam. And though there is still some local manufacture of fish-hooks from brass and iron, and casting sinkers from lead, the raw materials are imported, and nearly all fish-hooks now are brought in ready-made from Europe. In other fishing regions the balance between local manufacture and ready-made import, between use of local materials and of foreign materials, may differ. But the general picture of a busy intra-regional trade in supplies, and of considerable dependence upon external sources, is much the same. This means that to fill the technological requirements of the fishermen, trading middlemen are necessary, with contacts in the importing centres outside. It also means that quite apart from the marketing of their fish, the fishermen are affected by external price fluctuations in certain important classes of commodities. This is all the more true if the demand of the fishermen and their households for consumers' goods such as rice, clothing, crockery and lamp oil is taken into consideration.

One may be tempted to think of these Malay fishing communities as requiring little capital and having their labour as their main investment. This would be a grave misconception. The amount of fixed capital involved was very considerable, even in 1940, if it be measured in relation to local income levels. A large boat and net might well cost in 1940 up to \$500, a sum far beyond the means of most ordinary fishermen, and demanding perhaps six months' to a year's earnings, even from a successful man already in possession of much large-scale equipment. By 1963 prices had multiplied several times even for the same equipment. But making allowance for changes in technology, an analogous investment might then well cost in the region of \$40,000 (see Chapter XI, p. 312). For the period 1938-9 I had put the investment in fishing boats and gear through Malaya (including Singapore) at perhaps \$2½ million; this included a large amount of investment by Chinese fishermen. Nowadays, the total comparable investment, even by Malays alone, must be many times more. (For a rough calculation on a sector of the Kelantan coast see pp. 312-13.) Apart from the initial outlay on equipment, there is also the cost of overheads, as for engine

fuel and oil, net dye, twine for repairs, paint and caulking materials for boats and upkeep of the vans which carry the fish to market. To meet these considerable liquid capital is needed. All such investment, even by Malay fishermen alone, and even taking account of the fact that much of the equipment is bought on hire purchase, must certainly amount to millions of dollars. Even nowadays too little information is available to enable one to generalize precisely on the ways in which all this capital is found, or to say just how far and where there is inadequacy or shortage of capital. It is clear that some capital is the result of personal saving, some is borrowed from kinsfolk and other Malays, often in complex transactions. But shortage of capital among the fishermen is illustrated by the fact that nowadays as in 1940, many of them work with equipment owned or financed by Chinese merchants.

The variety of fish that can be taken in these waters is considerable. Maxwell gives a round figure of 250 species of valuable marine food fishes for Malaya, and if species of crustacea and mollusca were added as well, the total would be much larger.¹ Of the pelagic fish, feeding near the surface, mostly in shoals, the most important are types of herring (such as dorab and wolf-herring, shad, sprats and anchovies) and of mackerel, horse mackerel and tunny. Of demersal fish, normally feeding at the bottom of the sea, the most important include jewfish, sea bream, sea-perch, snapper, grey mullet and flat-fish. Shark and rays are also taken in quantity. In addition to fish, there are also prawns, shrimps and crabs. Many kinds of fish are caught in only small quantity. But from the landings of marine fish recorded from Malaya in 1963 there were more than twenty kinds of which over 1,000 tons each were landed. Among these the most prominent were mackerel, small horse-mackerel and herring, of which more than 10,000 tons each were landed that year, while anchovy, tunny, Spanish mackerel, snapper were also taken in quantity.

Production of fish by Malayan fishermen, though much below that of European fishermen or Chinese or Japanese fishermen, was very considerable even before the war. The amount of "wet" fish recorded as landed in Malaya in 1938 was about 87,500 tons, a figure which did not include a great deal of the fish consumed locally on the east coast, but which did include a

¹ C. N. Maxwell (1921), pp. 3, 9; cf. also D. G. Stead (1923), pp. 230-5; G. L. Kesteven (1949), pp. 70-3; W. Birtwistle (Singapore, 1939), pp. 20-7.

larger number of small fish used as pig and duck food and manure. In 1960, the total landings of fish in the Federation of Malaya amounted to nearly 140,000 tons, and in 1963 to 183,600 tons (3 million piculs) of a total value of well over M\$150 million.

FISH MARKET RELATIONSHIPS

Malay fishing is not a purely subsistence occupation: it depends for its prosperity on market conditions. The market is of several kinds. First there is the fresh-fish market, which nowadays is of major importance both locally and in inland centres. Its radius was formerly governed closely by the range of available means of transport—which varied from the basket carried on a pole at the trot, to bicycle, motor vehicle and railway. Since fish will not keep fresh long in the tropics, speed is essential in supplying this market or fish must be frozen or packed in a liberal supply of ice. Before the war ice and brine had been used, but only to a small extent and mainly by Chinese and Japanese fishermen. The result was that the first stages of decomposition had often set in before the fish was sold to the consumer. Nowadays ice is in plentiful supply on most parts of the west coast of Malaya, and its use has been spreading rapidly on the east coast, especially with the setting up of ice manufacturing plants. Nowadays then most of the Malayan fish of better quality is sold as fresh fish.

A second type of market is that for cooked fish. This allows the period during which the fish are handled to be prolonged, but even then the fish do not keep for many days, and this market is of only limited scope. More important to most areas is the market for cured and dried fish, with which is associated the market for the shrimp paste commonly known as *belachan*. Curing and drying allows the fish to be transported great distances and held in reserve against periods of bad weather or seasons when fish are scarce; it also provides the means of dealing with temporary surpluses. Before the war, and even quite recently, processes connected with this branch of the industry employed large numbers of people, especially dependants of fishermen. Nowadays, however, partly owing to the much extended use of ice and partly to the fact that fish drying requires a great deal of labour, this side of the industry has lost some of its importance. Before the war there was little canning of fish and there is still no fish canning industry of any importance in Malaya. Small

quantities, however, of canned fish are produced in Penang irregularly for local consumption and export.¹

A remarkable feature of the whole market situation is the extent of its ramifications. One might expect from the simple character of these fishing communities that their primary trade would be with their own hinterland. Where there is a dense agricultural population, or there are large inland centres, this is the case; the fisheries of the west coast of Malaya dispose of large quantities of their catches, both fresh and cured, in this way. But often the hinterland is comparatively undeveloped, giving an insufficient local market, and the unsatisfied demand of large consuming centres at a distance is keen; this has led to extensive exports, especially from regions such as the east coast of Malaya. Until recently this trade has been mainly in dried and cured fish, but dealers in fresh fish have been quick to take advantage of improved communications. Fresh fish is now carried by van or motor truck for long distances, even across the Peninsula.

This fish trade, until recently at least, has taken little account of political boundaries, except when export or import taxes may have tended to affect its volume and when war, or measures of the "confrontation" type, have severely dislocated normal trade relations. The significance of such fish trade is seen by the fact that in 1960 25,000 tons of fresh fish and more than 5,000 tons of dried fish, of a total value of nearly \$20 millions, were exported from the Federation of Malaya, mainly to Singapore. Conversely, more than 8,000 tons of fresh fish and 9,000 tons of dried fish, of a total value of \$17 million, were imported into Malaya, mainly from Singapore, Thailand and Sumatra. Moreover, in addition, there is an important trade in salt from Thailand and elsewhere as an essential element in the dried fish industry. In these, as in so many other types of commercial transactions, Singapore has served as a nodal point and great entrepôt for Malaya and neighbouring countries. The Malayan fishing industry then cannot be regarded simply as made up of a set of independent economic units, each with its producers serving only local customers.²

The scope of the whole system of fish marketing has led to the development of various types of middlemen who are often

¹ Federation of Malaya, *Year Book* (1962), p. 284.

² Federation of Malaya, *Year Book* (1962), p. 284. A very useful general study of the fishing industry and fish marketing of Malaya has been made by Ward (1964).

specialists—as wholesalers or retailers, as handlers of fresh fish or of cured and dried fish. They conduct their transactions with much haggling, and employ complicated methods of finance and credit. They are usually a separate group from the actual fishermen, though they often work at the secondary processes of preparing the fish for market. The composition of the employment category varies from one area to another. In some places they are locals, even kinsfolk of the fishermen. In others they are "outsiders", in particular Chinese operating among Malays. (The reverse is almost completely unknown.) Women play an important rôle in some areas, especially on the north-east coast of Malaya. But there is one tendency noticeable in many areas—for the fresh fish trade to be in the hands of the locals, and the trade in cured and dried fish to be in the hands of Chinese. One reason for this would seem to be that the handling of the latter commodities, particularly in large-scale export trade, is facilitated by distant business connections and the capacity to lay out capital and wait some time before it returns. Malays are not necessarily lacking in the business ability to handle such trade, but the Chinese commercial pattern is better adapted to take advantage of the situation.

The Chinese have entered so far into the industry in some areas that, as in the west and south of Malaya, they play a very large part in the actual fishing. Before the war indeed the Chinese ring-net fishermen at Pangkor, using power craft, were the most efficient producers in Malaya. But apart from this the Chinese for a long time have extended their rôle as middlemen to embrace the control of the whole of the large-scale fish market and even to finance Malay fishermen. The *tauke* (towkay), as he is called in Malaya, works in a variety of ways. He advances money or more often goods such as rice and cloth to the fishermen in the slack season against the security of their coming catches. He lends money for the purchase of boats and nets, and may even supply such equipment without overt charge. In return he contracts with the fishermen to take their fish at an agreed price or at a price of his own setting, usually below the free market rate. In this rôle he performs important functions. He shoulders a great part of the market risks; he supplies considerable capital in a liquid form in consumers' goods or in purchasers' goods, and he saves the fishermen much trouble in seeking buyers. On the other hand, the system has obviously great dangers both for economic development among

the fishermen themselves and for the maintenance of equal social relations between the parties. It can give the *tauke* monopoly with little prospect of the fishermen reaping the advantages of the rising market or of even getting much more than bare subsistence earnings, and it tends very often to place them firmly in his debt with little chance of extricating themselves and building up their own capital.

INCOMES OF FISHERMEN

Before the war no adequate information of any general kind was available on the incomes of Malay fishermen. Some records from haphazard observation and some more general estimates had been made (see 1st edition of this book, p. 15). But little systematic value could be extracted from the materials published or on file. A very rough estimate of the average fishermen incomes in Malaya could be made from production figures. Calculations made for the time when my original study was carried out yielded the following. If the number of fishermen in Malaya just before the war could have been put at a mean figure of 47,500 and their annual output at a value of \$7 million and the cost of maintaining equipment and of taxation were put at an annual figure of \$500,000 (on a capital value of boats, nets and other gear at about \$2½ million), the average net income per head would have been approximately \$135 per annum, or just over \$11 per month. This may be compared with the average wage for Malay estate labour, which varied between \$12 and \$15 per month. From general impressions fish incomes were higher on the west and south coasts, nearer the large towns, than on the east coast, and higher also on the whole among Chinese than among Malays. This was borne out by a similar calculation to the above for the Malay fishermen of Kelantan and Trengganu, whose average annual income per head would seem to have been in the region of \$8 per month.

But though these calculations were made with some care they were inevitably subject to a large margin of error. Figures for the number of fishermen and for the value of their annual output at wholesale prices were not exact, and the allowance for repairs involved a number of rough estimates of value and life of equipment. It was important to have more precise knowledge of total fishermen's incomes and of average income per head in the country as a whole and in different parts of it, as a

element in the study of the national income, and as a contribution towards any planned development programme. But this knowledge could only have been obtained as the result of more adequate census and general production statistics on the one hand, and of more intensive regional surveys on capital, production costs and methods of securing incomes on the other. Moreover, figures of average income were useful only up to a certain point; one wanted to know also the range of incomes. From such indications as were available, including the results of my own intensive study on the east coast of Malaya, it was clear that the income position was complex. It depended not only on local resources, seasonal conditions, marketing facilities and type of equipment used, but also on different institutionalized methods of putting capital into the work and dividing the proceeds. Whereas some fishermen lived on a marginal subsistence, barely able to make both ends meet, others were able to earn a comfortable income in terms of the standards to which they were accustomed, and a few could save considerable sums. This range of fishing income was an important feature of the economy and had been often overlooked when general statements were made about the industry.

What is the position today? I doubt if we can estimate at all precisely even the average income of fishermen in Malaya at the present time. But based on figures (for 1963) of approximately 60,000 fishermen (of all ethnic groups) with annual landings of wet fish valued at some M\$150 million, average gross productivity would be in the region of \$200 per man per month. From this, maintenance of equipment and other costs—much heavier than in pre-war days—would have to be subtracted, and this might well reduce the figure of net individual income to half or less than half of the productivity figure. Compared with an average actual earning of a rubber tapper of \$86 per month,¹ this means that fishermen as a whole are in a low income bracket. Considering their probable range of earnings indeed, some of them may well find themselves among the lowest income groups in Malaya. (The position with regard to one Kelantan area is examined in Chapter XI.)

During the last twenty-odd years a great deal of knowledge has been accumulated by officials of the Fisheries Department, by Coöperative Marketing Officers, by Social Welfare Officers, and others in close contact with fishing communities. From

¹ Federation of Malaya, *Monthly Statistical Bulletin* (July 1963), p. 137.

their accumulated experience very much closer estimates fishermen's incomes could be made. But we still await a comprehensive study which will reveal the incomes of fishermen on different types on different sectors of the coast, having regard not only to average earnings but also to individual differences and to daily and seasonal fluctuations. Moreover, after twenty-five years there is still no study of any single fishing economy elsewhere in Malaya comparable to that described in this book. The need for detailed socio-economic research in this field is evident.

PROBLEMS OF MALAY FISHING INDUSTRY AND FISHING COMMUNITIES

In its original form one section of this book examined the practical problems of the fishing industry in Malaya as they appeared before the war. It is of interest now to review the statements then made, to see how far these problems have persisted or have changed their shape, how far they have continued to affect the social life of the fishermen and how far predictions then made have been borne out.

The modern aim of public policy in regard to Malaya fisheries is the same as before—to make more fish available to the mass of the people, to improve its quality, and to raise the level of fishermen's incomes. The demand for fish, especially for fresh fish, remains very keen, and there is still room for improvement in the conditions of production and of marketing. Even before the war these problems had been energetically tackled in Malaya by the Fisheries Department. New fishing grounds had been explored, particularly for mackerel and other valuable types of food fish, and the results communicated to the fishermen. Experiments had been made with new or improved types of nets, and demonstrations of their utility given. On a limited scale on the west coast the introduction of motor boats had been sponsored to replace the less mobile sailing craft. Experiments were made in various types of refrigeration, in smoking and canned fish, and on the quality of salt, to help to maintain fish in fresh conditions as long as possible or to provide better methods of dealing with surpluses. A school of instruction for young Malays, preferably sons of fishermen, was set up at Singapore to teach navigation and the use of powercraft and of new types of nets and better methods of handling and preserv-

ing fish for market. Much of this work, then at an early stage, was interrupted by the war, but has been prosecuted more vigorously and expanded greatly since that time. Moreover, assistance has been given to fishermen in other ways as well. As part of general national development, a greatly improved road system has facilitated the transport of fish, allowing much larger quantities to be got fresh to inland markets. Moreover, the much more widespread availability of ice, due in great measure to administrative assistance, including assistance from abroad under the Colombo plan, has meant that much greater quantities of fish now reach these inland markets in a tolerably fresh condition instead of being either partly decomposed or dried. Parallel developments with motor transport have helped in the same direction.

In terms of general averages, it would seem that some increase of productivity has followed these measures. Before the war a very rough estimate gave average annual output per head of fishermen in Malay as probably rather less than two tons. By 1960 the average output per head had risen to just over 2½ tons and by 1963 to about 3 tons per fisherman. But what is of significance here is probably a much increased difference in productivity between high-grade and low-grade producers. Fishermen pursuing the traditional techniques of hand-lining and small netting are probably landing much the same quantity of fish as twenty-five years before. Landings from newer or more broadly diffused technical equipment, however, such as the purse seine used from motor boats, probably have meant greatly increased output per head from that sector of fishermen.

With the problems of raising productivity have been associated the problems of raising incomes and levels of living of the fishermen. These have proved to be in some ways more refractory. The difficulties of the fishermen have remained fairly clear. Many of their activities are small-scale. Though power-driven boats have become much more common, their nets, often surprisingly large, are still hauled by manpower. The result is that the yield per individual fisherman tends to be relatively light. Their low *per capita* level of production is not due to lack of skill; the methods they use are ingenious, showing close study and intimate knowledge of fishing conditions. Twenty years ago I wrote that, "Their difficulties were due partly to lack of acquaintance with modern mechanical equipment, partly to conservatism (which was not blind but often based on

the proved value of past experience) and partly to lack of capital needed to lift their enterprises to a much higher technical level." Nowadays the technical level has risen considerably and the capital available become much more plentiful. But, as pointed out in my earlier comments, their low productivity head was due also to certain more general economic and social factors.

It is often assumed that the two sets of general problems mentioned above are in fact directly linked: that an increase in quantity and quality of production will by itself bring better conditions to the primary producers. Though in a general way this may be true, it will not necessarily be so in specific cases. Where, as often happens, middlemen are in virtual control of the wholesale market, an increased turnover may well be reflected in their higher profits rather than in an increased return to the fishermen with whom they deal. Yet the notion of exploiting middlemen, organized in monopolistic "rings" is not borne out fully. There is much competition between dealers in selling fish in the markets, and the arrangements between them and the fishermen help to some degree to protect both parties.

With the development of Malayan fisheries since the war elaborate efforts have been made to evade what has been thought to be control of the market by wholesaling middlemen as by the institution of coöperative marketing organizations. With this, however, the whole question of capital relations was bound up, since in many cases the primary producers, the fishermen, were indebted to the middlemen for their supplies of capital either in the form of equipment or of cash, and hence did not regard themselves as really free to enter into coöperative arrangements which would bypass their patrons. This problem was faced by the provision of capital facilities to fishermen, largely in the form of loans of boats and gear. This system also has met with difficulties, one reason being that the state was often obliged to take the brunt of the losses made by the less efficient fishermen.

Technical and economic developments of the kind described above since the war were foreshadowed in the earlier edition of this book (1946, pp. 16-21, 300-5). It was also stressed that quite apart from the special mechanisms inherent within the fishing industry itself, other economic and social factors would be concerned in any radical attempt to improve the lot of the fishermen. As I pointed out, the success of such technical and

economic changes must involve and be dependent upon progressive social changes. These can be promoted by economic developments but their precise content and impact are as much the product of enlightened ideas as of an improvement of resources. The problem is to understand the forces at work. The aim here must be to safeguard and stimulate those community ties and values which give meaning to individual and social life and a basis for coöperation, yet enlarge the basis of loyalty of the peasant community to develop new foci of interest and wider scope for common activity with the world outside. The attainment of independence and the political transformation of Malaya will, it is to be hoped, provide such new creative social ties.



FIG. 1.—Malay Peninsula—showing rail and road communication with Kelantan and Trengganu.

CHAPTER II

ECONOMICS OF THE FISHING INDUSTRY IN TWO
MALAY STATES (KELANTAN AND TRENGGANU)

My detailed examination of a single Kelantan fishing community needs as preface a brief description of the main features of the fishing industry in Kelantan as a whole. For comparison I also give material on Trengganu, since its much more extensive coast-line offers interesting contrasts.

To set the account of conditions in 1939-40 in modern perspective I first outline the situation in 1963. The population of Kelantan, in 1940 about 400,000, was in 1957—at the last Census—506,000; that of Trengganu, in 1940 about 200,000 had risen correspondingly to 278,000. Both States remained predominantly Malay in composition. In 1963 these two States together provided nearly one-quarter of the landings of sea fish in Malaya and maintained on their coasts upwards of one-third of the fishing population (Figs. 2, 3, 4). In 1963 the number of fishermen in Kelantan was recorded as just over 6,500 and in Trengganu nearly 11,500, almost exactly the same figures as for twenty-five years before (p. 37). In 1963 there were nearly 2,000 fishing boats in Kelantan and about 3,700 in Trengganu. Despite increasing mechanization (see Chapter XI) most of these craft were still non-powered. Whereas in Malaya as a whole the proportion of powered craft was then over 45 per cent. in Trengganu it was 25 per cent. and in Kelantan only 20 per cent. In both these States, however, the proportion of inboard-powered craft was more than ten times that of outboard-motored, whereas in Malaya as a whole it was only about 50 per cent. greater.

The main methods of fishing adopted in these two States are described later (pp. 49-54, 83-100).¹ In 1963 Trengganu had more than twice as many nets as Kelantan—1,300 as against 640, the superiority being most manifest in seines. As regards catches, in 1963 landings of fish were more than five times as great in Trengganu (38,000 as against 6,700 tons); anchovy, mackerel, small horse mackerel and herring especially were

¹ Since the first edition of this book appeared, an excellent detailed description of fishing methods of Kelantan and Trengganu has been given by M. L. Parry (1954).

produced in great quantity. The total value assigned to landings of marine fish in 1963 in Trengganu was nearly \$35,000,000 and in Kelantan was over \$8,000,000. Thus, while the fishing

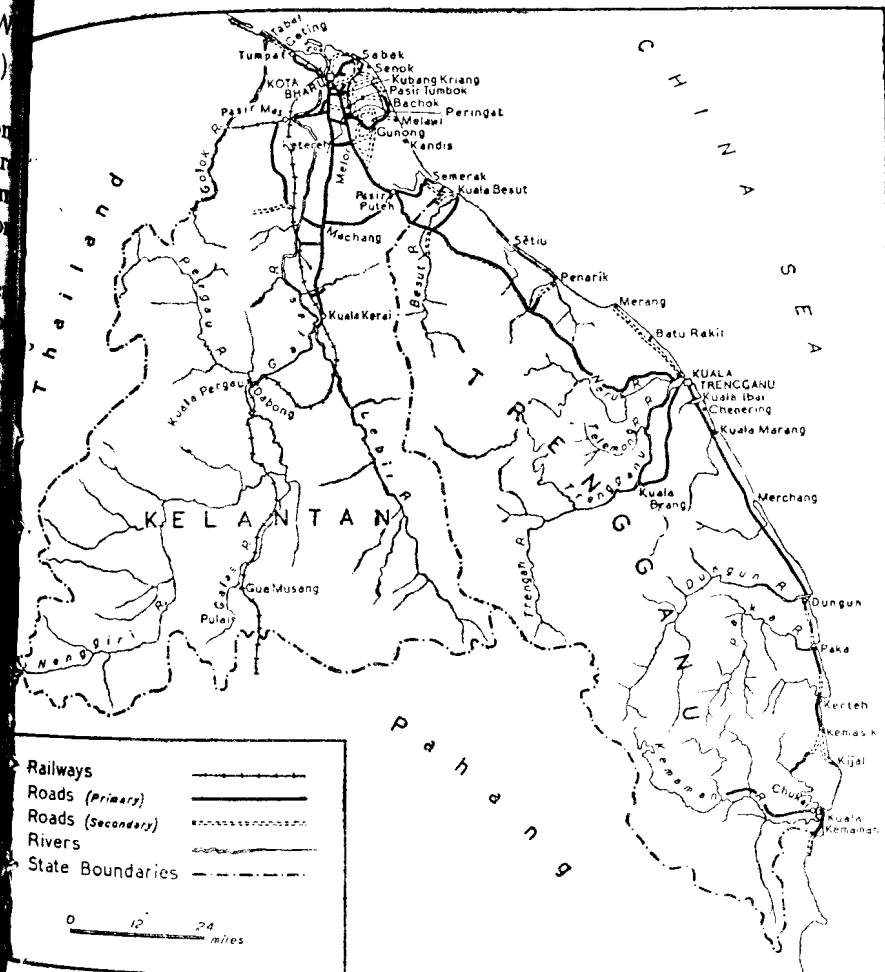


FIG. 2.—Communications and Principal Settlements in Kelantan and Trengganu.

industry is far greater in the Trengganu economy than in that of Kelantan, its importance to the latter is still considerable.

The following general account now summarizes the main features of the fishing industry of Kelantan and Trengganu in 1939-40, particularly as regards personnel, trade, types of equip-

ment, and capital invested in this equipment. (Further details on numbers of boats and nets, schemes of distribution, relations between fishermen and fish-buyers, will be found in Appendices III, IV and V.)

GENERAL CONDITIONS AND IMPORTANCE

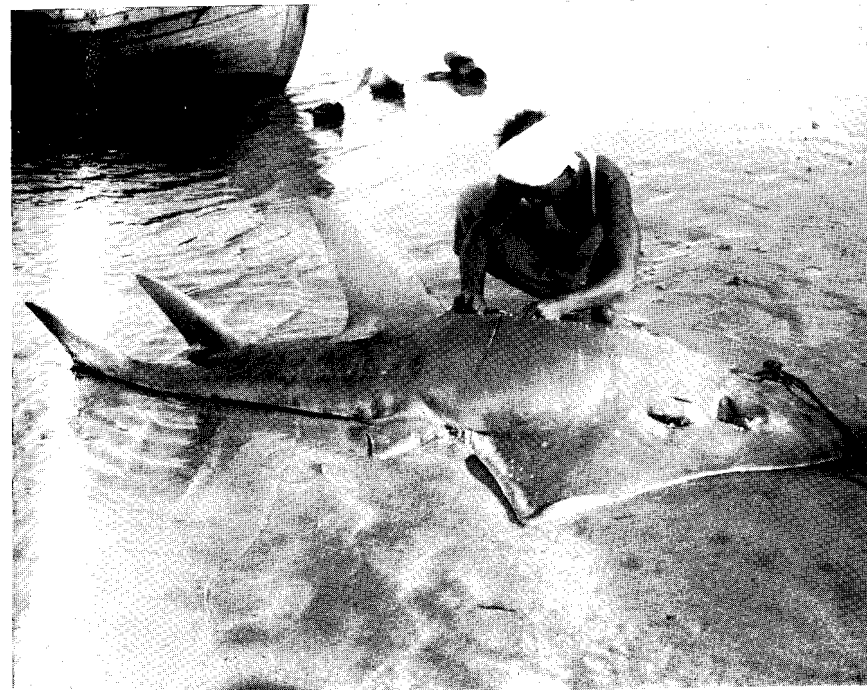
In these two States the actual fishing is done entirely by Malays, in contrast to the situation in the south and west of the Malay peninsula, where there are large numbers of Chinese fishermen as well and where (before the war) Japanese fishermen also competed in some markets, though obtaining their catches from deep-sea grounds not fished by Malays or Chinese. Conditions in both these east coast areas favour the types of fishing which the Malays have developed, and which are adapted to their comparative lack of capital, and to their particular type of social organization.

The extension of the continental shelf for many miles out to sea gives them a large area suitable for coastal fishing, from which they can return by nightfall to their homes. Frequent river mouths, with their characteristic sand-spit formation, afford useful harbours for their comparatively small craft; even where such harbours are lacking the easy slopes of the many long sandy beaches allow the boats to be hauled up by manual labour, without mechanical appliance, but only a few rough skids. The land and sea breezes in morning and afternoon are constant enough for most of the year to carry them to and from the fishing grounds by sailing, with the minimum of paddling. And fish are sufficiently abundant and are of such varied types that despite seasonal variations catches may be obtained in one way or another throughout the year.

These geographical factors are important. Malays, though excellent fishermen with a variety of techniques, do not like spending the long periods away from home which are common—indeed, almost necessary—in true pelagic fishing. (A reason they sometimes give is that they do not know what their wives may be doing in their absence.) Nor with the limited capital at the command of most of them can they afford unaided the larger boats and more expensive equipment required for fishing in more distant ocean waters. In both these respects they differ somewhat from many of the Chinese fishermen, and still more from the Japanese, who are willing to spend long periods at sea and who have larger capital resources.

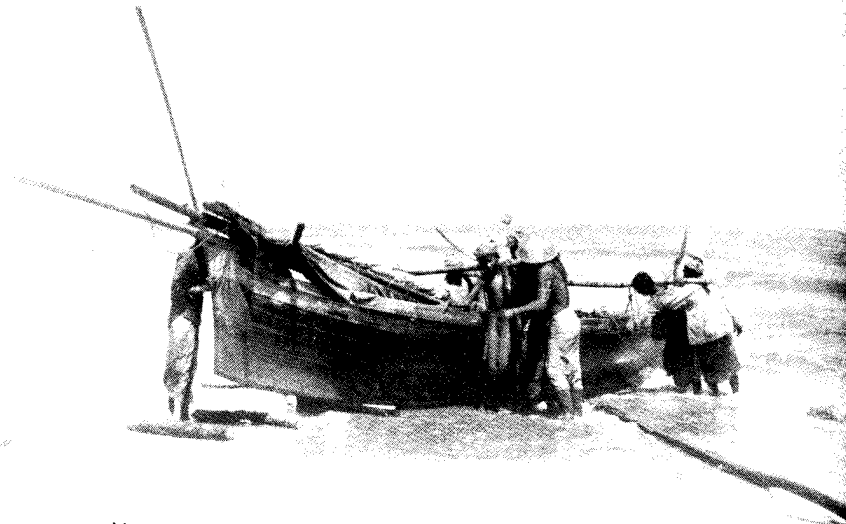


IVA AN EAST COAST MALAY FISHING VILLAGE
Part of the Panjong area at Kuala Trengganu, 1963.



IVB A FISH-DEALER CUTTING UP A RAY-SHARK
The fins, greatly prized for soup by Chinese, are expensive.
(Crupok, 1947.)

But in one way the geographical conditions act as a brake on the east coast fishing industry. For at least a month and often for more, usually in December and January, the strong steady winds of the north-east monsoon, sometimes rising to gale force, tend to block all major fishing activities off the coast. The



VA HAULING A BOAT UP THE BEACH

The fishermen, soaked to the waist, strain to slide their heavy craft (a kolek buatan bang) up over the skids.



VB SCRUBBING THE PLANKS OF A BOAT

The crew use sand and water, and the thick soles of their bare feet.

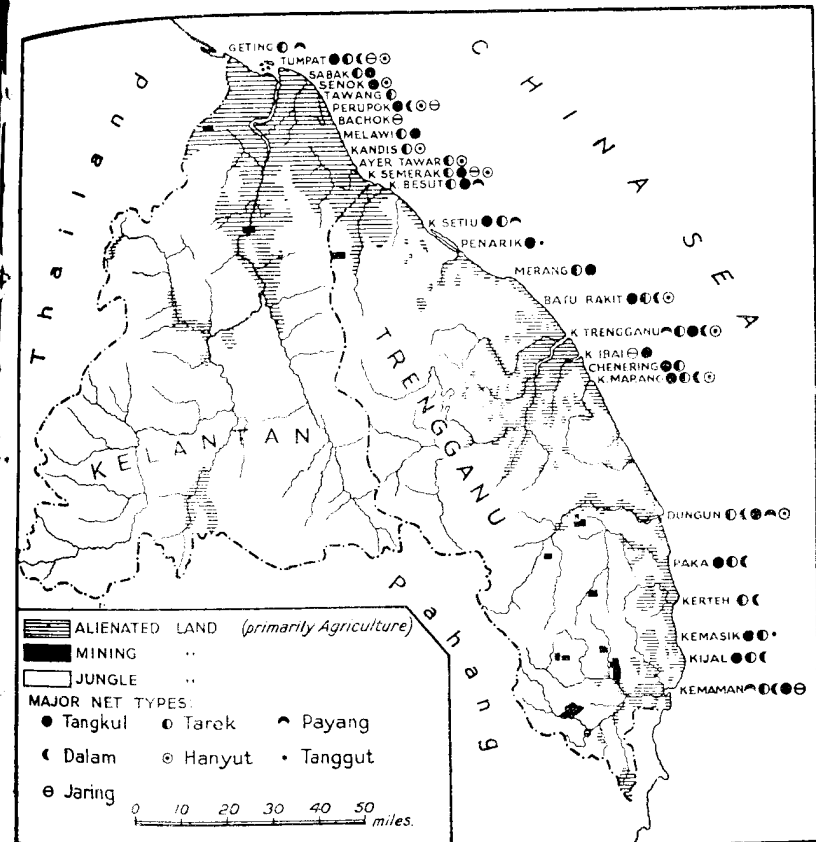


FIG. 3.—Land Utilization and Fishing in Kelantan and Trengganu

seas are considerable, and the surf heavy on the beach. The larger nets can rarely be used, and boats often cannot be launched for weeks at a stretch. Only intermittent work with hand-lines or small nets is possible at sea, and at the height of the monsoon fishing is restricted to the use of scoop-nets or other hand-nets for mullet in the breakers off the beach. The effects of this on the industry can be gauged from graphs showing variations in

monthly output (Figs. 6 and 21). In terms of consumption, the seasonal drop in production is important since it means that every fishing household has to save a certain proportion of its income to tide it over the monsoon period, or else borrow, and thus effect mortgage future income. The monsoon period is, however, not a total loss. During this time a great deal of work is possible in the repair of equipment, particularly boats, and in the preparation of new equipment, particularly nets. The monsoon also affords opportunity for carrying on secondary occupations.

The similarity between Kelantan and Trengganu in their productive methods and organization of fishing does not extend so completely to the marketing system. Geographical and political factors here distinguish them. The areas of the two States are not very different. But whereas the coastline of Kelantan is only about 60 miles in length at the most, that of Trengganu stretches for over 130 miles (Fig. 2). Since the proportionate distribution of river-mouth harbours and other fishing facilities is much the same, with, if anything, a balance in favour of Trengganu, it is to be expected that the output of fish is greater in the latter State. Moreover, the population of Kelantan is practically double that of Trengganu, due mainly to the great plain in the former State, with its eminent suitability for rice-growing (Fig. 3). In Trengganu the plains associated with the lower courses of the Besut and the Trengganu rivers are very much smaller, and support less population (Fig. 4). The effect is that Kelantan has a large agricultural hinterland serving as a market for the products of the fishing section of the population, whereas Trengganu has not.

Communications in each State have naturally tended to fall into line with the topography and the distribution of the population (Fig. 2). Kelantan has a moderately good system of arterial and interconnected roads to the east of the Kelantan River, with the capital Kota Bharu as the centre, and extensions run more than forty miles inland to the secondary town of Kuala Krai. The system of Trengganu is essentially lateral, with a single major road running parallel to the coast. South of Kuala Trengganu, the capital, which is about two-fifths of the distance from the northern to the southern border, stretches of this road are linked only by frequent ferries, till Kemaman is reached. Before the war communication from there to the town of Kuantan in Pahang, was of a primitive type, running for many miles along the open beach. The only inland road of any consequence was

that to the small centre of Kuala Brang, at the apex of the plain through which the lower Trengganu River runs, and extending for a little over 20 miles. (Extensions to the road system appear to have been made more recently.) In both States the rivers and the coastal seas supplement the road system—in former

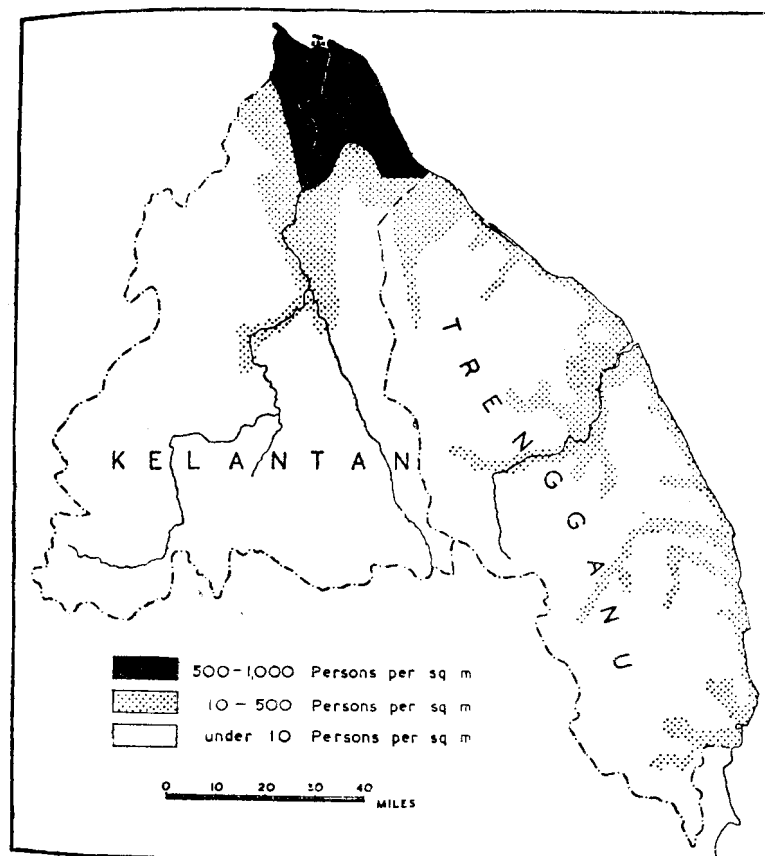


FIG. 4.—Approximate Density of Population in Kelantan and Trengganu.

times most of the traffic was water-borne. But transport by them is too slow and too apt to be affected by local variations of drought or flood to be efficient in the service of a large-scale fresh-fish market. An additional factor in promoting market facilities in Kelantan is the railway passing through from the Federated Malay States to Siam; Trengganu has no rail system apart from the small local line serving the Japanese iron con-

cession inland from Dungun. The effect upon the Trengganu fish trade with its limited hinterland market, is that the system of communications essentially connects one centre of fish production with another, and not with centres of large demand inland.

These factors make it clear why the fresh-fish market is of much greater importance in Kelantan than in Trengganu, and why the export trade in cured fish assumes much larger proportions in the latter State.

In both Kelantan and Trengganu the internal market absorbs a large proportion of the fish produced, either in the fresh or the cured state. But it is impossible to obtain any accurate data as to the quantities thus consumed. Figures given in the *Kelantan Annual Reports* from 1927 onwards of amounts of fish sold in some markets represent explicitly only a fraction of the local consumption. Comparison of export figures with those of the official total Kelantan fish output is inconclusive, since the latter are definitely much below actual production. But a very rough estimate of the amount of fish taken by the internal market can be obtained by calculation on a population basis. If we take as a conservative estimate an average consumption of fish of 1 oz. per head of population per day (a reasonable figure from consideration of a sample of household budgets) the total annual consumption would be about 4,000 tons per annum for the State of Kelantan as a whole, with a value of roughly \$345,000 (in 1940), at an average price of \$5 per picul. No data of internal market consumption of fish or of annual output for Trengganu were available to me at all. But calculation on the same basis as for Kelantan, of a consumption of 1 oz. of fish per head per day, gives a total annual consumption of roughly 2,000 tons at a value of roughly \$150,000 in 1940, taking the average price at \$4.50 per picul, since fish is rather cheaper in Trengganu than in Kelantan. Taking both States together, the consumption of fish in the internal market is probably in the region of 6,000 tons per annum, with an average total annual value of about half a million dollars. It is likely that these figures are underestimates.

From the export statistics it is obvious that fish plays a much more important part in the trading economy of Trengganu than in that of Kelantan.

From 1910, when the two States first came under British administration, till 1939, the total value of fish exported from Kelantan was approximately \$4 million; from Trengganu it

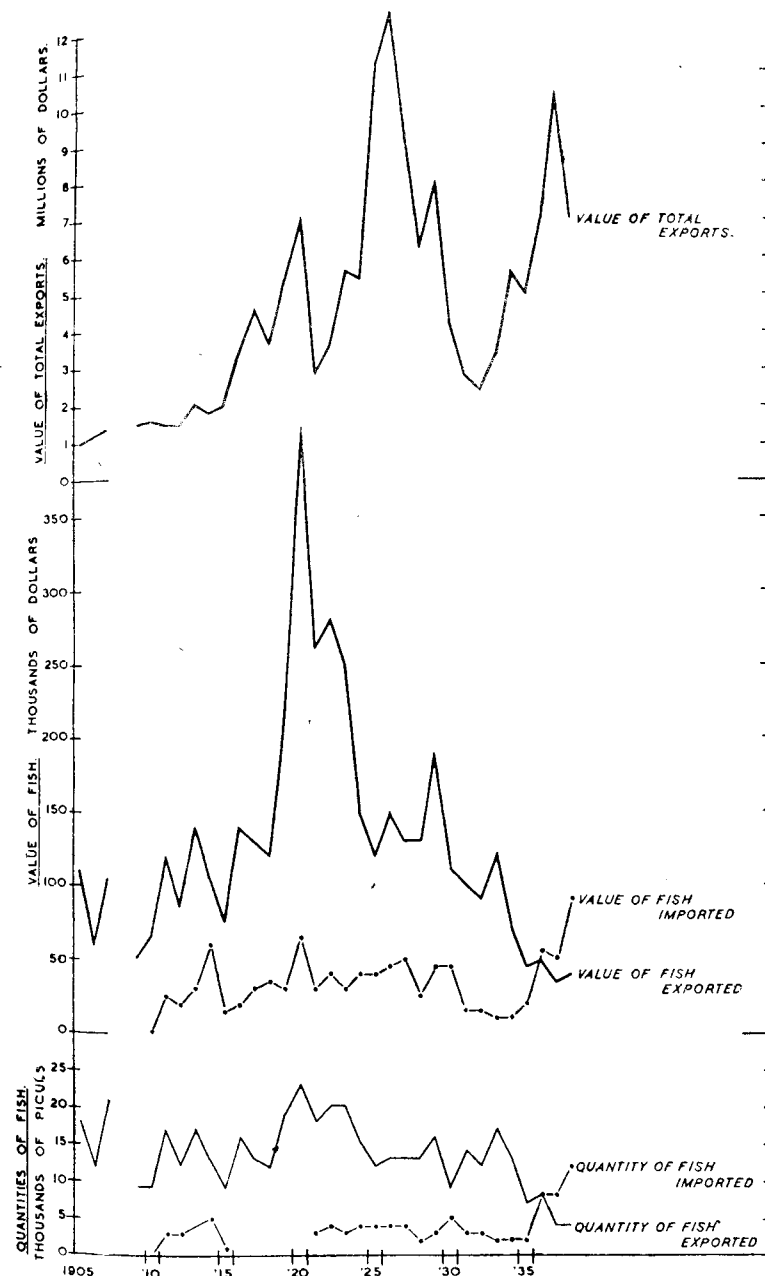


Fig. 5.—Comparison of quantities and values of fish annually exported from and imported into Kelantan, with annual value of total exports 1905-38.

was approximately \$25 million. And in recent years, while the export of fish from Kelantan declined considerably, that from Trengganu maintained itself. In the three years 1936-8, the last for which comparison is available, the average annual value of the fish exported from Kelantan was just over \$42,000, while from Trengganu it was about fifteen times as much. In 1938 no details of the actual quantity and value of exports are given in the *Kelantan Annual Report*. But as there is no mention of fish in a list of more important variations in the value of the different types of articles exported it may be concluded that the export of fish was roughly as in 1938. In 1939 the total amount of fish exported from Trengganu (dried, salted and otherwise cured) was 104,125 piculs (6,198 tons), valued at \$694,151. In addition, 10,870 piculs of *bêlanchan* (shrimp paste) valued at \$108,697, and 6,435 piculs of other marine produce, valued at \$55,393, were also exported, making a total of all marine produce of 7,223 tons, of a value of \$858,241.¹

The difference in the importance of the export trade in fish to the two States is shown by the fact that during the last thirty years the highest place ever occupied by fish in the total export trade of Kelantan was 14 per cent. (in 1914) and the proportion has fallen until it is now less than 1 per cent. (approximately 0.9 per cent. for 1936-8.) (See Fig. 5). In Trengganu the highest place taken by fish in the export trade in the sixteen years since fairly reliable statistics have been available was 28½ per cent. (in A.H. 1349; 1930-1 A.D.). Even recently, when the export of iron-ore soared, the export of fish still held a respectable place, representing 6.3 per cent. of total exports in 1939. In Kelantan, during the period of thirty years' record, the export value of fish has always been exceeded by that of copra and of areca-nut, and since 1931, by that of rubber. And irregularly it has been exceeded by the value of cattle exported, while since 1936 it has been exceeded also by the value of manganese ore exported.

FISHING POPULATION AND OUTPUT

No accurate figures are available of the total supply of labour engaged in fishing in Kelantan and Trengganu. The total

¹ I am indebted for these figures to the "Annual Report of the Customs, Excise and Fisheries and Marine Departments, Trengganu, for the year 1939", made available to me through the courtesy of Dato' Jaya Perkasa, M.B.E., and Mr. L. R. Birkett-Smith.

population directly dependent upon fishing production for a livelihood, and the number of persons engaged in the secondary processes of the industry, in fish-trading, the transport of fish and the cleaning and curing of it are also not accurately known. It is possible, however, to gain an approximate idea of the figures in the first two categories.

The Census of Malaya for 1931 gives the number of Malays engaged in fishing as 6,224 males and 377 females in Kelantan, and 9,838 males and 366 females in Trengganu. (The number of non-Malays engaged in this occupation is given as only 26 in Kelantan and 203 in Trengganu.) If we assume that since then there has been an increase in the Malay fishing population in proportion to the increase in the Malay population as a whole in the two States, the totals would be 6,750 for Kelantan (on a 1939 basis), and 11,570 for Trengganu (on a 1938 basis). These figures can be only approximate since the original Census could not rely upon any rigid distinction between those primarily fisherfolk and those primarily agriculturalists. But an estimate may also be made from another angle, based upon possibilities of using the available equipment. By taking the numbers of nets and boats in each State and multiplying the figures by the normal number of men required to operate each type, with allowance for the fact that full employment of the equipment is not always secured, a rough check upon the Census can be obtained. The detailed calculations, which involve estimates of the floating margin of labour moving from one type of equipment to another, estimates of the number of boats used primarily for other purposes than fishing, etc., need not be given here. But the results give an approximate labour supply of 6,500 men in Kelantan and 10,000 in Trengganu. These latter estimates, which I have calculated on a conservative basis, corroborate fairly closely the inferences from the Census. In the *Annual Report* for Trengganu for 1936 it was estimated that not less than 15,000 Malays in that State were fishermen. Unfortunately the basis of the estimate was not given, and the statement was not repeated in subsequent years. It would seem that this figure is rather high, since with a total of about 3,300 fishing-boats in the State this would mean that practically every boat was in full employment simultaneously, with an average crew of nearly 5 men. And while the greater concentration on certain types of fishing in Trengganu does need large crews for some boats, there are also a large number of small craft with a low average

crew. A figure of 15,000 fishermen would imply either there is in Trengganu an acute shortage of capital equipment (which observation does not suggest) or more probably, that this figure were included a considerable number of men whose primary occupation was not fishing, but who occasionally participated in it.

To estimate the total population directly dependent upon the primary processes of fishing production involves still further approximation. But in the sample fishing area in which our census was taken the ratio of all persons counted to adult and adolescent males of effective working age was 3.44 to 1. The sample studied covered only about one-twentieth of the estimated total of Kelantan fishermen, but in default of other material it may be assumed that this ratio applies to the Kelantan and Trengganu fishing areas as a whole. On this basis the total Kelantan population of Malaya primarily engaged in fishing, their wives and their dependents, is about 22,000, and that of Trengganu is about 38,500 people, a total of approximately 60,000 for both States, or roughly about 10 per cent. of the total population.

Calculation of the physical volume of production in the two States is subject to a considerable margin of error. But there are several indirect methods of estimation. For Kelantan these are based on monthly returns sent in by some fishermen to the Superintendent of Marine and Customs, in Kota Bharu; on estimated consumption together with amounts exported; and on the results from the sample area studied intensively. My estimates indicate that the annual fish output of the State can be put between 6,000 and 9,000 tons, with a value of between \$500,000 and \$750,000 at 1940 wholesale prices. Since the estimates have been deliberately conservative, the higher figures are the more likely. For Trengganu the only material available is the export figures, but it is known that these represent a very large proportion of the total production. For the three years 1937-9 the average annual export of cured fish and shrimp paste was nearly exactly 6,000 tons, the average value being nearly \$734,000. Converting this weight into an equivalent weight of wet fish, of about 12,000 tons, and adding the quantity estimated to be consumed on the internal market, on a minimum basis at least 2,000 tons, the annual output must total on the average about 14,000 tons, with a total value of a million dollars or so.

The possible error in these calculations is too great to allow

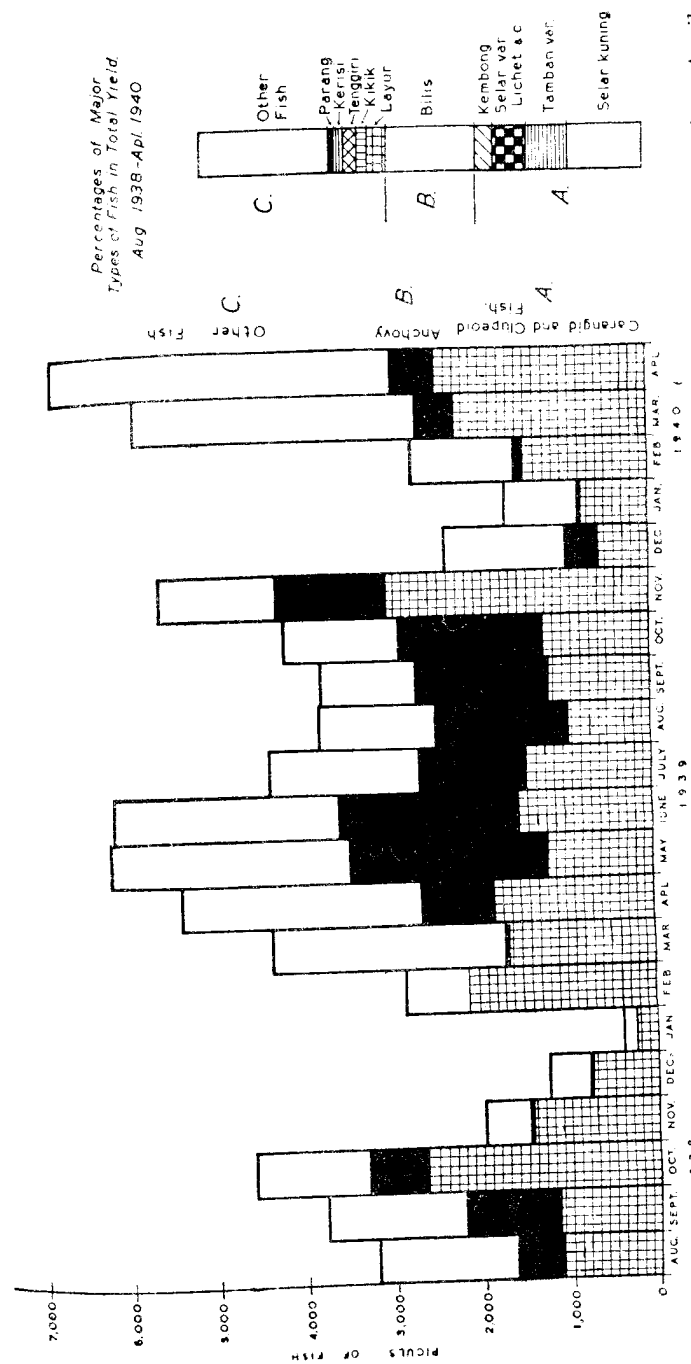


FIG. 6.—Output of Fishing in Kelantan. Monthly variation in quantities of fish obtained, August 1938 to April 1940. (Quantities in piculs; 1 picul equals 133½ lbs.) English equivalents of Malay fish names will be found in Appendix VIII.

of any significant comparison of output per head of fish population in the two States. It is possible that output per head in Trengganu is lower than in Kelantan as far as values are concerned. In Trengganu the Chinese fish-curers are often able to buy at preferential rates from the fishermen because of their controlling interest in the boats and gear, and prices paid for fish to be cured in bulk tend to be lower than those for fish to be consumed fresh. (The proportion of fish cured is much higher in Trengganu than in Kelantan.)

However, taking the two States together it is a fair conclusion that their total output is in the region of 20,000 to 23,000 tons of fish per annum, of a value of approximately a million and a half to a million and three-quarter dollars. Average output per head of fishermen is probably about $1\frac{1}{2}$ tons of fish per annum and average cash income about \$100 per annum, or nearly \$2 per week. (It must be remembered, however, that many of the fishermen have supplementary sources of income, from rice and vegetable cultivation, preparation of copra, areca nut and rubber.)

These estimates of output are essentially broad averages. Over any short period output is extremely variable. Details of seasonal fluctuations and the proportions of the different types of fish caught at different times are given in Chapter IV. For Kelantan and Trengganu as a whole such material is scanty since nearly all the published data relate to the export trade. The statistics of monthly output compiled on the initiative of the Fisheries Department of the Straits Settlements and Federated Malay States do, however, give some guide. Those which were made available to me for Kelantan from August 1938 to April 1940, though admittedly not full records of the *volume* of output, because many fishermen fail to fill in the forms supplied, are fairly reliable as an indication of the *variation* in monthly output. The results, some of which are illustrated in Fig. 6, show clearly two points. They indicate a heavy fall in output at the turn of the year, especially in December and January when the north-east monsoon blocks sea fishing, and a peak three or four months later. They indicate also that whereas towards the monsoon period the carangid and clupeid fish (from lift-nets and gill-nets) provide a high proportion of the output, towards the middle of the year anchovy (from seines) and other fish (from seines, drift-nets and other gear) come more to the fore. For anchovy, in particular, the seine requires quiet weather. The section represented by "other fish" in the monthly columns of the diagram is very

large in some cases. This category includes over a score of kinds, the proportion of each being usually too small to be graphed separately; in no case except that of *layur*, a scabbard fish taken in the seine, does any of them comprise more than 10 per cent. of the total production in any one month. Lift-nets and seines provide the great bulk of the output. It is unfortunate that the material available did not cover a longer period, to enable general trends to be more clearly freed, but the seasonal picture presented is fairly clear, and would appear to be typical.

EQUIPMENT—DETAILS OF TYPES AND COST

A considerable variety of equipment is used in the Kelantan and Trengganu fishing industry, and in the aggregate its capital value is quite large. This raises questions as to the source of the capital, and the level of investment by individuals, which will be taken up in the later analysis, particularly in that of the sample fishing community. Here it will be sufficient to consider the broad facts, with some description of the main types and their cost. A small amount of material on this subject has been published, and registers of boats and nets were kept locally, in somewhat unsystematic form. (See Appendix III.) But no estimates of the total value of the equipment had been made, nor was there any investigation of how its finance was arranged. In the last three sections of this chapter, therefore, I put forward some material on these topics, and indicate briefly some of the differences between Kelantan and Trengganu in these respects.

Boat-Types

Practically all fishing in Kelantan and Trengganu depends upon the use of boats, so that the aim of every fisherman is to possess at least one, and the lack of a boat is a fair indication that a man stands rather low in the economic scale. Nearly all the craft are individually owned. But the complex transactions involved in their sale, or in the raising of loans for their purchase, mean that the return from them is spread much more widely through the community than an investigator at first imagines (see Chapter V). Moreover, many boats are captained and kept up by men who are not the owners of them, and this is also reflected in the scheme of distribution of the returns from fishing. Again, the Malay of the east coast is a keen boat-trader, and this practice is significant in the general process of capital formation; it

would be an error to think, as one might do, that one of the objects of a fisherman, having got a boat, is to keep that part of his craft indefinitely.

The design of the boats, and the technique of handling associated with this, are important in considering the general conditions of the industry. The craft are small. The boats are only about 50 ft. overall, including projecting bow-piece and stern-piece, and the majority are about 30 ft. overall. They are comparatively narrow, with shallow draught—a craft has only about 7 ft. beam, with a draught of less than 2 ft. and smaller craft correspond. The size of the boats is determined partly by the limited capital available, partly by the requirements of much inshore fishing but partly also by the need to work away from exposed beaches, necessitating haulage above the tide-line every evening. (Large heavy craft of the *pèrahu* type normally use only the harbours in the river mouths.) The craft have little freeboard—that of a boat 30 ft. overall, 5 ft. beam and 2 ft. 6 in. deep in the centre was only 15 in. when empty and 7 in. when loaded.

Despite their small size and low freeboard, the boats tend to carry a large press of sail, with the result that not infrequently they heel and fill in a gust of wind, or are pooped by a following sea. This is most apt to happen to a boat which has the special function of taking the catch of fish in to market, as it runs under insufficiently shortened sail. Such a craft does not normally sink altogether; it is towed in to shore awash, but the catch is usually lost, together with floorboards and other gear. Again, in making the beach through a heavy surf, when sails and spars have been stowed and the boat is being steered in, a capsize sometimes occurs as the steersman attempts to ride a breaking wave. Much of the catch is often lost here also, and even when fish is recovered by enthusiastic helpers who rush out, by custom the boatmen get is their perquisite to keep or sell as they wish; the fish they have lost all right to it. Such accidents usually take place in the rough weather just before and after the monsoon. Under such conditions also it is not uncommon for a boat to overturn on the way out through the surf in the early morning. This usually prevents it from going out again that day, since loose gear such as floorboards, ropes and anchor stones (Fig. 9a) are liable to be lost and the boxes of the crew, containing their food and their smoking and betel materials, get sodden. Loss of gear, etc., is not important; the crew can get more from their

from their friends. But loss of gear is more serious; if a boat is one of a net group this may immobilize the whole group for the day. The point of these remarks is that the



Kōlek buatan barat, Kōlek (Kel.).

Pèrahu buatan barat (Tr.).



Pèrahu payang.

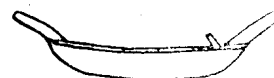


Kōlek lichung, Lichung (Kel.).

Kōlek (Tr.).



Pèngail, Pèrail.



Kueh (Kel. and Tr.).

Kōlek kueh (Tr.).

Kueh kèpalo panjang (Kel.).



Kueh buteh ketere (Kel.).

Kueh jambu golok (Kemaman).

Lichung (South Tr.).

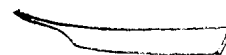


Kueh kèchil (Kel. and Tr.).

Lichung (South Tr.).



Gèlibat.



Bedar, Ano' bedar.

7.—Boat types in Kelantan and Trengganu. The prow faces left in each sketch; each boat is approximately to the same scale, about 1 in. to 20 ft.

Malays, though expert seamen enough, are tempted by economic pressure to take risks with their craft and suffer loss in consequence.

At least a dozen different types of fishing-boat are in use on the east coast. A difficulty in identifying them from literature is that the names commonly employed are shared in some cases by different types; a name used for one type in the north, for instance, may be applied to a different type in the south, since they have no close European equivalents, it is necessary

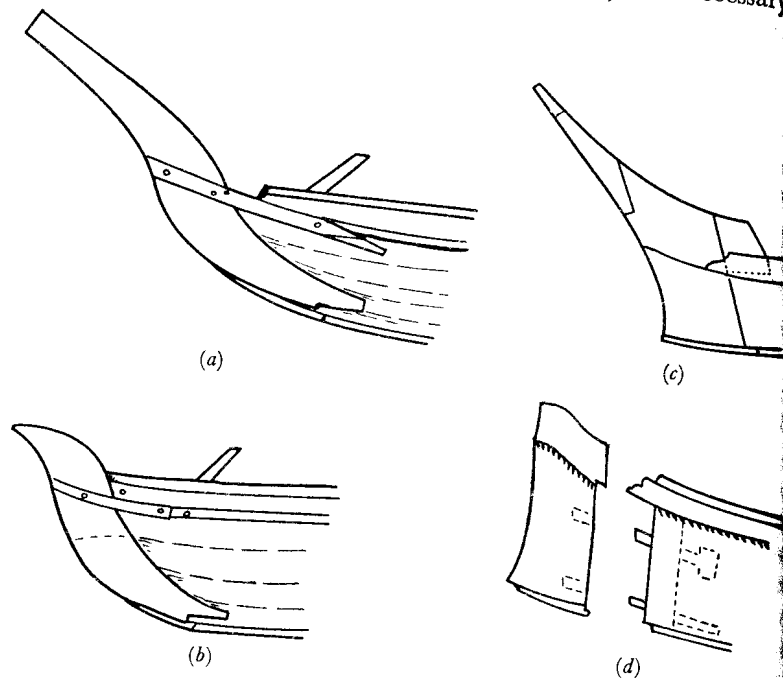


FIG. 8.—Prow and Stern Pieces (*kepalo*) of some Fishing-boats:

- (a) *Kueh kepalo panjang* (stern).
- (b) *Kueh buteh ketere* (stern).
- (c) *Përahu buatan barat* (prow).
- (d) *Përahu buatan barat* (monsoon attachment).

to speak of them by their Malay names, however unfamiliar these may be to English readers. The simplest method of cataloguing them is to present a group of silhouettes (Fig. 7), since the chief identificatory signs, the form of bow and stern (Fig. 8), are fairly constant. The scale given is only approximate for all types since there are no definite standards of length; individual builders work to the dimensions they fancy best. The craft are all carved-built, the planks being secured by wooden pegs or less frequently

by copper nails. What the silhouettes cannot indicate are the bright colours in which many of them are painted, and which make them a picturesque sight when drawn up on the long open beaches (Plates IIA, VIB) or as a fleet under sail.

On the whole the different types of boats have specialized functions. The *përahu payang*, as its name suggests, is used primarily for work with the large purse seine known as *pukat payang*. The *kolek buatan barat* is the boat now most favoured, especially in Kelantan, for work with lift-net (*pukat takur*) and mackerel net (*pukat dalam*). The large *kueh* and *lichung* are used with most large nets; the small *kueh* concentrate mainly on hand-line fishing and work with small drift-net (*pukat tēgēlang*). But this specialization is not absolute. In the off season for work with the larger nets almost any type of craft will go out hand-line fishing, though it is recognized that the *kolek buatan barat* and the large *kueh* are less suitable for this. In fishing with hand-lines there is a general tendency for each boat, irrespective of size, to get much the same amount of catch, so those with a larger crew tend to obtain a smaller proportionate return per man for a day's fishing.

The distribution of the various types of boats is not at all even throughout the different fishing areas. (Table 17 shows this for Trengganu.) This is due partly to concentration on different types of production in the different areas, partly to inequalities in the possession of capital for boat investment, but partly also to definite local preferences. *Përahu payang*, the craft of most specialized function, are found only where the *pukat payang* is used, mainly in the villages north of Tumpat, towards the Patani border; in Besut; and at Kuala Trengganu, Dungun and Kemaman. *Kueh* of various types, on the other hand, are in use almost everywhere in Kelantan and Trengganu, because of their general utility. But *bedar*, *ano' bedar*, and *sēkochi* are types much more favoured in the south than in the north, while the *gēlibat* rarely appears north of the Pahang border.

Of the larger craft the most marked preferences are shown in the case of the *kolek buatan barat*. At Tumpat near the Kelantan River mouth, nearly all the larger boats are of this type, built locally. At Kemerak, a little south of this, there are only about half a dozen of these craft, and nearly all large boats are *kolek lichung*. The reason given for this was that since the beach was rather steep they were easier to haul up than the *buatan barat*. Comparative cost may also have been a factor, since the community was not wealthy, and the *lichung*, many of them in older

condition, were cheaper. In the Perupok area, still farther to the south, an interesting situation obtains. Formerly, it is stated, all the craft were *lichung* and large *kueh*; but by 1940 many of these had been replaced by *kolek buatan barat* for lift work. It was noticeable that this process had gone much further in Perupok, where the more wealthy and successful fishermen were, than in the poorer village of Pantai Damat. The relative advantages of the three types of craft were put thus: in good weather the *kolek buatan barat*, with its straight stem and long keel, is much faster, both in paddling and in sailing. The *lichung*, on the other hand, with its half-moon contour, lifts to every wave and loses way, while the *buatan barat* goes straight through. The *kueh* is "number two" in the list of preferences for fine weather. "It bears up a little as against the *lichung*." In bad weather, however, the position is reversed. Here the *lichung* lifts over the waves, while the stiffer *buatan barat* tends to take them inboard. And in surf off the beach the latter is more liable to capsize; for this reason stubbier prow and stern pieces are substituted in the monsoon (Fig. 8), while the *lichung* needs no alteration. The *kueh* in bad weather stands intermediate between the other two types. During the monsoon, then, many *buatan barat* are laid up, while *lichung* and *kueh* can take more advantage of a comparative lull.

It was said in the Perupok area that the *kolek buatan barat*, as its name implies (*kolek* "of northern building"), was originally introduced from Patani, and came in in numbers during the last few years. Certainly the process of replacement by them was going on while I was there, and some men were using *buatan barat* they had bought in Patani. (War restrictions in 1940 made it almost impossible to import these craft.) But in the last few years Kelantan boat-builders, particularly at Tumpat, have been constructing them. Those of Tumpat are well-liked, but a criticism was passed on those built by a man of Paya Mengkuang. It was agreed that his boats were well-built and well ornamented, and of good timber, but as against a Patani-built boat they were high enough at bow and stern but too low on the quarter, so that the break of a wave was apt to come inboard.

At Pantai Bharu, to the south of Perupok, the large craft were mostly *lichung*; this was explained by the comparative absence of capital. At Kuala Besut, over the border, in Trengganu, *buatan barat* were plentiful. It was stated, as at Perupok, that they originated in the north, but a man about



VIA MENDING

The nets are spread out to dry on the upper beach, and mended in the afternoon. A pandanus-leaf cover protects

MACKEREL NETS

the nets from rain. In the background are the bamboo racks for drying lift-nets.

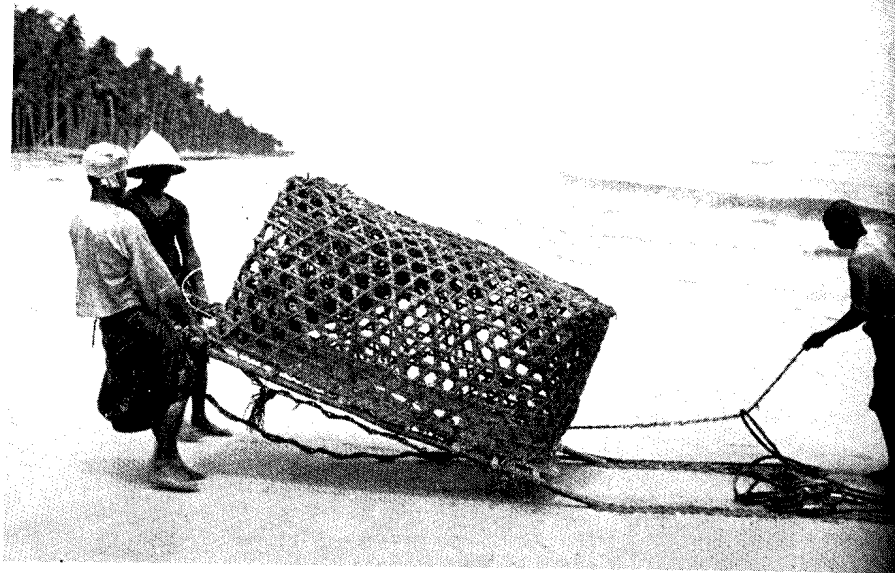


VIB CA

Towards the house of the master fisherman for protection.

LIFT-NET FOR STORAGE

The crew bear the heavy net from the drying rack to the house of the master fisherman for protection.



VIIA LIFTING OUT A FISH-TRAP
This trap, of heavy rattan, is of a type used to take snapper (*ikan mela* *Lutianus*).



VIIIB THE STEERSMAN OF A SMALL SAILING CRAFT

In his right hand he holds the sheet and in his left hand the steering paddle kept against the gunwale by the pressure of the water.

50 years old said that they had been in Besut for longer than he could remember. He argued cogently that their recent introduction into Perupok was not because they had been unknown before, but because the Perupok folk had no river mouth, and the *lichung* with its rounded stem was more easy to haul up on the open beach. Only recently had the Perupok men overcome their objection to the greater trouble of handling the *buatan barat*. At Ayer Tawar, a few miles south of Kuala Besut, *lichung* only were in use, and here the reason given was again the difficulty of hauling up *buatan barat* on the steep beach. Below Besut, along practically the whole length of the Trengganu coast as far as Kemaman, there are practically no *pěrahu buatan barat*. The reason here cannot be steepness of beaches, for there are a number of river mouths offering easy facilities; it cannot be lack of capital either, for a number of the villages are comparatively wealthy. One reason is probably preference for the all-weather qualities of the *lichung*. At Merang it was definitely stated that "*kolek*", i.e. *lichung*, were preferred to *buatan barat* because in sailing they were steadier. At Kemaman, however, *pěrahu buatan barat* are found again. They are there called *lohor*, the term used for them in Pahang, and are used for fishing with the smaller *pukat payang* and with seine nets. They are not built locally, though there is much building of *pěrahu payang*, *kolek* and *kueh*; they are imported either from Beserah in Pahang, or from Kelantan.

This brief analysis of boat-types is of more than technical interest. It shows that a wide range of types is available to the east coast fisherman. It shows also that for a given end alternative types are usually possible and that, apart from the limitations of capital, choice is exercised partly on a basis of local usage, but largely on the grounds of relative functional advantages of each type.

The æsthetic criterion is not an important influence in choice of types. But in Besut the absence of *kueh buteh ketere* (with hooked "nose") was explained by one man as being due to the bow shape not being "pretty". And at Kuala Marang the much higher price of a *kolek* (*lichung*) than that of a *kueh* of nearly the same length was explained by saying that the former was much desired for the shape of its bow and stern pieces. The æsthetic factor enters definitely in the admiration given generally to these bow and stern pieces. It is seen also in the decoration of all types of craft in bright colours—as many as half a dozen being used on one boat; in the occasional painting of birds or

mythological animals on prow and stern; and particularly the carving and painting of the accessories such as *bangar*, *sang* and *chaping*. The two former, crutches to hold masts and inboard when taken down, are often highly sculptured in floral or bird designs, and even occasionally in the form of a figure from the local shadow-play. Such carving is done by specialists and may cost up to \$10 extra, a pure concession to love ornament. (Plate XIVB shows a well-carved *bangar*.)

Cost of Fishing-boats

I collected data on this subject along the Kelantan coast from Tumpat to Melawi, and at practically every fishing centre of importance on the Trengganu coast. Since there is a great deal of trading in boats all along the coast, prices tend to an equilibrium; the local differences in price for the same type of new craft are due primarily to preferences for different sizes and for quality of timber and workmanship. But a large number of boats are bought second-hand, especially by poorer communities. Details of the various types were as follows (in 1939-40):

Pèrahu payang. This is the most expensive type, costing from \$300 to \$500 new, according to size; second-hand ones often sell at \$150 to \$200.

Kolek buatan barat. New, the price ranges normally between \$200 and \$300. The average new price of fifteen such craft bought between 1935 and 1940 was approximately \$250. After 1939, when their importation from Patani to Kelantan was forbidden, their price rose slightly. Of twenty-three second-hand boats of various ages the average purchase price was \$155 each, the range varying from \$50 for a very old boat to \$250 for one only a year old.

Kolek (lichung). In Trengganu large new craft of this type used for seine-net work cost from \$250 (for a boat with an overall length of about 35 ft.) to \$350 or even \$400. Smaller craft cost proportionately less, and those used for lift-net work cost between \$120 and \$200 new. The poor village of Ayer Tawar bought boats of this last type second-hand for \$50 to \$100. In Kelantan the displacement of these craft by *buatan barat* in recent years has meant that only second-hand ones are acquired, and their rate of economic as against technical depreciation has been heavy. Their prices in the present condition range between \$20 and \$90 according to age. Small old *lichung* used for line fishing in Kelantan change hands at \$10 to \$20.

Pèngail. This is a modification of the *kolek (lichung)*, and costs from about \$170 to \$200 new.

Kueh. Since *kueh* can be of almost any size there is great variation in their price. A common large type, from 27 to 30 ft. long, costs from \$100 to \$150 new, but larger ones cost from \$150 to \$200. An exceptionally large one at Kemaman cost \$245. Second-hand, the common type fetches from \$50 to \$100, but in Kelantan these boats have suffered somewhat from the competition of the *buatan barat*. Medium *kueh*, with the hooked short prow, cost in the region of \$100 new, and small *kueh*, about 17 to 20 ft. long, cost new about \$50. Such craft when old are bought cheaply, from about \$10 upwards. The average price of ten second-hand small *kueh* was \$22.50 apiece.

Gèlibat (or dèlibat). This, a modified form of small *kueh* common at Kuantan in Pahang, costs there about \$40 new.

Bedar. Sea-going vessels of this name are very large, but the river-mouth and fishing-craft much used in Besut and Trengganu are of the size of medium and small *kueh*. *Bedar* proper, about 23 ft. long overall, cost about \$120 new; smaller *ano' bedar* used as passenger ferries cost \$45 to \$50.

Jalurur and sèkochi. These medium-sized craft used in Pahang cost about \$150 new. But smaller *sèkochi* cost only about \$50.

The implications of this material for capital formation and investment are discussed in Chapter V. But it is evident that there is a wide range of opportunities for the acquisition of capital equipment by these fishermen. Owing to specialization in building, some types may be acquired a little more cheaply on one part of the coast than on another, as, for instance, *kueh* at Kuala Trengganu, or *kolek buatan barat* in the north of Kelantan (from Siam). But from comparison of prices along the coast it seems that the difference is small.

Types and Cost of Nets

More than a dozen different types of nets, with several types of trap in addition, are in common use by the fishermen of Kelantan and Trengganu. These nets vary greatly in size, cost, labour required in operation, and the kinds of fish they catch. Though most belong to well-known and widespread types, their variations are such that it is not easy to differentiate them by simple English labels, so in this book they will frequently be referred to by their Malay names. At times, however, to avoid overburdening the account, I have used descriptive English

terms, which will be understood to apply to the types specified below, though the terms could include other types as well.

The main types of nets, with some details of their cost and use are as follows¹—all costs being given as in 1940:

Pukat Tarek: This, the commonest type of net in both States, is a seine of about 1 in. mesh, up to 200 fathoms long and 4 fathoms deep, made of cotton thread. (When the term "seine" is used in the text of this book, this net is meant.) It is normally operated from a single large boat, and is commonly hauled up on to the beach to take the catch. It takes many types of fish, but a variety with a very small mesh is used particularly for anchovy. These nets vary considerably in cost, according to size. In most areas of Trengganu from \$300 to \$400 was a normal price in 1940, though small ones costing from \$150 upwards are also used. In Kelantan these nets are apt to be larger, better and dearer than in Trengganu; some may cost \$1,000 or even more when new. In some areas of Trengganu it is a common practice to make up seines from old nets of other types, from lift-nets at Tanjong Kampong (Kuala Trengganu), or from *pukat payang* at Kuala Besut.

Another variant of this type of net is the *pukat tarek sungai*, a river seine, smaller and less costly than that used at sea.

Pukat Payang: This is a large net up to 200 fathoms long and 4 fathoms deep, used for taking pelagic fish of many types, and operated from a single large boat. The net is purse-shaped, the central part being made of cotton thread and having a mesh of about ½ in.; the mesh increases out to the wings, which are of ramie fibre, with about 1 ft. (or 1 cubit) mesh at the ends. The wings serve primarily as a guard to prevent the fish from escaping as they move towards the centre "belly", but occasionally a shark or saw-fish is caught in them. *Pukat payang*, like ordinary seines, are very variable in size and cost. There are two major variants, a smaller one costing about \$100 and a larger one costing from about \$250 to \$500 new. The smaller nets are worked from a *kolek* (*lichung*) type of boat, the larger ones from *pêrahu payang*. The latter craft has a crew of 15–18 men.

Pukat Pêtarām: This is essentially of the same type as the *pukat payang*, and may even be a smaller version of that net, though used in somewhat different conditions. Some of them, of very small mesh, cost only about \$30, since they are cut down from second-hand large sea-fishing nets. The fibre wings are then discarded and the ordinary large outside mesh of the original net is used for the wings of the re-made net. The *pukat pêtarām* is used at sea, but in the monsoon season, when the bar across a river-mouth is high, it is used in the estuary, taking *kikek*, prawns and rays, the last being the most lucrative catch. Under the name of *pukat kikek* this net is not approved by the

¹ A description of six of the main types of the nets used in Trengganu, with a brief account of their use and the types of fish taken by them is given by C. C. Brown, *op. cit.* My own observations in Trengganu were supplemented by this and by a short memorandum (in Malay) kindly supplied to me by Dato' Jaya Perkasa.

Trengganu authorities, since it is thought to hold too many small fry, but as a *pukat pêtarām* (possibly with a slightly larger central mesh) it is passed. According to the Kuala Trengganu fishermen the *pukat chang* used in southern waters, mainly by Chinese, is a variety of *pukat payang* akin to this, but with cords instead of meshed wings.

Pukat Tangkul: This net, termed *takur* (or *takul*) in Kelantan and Trengganu dialect, is a type of lift-net, the fish being held in the belly as the net is raised. (The term "lift-net" used in the text will denote this common type.) The net, about 150 feet square, and of graduated mesh (Fig. 16), is made of cotton thread. It takes five boats to work, and is operated from ten to twenty miles out to sea, always in connection with fixed coco-nut frond lures known as *unjang*. The fish taken are primarily types of horse-mackerel (*Carangidae*), though at Kuala Marang and Batu Rakit, in Trengganu, I was told that pomfret are also taken by it, which is unusual on this coast. The cost and working of this net are described in detail for Kelantan in later chapters. The price in Trengganu, approximately \$200, is much the same as there. A smaller type known as *pukat takur kèchil*, costing about half the price and worked from smaller boats, is also occasionally used in Kelantan.

Pukat Dalam: This is a large gill-net, of 1 in. mesh (knot to knot), 100 to 200 fathoms or more in length and 7 to 9 fathoms deep. Because of its depth it may be conveniently referred to as a "deep gill-net" or from the predominant fish it takes as the "mackerel net". It is made of cotton thread, and is composed of sections, termed in Kelantan *uta*, and at Kuala Trengganu at least, *bidang*.¹ A number of sections joined together form a circuit (*likung*). In Kelantan about 20 sections form a circuit, each section costing about \$10 new. In Trengganu a smaller number of sections is used, and their cost is rather higher, though a complete circuit of about 120 fathoms costs about the same figure of \$200.

This net is used either by day or by night, the latter being most favoured from the chance of greater profit. By day, two boats are used in combination and the fish taken are commonly jewfish and pomfret in a mixed catch. By night, a single boat is used, with a triangular float known as *nong* (in Kelantan) to mark the end of the net for completion of the circle. Here the fish taken are primarily scomber (a type of mackerel) and a carangid known as *sêlar gilek*; both appear in large shoals intermittently in dark phases of the moon.

Pukat Hanyut: This is a drift-net of fairly large mesh, made of ramie fibre, and composed of six to eight sections. Each section is about 25 fathoms long and 4 fathoms deep and costs about \$14 to \$16. In Trengganu, however, some of these nets are made of cotton thread at the foot, and at Kuala Marang sometimes the entire net is made of thread, the high cost of ramie being given as a reason. This net is used from a single large boat at night, with a crew of about six men. It takes a variety of large and medium-sized fish, including pomfret, jewfish, shark, dog-fish, dorab, and also rays.

There are several types of drift-net on this coast, but when the

¹ *Bidang* is ordinarily used in Kelantan as the classifying word when numbers of nets are mentioned, as *dua bidang pukat*, two nets.

term is used without qualification in this book, it is *pukat hanyut* is meant.

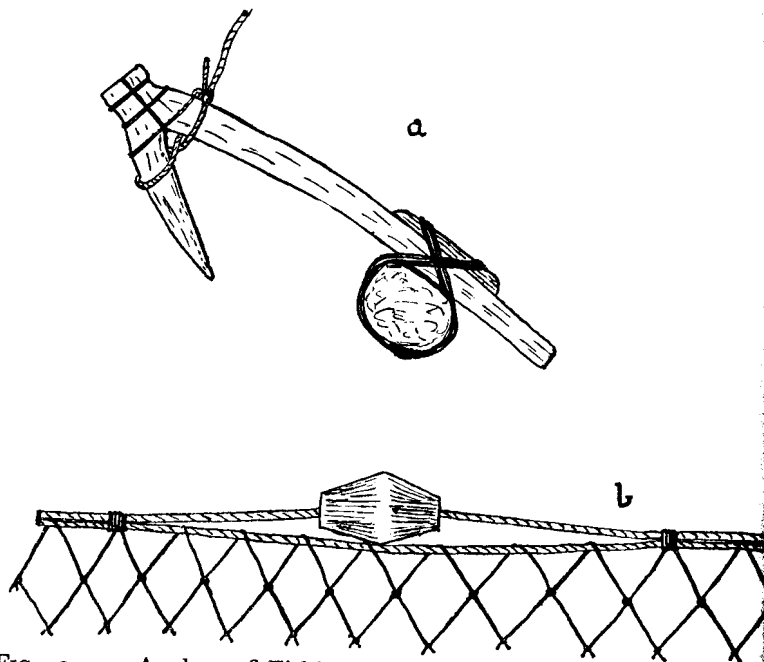


FIG. 9.—a. Anchor of Fishing-boat. b. Float attachment of small Drift-net (*Pukat tēgēlang*).

Pukat Talang : This is also a drift-net, akin to *pukat hanyut*, but with a larger mesh, to take primarily the *talang*, a fish of the horse mackerel type about two to three feet in length.

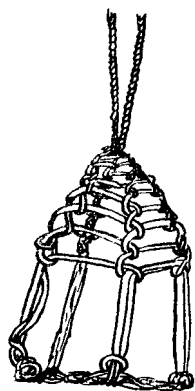


FIG. 10.—Rattan Sachet for stone sinker of small Drift-net.

Pukat Tēggēlam (*pukat tēgēlang* in the local dialect): This is a drift-net also, smaller in size and in mesh than the *pukat hanyut*, undyed, and made of cotton thread normally, though in Trengganu ramie fibre is sometimes used. This net has wooden floats and is weighted with small stones neatly enclosed in wicker sachets, which submerge it well below the surface; in contrast to the *pukat hanyut* it may therefore be referred to as the "submerged drift-net", or "small drift-net". It is up to 45 fathoms or so long, about 3 fathoms deep, with a mesh of the breadth of three fingers (Figs. 9b, 10).

It is frequently worked by a single man, but often two or three men lash their nets together in sections of a larger unit. The fishing is normally done a mile or so from shore, in a comparatively small boat. The net costs in Kelantan \$10 to \$20

new, but in Trengganu, where it may be much larger, it may cost up to \$50. The *pukat tēgēlang* is the general utility net of the small fisherman or crew-man of the larger net groups. With it he takes many types of fish in the shore waters, varying according to season and including jewfish of several kinds, small dorab, cat-fish, shad, a herring known as *pērūpok*, and also prawns. If specialized for the last, it is known as *pukat udang*, prawn net. A drift-net of similar type, but specially adapted for the taking of cat-fish (*ikan duri*) is known as *pukat duri*.

Pukat Sodu : This is a purse-net of the V-shaped *pukat payang* type, but made of cotton thread. It is used in conjunction with a coco-nut frond lure and with three boats, somewhat after the fashion of the *pukat takur*. Its primary purpose is the taking of pomfret (*bawal*), and the *pukat bawal*, though listed as a separate type in the Trengganu net register, may be essentially the same. At Kuantan in Pahang, however, other fish are taken by it as well. The cost is usually between \$100 and \$150 new, for nets about 20 fathoms long, but larger ones may cost up to \$250.

Pukat Tanggut : This net, of the purse type, is worked from a single boat with a crew of three or four men, and takes a variety of fish, but especially pomfret. Its cost is about \$80 new.

Jaring : This is a gill-net, varying greatly in size and use, but commonly employed in Kelantan and Trengganu waters as a *jaring tamban*, a drift-net about 30 fathoms long for "sprats" and other small clupeid fish. In this form it is made of cotton thread, of fine construction and small mesh, and is not dyed—in contrast to most of the other nets. It is operated by day from one or two boats, each with a crew of about four men. The net costs about \$40 new. A small type of this net is also used by dorab line fishers to obtain their bait, and then costs only a few dollars.

Pukat Todak : This is a net adapted for taking small garfish, and has a mesh of about one inch. Only very few of these nets are in operation on the Kelantan-Trengganu coast, and their cost is small.

Takur Baring : In Kelantan this is a small push-net used for taking shrimps (*udang baring*) in water just off the beach; it is operated by two or four men (or even with a woman included) working waist-deep or shoulder-deep. Its cost is about \$20 new. In Trengganu there is a larger variety called by the same name, but operated from a boat at sea in depths up to seven fathoms. Such a net costs about \$40 at the present time, though at Kuala Trengganu it used to cost \$50 or so before many men had learnt the art—there was formerly only one man on the Tanjong who made them.

In addition to the nets described, all of which with the exception of the *takur baring* of Kelantan are used from boats at sea, there are two types of hand-net which are very popular, especially in the monsoon season when the boats cannot put out. One is the *jala*, common in all parts of Malaya. This is a circular casting-net weighted by heavy rings; it is flung in a spreading

sweep with a beautiful motion to cover a fish or a shoal in shallow water. (I once counted 505 small fish taken in one cast.) The major expense in this net is the cost of the tin rings, which take about 9 lb. of metal, costing about \$4, with 35 cents for casting them. The other type is the *saup* or *sodok*, a triangular net with a long handle, used out in the surf in the monsoon season to scoop up grey mullet. The cost of this net is small, being about a dollar. Apart from nets there are various types of fish traps (*bélat*) of which the largest is the *kelong*, a very elaborate erection of stakes leading the fish in to the central enclosure. The coast of Kelantan and Trengganu, because of its exposure, is not favourable to the use of these *kelong*, but in recent years several have been erected off Tumpat in Kelantan and another was put up in 1940 off Kuala Besut. This last cost \$1,000, but there is great variation in their cost, according to size. These traps take a great variety of fish. A portable trap of a simple widespread kind known as *bubu* (a generic name) is used in Kelantan for taking snapper (*ikan merah*). It is constructed of rattan, and costs about \$2 or so apiece.

There is some specialization in the different types of equipment and fishing in the various coastal areas, and an indication of this in respect of the main types of net used is given in Fig. 3.

CAPITAL INVESTED IN FISHING-BOATS AND GEAR

In assessing the capital value of the equipment in an industry such as Malay fishing there are three methods which can in theory be followed. The first is that of basing the calculation on the *value of the equipment new*, that is, what it would cost at present prices to fit out the industry on the hypothesis of all the capital having been dissipated at a stroke. Given the total number of items of each type of equipment, and the present prices for new items, the calculation is simple. This was the method followed by the Fisheries Department in estimating the total capital value of all licensed fishing boats and gear in the Straits Settlements and Federated Malay States in 1931. But since the Malay practice is to buy a great number of boats and nets second-hand the figures have little practical relevance, except as setting a maximal limit.

A second method would be to take the *actual purchase price* of each item, thus obtaining—when correction had been made for any possible changes in value of money—the capital funds

originally invested in the industry. Starting from this basis and considering the results in conjunction with returns from the equipment in the interim, conclusions could be formed about recoupment of capital, rate of profits, comparative advantages of different forms of investment, and the like. This method, always difficult for empirical investigation on a large scale, is impossible for all the fishermen of Kelantan and Trengganu, with practically no written records. For the community of the Perupok area I collected some data of this type, but even here it was not feasible to cover the whole field, and I had to be content with samples.

The third method, which is followed here, is to estimate the *current value* of the equipment, that is, what it would fetch at current market prices should it be transferred to other owners. The calculation is based upon knowledge of the new prices for the various types of equipment, and estimates of their average rates of depreciation, checked by sample data of prices actually paid for items of equipment of various age. It assumes that the various items of equipment now in use are spread evenly over the time range through which they are employable, from a few items just acquired brand-new to a few so old that they are on the margin of profitable employment and barely now saleable at any price. A completely even distribution is in fact unlikely, but my enquiries showed that fishing-boats and nets were fairly well spaced out at all stages of physical depreciation. But since in the case of boats depreciation of value appears to accelerate in the latter stages of a life of an approximate average of 15 to 20 years, I have taken as the current market value of the total equipment of any class a little more than half the present price of acquiring this equipment in a new state.

Details of the calculation have been omitted here, but comparison of the numbers of the various types of boats and nets (see Appendix III) with the prices given earlier will allow the results to be checked.

A review of the total capital in equipment of the Kelantan and Trengganu fishermen gives the estimate at current values (in 1939-40) shown in Table 1 on page 56.

In estimating the level of capital investment per head account must be taken of the fairly wide margin of error in the estimates of the numbers of fishermen. But if the number of Kelantan fishermen be taken at 6,500, a probable figure, the level of capital per head at current prices (1939-40) would be about \$38. The

TABLE I

VALUE OF FISHING EQUIPMENT IN KELANTAN AND TRENGGANU

			\$
<i>Kelantan :</i>	Value of fishing-boats	150,000	
	„ „ boat gear	17,500	
	„ „ nets and traps	80,000	
	„ „ line-fishing gear	1,200	
		248,700	
<i>Trengganu :</i>	Value of fishing-boats	238,750	
	„ „ boat gear	27,750	
	„ „ nets and traps	100,000	
	„ „ line-fishing gear	1,600	
		368,100	
	Total value :	616,800	

corresponding level for Trengganu, with a probable 10,000 fishermen, would be about \$37. The difference is not significant and all that one is entitled to infer is that for both States together the average value of capital equipment per head of fishermen is between \$35 and \$40.

FINANCE OF BOATS AND NETS

The variation in the command of free capital by fishermen in the different areas along the Kelantan-Trengganu coast is considerable. This account is based on a brief comparative survey in 1940. (A detailed analysis of the process of financial production in the Perupok area of Kelantan is given in Chapters V and VI.) The most significant differences occur in the purchase or use of the larger types of boats and nets. In essence the situation may be described in terms of contrast of principles: cash or credit; build or buy; own or borrow; unitary or multiple control. In any given case, however, these principles may not be exclusively followed.

The methods of obtaining the necessary capital equipment for fishing, in more detail, are as follows:

i. *Full purchase, with unitary ownership.* Payment of the full price by a single buyer at the time of purchase is fairly common with boats, though rare with nets. The inducement is a substantial reduction of the price for cash down. A fisherman at Kuala Marang told me that he bought his lift-net for \$200 cash whereas if he had got it on time payment the price would have

been \$250. In Kelantan a difference of \$30 or \$40 is usual. Paying of nets for cash, when it does occur, is normally for second-hand ones.

ii. *Putting up the capital for manufacture.* If a man has enough capital to pay cash for a new net he usually prefers to have it made for him, and so avoid the entrepreneur's profit. He is said to "make it himself", though he buys the yarn and pays piece-rates to women home-workers to spin the thread and make up the net in sections for him. Men of substance usually manage to have one net in use and another in process of manufacture, ready to substitute for the first when this gets too old or torn, or when a good offer is made for it. Sometimes a man manages to have two nets completed and uses them alternately. With this is linked the practice of making nets specifically for sale.

In Kelantan many nets are made locally. But the Bachok district, especially the Perupok area, makes many nets for sale elsewhere, some even going to Trengganu and to Patani. In Trengganu the practice varies according to local skill and command of free capital. Purse-nets and seines are commonly made in the area where they are used, but lift-nets are often imported from other areas. The Besut area mostly makes its own nets, though the poor community of Ayer Tawar, which uses lift-nets, usually gets them from Kelantan. At Batu Rakit most nets are made locally, but some are got from Batu Lipo, a little farther down the coast. Only one man in Batu Rakit, I was told, makes nets for sale—about two or three a year—whereas in Batu Lipo about fifteen men make nets for sale. Kuala Trengganu supplies its own nets, while Kuala Marang, the centre for much lift-net fishing, makes some but buys most from Batu Lipo and other centres to the north. I was told of only one man there who made nets for sale. Chenering, a small village between Kuala Trengganu and Kuala Marang, makes about ten *pukat sudu* a year; it does not use them but sells them to villages to the south. At Dungun, seines, lift-nets and some other nets are made, but some lift-nets are also bought from Kuala Trengganu. At Kemaman many nets are made, but lift-nets were formerly bought from Bachok and in recent years have been obtained from Batu Lipo.

Boats are often made to order, cash being advanced by the client to the builder for the purchase of materials, and the balance paid when the craft is finished. Tumpat, Bachok, Kuala Trengganu and Kuantan (in Pahang) are important building

centres which serve many of the other fishing communities. But there is a great trade in second-hand boats.

Where capital is put into the manufacture of nets or boats it is normally supplied by single individuals, not by men in combination.

iii. *Purchase on time payment.* This is the commonest method of acquiring capital equipment, both boats and nets, but especially the latter. The high price of the equipment in such cases, as opposed to purchase for cash, means that interest is charged, though concealed. The amount of cash initially put down varies from nil to about half the purchase price. At Dungun, for instance, I was told that the normal practice is to pay half down, except where the parties are kinsmen, when no money is handed over at the beginning. The advantage of this system to the buyer is that it allows payment to be made out of current income from the equipment, and the repayment is often proportioned to the takings. A detailed analysis of the workings of this system in the Perupok area is given later. The time payment system known as *bēli bērutang* (*bērhutang*), "buying with a debt".

iv. *Purchase on borrowed capital.* When the seller of equipment is unwilling to stand out of any substantial part of his capital for long, cash may be borrowed by the buyer from someone else. This is a common practice. A percentage of the takings from the boat or net is then handed over to the lender of the money whenever the periodic distribution of returns is made. This percentage is not repayment of principal, which is a separate affair; it is interest, though the Malay prefers to conceal it under a name equivalent to "share" or "commission" (*bagian*; in more sophisticated circles a form of the English word *commission* is sometimes used). In Kelantan the "share" allotted thus to the creditor is normally half that which is allotted to the item of equipment in the distribution. In Trengganu the "share" is often a smaller fraction (see under *Daganang* below). In Dungun borrowed money—usually from Chinese—pays interest at a rate which may vary according to agreement but which is commonly 5 per cent. per month, or the equivalent of one crew member's share of the total takings. In Paka the conditions were said to vary also according to agreement, but the lender often took interest two shares out of the specific allotment to the net purchaser. \$100 of capital he put in. At Kemasik interest is taken by dividing the net's share into three parts, one-third going to the lender of the money and two-thirds to the user of the net.

v. *Acquisition in partnership.* Whereas boats are nearly always held by individual owners, nets are often held in some form of multiple ownership. In Kelantan the practice is known as *masuk konsi* (entering a combine), and in Trengganu and Pahang as *bēratang* (*bērantam*, to club together to pay). The most usual form is for one man to put up the initial capital for the purchase or manufacture of the net, and then to admit several others into partnership. They put up no cash, but agree to acquire an interest in the net at a figure somewhat higher than its cost. In consideration of the work they do on it in repairs, etc., they share in the proceeds after the agreed figure has been passed in the net's allotment from the takings. In a sense they buy the net on time payment but put in their capital in the form of labour. In some places, however, as at Paka and at Ayer Tawar in Trengganu, where the community is poor and no individual can muster the full initial capital or is willing to undertake the sole responsibility of borrowing or buying on time payment, all the partners assume a more equal rôle. Here the finance may be a combination of contribution of savings, borrowing, and time payment.

vi. *Borrowing of equipment without transfer of ownership.* Temporary borrowing of equipment, even when the borrower has command of liquid capital, is not uncommon, and at times a boat may be used for a whole season by a man other than its owner. When the owner is a widow, or a man unable from illness to go to sea, or a man who has surplus equipment, the use of the boat or net assumes the character of a regular hire. In Kelantan, a half share of the specific takings of the equipment is normally given to the owner by the borrower. This principle also operates in Trengganu, and I was given instances in Batu Rakit and Kuala Trengganu. But at Kuala Besut, if a *payang* boat and net are run by someone else than the owner, the practice is for the share of the equipment to be divided into three, one-third going to the user and two-thirds to the owner.

Towards the south a different practice obtains. At Kemaman and in north Pahang, in particular, the owner of boat or net or both is often a Chinese fish-dealer, who may take only a small percentage of the takings of the equipment, or even may forego it altogether, getting his interest and return of principal indirectly through his monopoly of the purchase of the fish.

This last point raises the important problem of the relation between Chinese capital and Malay fishing. It is of little

significance in Kelantan, but is a serious one in south Trengganu, Pahang and farther to the south. As the Chinese in south Trengganu and north Pahang are not fishermen but fish-dealers, the problem may be approached from the angle of fish-buying.

FISH-BUYING AND MONEY-LENDING

In Trengganu the system of borrowing cash or equipment has often crystallized into a financial relationship between fishermen and fish-buyers, especially those who cure for export. The marked character of this relationship in Trengganu, as against its relatively small development in Kelantan, is to be equated with the much greater importance of the export of cured fish from the former State. It is important not only for an understanding of the fishing economy, but also because of its bearing on social relations between Chinese and Malays.

The term used for a fish-buyer who stands in this special relationship with a set of fishermen is commonly *daganang* (*dagangan*), but there are variant forms. Dato' Jaya Perkasa, whose opinion on Trengganu fishing matters is of great weight, holds that the correct form is *laganang*, and in this was corroborated by Tungku Wok, who added that other forms were the dialect (*pelat*) of the fisherfolk.¹ Specific inquiry from a number of fishermen produced *laganang* and *naganang* at Kemaman, and *daganang* at Kuala Trengganu, Dungun and elsewhere; since the last-named seems to be the most widespread I use it here.

The *daganang* system varies in intensity. In its mildest form it corresponds to the Kelantan *tangkap* system (see Chapter VII). The buyer merely acts as a kind of insurance agent for the seller and takes a commission for his guarantee. But his association or contract with the particular net-group usually rests upon more than a simple agreement to look after their interests for a consideration. He has usually lent money to the fishermen for purchase of net or boats, and so has been able to attach them to himself on favourable terms, having a pre-emptive right over the catch and taking a commission as well to cover his interest charges. The system may go even further. The *daganang* may be the actual owner of the fishing equipment, and the fishermen may thus be virtually wage-earners at piece rates. Sometimes

¹ *Daganang*, correctly *dagangan*, is derived from *dagang*, meaning literally a foreigner, with a secondary meaning of merchant. *Laganang*, correctly *langganan*, means a regular customer. (R. J. Wilkinson, *A Malay-English Dictionary* (Mytilene, 1932).)

the *daganang* is not only the lender of capital for the purchase of equipment, or owner of that equipment, but also the lender of consumption goods, particularly rice, to maintain the fishermen during the monsoon season. He thus gets a double profit, and attaches his clients to him more firmly still by their obligation to repay him during the fishing season. It is mainly Chinese who have elaborated the system in this way.

Since the *daganang* system varies from one locality to another its economic results can be fully appreciated only by a regional analysis, which takes into consideration how boats and nets are owned and how earnings are divided. Details of this are given for the main fishing areas on the Kelantan-Trengganu coast in Appendices IV and V, and only some brief general conclusions are given here.

The *daganang* concept covers in practice three rather different elements. One is a commission for services rendered in ensuring the receipt of the sale price of the fish; the guarantor has the right of buying the catch if he wishes, but if he does not exercise this right he has the obligation of seeing that the buyer does not evade payment or reduce it from the contract price. The second element is a commission which is really interest on the loan of capital, irrespective of whether the lender controls the sale of the fish or not. The third element is exclusive control of disposal of the fish because capital has been invested in the equipment; here it may be immaterial whether any direct return for the investment is received since the controller gets sufficient profit by handling the catch—he may even give boats and nets to the fishermen when the price for their catch is absolutely at his discretion.

It will be clear from the details given in the Appendices that the essentials of the first element occur in Kelantan and in the north of Trengganu (under the name of *tangkap* or *tetap*), but that it is only as one moves southwards that the second and third elements become intensified. The third in particular is associated with the more developed Chinese control of fish-curing and fish export, where a larger command of free capital enables them to neglect more obvious and immediate returns on their investment in fishing equipment in favour of middlemen's profits.

How do the Malay fishermen view this relationship with the Chinese? Opinions vary. At Kemaman the answer of a group of fishermen was that they liked it, "because they can get hold of cash easily". In several other places, however, the fishermen

complained at the low prices they received from the Chinese to whom they were bound to sell. A man at Beserah, asked how the fishermen liked the system, replied: "It's not that we don't like it, Tuan—we get enough to eat, but there's no chance of saving." There, in 1940, some difficulty arose through an application to the government by some Chinese dealers for permission to employ Chinese fishermen. This was a novel move in that region, but they justified it by the argument, which was not contradicted, that they could not get enough fish to handle since all the Malay fishermen were tied to other Chinese dealers. The Malay fishermen objected to the proposed competition. As one of them put it to me, they were in good relations with the Chinese ashore, as dealers, but if Chinese came out to sea it would be different. The only work open to Malays was fishing; where else could they go if the Chinese displaced them there? The upshot was that a licence was granted to the applicants for one year on condition that only half of the fishermen in the group should be Chinese and the other half should be Malays.

There is no doubt, however, that in south Trengganu and north Pahang, as in many areas on the west coast of Malaya, the heavy indebtedness of the Malay fishermen to Chinese dealers, coupled with the control of fish prices by the latter and the threat or reality of active Chinese competition at sea, are serious problems. The administration has realized this, and has made efforts to meet them, as by the formation of coöperative Malay associations for fish marketing. But so far the success of these measures has been only moderate.



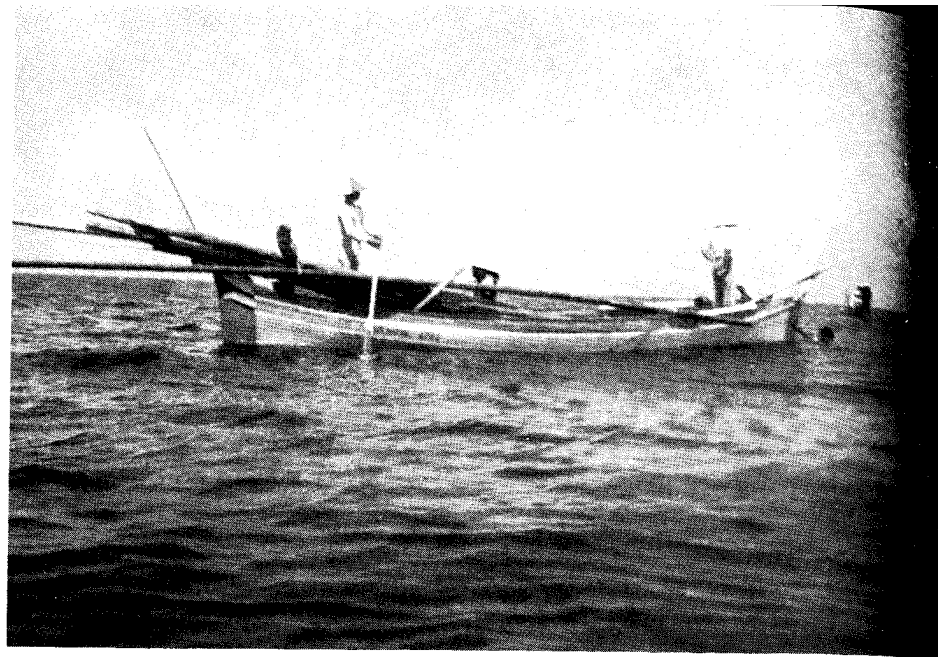
VIIIA Hauling in a seine

A large crowd of men, women and children gathers to assist and get a few fish.



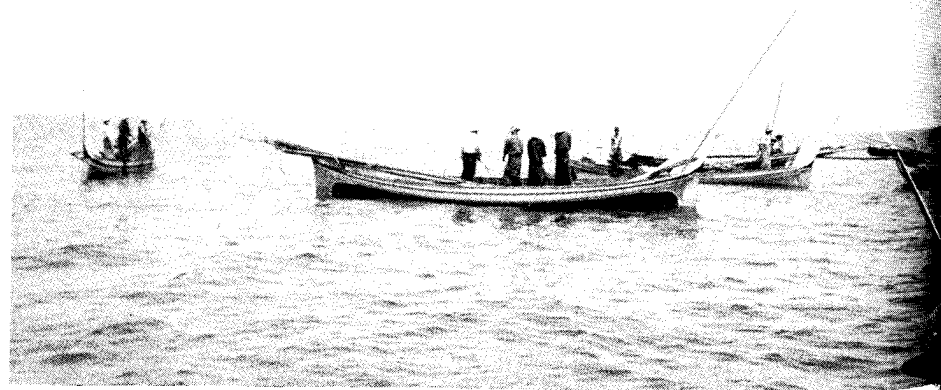
VIIIB Net-mending on the beach

The worker has doffed his sun-hat in the late afternoon. In the background a boy is learning net-craft.



IXA LIFT-NET FISHING: "LISTENING" FOR FISH

The boat of the master fisherman goes in above the net; at the stern a man is about to submerge and "listen" for the shoal of fish.



IXB LIFT-NET FISHING: HAULING THE NET

The boats are drawing together as the crews haul on the corners of the net.

CHAPTER III STRUCTURE OF A SAMPLE FISHING COMMUNITY

This and succeeding chapters analyse in detail the economics of a sample fishing community, on the Kelantan coast of Malaya. As a background to the study of the workings of the economic system some explanation is needed of the nature and history of the community, the composition of its population and how the occupations of its people are distributed.

THE PERUPOK AREA, KELANTAN

The area for intensive study had to be as far as possible representative, with a flourishing fishing industry using a variety of methods, in fairly good touch with a range of markets, and preferably one where fishing could be observed in relation to other occupations. The choice was made of a community in the Bachok district, comprising mainly the villages of Perupok, Kubang Kawoh, Paya Mengkuang and Pantai Damat, which formed a major part of the two parishes (Mukim) of Perupok and Paya Mengkuang. The total population was about 2,000, and as a basis for quantitative work a social and economic census was taken for the coastal section of the area, as a solid block. This census, which covered 1,301 people, in 331 households, has formed the basis for the statistical material on occupations, property, etc., in this and later chapters, though much of the descriptive account refers to the area as a whole.

An outstanding feature of the area for the fishing industry, as in general on the east coast of Malaya, is the broad sandy beach with its gentle slope. This runs to the north-west as far as the mouth of the Kemassin River (Fig. 11, at end of book) and south-east as far as the mouth of the Melawi stream, a total distance of nearly 8 miles, with no substantial watercourse outlets to break it. It fronts the villages mentioned for nearly a mile. For them it serves as a landing-place for all the boats, an initial market-place for the fish and a focus for much net-mending and other activity. Above the beach for most of its length are rows of coco-nut palms and among them, a few yards inland, begin the houses and sheds of the villagers. Parallel to the beach, a hundred yards or so

behind, runs a sandy road which serves as one of its main functions: the traffic of the small motor-buses which carry most of the fish to the inland centres. Branch tracks at intervals give the buses access to the beach. More houses, thickly placed among palms and orchards, lie beyond the road for a little distance till a watercourse (*alur*) is reached. Beyond this for about half a mile are rice-fields, dotted with dwellings and clumps of trees, and stretching back to the Kemassin River. This river, which here runs parallel to the coast, forms a boundary between the fishing community and the wholly agricultural communities of the great Kelantan plain.

No very definite boundary separates the villages from one another and they form a geographical unit, marked off by open land from the little town of Bachok to the south and from the village of Kubang Golok to the north. (For convenience the unit may be referred to as the Perupok area.) But socially they have some individuality, and show rivalry particularly in fishing. Their main marketing centre is Perupok, hardly more than a village, but having a square of shops and a market-shed in the middle for the sale of rice, vegetables, hardware, cloth and other staple items. (Fish, however, is rarely sold there; the market for it is the beach.) A few shops are also concentrated at the other end of the area, along a tiny street in Pantai Damat, and some are scattered along the road, while occasional solitary stalls offer snacks and vegetables.¹ This diversity of market facilities is surprising, since Bachok is little more than a mile away. But it is characteristic of much of the Kelantan coastal area and of the dual fishing-agricultural peasant economy of the region.

ITS ECONOMIC HISTORY

A peasant society, whatever be its traditional roots, need not be a changeless entity; it may have undergone considerable internal change. This is so of the Perupok community, which is in some ways of very recent growth, and it is advisable here to trace briefly its development in the last seventy years or so. There are, of course, no written records, but data for the earlier periods were obtainable from the memories of a few old men who could look back on the time of the Angin Bësar, the great

¹ See plan of the area in Fig. 12 (at end of book), and an analysis of the marketing system for consumer's goods in Rosemary Firth, "Housekeeping Among Malay Peasants", *London School of Economics Monographs on Social Anthropology*, No. 7 (London 1943).

cyclone of 1880, which is the most remote dating point used by these coastal folk for events within living memory.

Till the last half of the nineteenth century settlement on the Perupok coast was scanty; most of the people lived inland near the Kemassin River, at Kampong Sungai and Kampong Panjang. There they cultivated rice but went to sea occasionally. The land down to the shore was covered in jungle, in which tigers roamed—as recently as about 1880 they came out from the watercourse at the back of the present road to take cattle. The unsettled conditions of the east coast in the middle of the century are shown by stories that raiders used to come up from Johore, in boats of twenty paddlers or more, seeking slaves. The grandfather of a local woman was seized by one of these bands when he was playing on the beach, but was lucky enough to escape later, and returned home. Even by about 1880 there were only half a dozen houses by the shore, mostly on the site of the present Perupok village.

The main types of fishing then were line-work for dorab and sea-bream, and netting *pëlato* (a small carangid). A variant of the lift-net, known as *takur chokeh*, was used, from one small boat, in waters close to shore; a simple form of lure, a small "parent *unjang*" (see p. 99) was employed. Fishing was largely for home consumption, but there was barter of fish and anchovies for rice and timber with the inland folk across the river; the fishermen did not harvest enough rice for all their needs and the inland folk had little cash to spare for fish. One dorab then brought 3 or 4 gantangs of rice (about half its value in money in 1940). Barter with kinsfolk in the form of reciprocal gifts—a practice still current to some degree—was then very common. But money was in use. Rice, if bought, cost 25 cents for 7 gantangs. (The old headman who told me this, after a vivid description of the ravages of the Great Cyclone, said impressively that immediately afterwards the price of rice rose to a dollar for 8 gantangs—which is about half its price in 1940!) About that time the fish from the Bachok and Perupok areas served a circumscribed local market and were not taken to Kota Bharu as at present; that town was served by fish brought from Tumpat up the Kelantan River. The Perupok fish sold was taken by dealers in baskets on their carrying poles to the inland villages along footpaths, as there were no roads near.

About 1890 prices still were low. An old man from Kota Bharu stated that there mackerel cost 1 cent for 6 and *sëlar kuning*

5 cents a hundred—prices in 1940 being 5 or 6 times this—while rice was $1\frac{1}{2}$ cents per quart—about one-quarter of the 1940 price.

By about 1900 the fishermen had become more venturesome, with an improvement in their equipment. The present larger type of lift-net had been developed, using five boats, the present technique of fish lures adopted, and the lures themselves were set several miles farther out from the shore. According to local opinion, the change was of internal origin, in the Bachok district, not the result of outside influences. About 1900 there were three such nets in the area—one in Perupok village, one in Kubang Golok, and one in Pantai Damat. During the next twenty years their numbers grew to seven—including one in Kubang Golok; the cost of a net was then about \$500. The local population was still not very large, but people had begun to move into the present villages from others to the south along the beach, near Bachok. At this time mechanical transport was still lacking, and the fish were shared between the carrying-pole dealers, who bought for the fresh market, and Chinese and Malay dealers who bought for drying and export to Singapore. The former, who numbered a hundred or more, used to gather groups of fifteen to twenty round a boat, and buy first, the dried fish dealers waiting to take the remainder at a lower price. The expert fisherman sold the catch himself, and there was not the same elaboration of middlemen as at present. The dried-fish export was by no means simply in Chinese hands; quite a few Malays were engaged, and often took their fish down to Singapore themselves. The women of the family also used to cook fish at night, as at present, and take it for sale to the inland village but in the absence of roads they went on foot and reached Melaka, Peringat and Kubang Kriang, but did not go as far afield as Pasir Mas, which they do now.

About 1920, however, the road to Bachok was put through and altered the fishing economy considerably. Buses began to run, and opportunities of a more extensive fresh-fish trade developed, while the trade in dried fish tended to fall off. With the opening up of the fresh-fish market came also a change in the organization of the nets at sea. Formerly the fish were brought in by the boats actually engaged in working the net, were sold to dealers who went out in their own craft to collect them, as is done still on many other parts of the coast. With the need to seize the fresh-fish market early in the day, however, came the development of the present system whereby the carrying

of the catch is not a free middleman but is a member of the net-group organization. This change led also to a change in the method of distribution of the fishing yield—perhaps about fifteen years ago. It was responsible also for an increase in the wholesale price of fish, which fifteen or twenty years ago was only about \$8 a boatload—for drying—whereas now a similar catch sold for the fresh market brings several times that figure.

About 1926 there were ten lift-nets in the Perupok area, among their owners being several expert fishermen still practising. From this time onwards the economy rapidly began to assume its present form. Houses grew up along the road in numbers, bus transport became more regular, shops increased with the growing population, and about 1933 the market-place of Perupok was laid out in proper form, with permanent benches replacing the bamboo platforms. As the buses tended to take more and more of the fresh fish the numbers of the carrying-pole dealers declined—though in 1940 there were still thirty or forty engaged—and they tended to take a subsidiary place in the marketing scheme on the beach. Moreover, the life of the fishermen became more completely divorced from agriculture, and many of them came to live near the beach, with the sea as the almost sole source of their income, cultivating no rice, and in some cases owning no land. During the last two decades, too, money transactions became the rule, and barter became rare. In short, the life of the community finally merged much more completely into the general economy of the State.

COMPOSITION OF ITS POPULATION

The Perupok area, as a cross-section of the Kelantan coastal region, is not isolated, and there is considerable movement of population into and out of it.

The resident population consists of three elements. Most important are the local Malays, describing themselves as "people from here" (*orang sini*), that is, born in the area roughly from the north of Bachok coastwise of the Kemassin River to its mouth. Of next importance are the non-local Malays, specified by their origin—Jelawat people, Tumpat people, "inland people" (*orang darat*), etc. In this category are a few Malays from Trengganu and from Patani in southern Siam, which has a Malay population closely allied to that in Kelantan. There were in all about 5 Malays from outside Kelantan and 20 from other areas in

Kelantan, as permanent residents. There were no Malays from the west coast living in the area. These non-local Malays are easily absorbed, but their immigration has certain economic results for them. One or more of their children may be adopted by their kinsfolk in their original home. Adjustments are necessary for them to maintain income from rice, coco-nut and rubber lands there; such lands must be worked by their kinsfolk (and the proceeds shared) or leased, or visited periodically. They suffer when they hold a circumcision or marriage feast since they cannot hope to assemble such a large body of kinsfolk contributors as a local person can, and they may be at a disadvantage for other types of economic coöperation as well. These points are mentioned to show that while Perupok is a comparatively new development as a coastal settlement, the shift of population has been quite local, and that there are solid reasons for this.

The third element in the area is non-Malay, mainly Indian and Chinese, and numbers about a score in all. (A rough count was made but the figures are not included in the census referred to above, which covers only local and non-local Malays.) There was one Siamese, an old woman who had married a Malay long ago and had become a Muslim. She was accepted as a full member of the community and was regarded as the head of the little group of houses where we lived. The Indians, known generically as *orang Keling*, are mostly from South India. They are Muslims, and as such they are socially more acceptable than the Chinese. They all wear the Malay sarong—though retaining the Indian shirt—and speak tolerable Malay. They tend to congregate together, but of about ten in the census area two were married to Malay women and two others were living with Malay women, in separate dwellings. The children of the former were completely accepted into Malay society. Nearly all were shopkeepers or coffee-shop proprietors, though one, who used to sell nuts on the beach as a hawker, went out fishing for a time. The Chinese, also numbering about ten, remain separate in most social affairs, though some Kelantan Chinese of long standing in the State have assimilated a great deal of Malay speech and customs. These people wear Chinese dress and speak poor Malay. One old man, however (said locally to be possibly Japanese), did embrace Islam, mainly, it appeared, in order to be able to marry a Malay woman; it was easier to change religion than his domestic life. The Chinese keep a couple

shops, selling general merchandise, and a coffee-shop and eating-house; there is also a Chinese bus-owner.

In the Perupok area these foreign elements had no great economic importance, and they had Malay competitors in each occupation. This is the case in many of the coastal villages. Inland, however, especially in the towns and new villages at cross-roads, Indians and Chinese provide most of the shopkeepers. Elsewhere in Kelantan, too, there are some Siamese communities. One, a few miles to the north of Perupok, had a temple and a seminary staffed by Buddhist monks, with a settlement of Siamese rice-cultivators, who also made tiles and did plastering and other construction work.

Movements of population out of the area could not be accurately recorded, but they were not in great volume. There was no marked tendency for young men to emigrate to the towns. But there were some losses to the community. Young women married out into other areas; young men went as religious students to Bachok, Kota Bharu and in one case even to Mecca. Several families had sons away at work—one was a policeman, another a rubber-tapper; another was working in Trengganu; another in Siam. As far as could be ascertained, these losses amounted to only about twenty cases.

EXTERNAL ECONOMIC RELATIONSHIPS

Economic and social relationships with other areas are fairly common, since many families have had kinship or marriage connections in the last few generations in Kota Bharu and other Kelantan centres, and exchange of visits takes place at intervals. And occasional visits are paid to neighbouring villages for ceremonies or recreation. But the economic contacts are of main interest for our analysis. These are of two kinds, relations up and down the coast, and relations inland through a rough quadrant of a circle with Kota Bharu and Kuala Kerai (the main towns) at the extremities of the arc (see Fig. 2).

Coastal relationships arise primarily through the movements and the requirements of the fishermen. During the monsoon season, when the open beaches (as that of Perupok) are practically blocked for work at sea, men from Perupok and the vicinity go up to Tumpat, which has a river-mouth, a partly sheltered harbour and a northerly range of fishing. Some take their boats and also their wives and families; they rent rooms there and

stay for a month or two, fishing mainly with drift-nets. Again about April or May, when lift-net fishing falls off, boats and crews may go off to the south, to Trengganu or Pahang, where fishing is more constant. Conversely, at times fishermen from other areas put in at Perupok. When mackerel were very plentiful there in May 1940, Tumpat men came down to fish and several boats landed on Perupok beach in the morning to sell their catches. In March and April also, seine and purse-net boats, totalling 16 in all, sold fish on the Perupok beach because of the distance from their homes. They included boats from Kandis, Tawang, Au, To' Bali, Semerak and even Besut (Trengganu) to the south, and Kemassin to the north. About \$250 worth of "foreign" fish were thus bought by Perupok dealers. Again, some fishermen from Perupok and the neighbourhood have made a practice of going far afield for a long period each season, as to Beserah in Pahang or Menaro in Siam. After the outbreak of war in 1939 restrictions were put by the authorities on such movements from one State to another, particularly across the Siamese border. But sailing up and down the coast is not easy to control, and some movement still took place.

These coastal relationships provide an extra income to the community, and facilitate the acquisition of boats of different type or superior build and the spread of improved techniques of fishing. The fishermen themselves have no strong feelings about the entry of "outsiders" in this way; the only real friction occurs when in lift-netting one party takes fish from the preparations of another (p. 121).

Seasonal importation creates another coastal relationship. After the monsoon is over large sailing vessels come down from Siam with rice and salt. Most of the rice is sold in Trengganu but fish-curers at Perupok buy large quantities of salt. Small craft also come from the Perhentian and Redang islands off the Trengganu coast, bringing bananas, pumpkins, nuts and turtle eggs. Like the rice and salt, these are sold for cash on the beach but in smaller lots, or to middlemen who sell them again to consumers. Occasionally a Perupok fisherman takes his boat over to the islands to get turtles' eggs, but usually only if he has kinsfolk there, or has a debt to collect through having sold a boat or boat to someone there. Visits to Singapore by steamer are made by dealers in fish or copra (and by travellers en route to Mecca). But these are costly, and rare.

The inland contacts are more complex. Apart from the many small economic relationships with kinsfolk in the agricultural villages, of which one feature is the exchange of fish for rice, fruit and vegetables, there are three main types of market relations.

One is the demand of the coastal people for rice, cloth, oil, iron tools, coffee, sugar and other goods. This is satisfied partly by imports from Kota Bharu by local shop-keepers, and partly by occasional visits by the people themselves to Bachok, Jelawat and Kota Bharu itself. A second contact is the daily movement of the fresh-fish dealers by bus, bicycle or on foot to a string of inland settlements, of which Melor, Keterah, Kota Bharu and Kuala Kerai are nodal points. This is supplemented by the less frequent but longer trips of the dealers in dried and cooked fish, who may go further afield, even to Dabong, far up in the jungle along the main railway line. The third contact is the entry of women from across the Kemassin River, bringing vegetables, betel leaf, areca nut and spices for sale in the Perupok market. Whereas neither type of fish dealer usually brings back wares from the inland centres for local sale, these women may take back fish for retail disposal in their villages. Another type of link with the interior is given by men who go off in search of work as rubber-tappers or other estate labour in a bad fishing season. This is of small importance; though the season in Perupok in 1940 was poor, only two men went inland for work. More important—because more regular—are the visits of fishermen inland to get timber, bamboos and rattan for their work.

Such relationships are characteristic of these fishing communities. Their economic life is not static and self-contained; market relationships with the outside world are frequent and complex, and the economy of the community depends on them.

DISTRIBUTION BY SEX AND "ECONOMIC STAGES"

A complete analysis of sex and age distribution of the entire population of the Perupok area was not possible. But the census, covering approximately two-thirds of the people, gave the results summarized in Table 2. The classification by "economic stage" in the table has been introduced to meet the difficulty of getting records of age in years in such a community. The people take little interest in absolute age; what concerns them most is physical capacity and rôle in economic and social life, which are to a great extent a function of age. The economic investigator

is in much the same position. Without being able to assign individuals any exact age in years he can still place them in broad categories as regards the economic scheme—whether they are young dependents upon others, growing participators in work, full working members, or persons of declining capacity. These categories are rough but useful; they correspond broadly to childhood, young manhood and womanhood, adult life, and old age; and they are often matched by expressions in the native idiom. Estimation of age has been used to some extent in an initial classification of the Perupok population, since three local checks are available and are used by the people themselves. These are: the Great Wind (Angin Besar), the cyclone of 1880, the Pasir Puteh "rebellion" of 1915, which arose partly through a misunderstanding over a change in the form of taxation and is memorable to the peasantry through the death of its leader known by his nickname of To' Janggut, "Grandsire Bearded" and the Red Water (Ayer Merah), the great silt-laden flood of 1926 which caused widespread damage. Events and people's ages are commonly measured against one or other of these historical time-points.

TABLE 2
DISTRIBUTION OF POPULATION IN THE CENSUS AREA BY SEX
AND "ECONOMIC STAGE"

Economic Stage. Category.	Males.	Females.	Total.
<i>a</i>	241 *	224 *	465
<i>b</i>	63	17	80
<i>c</i>	315	349	664
<i>d</i>	33	59	92
Totals	652 *	649 *	1,301

* Includes 16 small children, sex not accurately ascertained, but believed to be 7 male and 9 female, and listed as such.

Category *a* comprises children roughly up to 15 years of age, i.e. still dependent on their parents or other kinsfolk for satisfying their major wants. The limits for boys were not hard to fix: one was the circumcision ceremony, the other was going off to fishing. A lad not yet circumcised or "not yet at sea" fell into category *a*. Girls were more difficult to place since there are no such definite marks of social and economic transition, and

the borderline between *a* and *b* females is not at all precise. Category *b* comprises "young people", that is males roughly between 15 and 20 years of age, and females rather younger. These young people are at work, but have either not yet married or are only in the first year of married life and so rarely have an independent household or a separate budget. Completion of about a year of married life, at which time the pair normally set up house for themselves, has been taken as the upper limit for this group.

Category *c* comprises the fully effective working group of the population (an age group of roughly 20 to 60 years of age), and begins after about the first year of married life, when full economic responsibilities have usually arrived. Few persons in the community escape these responsibilities. By the Mohammedan Offences Enactment of Kelantan the failure of a parent or guardian to secure a person's marriage at the appropriate stage may be made the basis of legal action in the religious Court. Except in cases of insanity or severe permanent illness all individuals marry, and only a few, once divorced, remain unmarried thereafter. (In collecting the material an attempt was made incidentally to compute the effective reproductive group, but the basis for estimation was too vague and this sub-classification has been discarded.)

Category *d* comprises men and women no longer taking part fully in the economic processes; it contains all men and women roughly over 60 years of age, but possibly contains a few women under that age.

The table shows that the sex distribution in the area is almost even. (A more accurate record of the sex of the small children mentioned in the footnote would make no significant difference.) Again, the total number of persons in group *c*, the fully effective working group, is approximately equal to that of the other three groups. From the first result it is clear that the population is well balanced for division of labour between the sexes. From the second result it appears that the effective working group should suffice for support of the whole community. The situation here is still more favourable if account be taken of the fact that groups *b* and *d* are not merely passive consumers; they are producers, though of less efficiency than those in group *c*. If their individual contributions are estimated at one-half the value of those of individuals in group *c*—probably a conservative estimate—then a theoretical total of 750 man-power units is

obtained for production. If every individual in the community (including children and old people) is taken as one consuming unit, then this means that 57 per cent. of the community's strength is available to meet its consumption demands. Such an estimate, rough as it is, invites comparison with others from peasant areas where, for instance, a large proportion of the men have been drawn off to meet demands for estate labour.¹

Given the approximate equality in the numbers of the sexes as a whole, the most striking feature of the table is the disproportion between the numbers within each "economic stage". In group *b* the proportion of males to females is more than three to one, whereas in groups *c* and *d* the women outnumber the men considerably. The significance of this lies in the fact that women tend to marry at an earlier age than men do. The marriage of lads fairly soon after puberty is common, but less so than that of girls, who in conformity with Muslim practice generally, and Malay attitudes in particular, are provided with a spouse as soon as is feasible. Metaphorically, the pressure of the marriage conventions forces women in at one end of the economic machine and out at the other at an earlier age than men. Analysis of marriage conditions in groups *b*, *c* and *d*² reinforces the same point. There are 46 more young men not yet married than there are young women, while there are 53 more women without husbands (divorced or widowed) than there are men without wives. There is a disequilibrium here, since the young unmarried men do not have family responsibilities as a rule, whereas the older divorced women or widows often have to care for children.

The average size of the household in the Perupok area is small. In the 331 cases investigated the most frequent number of persons per household was three, and the range from one to thirteen. Fig. 13 gives a diagrammatic representation of this distribution, and also shows the proportion of persons of each "economic stage" in households of different size. The household is by no means always a single economic unit. In fishing, the men of it often join different boat or net groups, and if it contains more than one married couple there is a tendency for each to

¹ A similar calculation for a fishing-agricultural community in Polynesia, of almost the same size, gave a figure of 52 per cent. (See my *Primitive Polynesian Economy*, 1939, 41-2). On a rough estimate from population data from sample areas in Nyasaland, the comparable figure would seem to be less than 45 per cent. (see Margaret Read, "Migrant Labour in Africa . . .", *International Labour Review*, XLV, pp. 605-31 (Montreal, 1942).

² A detailed analysis of the material is given by Rosemary Firth, *op. cit.* 8, 23-35.

have a separate budget, for the purchase and consumption of rice at all events.¹

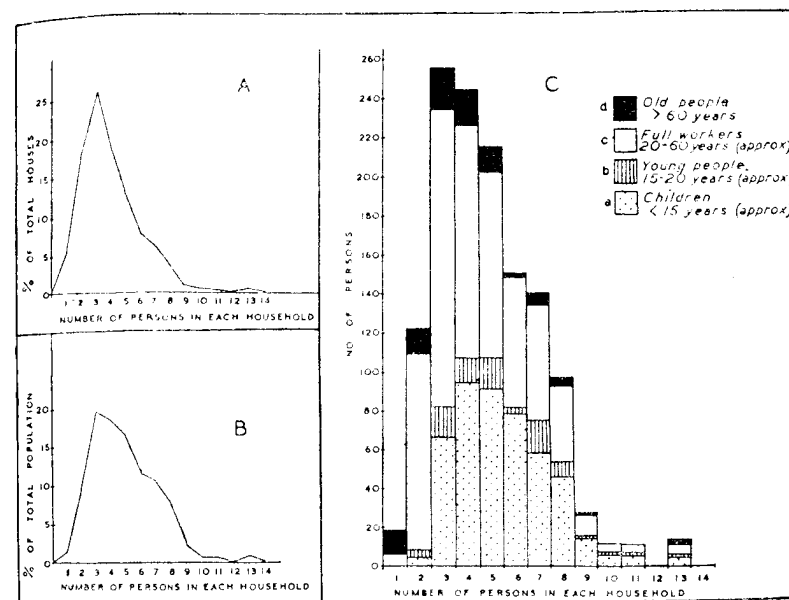


FIG. 13.—Residential Distribution of Population of Perupok census area, 1940.

OCCUPATIONAL DISTRIBUTION

Though the community is dependent upon fishing, not every man is employed as a fisherman. The total number of males above the age of about 15 years in the census area was 411, as will be seen from Table 2. The primary occupations of 401 of these were recorded, and the results are summarized in Table 3.

This shows the dominant bias of the community towards primary production. Rather more than 75 per cent. of the adult males are fishermen, 10 per cent. are middlemen catering mainly for fish marketing and the supply of consumer's goods to the fishing community, another 10 per cent. are nearly all catering for the material or social wants of the fishing community and only about 3 per cent. are on the fringe of the economic effort.

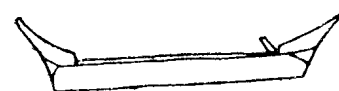
¹ For further details see Rosemary Firth, *op. cit.* 9-13.

would be an error to think, as one might do, that one of the main objects of a fisherman, having got a boat, is to keep that particular craft indefinitely.

The design of the boats, and the technique of handling them associated with this, are important in considering the general conditions of the industry. The craft are small. The largest are only about 50 ft. overall, including projecting bow-piece and stern-piece, and the majority are about 30 ft. overall or less. They are comparatively narrow, with shallow draught—a large craft has only about 7 ft. beam, with a draught of less than 3 ft., and smaller craft correspond. The size of the boats is dictated partly by the limited capital available, partly by the requirements of much inshore fishing but partly also by the need to work many of them from exposed beaches, necessitating haulage above the tide-line every evening. (Large heavy craft of the *pěrahu payang* type normally use only the harbours in the river mouths.) The craft have little freeboard—that of a boat 30 ft. overall, 5 ft. 9 in. beam and 2 ft. 6 in. deep in the centre was only 15 in. when light and 7 in. when loaded.

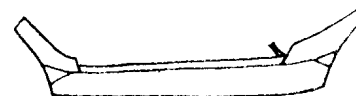
Despite their small size and low freeboard, the boats tend to carry a large press of sail, with the result that not infrequently they heel and fill in a gust of wind, or are pooped by a following sea. This is most apt to happen to a boat which has the special function of taking the catch of fish in to market, as it races in under insufficiently shortened sail. Such a craft does not normally sink altogether; it is towed in to shore awash, but the catch is usually lost, together with floorboards and other gear. Again, in making the beach through a heavy surf, when sail and spars have been stowed and the boat is being steered in, a capsizing sometimes occurs as the steersman attempts to ride a breaker. Much of the catch is often lost here also, and even when fish are recovered by enthusiastic helpers who rush out, by custom what they get is their perquisite to keep or sell as they wish; the crew have lost all right to it. Such accidents usually take place only in the rough weather just before and after the monsoon. In such conditions also it is not uncommon for a boat to overturn on the way out through the surf in the early morning. This usually prevents it from going out again that day, since loose gear such as floorboards, ropes and anchor stones (Fig. 9a) are liable to be lost and the boxes of the crew, containing their food and their smoking and betel materials, get sodden. Loss of food, etc., is not important; the crew can get more from their home

or beg from their friends. But loss of gear is more serious; if the boat is one of a net group this may immobilize the whole group for the day. The point of these remarks is that the



Kolek buatan barat, Kolek (Kel.).

Pěrahu buatan barat (Tr.).

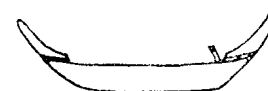


Pěrahu payang.

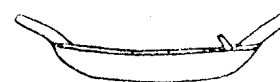


Kolek lichung, Lichung (Kel.).

Kolek (Tr.).



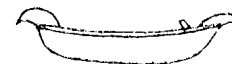
Pěngail, Pěrail.



Kueh (Kel. and Tr.).

Kolek kueh (Tr.).

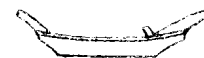
Kueh kěpalo panjang (Kel.).



Kueh buteh ketere (Kel.).

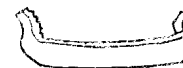
Kueh jambu golok (Kemaman).

Lichung (South Tr.).

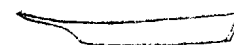


Kueh kěchil (Kel. and Tr.).

Lichung (South Tr.).



Gělibat.



Bedar, Ano' bedar.

FIG. 7.—Boat types in Kelantan and Trengganu. The prow faces left in each sketch; each boat is approximately to the same scale, of about 1 in. to 20 ft.

Malays, though expert seamen enough, are tempted by economic pressure to take risks with their craft and suffer loss in consequence.

At least a dozen different types of fishing-boat are in use on the east coast. A difficulty in identifying them from literature is that the names commonly employed are shared in some cases by different types; a name used for one type in the north, for instance, may be applied to a different type in the south. But since they have no close European equivalents, it is necessary to

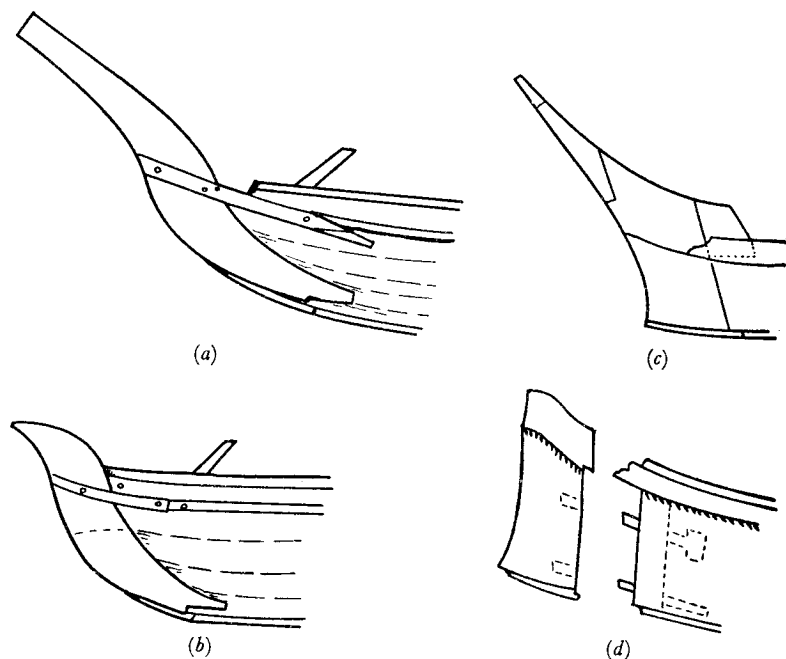


FIG. 8.—Prow and Stern Pieces (*kepalo*) of some Fishing-boats :

- (a) *Kueh kepalo panjang* (stern).
- (b) *Kueh buteh ketere* (stern).
- (c) *Perahu buatan barat* (prow).
- (d) *Perahu buatan barat* (monsoon attachment).

speak of them by their Malay names, however unfamiliar these may be to English readers. The simplest method of cataloguing them is to present a group of silhouettes (Fig. 7), since the chief identificatory signs, the form of bow and stern (Fig. 8), are fairly constant. The scale given is only approximate for all types since there are no definite standards of length; individual builders work to the dimensions they fancy best. The craft are all carvel-built, the planks being secured by wooden pegs or less frequently

by copper nails. What the silhouettes cannot indicate are the bright colours in which many of them are painted, and which make them a picturesque sight when drawn up on the long open beaches (Plates IIA, VIB) or as a fleet under sail.

On the whole the different types of boats have specialized functions. The *perahu payang*, as its name suggests, is used primarily for work with the large purse seine known as *pukat payang*. The *kolek buatan barat* is the boat now most favoured, especially in Kelantan, for work with lift-net (*pukat takur*) and mackerel net (*pukat dalam*). The large *kueh* and *lichung* are used with most large nets; the small *kueh* concentrate mainly on hand-line fishing and work with small drift-net (*pukat tegelang*). But this specialization is not absolute. In the off season for work with the larger nets almost any type of craft will go out hand-line fishing, though it is recognized that the *kolek buatan barat* and the large *kueh* are less suitable for this. In fishing with hand-lines there is a general tendency for each boat, irrespective of size, to get much the same amount of catch, so those with a larger crew tend to obtain a smaller proportionate return per man for a day's fishing.

The distribution of the various types of boats is not at all even throughout the different fishing areas. (Table 17 shows this for Trengganu.) This is due partly to concentration on different types of production in the different areas, partly to inequalities in the possession of capital for boat investment, but partly also to definite local preferences. *Perahu payang*, the craft of most specialized function, are found only where the *pukat payang* is used, mainly in the villages north of Tumpat, towards the Patani border; in Besut; and at Kuala Trengganu, Dungun and Kemaman. *Kueh* of various types, on the other hand, are in use almost everywhere in Kelantan and Trengganu, because of their general utility. But *bedar*, *ano' bedar*, and *səkochi* are types much more favoured in the south than in the north, while the *gelibat* rarely appears north of the Pahang border.

Of the larger craft the most marked preferences are shown in the case of the *kolek buatan barat*. At Tumpat near the Kelantan River mouth, nearly all the larger boats are of this type, built locally. At Kemerak, a little south of this, there are only about half a dozen of these craft, and nearly all large boats are *kolek lichung*. The reason given for this was that since the beach was rather steep they were easier to haul up than the *buatan barat*. Comparative cost may also have been a factor, since the community was not wealthy, and the *lichung*, many of them in older

term is used without qualification in this book, it is *pukat hanyut* that is meant.

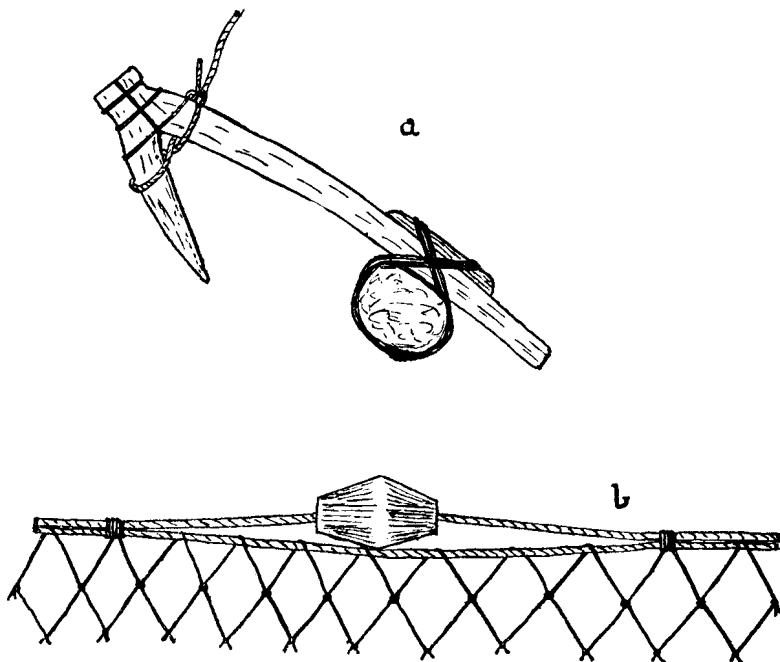


FIG. 9.—a. Anchor of Fishing-boat. b. Float attachment of small Drift-net (*Pukat tēgēlang*).

Pukat Talang: This is also a drift-net, akin to *pukat hanyut*, but with a larger mesh, to take primarily the *talang*, a fish of the horse-mackerel type about two to three feet in length.

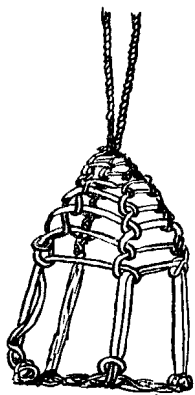


FIG. 10.—Rattan Sachet for stone sinker of small Drift-net.

Pukat Tēggēlam (*pukat tēgēlang* in the local dialect): This is a drift-net also, smaller in size and in mesh than the *pukat hanyut*, undyed, and made of cotton thread normally, though in Trengganu ramie fibre is sometimes used. This net has wooden floats and is weighted with small stones neatly enclosed in wicker sachets, which submerge it well below the surface; in contrast to the *pukat hanyut* it may therefore be referred to as the "submerged drift-net", or "small drift-net". It is up to 45 fathoms or so long, about 3 fathoms deep, with a mesh of the breadth of three fingers (Figs. 9b, 10).

It is frequently worked by a single man, but often two or three men lash their nets together as sections of a larger unit. The fishing is normally done a mile or so from shore, in a comparatively small boat. The net costs in Kelantan \$10 to \$12

new, but in Trengganu, where it may be much larger, it may cost up to \$50. The *pukat tēgēlang* is the general utility net of the small fisherman or crew-man of the larger net groups. With it he takes many types of fish in the shore waters, varying according to season and including jewfish of several kinds, small dorab, cat-fish, shad, a herring known as *pērūpok*, and also prawns. If specialized for the last, it is known as *pukat udang*, prawn net. A drift-net of similar type, but specially adapted for the taking of cat-fish (*ikan duri*) is known as *pukat duri*.

Pukat Sudu: This is a purse-net of the V-shaped *pukat payang* type, but made of cotton thread. It is used in conjunction with a coco-nut frond lure and with three boats, somewhat after the fashion of the *pukat takur*. Its primary purpose is the taking of pomfret (*bawal*), and the *pukat bawal*, though listed as a separate type in the Trengganu net register, may be essentially the same. At Kuantan in Pahang, however, other fish are taken by it as well. The cost is usually between \$100 and \$150 new, for nets about 20 fathoms long, but larger ones may cost up to \$250.

Pukat Tanggut: This net, of the purse type, is worked from a single boat with a crew of three or four men, and takes a variety of fish, but especially pomfret. Its cost is about \$80 new.

Jaring: This is a gill-net, varying greatly in size and use, but commonly employed in Kelantan and Trengganu waters as a *jaring tamban*, a drift-net about 30 fathoms long for "sprats" and other small clupeid fish. In this form it is made of cotton thread, of fine construction and small mesh, and is not dyed—in contrast to most of the other nets. It is operated by day from one or two boats, each with a crew of about four men. The net costs about \$40 new. A small type of this net is also used by dorab line fishers to obtain their bait, and then costs only a few dollars.

Pukat Todak: This is a net adapted for taking small garfish, and has a mesh of about one inch. Only very few of these nets are in operation on the Kelantan-Trengganu coast, and their cost is small.

Takur Baring: In Kelantan this is a small push-net used for taking shrimps (*udang baring*) in water just off the beach; it is operated by two or four men (or even with a woman included) working waist-deep or shoulder-deep. Its cost is about \$20 new. In Trengganu there is a larger variety called by the same name, but operated from a boat at sea in depths up to seven fathoms. Such a net costs about \$40 at the present time, though at Kuala Trengganu it used to cost \$50 or so before many men had learnt the art—there was formerly only one man on the Tanjong who made them.

In addition to the nets described, all of which with the exception of the *takur baring* of Kelantan are used from boats at sea, there are two types of hand-net which are very popular, especially in the monsoon season when the boats cannot put out. One is the *jala*, common in all parts of Malaya. This is a circular casting-net weighted by heavy rings; it is flung in a spreading

TABLE 1

VALUE OF FISHING EQUIPMENT IN KELANTAN AND TRENGGANU

		\$
<i>Kelantan :</i>	Value of fishing-boats	150,000
	„ „ boat gear	17,500
	„ „ nets and traps	80,000
	„ „ line-fishing gear	1,200
		248,700
<i>Trengganu :</i>	Value of fishing-boats	238,750
	„ „ boat gear	27,750
	„ „ nets and traps	100,000
	„ „ line-fishing gear	1,600
		368,100
	Total value :	616,800

corresponding level for Trengganu, with a probable 10,000 fishermen, would be about \$37. The difference is not significant, and all that one is entitled to infer is that for both States together the average value of capital equipment per head of fishermen is between \$35 and \$40.

FINANCE OF BOATS AND NETS

The variation in the command of free capital by fishermen in the different areas along the Kelantan-Trengganu coast is considerable. This account is based on a brief comparative survey in 1940. (A detailed analysis of the process of financing production in the Perupok area of Kelantan is given in Chapters V and VI.) The most significant differences occur in the purchase or use of the larger types of boats and nets. In essence the situation may be described in terms of contrast of principles: cash or credit; build or buy; own or borrow; unitary or multiple control. In any given case, however, these principles may not be exclusively followed.

The methods of obtaining the necessary capital equipment for fishing, in more detail, are as follows:

i. *Full purchase, with unitary ownership.* Payment of the full price by a single buyer at the time of purchase is fairly common with boats, though rare with nets. The inducement is a substantial reduction of the price for cash down. A fisherman at Kuala Marang told me that he bought his lift-net for \$200 cash, whereas if he had got it on time payment the price would have

been \$250. In Kelantan a difference of \$30 or \$40 is usual. Buying of nets for cash, when it does occur, is normally for second-hand ones.

ii. *Putting up the capital for manufacture.* If a man has enough capital to pay cash for a new net he usually prefers to have it made for him, and so avoid the entrepreneur's profit. He is said to "make it himself", though he buys the yarn and pays piece-rates to women home-workers to spin the thread and make up the net in sections for him. Men of substance usually manage to have one net in use and another in process of manufacture, ready to substitute for the first when this gets too old or torn, or when a good offer is made for it. Sometimes a man manages to have two nets completed and uses them alternately. With this is linked the practice of making nets specifically for sale.

In Kelantan many nets are made locally. But the Bachok district, especially the Perupok area, makes many nets for sale elsewhere, some even going to Trengganu and to Patani. In Trengganu the practice varies according to local skill and command of free capital. Purse-nets and seines are commonly made in the area where they are used, but lift-nets are often imported from other areas. The Besut area mostly makes its own nets, though the poor community of Ayer Tawar, which uses lift-nets, usually gets them from Kelantan. At Batu Rakit most nets are made locally, but some are got from Batu Lipo, a little farther down the coast. Only one man in Batu Rakit, I was told, makes nets for sale—about two or three a year—whereas in Batu Lipo about fifteen men make nets for sale. Kuala Trengganu supplies its own nets, while Kuala Marang, the centre for much lift-net fishing, makes some but buys most from Batu Lipo and other centres to the north. I was told of only one man there who made nets for sale. Chenering, a small village between Kuala Trengganu and Kuala Marang, makes about ten *pukat sudu* a year; it does not use them but sells them to villages to the south. At Dungun, seines, lift-nets and some other nets are made, but some lift-nets are also bought from Kuala Trengganu. At Kemaman many nets are made, but lift-nets were formerly bought from Bachok and in recent years have been obtained from Batu Lipo.

Boats are often made to order, cash being advanced by the client to the builder for the purchase of materials, and the balance paid when the craft is finished. Tumpat, Bachok, Kuala Trengganu and Kuantan (in Pahang) are important building

TABLE 3
PRIMARY OCCUPATIONS OF ADULT MALES
Economic Age Category.

Occupation.	b	c	d	Total.	Group Total.
Lift-net experts	—	19	—	19	
Lift-net crew	49	169	8	226	
Other net-users	—	8	1	9	
Line fishermen	2	37	5	44	
Other fishermen (occasional) .	1	4	2	7	
Ill, long period	—	2	—	2	
Total fishermen	52	239	16	307	
Dealers (fish, etc.)	2	27	3	32	
Shopkeepers	—	8	—	8	
Total middlemen	2	35	3	40	
Boat-builder	—	2	—	2	
Carpenter	—	3	—	3	
Goldsmith	—	2	—	2	
Tailor	—	1	—	1	
Coco-nut climber	—	1	—	1	
Rice planter	—	2	—	2	
Wage earner	—	2	—	2	
Bus driver	1	8	—	9	
Mosque official	—	2	1	3	
Religious teachers and students	4	5	—	9	
Bomor (medicine-man)	—	3	1	4	
To' Dalang (shadow player) . .	—	1	—	1	
Penghulu (headman)	—	1	1	2	
Total craftsmen and officials	5	33	3	41	
Miscellaneous jobs and charity	—	3	3	6	
Retired (past work)	—	—	7	7	
Total miscellaneous	—	3	10	13	
Total occupations	59	310	32	401	
No data	4	5	1	10	
Total adult males	63	315	33	411	

Of the men of the older age group (*d*), approximately half are still engaged in some form of fishing; they have tended to fall back from being *juru sèlam* (lift-net experts) to ordinary crew-men, or from working with the lift-net to line fishing and other types which demand less effort and less regularity of work. A few of them have turned to fish dealing on shore. Nearly all the young unmarried men, or young men recently married (category *b*) are fishermen, most of them working with the lift-net. This last is to some extent due to their lack of capital, but it is

in contrast to the situation which exists in some other parts of Malaya, of the young men abandoning their fathers' occupation for wage-earning or idleness in the town. Even Kota Bharu, the chief town of Kelantan, has its "corner boys", who loaf about and live by odd jobs or by sponging on their relatives. This position on the Perupok coast is undoubtedly due partly to the lack of a systematic and prolonged school education, and partly to the lack of other immediate economic opportunities. For a correct appreciation of the whole position account should be taken of several young men not resident in the area at the time of our enquiry, who had been sent away by their parents to receive more extensive education than the local Koran teacher provided, and who would certainly not take up fishing if and when they returned. The religious vocation always draws away a few young men. Some, however, return to ordinary economic life, as had one of the most successful fish dealers of Pantai Damat.

Apart from the classification given above, a large number of the men have secondary sources of employment. Among the fishermen, netting with the lift-net in groups of 20 to 30 men is the major employment. But most of these fishermen go out with the gill-net when mackerel are in season, and many of them go line-fishing or with drift-net at the appropriate periods of the year. The classification in the table is based upon the fact that at times, when two or more forms of fishing are possible, certain men keep to one rather than to another, from differences in their skill or in their command of capital. Those listed as primarily line fishermen, for instance, are men who carry on this type of work when the majority have gone over to lift-net fishing; they do this partly because of their superior skill at line work, and partly because they own or can go out in the small boats appropriate to this work. Those listed as primarily occupied with nets other than lift-nets are men who have an interest in drift-nets or seines; most of them rarely take part in lift-net fishing, and then only to fill some temporary gap in a group. The expert lift-net fishermen, who have had special training for the delicate work of locating and identifying fish of the required type, are in most cases the owners of the nets they use, and except for work with the mackerel net they rarely engage in other types of fishing. All these factors of comparative specialization find reflection in the field of income, and will be treated later.

But primary work as a fisherman does not mean that a man is debarred from any other type of occupation. A number of

TABLE 4
SECONDARY OCCUPATIONS OF ADULT MALES
(The list at the top of the table shows primary occupations; that at the side, secondary occupations of men in the primary categories)

	Fisher- man.	Fish dealer.	Shop- keeper.	Boat- builder.	Car- penter.	Coco- nut climber.	Rice planter.	Bus owner.	Mosque official.	To' Dalang.	Peng- hulu.	Total in each Secondary Occupation.
Lift-nets made for sale.	6	2	1	—	—	—	—	1	—	—	—	10
Drift-nets made for sale	1	—	—	—	—	—	—	—	—	—	—	1
Fish-traps made	1	—	—	—	—	—	—	—	—	—	—	1
Paddles, etc., made	2	—	—	—	—	—	—	—	—	—	—	2
Boat-builder	1	—	—	—	—	—	—	—	—	1	—	2
House-builder	1	1	—	—	—	—	—	—	—	—	—	2
Fisherman	—	3	—	1	1	1	1	—	1	1	—	9
Sinnet rope-maker	2	—	—	—	—	—	—	—	—	—	—	2
Turtle egg importer	2	—	—	—	—	—	—	—	—	—	—	2
Vegetable grower	2	—	—	—	—	—	—	—	—	—	—	2
Fruit-tree grower	1	—	—	—	—	—	—	—	—	—	—	3
Rubber planter	1	—	—	—	—	—	—	—	—	—	—	1
Rice planter	20	—	—	—	1	—	—	1	—	—	—	22
Coco-nut climber	2	—	—	—	—	—	—	—	—	—	—	2
Coco-nut monkey owner	2	—	—	—	—	—	—	—	—	—	—	3
Copra maker	—	6	—	—	1	—	—	—	—	—	—	7
Bomor	2	1	—	—	—	—	—	—	—	—	—	3
Shadow-play assistant	2	—	—	—	—	—	—	—	—	—	—	2
Fish dealer	10	—	1	—	—	—	—	—	2	—	—	13
Rattan dealer	—	1	—	—	—	—	—	—	—	—	—	1
Goat, sheep breeder	2	—	—	—	—	—	—	—	—	—	—	2
Shop landlord	2	—	—	—	—	—	—	—	—	—	—	2
Well-head maker	—	—	—	—	1	—	—	—	—	—	—	1
Total men employed out of each primary occu- pation	62	14	2	1	2	1	1	1	2	1	1	88 men

these men have secondary employments outside the fishing field. The situation of craftsmen is similar. It was not possible in the time available for our work to make a complete record of the secondary employments of all men in the community, but the more obvious cases were noted, and the results are given in Table 4. At least 20 per cent. of the fishermen and 22 per cent. of the total men of the community thus have some subsidiary source of income (apart from any income from interest on loans of capital in boats, net or cash, and from any returns on leased rice lands, coco-nut palms, etc.). Among the fishermen, the making of nets for sale, fish dealing, and rice planting are the chief subsidiary occupations. Those listed as fish dealers are men who consistently make a practice of doing this work when not engaged in fishing; in addition almost every fisherman from time to time takes part in a little buying and selling of fish on the beach, just as his womenfolk do. The making of lift-nets for sale is an important source of income. The lift-net experts are the main entrepreneurs in this activity. The main secondary occupation of the fish dealers is the preparation and marketing of copra, much of it from coco-nuts sold by the more wealthy fishermen. A few fish dealers, like some men from other occupations, turn to the sea for a secondary employment when business on shore is bad, or when there is a keen demand for extra fishermen. A complete record would probably have enlarged considerably the number under this head. It will be noted that two of the Mosque officials engage in some fish dealing; their income is small, and they both operate in a very small way on the beach.

No detailed account of reasons for choice of employment can be given here. But it is clear that personal preferences are involved. In this area as a whole, comprised between the beach and the right bank of the river, of which our census area is but a part, the two primary employments are fishing and rice cultivating. There is some tendency to a zoning of these, but many men pursue them both as the seasons allow. On the whole, no great preference seems to be shown for one employment over the other by the men who undertake them both; the one gives fish, the other rice, both staples of diet. But from some people we received an expression of opinion on their relative merits.

The most definite was that of a young man who was normally a lift-net fisherman, but who, through his wife, had a couple of lots of rice to cultivate. He said that he preferred planting rice

to going to sea—there one got wet, one had to paddle, and with several boats concerned, the benefit might be small. Here, in the rice-field, one got a living: "It's number one work!" His father-in-law, a padi planter and occasional medicine-man, agreed. He stressed that his work lay in the fields; he hadn't been to sea since he had begotten children; he raised goats and cattle, and he hadn't travelled either to the west or the east (local expression for Siam and the southern States of the East coast). Another point of view was expressed by an old woman who was harvesting with her daughter. The girl's husband was an energetic cultivator of rice and vegetables, but couldn't go to sea—he got sea-sick. He had tried a couple of times, but he couldn't rouse himself and work for illness.¹ The old woman commented bitterly: "Other people eat well; we eat ugly stuff," meaning that they were kept short of fish as a result. There is no doubt that it is the desire for plentiful fish in addition to a wish for extra cash that sends many of these rice planters to sea. One woman, harvesting alone, explained her husband's absence by saying that he was out with a lift-net; people asked him, and he had gone because he was "hungry for sea-food".

One of the notable features of the Kelantan peasant life is the freedom of women, especially in economic matters. Not only do they exercise an important influence on the control of the family finances, commonly acting as bankers for their husbands, but they also engage in independent enterprises, which increase the family supply of cash. Petty trading in fish and vegetables, the preparation and sale of various forms of snacks and cooked fish, mat-making, spinning and net-making, harvesting rice, tile-making, the preparation of coco-nut oil, the selling of small groceries in shops are some of the occupations followed by women. From the material of our census it was clear that at least 25 per cent. of the adult women of this community have some definite occupation which yields a regular income. And if casual or intermittent work be also taken into consideration—such as selling husband's fish, fish-gutting, etc., probably some 50 per cent. of the adult women are gainfully employed from time to time.²

¹ Sea-sickness is an unexpected frailty in a Malay. But I met another case of it also in a padi planter. He, too, said that he was ill whenever he went out. But he had made a secondary employment for himself in the preparation of coco-nut fibre and the twining and plaiting of ropes used by fishermen.

² A detailed analysis of women's occupations in relation to the economy as a whole is given by Rosemary Firth, *op. cit.*, 19-23.

Our general survey of fishing communities along the Kelantan-Trengganu coast showed that this occupational analysis of the sample community was fairly typical. As one moves southwards, however, into Pahang and Johore, conditions change: Malays play less part in middlemen's activities, and the rôle of women in trading is less important. But more regional investigation in detail would be necessary for precise comparison.

CHAPTER IV

PLANNING AND ORGANIZATION OF FISHING ACTIVITIES

In this and the following five chapters I give a detailed analysis of the fishing economy in the Perupok area, as an example of the type of relationships which characterize Malay fishing communities. In the first place, one must dispose of the idea, still popularly held, that the Malay fisherman leads an easy, even lazy life; that all he has to do is to launch his boat, catch enough fish for the family supper and return to idle away his time on the beach or in the coffee-shops. European visitors to the villages in the morning or early afternoon may see men sitting on the platforms of the houses or lounging about under the coco-nut palms. They tend to form a false impression; they do not realize that these men are often fishermen who have been out all night at sea and are now resting before another night's work, or fish dealers whose work begins in the afternoon when the day-fishermen come in and who will probably be busy till late in the evening curing the catch or going far inland to sell it. Another erroneous idea is that the fishermen do not plan their activity but take things as they come, and are essentially unorganized. It is true that the scale of their organization is not very large, and that there are men here, as everywhere, who are content to work in a rut. But within the scope of their organization their planning is often careful, even anxious, and may be looking months ahead.

Within the limits of the natural conditions, the capacity of their equipment and the labour supply available there are many choices to be made. It is necessary then to indicate what kinds of opportunities are open to the fishermen, how they select and plan their activities, and on what basis they make their preferences. This may be done by showing how they use their labour and capital in different types of fishing.

As a preliminary, however, it should be pointed out that the basic factor affecting the organization of the fishing industry is the relative preference of the consumer—whether fisherman or not—for different kinds of fish. In poor seasons or bad weather the Malay will take what fish he can get, and pay high prices for it. If he cannot get fresh fish, he will take cured fish or

(anchovies pickled in brine), though he regards them as inferior. Some fairly wealthy consumers buy imported tinned fish (*ikan sardine*) occasionally, though this is a delicacy for the peasant rather than a direct substitute for local fish. But given a chance of selection, definite preferences are exercised, and illustrated by price differences. There are some individual variations here, but, broadly speaking, all Malays share the same range of preferences. Among the commoner fish, those which are esteemed most highly are Spanish mackerel, pomfret, snapper, bonito, and gizzard shad. The first three (almost the only table fish eaten by Europeans in Malaya) are apt to be taken mainly to the urban markets, where the effective demand in terms of price is usually greater than in the villages. In keen demand also are dorab, moonfish, large horse-mackerel, prawns, squid (? really a small cuttlefish), mackerel and grey mullet, according to season. A little lower in the scale of preferences are the small horse-mackerel and small herring, etc., which form the bulk of the lift-net catches along the Kelantan coast. In close competition with them are sea-bream, silver-bellies, scabbard-fish, various kinds of jewfish (some more liked than others), garfish, pike, crabs, and various other types which constitute the bulk catches from seines, small drift-nets and some kinds of hand-lining. Among the coarser fish which tend to be a drug on the fresh fish market when other kinds are plentiful, but for which demand may be fairly keen in times of general scarcity, are sharks, rays, soles, flatheads, *Coryphaena*, *pērupok* (a large herring), and small fish such as *mudin* and *kirun* (see Appendix VIII). From the point of view of a fisherman, of course, this rating expressed in relative prices has to be balanced against the probable bulk of his catch in each case.

PREFERENCES IN THE USE OF LABOUR AND CAPITAL

There are eight major types of fishing practised in the Perupok area. In six of them, nets are used from boats at sea; in one, hooks and lines are used from boats; and in one, hand-nets are used in the shallow water off the beach. Several of these types may be sub-divided according to variation in the kind of equipment or in the method of using it for different kinds of fish, so that at least a dozen ways of fishing are open to men with different skill or interests or different amounts of capital at command.

Preferences for different types of fishing are governed in the

first place by some physical factors—changes in wind and weather and the seasonal run of the various kinds of fish.

All the forms of fishing in the Perupok area are subject to seasonal variation, and some of them are possible for only short periods of the year. But the most marked seasonal rhythm is that of the north-east monsoon, which usually breaks towards the end of November, and with frequent high winds and torrential rain, lasts approximately till the end of January, or even later. This is succeeded by a period of light, variable winds, often from the south or south-east, and this in turn gradually merges into a long period of steady alternate land and sea breezes. These changes in the period from February to November, however, are not at all regular, and even the monsoon itself is apt to vary from year to year in its onset, its duration, and its intensity. The monsoon of 1939-40, for instance, was characterized by absence of gales, though it was longer than usual before the north-easterly winds finally died away and regular sea fishing became possible and easy. The fishermen complained, too, that subsequent fishing was poor, that the lack of really heavy gales had not given the water its usual post-monsoon turbidity, that consequently food for the fish was lacking, and in the clear water they saw the nets more easily and tended to "bolt".

The economic effects of the monsoon are most marked. It puts a stop to all sea fishing, except on the rare days when the surf is moderate enough to allow boats to be launched. Consequently it cuts off the major source of income. This necessitates at least an attempt at saving some portion of the income of the preceding few months. Where savings have been insufficient, it leads to borrowing in cash or in kind, or to the accumulation of debts in the shops. On the other hand, more time is available to the men for repair of boats and nets, and for craft-work as a subsidiary source of income. And, again, some income can be gained by fishing for grey mullet, which come in to the heavy surf off the beach and may be taken with a long-handled scoop-net or a casting-net. The capital needed for this is small, so the work is open to almost any fisherman. The results are sufficient to provide fish for the household meals, and often enough petty cash for coffee, cigarettes and small household wants.

The major productive rhythm is well shown by Fig. 14, which gives a synoptic impression of fishing activities in the Perupok area for a year (1939-40). This illustrates the marked break in all forms of sea fishing in December—the height of the monsoon

that year—and the filling of that break by fishing with the scoop-net. It shows also how fishing with drift-nets (*pukat hanyut* and

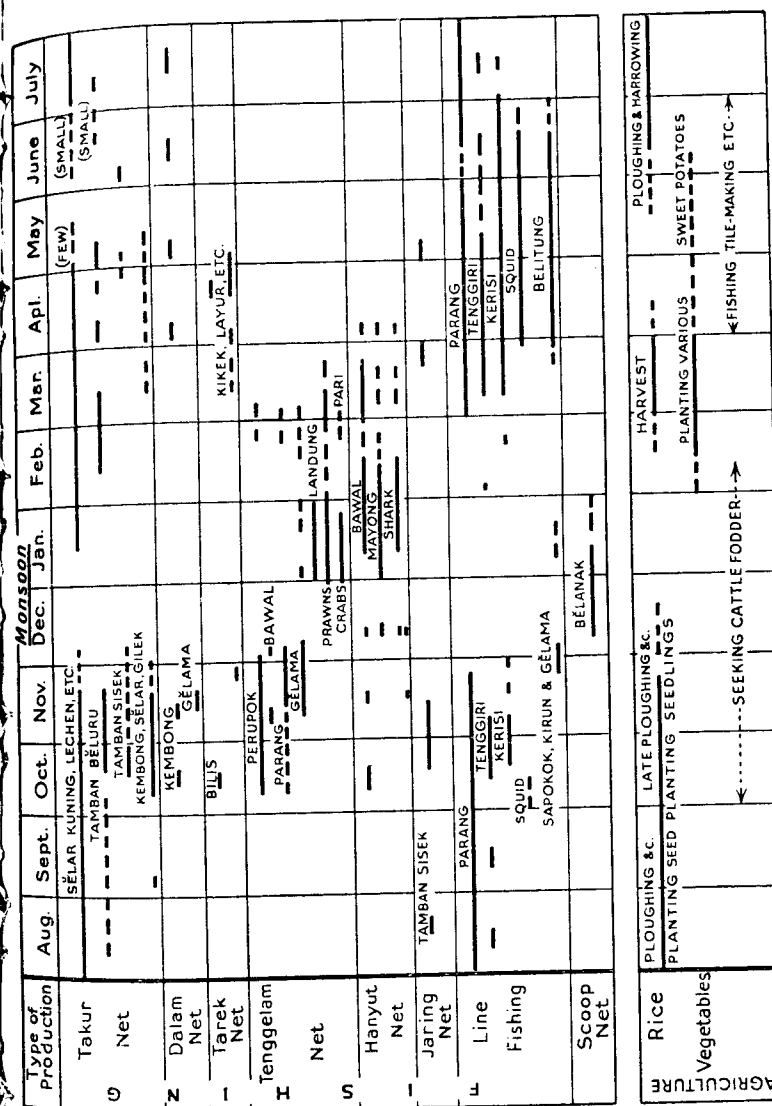


Fig. 14.—Cycle of Production, Perupok Area, 1939-40.

English equivalents of the Malay fish names are given in Appendix VIII. Solid lines indicate regular fishing; broken lines, irregular fishing. (The comparative diagram of other employments similarly indicates their main periods.)

pukat tēgēlang), which can be handled in fairly rough weather, tends to concentrate round the monsoon period.

As regards the seasonal run of the various types of fish, lift-net (*takur*) fishing, the mainstay of the area, is possible for most of

the year. But it is interrupted not only during the monsoon, but for a couple of months, usually May and June, when the fish are too few and too small to be of commercial value. This gap is possibly relieved for short periods by night-fishing for mackerel with the deep gill-net, but the fewness and uncertainty of these periods does not allow this to become a regular alternative occupation. Fortunately, at this season fish which can be taken on the hand-line are fairly plentiful, especially Spanish mackerel, sea-bream and *Coryphaena*. For a short period small squid come in abundance and may be caught with a little grapnel (Fig. 15).

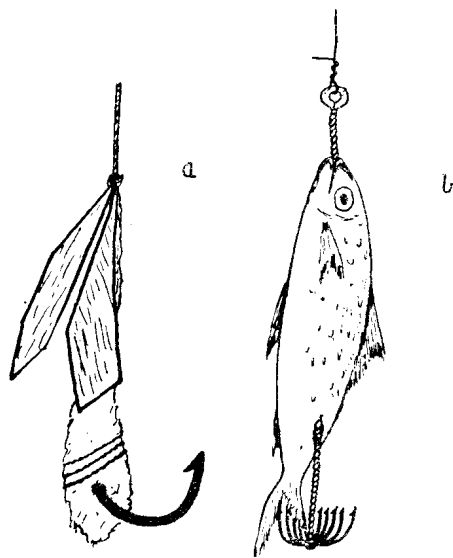


FIG. 15.—Two methods of hand-line fishing.

- a. Spinner of pandanus leaf and fish for Spanish mackerel (*tenggiri*).
b. Grapnel with whole fish bait for squid (*sulung*).

this being done in conjunction with other line work. Hence at this time most of the large lift-net boats are laid up, and there is a premium on securing a place in the smaller two- or three-man craft which are most suitable for line fishing. Not many of the lift-net fishermen have small boats of their own, but most of them succeed in getting places as crew, and since the cost of the tackle is small their income is maintained and often increased for a while. Even while lift-net fishing is still worth while, Spanish mackerel have begun to appear. Every lift-net boat carries one or more spinners, which are thrown out on the way to and from the fishing grounds and usually take two or three fish, which are sold

for the benefit of the crew. When the lift-net yields are low, but places in small craft are not available, or it does not yet seem time to break up the net organization completely, some of the crew go line fishing for sea-bream in their own large craft, with four to six men. As the line fishing in its turn begins to give a decreasing yield, the lift-net fish tend to appear once again in quantity, and so gradually a change of employment takes place once more.

Concentration on fishing with the small drift-net (*pukat tégélang*) is determined partly by the monsoon interruption in lift-net work, and partly by the presence of quantities of jewfish and large herring at the beginning of the monsoon and of *landung* (? a sea-bream) and prawns immediately afterwards. The season for the latter, in particular, tends to overlap that of the lift-net for a couple of months, so that to some extent there is direct competition between them as alternative employments. For any man, the decision is usually determined by whether he has a small boat or not. Much the same competition exists between lift-net fishing and that with the large drift-net (*pukat hanyut*) in the early part of the year. The latter cannot be run in conjunction with the lift-net or the small drift-net, since though it is carried on by night, and they are worked by day, its boats normally arrive back in the morning after the others have gone out. In fact, the large drift-net fishermen are usually specialists, combining this work either with mackerel netting, or with line fishing for large dorab. These fish, sometimes called the wolf-herring, are taken when small in the drift-nets, but when large are caught throughout most of the year on hooks operated from set lines with a bait of sprats. The dorab fisher works from a one-man craft which is useless in rough weather, so this occupation dovetails fairly well with drift-net fishing conducted from a large boat which can stand heavy seas.

The other three main types of fishing, with deep gill-net, seine and *jaring*, are all directly competitive with lift-net work. The seine, in particular, depending on bulk catches either of anchovy or of other fish used primarily for drying, is in some areas preferred to the lift-net and so absorbs the major part of the labour and capital. This is not so, however, in the Perupok area. There this type of fishing is practised for short periods only, and very few nets are employed, as an occasional alternative to lift-net work in calm weather. The deep gill-net (*pukat dalam*), depending primarily on scomber (a mackerel), and the *jaring*,