

New Guinea Research Unit Bulletin

Number 7

THE M'BUKE CO-OPERATIVE PLANTATION

R. G. CROCOMBE

August 1965

Published by the New Guinea Research Unit, Australian National University,
G.P.O. Box 4, Canberra, A. C. T. and P.O. Box 419, Port Moresby, Papua-New Guinea

AUSTRALIAN NATIONAL UNIVERSITY

Research School of Pacific Studies

New Guinea Research Unit Committee

Professor Sir John Crawford, Chairman, Director of
the School

Professor J. W. Davidson, Department of History and
Government

Dr H. C. Brookfield, Department of Geography

Dr Paula Brown, Department of Anthropology and
Sociology

Mr E. K. Fisk, Department of Economics

Dr R. G. Crocombe, New Guinea Research Unit

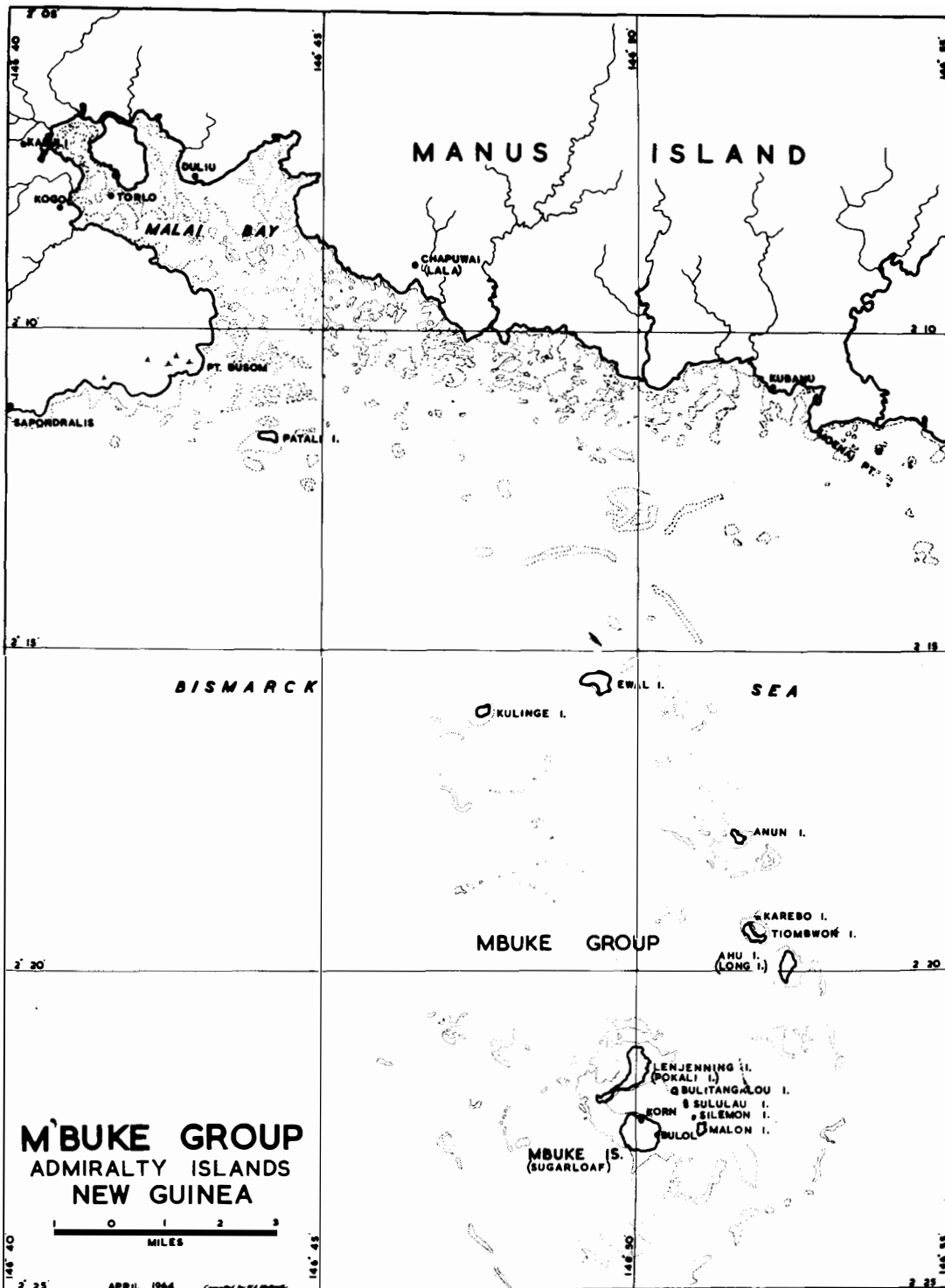
Editor, New Guinea Research Unit Bulletin

R. G. Crocombe

August 1965

Contents

| | <u>Page</u> |
|---|-------------|
| Foreword | 1 |
| European plantation enterprise in the M'buke group | 5 |
| Establishment of a co-operative and acquisition of the plantation | 8 |
| Management and work organization | 11 |
| The efficiency of labour | 17 |
| Income distribution | 24 |
| Future possibilities | 28 |
| Plantation operation by co-operatives | 33 |
| Summary | 39 |
| <u>Appendices:</u> A. Areas of islands and clearing arrangements | 41 |
| B. Changes in personnel in managerial roles | 42 |
| C. Historical notes on leadership and land claims in M'buke | 44 |
| D. Rights to land and trees | 62 |
| Bibliography | 68 |
| <u>Maps:</u> Admiralty Islands (Manus District) | 45 |
| M'buke group | 2 |
| <u>Tables:</u> 1. Daily record of sample work gang for six weeks (21. 10. 63-30. 11. 63) | 19 |
| 2. Categories of work undertaken (in days) by sample work line for 6 weeks (21. 10. 63 to 30. 11. 63) | 20 |
| 3. Analysis of plantation work from Tables 1 and 2 (in man-hours) | 21 |



is available to researchers proposing further studies in this area.

In the field every assistance was given by the chairman of the co-operative (Mr Pakob Paliau) the plantation manager (Mr Nabor Potuku) the local government councillor (Mr Bernard Chaminsul) as well as by the people as a whole. The interest and assistance of a number of other people both within Manus and without is acknowledged with gratitude. Particular mention must be made of the District Commissioner, Mr L. J. O'Malley; the Co-operative Officer, G. W. Tillman; the manager of Edgell and Whiteley Ltd. (former owners of M'buke plantation) Mr P. Byrne; and Mr C. Carthausser of the Department of Education who gave invaluable assistance by collecting demographic data, recording time patterns, and helping in many ways. The maps were prepared by Mr W. A. McGrath.

The Admiralty Islands lie just over two hundred miles north of Madang, the main port on the north coast of the island of New Guinea. Administratively they constitute the Manus District of the Trust Territory of New Guinea, and Manus Island is both the largest island in the archipelago and the site of the administrative headquarters. The M'buke Group comprises thirteen small islands lying off the south-west coast of Manus (which is referred to as "the mainland"), and takes its name from M'buke Island which is the largest and southernmost island in the group. Today the sole village in the group is located on M'buke island and the population of 432 people maintain their permanent homes there, even though some of them reside temporarily on other islands of the group while they are working copra.

The M'buke people classify the indigenous inhabitants of the Manus District into four broad categories which are based on both physical and cultural differences. The same classification is widely used by others in the district, including Europeans. The first category is called the Manus (in Pidgin "Manus tru") or Salt Water people, all of whom trace their origin from Peri and all of whom traditionally lived in villages built over the water on reefs and islands off the south coast of Manus Island. The M'buke people belong to this group. The

second category includes the tribes who inhabit the main island of Manus and these are grouped together under the name Usiai. Thirdly there are the Matankor who inhabit the south-eastern archipelago including the islands of Lou, Rambutso, Baluan and others. The fourth category covers the peoples of the Western Islands. It should be pointed out that these are crude classifications and that the physical and cultural distinctions between the various tribal groups in the district are much more complex.

European plantation enterprises in the M'buke group

In the first decade of this century, none of the M'buke islands was permanently inhabited.⁽¹⁾ The indigenous people who claimed them were then living on the south coast of Manus at Chapuwai, near Malai Bay. A German trader (whose name is not remembered) bought the islands and established himself on the island of Anun which is central to the whole group and has a good harbour. Using indentured labour he cleared bush and planted coconuts on the islands of Anun, Tiombwon, Kulinge and Ewal. The trees were not yet in bearing when the first world war broke out in 1914, and Australian forces took over what was then German New Guinea.

In accordance with the terms of the Treaty of Versailles the Australian government took over all German properties, including the M'buke plantation, and vested them in a Custodian of Expropriated Properties. According to Sherwin (1962:30) there were then 13,000 coconut trees in various stages of growth on the property and over the next few years this number was increased to 16,000.⁽²⁾ By 1920, as detailed in Appendix C, the people from Chapuwai had returned and occupied Bulitangalou and M'buke islands, but not the other islands of the M'buke group as these constituted the plantation.

A Malayan manager was based at Anun, and was visited at regular intervals by Mr Richards and other European representatives of the Custodian of Expropriated Properties. In 1928, in accordance with the policy of settling returned servicemen on expropriated properties, the M'buke plantation was sold by tender to Mr N. L. Whiteley for £4,100 (plus £500 for Patali which was sold separately). In 1934 the partnership of Edgell and Whiteley was formed and M'buke plantation was taken over by the partnership.

(1) The traditional history of the islands is recorded in Appendix C, which also shows the basis of indigenous claims to them.

(2) Custodian of Expropriated Properties (1926) gives 14,988 palms on all islands excluding Patali in 1926.

The plantation was worked with indentured labour (mostly from within Manus district but including a few from Sepik) until it was abandoned at the time of the Japanese invasion in 1942 and all buildings on M'buke plantation were destroyed. The plantation became overgrown and many palms were destroyed when the American coastal batteries used the islands as ranging points.

Restoration did not begin until early 1951, when Edgell and Whiteley appointed Mr G. Doddridge to supervise the clearing of the M'buke plantation, the reconstruction of buildings and the replacement of dead palms. The M'buke people initially opposed the company's attempt to re-establish, as owing to the long period of inactivity they were beginning to assume that the company would not return. The plantation was not at that time being used at all and when Administration officers reaffirmed the company's rights, and the company representative explained that M'buke people would be offered employment and would enjoy more regular shipping and other facilities, they agreed to the work proceeding.

Apart from four experienced men drawn from another of the company's plantations during the early stages, all work was carried out by M'buke people on a contract basis. Individuals cut and dried the copra and were paid at the rate of £18.15.0d per ton for Hot Air and F. M. S. grades and £15 per ton for Smoke grade copra. The clearing of undergrowth and cutting of grass was carried out at regular intervals and a given price was paid irrespective of the numbers working or time taken. (1) Once a regular routine was established Mr Doddridge was appointed manager at N'drowa plantation about 25 miles away. From there he continued supervision of M'buke plantation and spent one or two days there every fortnight.

Long-term prices for most tropical products are showing a steady downward trend, but costs of plantation operation by Europeans are rising, and European staff are becoming more

(1) The prices paid for this work for each island are listed in Appendix A. The co-operative has continued this system and pays the same rates.

difficult to obtain. Quite apart from political considerations it is to be expected that under these circumstances the owners of small or remote plantations will be favourably disposed to selling out if they can find a suitable buyer. Few Europeans are interested in acquiring such properties and prospective vendors must look to indigenous groups and individuals. This trend may be observed in many parts of the country, and the M'buke plantation is an example of it.

Establishment of a co-operative and acquisition of the plantation

A co-operative society was formed at M'buke in 1955 for the dual purpose of marketing trochus shell and copra⁽¹⁾ produced by members, and of operating a retail store. The society was almost universally supported by the people and in its first year it had about 170 paid up members from a total population of 376 (all of whom live in a single village). Other members from Malai Bay and Johnston Island gave a total membership of 217.⁽²⁾ Share capital was subscribed by members at a minimum rate of £5 each and was derived mostly from sales of trochus shell and by work on the company plantation.

Early in 1959 leaders of the co-operative approached the Administration about the possibility of acquiring M'buke plantation. The owners were agreeable to selling and after a government valuation and subsequent negotiations the price of £6,000 was agreed upon. Though the firm had found it a commercially satisfactory venture, profits must necessarily have been small and the property was very inconvenient to manage. Moreover, the setting up of the co-operative store on M'buke had seriously reduced the turnover of the company's store which was run in conjunction with the plantation.

The Baluan Local Government Council (which serves M'buke) then became interested in the possibility of acquiring the plantation. Purchase by the council would have been more

(1) That is private copra from M'buke and Bilitangalou (which were not included in the company plantation) and from Sululau which, though legally a part of the plantation, was not worked by the company after 1942.

(2) Johnston Island is a tiny atoll lying between M'buke and Baluan. It was populated by Tarwi people (who themselves originated from Peri) many years ago. During the war it was abandoned, but was re-occupied in 1947. The 37 adult Johnston Islanders joined the M'buke co-operative society and are thus part owners of the M'buke plantation. In 1961 they resettled on Tarwi, but still maintain their interest in the M'buke co-operative. The Malai Bay people (who are of Usiai stock) last year formed their own co-operative and all 36 members withdrew from the M'buke society.

straightforward as the council had sufficient ready cash whereas the co-operative did not and would need loan finance. But operation by the council, which had its headquarters at Baluan and served a very wide area, would probably have been difficult. The council considered either running it as a single plantation, or renting it in small lots to individuals (and possibly selling the blocks to the individuals working them). In 1960 meetings were held between council, co-operative and government representatives and it was decided that as the M'buke co-operative was on the spot and as its members would work the plantation, acquisition by the co-operative would be preferable.

The co-operative raised the necessary capital by withdrawing £ 1, 287 which had been deposited in trust with the Baluan Local Government Council for members of the co-operative, (1) withdrawing a further £ 1, 000 from the Manus Native Societies Association, (2) collecting £ 713 from members in cash, and obtaining a loan of £ 3, 500 from the Native Loans Board. (3) The loan is for a period of 5 years and is to be repaid in equal quarterly instalments of £ 175 from 31st March, 1962. Interest at the rate of 4 ³/₄% is also payable quarterly. The loan provided £ 500 working capital in addition to the £ 3, 000 which was necessary to make up the purchase price. A mortgage over the plantation was given as security for the loan.

It is normal practice for co-operative societies to deposit three-fifths of their share capital with the association (in this case the Manus Native Societies Association). To enable the plantation to be bought, however, the association gave the

(1) Some of this money had been paid from War Damage Compensation payments made by the Administration. £292. 16. 6 was paid out on M'buke in 1950 and further sums in 1953. Some of the money had been deposited in an informal "bank" which Paliau established, but it was refunded to depositors on Administration orders in 1954.

(2) The Manus Native Societies Association is the parent body for all co-operative societies in the Manus District. The association acts as wholesaler for the member societies and usually grants any society credit up to half the value of the share capital held on behalf of that society.

(3) A government agency which is located in Port Moresby.

M'buke society approval to allow its proportion of capital to fall considerably below that figure until such time as income from the plantation allows a normal balance to be resumed. Without this temporary accommodation from the association the society may not have been able to buy the property, at that time at least, for it is unlikely that the Native Loans Board would have considered a larger loan to be financially sound, or that the people could have raised much more capital themselves.

There was some delay in effecting the transaction as the titles to the plantation islands were still held by the Custodian of Expropriated Properties pending hearings before the Land Titles Commission, and it was necessary to regularize the company's title before it could be legally transferred to the co-operative. This was effected in due course and the actual purchase by the co-operative took place on 29th November 1961.

All four smoke-houses were replaced, using materials from the temporary dwelling in which the manager had camped during his visits. Undergrowth was cleared and some replanting was undertaken. Co-operative's staff say that the former caution and suspicion of the M'buke people was replaced by eagerness and enthusiasm for work. Consideration was given to buying spraying equipment to control the coconut grasshopper (sexava) which was prevalent on some islands, and the white ant and rhinoceros beetle which was present on others. However, following official advice, no action was taken. (1)

(1) The only effective spraying technique known to be suitable is a costly machine which is driven from the power take-off of a tractor, but the fact that M'buke plantation is spread over a number of small islands, parts of which are too rough for tractors anyway, precludes this method of control. Biological control may be feasible. The possibility is again under consideration by the Department of Agriculture.

Management and work organization

The directors of the co-operative decided to establish a management committee to handle the day to day operation of the plantation. The committee was elected by all members of the co-operative (and new elections are held annually) and consists of a manager and four members. Each of the members is responsible for a particular smoke-house and for the portion of the plantation which uses that smoke-house as its collection and processing point. (1)

Each committee member is assigned six 'labourers' (though as will be seen the term is not a very accurate one) for a period of three months. Each member is also assigned two firemen. (2) While the latter task is not arduous it requires very careful attention to ensure proper drying, and only experienced men are employed. They usually stay more or less permanently on the one island.

In the case of Lenjenning, Malon and Anun islands the workers live in M'buke village and go to the plantation each day. In the case of the other islands, which are further away, temporary housing is built and the workers return to M'buke only at weekends, usually from Saturday afternoon to Sunday night or Monday morning.

The committee member decides what work will be done each day. He and the labourers work together on the same tasks at the same time. At first all will collect fallen coconuts and stack them in heaps. Each man (including the committee member) has his own heaps and these are identified by his 'mark' - a coconut frond, a twig, a certain leaf or other symbol

(1) The committee members and the islands for which each is responsible are listed in Appendix B.

(2) In fact Lenjenning, Malon and Anun (being the largest unit) have 7 to 9 'labour' while Patali (being the smallest) has only 5 labour and 1 fireman.

that is his recognized identification. Gathering will continue for several days until there are sufficient nuts to fill the drier. (1)

Each man husks what he has gathered and the husks are strewn about to mulch. (2) The nuts are split in half, bagged, and carried to the smoke-house (on foot if in the same island, or by canoe from other islands). The number of bags produced by each man is recorded by the committee member as the basis for later payment. The halved nuts are tipped onto the drying racks while still in the shells and thenceforth all copra is pooled.

The firemen then take over. Fires are lit and tended day and night. When the copra is dry the firemen take out the shells (the copra contracts in the drying process and falls out of the shell) and store them as fuel for drying future batches of copra. No other fuel is used. Firemen are paid by each labourer at the rate of 1/- per bag of green copra. (The labourers are paid according to output at rates shown on page 24).

One of the inspectors (see Appendix B) then examines the copra and divides it, with the help of the labourers, into three grades. The labourers then bag and weigh it and it is placed in the copra store (of which there is one adjacent to each drier) to await shipment. When a vessel arrives the weights are checked by the secretary of the co-operative before shipment.

(1) During this study the Lenjenning group and the Ewal group picked at random and every man owned as many coconuts as he could gather. On Patali, each man was allocated 3 rows of trees from which to gather nuts. The Tiombwon gang was divided into 2 groups, each of which were allotted half the island. The system to be followed is a matter for each group to decide.

(2) A small proportion of husks is kept for smoking fish. The practice of scattering husks was established by Edgell and Whiteley Ltd. It has the dual advantages of enriching the rather thin topsoil of the islands and giving leguminous beans (which were introduced by the former company to increase nitrogen) something to grip onto.

The plantation is cleared every four months following the pattern laid down by Edgell and Whiteley Ltd. (1) This work is neither as interesting nor as remunerative as copra cutting. During the period of the field study two islands were cut, one by a group of 7 Usiai people from Manus, and the other by a group of 21 M'buke women and 3 men. (2) Only men are allowed to cut copra on the plantation (though some men take their wives with them to help) and clearing provides the women with their only opportunity to earn money from the plantation. (3) Of the 4 islands cleared immediately prior to the field study, 3 were cleared by gangs of M'buke men and 1 by a gang of Usiai men from Manus. Senior school boys were considering asking for a clearing contract during their holidays to raise money for sporting equipment.

Labourers are required to spend such time as the committee member requires on replanting of coconuts and the repair of buildings. No payment is made for normal maintenance, though the recent complete reconstruction of driers was paid for. (4)

It was originally intended that work groups would be rostered and each group given the right to make copra and the obligation to clear undergrowth on each island in turn. But such

(1) As shown in Appendix A. In fact most islands were cleared only twice in 1963, but the committee maintain that this was because there was little grass owing to the unseasonable drought.

(2) The former line cleared Lenjenning island in 126 man-days for a contract fee of £40 (equals 6/4 per man-day); the latter cleared Ahu in 168 man-days (equals 3/7 per man-day). In both cases M'buke men gave the workers some fish and coconuts, but the workers supplied most of their own food.

(3) About half of the shareholders in the co-operative are women. It should be made clear that they asked for this work and when the committee allocated the task to the women, all who wanted to go did so. There is no need for compulsion as there is a constant demand for this work by people from Manus.

(4) At the modest rate of £13 per drier (the Lenjenning drier, for example, was built by 29 men working intermittently over a period of three weeks). A small bagging shed built on Lenjenning during the study was not paid for.

a system was found to be insufficiently flexible to cope with the different needs of individuals for time off to travel, build houses, make canoes and so on. Now the work groups disband at the end of each three months period and new groups are formed.

There do not appear to have been any serious problems of discipline to contend with. As each man derives income largely according to his efforts, and as some would like to work more regularly than is at present possible, this is understandable. In the past two years only two men have been dismissed (by the manager) from plantation work for not doing their share of the communal work on the plantation. They are not barred from working again in future.

When the plantation was acquired, the co-operative considered the possibility of operating it on plantation lines with members constituting a monthly paid labour force, and with profits being distributed annually. The idea was rejected in favour of the programme already outlined on the ground that supervision would have been more difficult, individuals could not have been paid in proportion to their output, and the feeling of equal participation would have been lost as there would be insufficient jobs to enable all members to be employed. The M'buke people place great emphasis on individual action and, as noted in Appendix B, take precautions not to allow any individual to obtain too much power in the community. Effective working on plantation lines would probably have necessitated conceding more power to management than the M'buke people would be likely to accept for long.

The normal work-force on the plantation is 35, being 4 committee members (who act as working foremen), 24 labourers and 7 firemen. In addition the manager spends a part of each day on the plantation, the 2 inspectors (who are also directors) are each required to work two or three days monthly, and the co-operative secretary and storeman spend an estimated 20 per cent of their time dealing with plantation business (and the rest in the co-operative store). All the above positions are relatively permanent except those of the labourers, who ideally change every three months. The total population of adult males

on M'buke is 116. (1) Omitting 9 who seldom if ever work on the plantation, (2) and the 16 'permanent' positions listed above, this leaves 91 adult males to fill the 24 labour positions, which means that each man will have the opportunity to work copra for about $3\frac{1}{2}$ months each year. In addition, clearing provided an average of about 40 days' work per 'labourer' during the past year (not including that done by women or mainland people), and reconstruction of copra driers another 9 days' paid work.

In total, the average 'labourer' does the equivalent of six months full time work on the plantation, but this time is spread throughout the year. Additional income can be earned by making copra from individually-owned trees, diving for trochus and pearl shell, and sales of fish to the mainland (sold for cash or bartered for sago and vegetables). Occasional sums are derived from the sale of canoes, pottery, ornamental shells and handcrafts. With the exception of copra, which must be worked regularly, all the other items can be done at any time. (3)

(1) According to the latest official census (6 Dec. 1962). The census figure includes only those between 16 and 45 years of age. There are some ablebodied men above 45, but there are also 12 lads over 16 who are still at school. The figure of 116 is therefore approximately correct for the male work-force. The total population of the island was 432.

(2) Being 2 physically disabled, 2 church heads, the local government councillor and the 4 directors of the co-operative (other than those who are inspectors).

(3) All ablebodied adults who are not working on the plantation are allocated other tasks. Between 7 a. m. and 7.30 a. m. or thereabouts a gong is sounded and those not currently engaged in plantation work assemble in the village square, roughly in a line. Facing them are the councillor, the council committee and the directors of the co-operative. The councillor formally allocates tasks, but there is often considerable discussion before he does so. During the survey several men were allotted each day to work on a new schoolroom, some were usually 'sent' fishing (though the catch was their own) and on occasions some were allocated to repairing their own houses, transporting school children to the mainland for examinations or rebuilding the communal toilets. Women were assigned to cutting grass in the village, working thatch, and domestic duties. This custom of 'lining' every morning is said to be part of the 'new way' (associated with the Paliau movement) though in 1945 a District Officer instructed the luluai of M'buke to 'parade kanakas every morning for work and sick call' (Bulitangalou Village Book 25 Jan. 1945).

Most M'buke people do no gardening at all, and those who do have tiny plots a few yards square. Breadfruit, papaw, mango, pandanus and galip nut trees provide small quantities of supplementary food, but they cannot be classed as staples. There is some foraging for medicinal plants, but very little for food. Most food is obtained from fish and other marine products, much of which is consumed by the producer, and the balance bartered for sago and vegetable foods on the Manus mainland.

No data was collected on the time spent in activities other than cash cropping. However, allowing for fishing and food gathering, bartering, house and canoe building, and for time spent in sickness or attending life crises, the M'buke people find their time fully taken up. This is not to suggest that they could not do more, but given the existing demand for leisure (which incidentally appears to be lower than amongst most peoples we have worked with in this country) they would need a considerable incentive to undertake more. In fact, when government staff insisted on almost all houses in the village being rebuilt, strangers were engaged to work copra on Patali island and to clear undergrowth on Lenjenning.

The efficiency of labour

When the company operated M'buke plantation, output averaged $64 \frac{1}{2}$ tons per year. (1) In its first year of operation the co-operative produced $68 \frac{3}{4}$ tons and in its second year 55 tons. Output during the latter year was reduced by a drought, and company plantations in the district experienced similar reductions in output. (2) In subsequent discussions we will assume average annual output to be 65 tons.

As the plantation work-force at any one time may be taken as 37⁽³⁾ each worker produces an average of $1 \frac{3}{4}$ tons of copra per year. This covers all tasks (collecting, husking, drying, bagging, shipping, replanting, building maintenance etc.) except clearing, which costs £ 8. 5. 0 per ton of copra produced. (4)

Nobody, however, works on the plantation every day of the week. Given the size of the work-force and of the plantation it is not necessary that they should; and given the cost and quality of imported food it is considerably cheaper to produce most of their own rather than to buy it. Fish is the main protein

(1) Actual annual production was:

| | | |
|---------|----------------|-------------------------------------|
| 1951-2 | 10 tons | (plantation reopened after the war) |
| 1952-3 | 62 tons | |
| 1953-4 | 79 tons | |
| 1954-5 | 60 tons | |
| 1955-6 | 54 tons | |
| 1956-7 | 53 tons | |
| 1957-8 | 76 tons | |
| 1958-9 | 73 tons | |
| 1959-60 | 50 tons | |
| 1960-1 | <u>72</u> tons | |
| | 589 | |

The average of $64 \frac{1}{2}$ tons is based on the nine years of full production.

(2) P. Byrne, personal communication.

(3) As shown on page 14, but assessing the part-time work of the manager, inspectors, secretary and storeman as equivalent to 2 'full-time' workers.

(4) Calculated on the basis of 65 tons copra produced and £540 spent on clearing (as shown in Appendix A) per year.

food, and in addition to night fishing, plantation workers normally spend a full day deep-sea fishing every two weeks.

A study was made of the time spent on the plantation by the gang which was working Lenjenning, Malon and Anun islands over a period of six weeks.⁽¹⁾ The results are summarized in Tables 1 to 3. Table 1 (a) shows that the labourers in this gang spent 23 to 25 days on plantation work during the six weeks, and averaged $7\frac{3}{4}$ hours (not including travelling and resting time) per day worked. The men were assisted by their wives in some tasks but not in others. As shown in Table 1 (b) wives spent from nothing to 17 days assisting their husbands during the period (with an average of $11\frac{1}{2}$ days: just under half the average of their husbands).

Table 2 shows the number of days spent in various activities (plantation work having been converted at 8 hours = 1 day). It will be seen that the men in the gang spent an average of $3\frac{3}{4}$ days per week on plantation work, and their wives 2 days. Before the survey began, however, this gang did no plantation work for 10 days. Such breaks are normal and do not affect output, in fact they are necessary agriculturally to allow an appropriate time between harvests. The average number of days worked per week on the plantation throughout the year therefore averages about 3 for men and $1\frac{1}{2}$ for wives. During the survey period men averaged 1 day per week at the mainland (making sago, smoking fish, bartering vegetables and foraging), about $\frac{1}{4}$ day per week fishing, about $\frac{1}{4}$ day per week for public holidays, and a little over $\frac{1}{4}$ day per week for meetings to deal with government or co-operative business. On several occasions hours of work were shortened by rain, but this does not affect total time spent, for the gang continues gathering on subsequent days until all nuts are collected.

(1) Records were kept only of the time each worker left the village by canoe each day for the plantation and the time he returned home again. The work undertaken was recorded as stated by the worker. From the gross time spent away from the village we deducted half an hour for travelling time (which is reasonably accurate) and one hour for resting (which is quite arbitrary as we were unable to check the amount of time spent resting). Actual visits to the plantation island were made on only two occasions and did not permit of any valid assessment of the regularity or intensity of work.

TABLE 1

Daily record of sample work gang for six weeks (21.10.63 - 30.11.63)⁽¹⁾

| | | (a) Men | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---------|---------------------------------|--------|-------|-------|---|---|------------------|----------------|-------|-------|-------|-------|-------|-------|----------------|-------|------------------|-------|-----------|-------|-------|---------------|----------------|---------|-------|-------|-------|--------|----------|----------------|-------|----|--------|---|--|--|-------------|-----------|-------------------------|--------------|--------------------------|
| NAME | JOB (2) | Week 1 (hours) | | | | | | | Week 2 (hours) | | | | | | | Week 3 (hours) | | | | | | | Week 4 (hrs.) | Week 5 (hours) | | | | | | | Week 6 (hours) | | | | | | | Total Hours | Days wkd. | Av. hrs. per day worked | Weeks worked | Av. hrs. per week worked |
| | | M | T | W | T | F | S | S | M | T | W | T | F | S | S | M | T | W | T | F | S | S | | M | T | W | T | F | S | M | T | W | T | F | S | | | | | | | |
| Pouru | C | 9 1/4 | 9 1/2 | 9 | 7 | | | 9 | 8 1/2 | 9 1/2 | 10 | 9 1/2 | 9 | 8 1/2 | 7 1/2 | 8 | 8 | 1 1/2 | | 8 | 5 | 5 1/2 | 7 1/2 | 8 1/2 | 8 1/4 | 8 1/4 | 9 | 10 | 9 1/2 | 203 3/4 | 25 | 8 | 5 | 40 1/2 | | | | | | | | |
| Alibet | L | 9 1/4 | 9 1/2 | 9 | 7 | | | S ⁽³⁾ | S | 7 | 6 1/2 | 9 1/2 | 9 | 8 1/2 | 7 1/2 | 8 | 8 | 1 1/2 | | 7 1/2 | 5 | 5 1/2 | 7 1/2 | 8 1/2 | 10 1/2 | 8 1/2 | 8 1/2 | 10 | 9 | 180 3/4 | 23 | 8 | 5 | 36 | | | | | | | | |
| Taita | L | 9 | 9 1/2 | 9 | 7 | | | 10 1/2 | 8 1/2 | 9 1/2 | 6 | 9 1/2 | 9 | 8 1/2 | 7 | 8 1/2 | 8 | 1 1/2 | | 8 | 4 1/2 | 5 1/2 | 7 1/2 | 9 | 8 1/4 | 10 | 8 3/4 | 10 | 9 | 201 | 25 | 8 | 5 | 40 | | | | | | | | |
| Kailo | L | 9 | 9 1/2 | 9 | 7 | | | 3 1/2 | 8 1/2 | 7 | 9 1/2 | 9 1/4 | 8 | 8 1/2 | 7 | 9 | 8 1/2 | 1 1/2 | | 7 1/2 | 5 | 5 1/2 | 7 1/2 | 9 | 8 1/2 | 8 1/4 | 8 1/4 | 3 1/4 | 5 1/2 | 183 | 25 | 7 1/4 | 5 | 36 1/2 | | | | | | | | |
| Malikis | L | 9 | 9 1/2 | 8 1/2 | 7 | | | 3 1/2 | 8 | 8 1/2 | 7 3/4 | 9 1/4 | 8 1/4 | 8 1/4 | 7 | 8 3/4 | 8 1/2 | 1 1/2 | | 8 | 5 | 5 1/2 | 7 1/2 | 9 | 10 1/2 | 8 1/2 | 8 1/2 | 10 | 9 1/2 | 196 1/2 | 25 | 7 3/4 | 5 | 39 1/4 | | | | | | | | |
| Litau | L | 9 1/4 | 9 1/2 | 8 1/2 | 7 | | | 9 1/2 | 8 1/2 | 9 1/2 | 8 3/4 | 8 1/2 | 8 1/4 | 8 1/2 | 6 3/4 | 8 3/4 | 8 3/4 | 2 1/2 | | 8 | 5 | 5 1/2 | 7 1/2 | 8 1/2 | 8 3/4 | 9 1/2 | 8 3/4 | 10 | 9 | 202 1/2 | 25 | 8 | 5 | 40 1/2 | | | | | | | | |
| Niakuum | L | 9 1/4 | 9 1/2 | 8 1/2 | 7 | | | 7 1/2 | 8 | 8 1/2 | 7 1/2 | 8 1/2 | 7 3/4 | 8 1/2 | 6 3/4 | 8 1/2 | 8 1/4 | 1 1/2 | | 8 | 5 | 5 1/2 | 7 1/2 | 8 3/4 | 8 1/2 | 9 1/2 | 8 3/4 | 3 1/2 | 7 | 187 3/4 | 25 | 7 1/2 | 5 | 37 1/2 | | | | | | | | |
| Pokiap | L | 9 1/4 | 9 1/2 | S | 7 | | | 10 1/2 | 8 | 9 1/4 | 7 | 8 1/2 | 7 3/4 | 8 1/4 | 6 3/4 | 8 1/2 | 8 | 2 1/2 | | 8 | 5 | 5 1/2 | 7 1/2 | 8 | 8 3/4 | 8 3/4 | 8 1/2 | 9 1/2 | 9 1/2 | 189 3/4 | 24 | 8 | 5 | 38 | | | | | | | | |
| Pokepen ⁽⁴⁾ | F | 6 1/2 | 10 1/2 | 8 1/2 | 7 1/2 | | | S | 8 | 5 | 8 3/4 | 10 | 8 | 10 | 5 1/2 | 8 | 8 | N ⁽⁵⁾ | | No firing | | | | N | 6 | 8 1/2 | N | 9 1/2 | 8 1/2 | 136 3/4 | 17 | 8 | 4 | 34 | | | | | | | | |
| Pongat | F | 6 1/2 | 10 1/2 | 9 | 7 1/2 | | | N | 6 1/2 | - | 9 | 10 | 8 | 10 | 5 1/2 | 8 | 8 | N | | No firing | | | | N | 6 | 8 1/2 | N | - | 8 1/2 | 121 1/2 | 15 | 8 | 4 | 30 1/2 | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1802 3/4 | 229 | 7 3/4 | 48 | 37 1/2 | | | | | | | | |
| | | (b) Women (wives of men listed) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pouru | | 9 1/4 | - | - | - | | | 9 | 8 1/2 | - | 10 | 9 1/2 | 9 | | - | - | 5 1/2 | 7 1/2 | 8 1/2 | 8 1/4 | 8 1/4 | 9 | 10 | 9 1/2 | 140 1/4 | 16 | 8 3/4 | 4 | 35 | | | | | | | | | | | | | |
| Alibet | | - | - | - | 7 | | | - | - | - | 6 1/2 | - | 9 | | 7 1/2 | 5 | - | - | - | - | - | - | 10 | 9 | 49 | 6 | 8 | 4 | 12 1/4 | | | | | | | | | | | | | |
| Taita | | 9 | 9 1/2 | 9 | 7 | | | 10 1/2 | 8 1/2 | - | 6 | 9 1/2 | 9 | | - | - | 5 1/2 | 7 1/2 | 9 | 8 1/4 | 10 | 8 3/4 | 10 | 9 | 146 | 17 | 8 1/2 | 4 | 36 1/2 | | | | | | | | | | | | | |
| Kailo | | 9 | 9 1/2 | 9 | 7 | | | - | 8 1/2 | 7 | 9 1/2 | 9 1/4 | 8 | | 7 1/2 | - | 5 1/2 | 7 1/2 | 9 | 8 1/4 | - | - | - | - | 119 3/4 | 15 | 8 | 4 | 30 | | | | | | | | | | | | | |
| Malikis | | 9 | 9 1/2 | - | 7 | | | - | 8 | 8 1/2 | 7 1/4 | 9 1/4 | 8 1/4 | | 8 | - | 5 1/2 | 7 1/2 | 9 | 10 1/2 | 8 1/2 | 8 1/2 | 10 | 9 1/2 | 143 3/4 | 17 | 8 1/2 | 4 | 36 | | | | | | | | | | | | | |
| Litau | | - | - | - | 7 | | | - | 8 1/2 | - | 8 3/4 | 8 1/2 | 8 1/4 | | 8 | - | - | 7 1/2 | - | 8 3/4 | 9 1/2 | 8 3/4 | 10 | 9 | 102 1/2 | 12 | 8 1/2 | 4 | 25 1/2 | | | | | | | | | | | | | |
| Niakuum | | - | - | - | - | | | - | - | - | 7 1/2 | 8 1/2 | 7 3/4 | | 8 | - | 5 1/2 | - | 8 3/4 | - | 9 1/2 | 8 3/4 | 3 1/2 | 7 | 74 3/4 | 10 | 7 1/2 | 3 | 25 | | | | | | | | | | | | | |
| Pokiap | | - | - | - | 7 | | | 10 1/2 | 8 | 9 1/4 | 7 | 8 1/2 | 7 3/4 | | 8 | 5 | 5 1/2 | 7 1/2 | 8 | 8 3/4 | 8 3/4 | 8 1/2 | 9 1/2 | 9 1/2 | 137 | 17 | 8 | 4 | 34 1/4 | | | | | | | | | | | | | |
| Pokepen | | - | - | - | - | | | - | - | - | - | 10 | 8 | | - | - | - | - | - | 6 | - | - | 9 1/2 | 8 1/2 | 42 | 5 | 8 1/4 | 2 | 20 1/2 | | | | | | | | | | | | | |
| Pongat | | - | - | - | - | | | - | - | - | - | - | - | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | 955 | 115 | 8 1/4 | 33 | 29 | | | | | | | | | | | | |

Notes

- (1) Hours were recorded on the following basis: the gross time from departure from the settlement by canoe each morning until return in the evening was noted. One and a half hours were deducted from this, half an hour to cover travelling time (the sample gang was working for most of the time on Lenjenning, fifteen minutes by canoe from the settlement) and one hour for resting. The net time only is given in this table. It was not possible to make regular checks on the rate of work on the plantation.
- (2) Job classification: C = committee member (acts as foreman); L = labourer; F = fireman.
- (3) S = sick or caring for the sick.
- (4) As from 29.10.1963 Pokepen was replaced by Kulapo as Pokepen's son had to be taken to the mainland for hospital treatment.
- (5) N = no firing or other work on the drier being undertaken.
- (6) i.e. wife of Pouru; likewise for others in this section.

TABLE 2

Categories of work undertaken (in days) by sample work line for
6 weeks - (21. 10. 63 to 30. 11. 63) (1)

(a) Men

| Name | Week 1 | | | | Week 2 | | Week 3 | | Week 4 | Week 5 | | | Week 6 | Total and Average(2) | | | | | | | |
|--|--------------------|--------------|--------------|------|-----------------|------|-----------------|--------------|---------------|-----------------|---------------|---------------|-----------------|---------------------------------|--------------|------|--------------|---------------|---------------|---------------|---------------------|
| | Plant- ation(3) | U. N. Day | Fish- ing | Sick | Plant- ation | Sick | Plant- ation | Fish- ing | Main- land | Plant- ation | Govt. Mtg. | Coop. Mtg. | Plant- ation | Plant- ation | U. N. Day | Sick | Fish- ing | Main- land | Govt. Mtg. | Coop. Mtg. | All Act- ivities |
| Pouru | 4 | 1 | 1 | | 7 | | 4 | 1 | 6 | 3 1/2 | 1 | 1 | 6 3/4 | 25 1/4 | 1 | | 2 | 6 | 1 | 1 | 36 1/4 |
| Alibet | 4 | 1 | 1 | | 4 | 2 | 4 | 1 | 6 | 3 | 1 | 1 | 6 | 21 | 1 | 2 | 2 | 6 | 1 | 1 | 34 |
| Taita | 4 1/4 | 1 | 1 | | 6 1/2 | | 4 | 1 | 6 | 3 | 1 | 1 | 6 3/4 | 24 1/2 | 1 | | 2 | 6 | 1 | 1 | 35 1/2 |
| Kailo | 4 1/4 | 1 | 1 | | 6 | | 4 | 1 | 6 | 3 1/4 | 1 | 1 | 5 1/2 | 23 | 1 | | 2 | 6 | 1 | 1 | 34 |
| Malikis | 4 1/2 | 1 | 1 | | 6 | | 4 1/4 | 1 | 6 | 3 1/2 | 1 | 1 | 6 3/4 | 25 | 1 | | 2 | 6 | 1 | 1 | 36 |
| Litau | 4 1/2 | 1 | 1 | | 6 3/4 | | 4 1/2 | 1 | 6 | 3 | 1 | 1 | 6 1/2 | 25 1/4 | 1 | | 2 | 6 | 1 | 1 | 36 1/4 |
| Niakuum | 4 | 1 | 1 | | 6 | | 4 | 1 | 6 | 3 1/2 | 1 | 1 | 6 | 23 1/2 | 1 | | 2 | 6 | 1 | 1 | 34 1/2 |
| Pokiap | 3 1/2 | 1 | 1 | 1 | 6 1/2 | | 4 1/4 | 1 | 6 | 3 | 1 | 1 | 6 1/2 | 23 3/4 | 1 | 1 | 2 | 6 | 1 | 1 | 35 3/4 |
| Pokepen | 4 | 1 | 1 | | 5 | 1 | 4 | 1 | 6 | - | 1 | 1 | 4 | 17 | 1 | 1 | 2 | 6 | 1 | 1 | 29 |
| Pongat | 4 | 1 | 1 | | 4 | | 4 | 1 | 6 | - | 1 | 1 | 3 | 15 | 1 | | 2 | 6 | 1 | 1 | 26 |
| TOTAL | | | | | | | | | | | | | | 223 1/4 | 10 | 4 | 20 | 60 | 10 | 10 | 337 1/4 |
| Average days per man per week (10 men for 6 weeks = 60 days) | | | | | | | | | | | | | | 3 3/4 | 1/4 | - | 1/4 | 1 | 1/4 | 1/4 | 5 1/2 |
| | | | | | | | | | | | | | | (b) Women (wives of men listed) | | | | | | | |
| Pouru | 4 | 1 | | | 6 | | | | 6 | 1 1/2 | 1 | 1 | 6 3/4 | 18 1/4 | 1 | | | 6 | 1 | 1 | 27 1/4 |
| Alibet | 1 | 1 | | | 2 | | | | 6 | 1 | 1 | 1 | 2 | 6 | 1 | | | 6 | 1 | 1 | 15 |
| Taita | 4 1/4 | 1 | | | 5 1/2 | | | | 6 | 1 1/2 | 1 | 1 | 6 3/4 | 18 | 1 | | | 6 | 1 | 1 | 27 |
| Kailo | 4 1/4 | 1 | | | 5 | | | | 6 | 3 1/4 | 1 | 1 | 2 | 14 1/2 | 1 | | | 6 | 1 | 1 | 23 1/2 |
| Malikis | 3 | 1 | | | 5 | | | | 6 | 2 1/2 | 1 | 1 | 6 3/4 | 17 1/4 | 1 | | | 6 | 1 | 1 | 26 1/4 |
| Litau | 1 | 1 | | | 4 1/2 | | | | 6 | 2 | 1 | 1 | 6 | 13 1/2 | 1 | | | 6 | 1 | 1 | 22 1/2 |
| Niakuum | - | 1 | | | 3 | | | | 6 | 2 1/2 | 1 | 1 | 5 1/2 | 11 | 1 | | | 6 | 1 | 1 | 20 |
| Pokiap | 1 | 1 | | | 6 | | | | 6 | 3 | 1 | 1 | 6 1/2 | 16 1/2 | 1 | | | 6 | 1 | 1 | 25 1/2 |
| Pokepen | - | 1 | | | 2 | | | | 6 | - | 1 | 1 | 3 | 5 | 1 | | | 6 | 1 | 1 | 14 |
| Pongat(4) | - | - | | | - | | | | - | - | - | - | - | - | - | | | - | - | - | - |
| TOTAL | | | | | | | | | | | | | | 120 | 9 | | | 54 | 9 | 9 | 201 |
| Average days per wife per week (10 wives for 6 weeks = 60 man-days) | | | | | | | | | | | | | | 2 | 1/4 | | | 1 | 1/4 | 1/4 | 3 1/2 |
| | | | | | | | | | | | | | | (c) Men plus wives | | | | | | | |
| Pouru | 8 | 2 | 1 | | 13 | | 4 | 1 | 12 | 5 | 2 | 2 | 13 1/2 | 43 1/2 | 2 | | 2 | 12 | 2 | 2 | 63 1/2 |
| Alibet | 5 | 2 | 1 | | 6 | 2 | 4 | 1 | 12 | 4 | 2 | 2 | 8 | 27 | 2 | 2 | 2 | 12 | 2 | 2 | 49 |
| Taita | 8 1/2 | 2 | 1 | | 12 | | 4 | 1 | 12 | 4 1/2 | 2 | 2 | 13 1/2 | 42 1/2 | 2 | | 2 | 12 | 2 | 2 | 62 1/2 |
| Kailo | 8 1/2 | 2 | 1 | | 11 | | 4 | 1 | 12 | 6 1/2 | 2 | 2 | 7 1/2 | 37 1/2 | 2 | | 2 | 12 | 2 | 2 | 57 1/2 |
| Malikis | 7 1/2 | 2 | 1 | | 11 | | 4 1/4 | 1 | 12 | 6 | 2 | 2 | 13 1/2 | 42 1/4 | 2 | | 2 | 12 | 2 | 2 | 62 1/4 |
| Litau | 5 1/2 | 2 | 1 | | 11 1/4 | | 4 1/2 | 1 | 12 | 5 | 2 | 2 | 12 1/2 | 38 3/4 | 2 | | 2 | 12 | 2 | 2 | 58 3/4 |
| Niakuum | 4 | 2 | 1 | | 9 | | 4 | 1 | 12 | 6 | 2 | 2 | 11 1/2 | 34 1/2 | 2 | | 2 | 12 | 2 | 2 | 54 1/2 |
| Pokiap | 4 1/2 | 2 | 1 | 1 | 12 1/2 | | 4 1/4 | 1 | 12 | 6 | 2 | 2 | 13 | 40 1/4 | 2 | 1 | 2 | 12 | 2 | 2 | 61 1/4 |
| Pokepen | 4 | 2 | 1 | | 7 | 1 | 4 | 1 | 12 | - | 2 | 2 | 7 | 22 | 2 | 1 | 2 | 12 | 2 | 2 | 43 |
| Pongat | 4 | 2 | 1 | | 4 | | 4 | 1 | 6 | - | 1 | 1 | 3 | 15 | 1 | | | 6 | 1 | 1 | 26 |
| TOTAL | | | | | | | | | | | | | | 343 1/4 | 19 | 4 | 20 | 114 | 19 | 19 | 538 1/4 |
| Average days per person per week (20 persons for 6 weeks = 120 man-days) | | | | | | | | | | | | | | 2 3/4 | 1/4 | - | 1/4 | 1 | 1/4 | 1/4 | 4 1/2 |

(1) For plantation work one day was taken as 8 hours. Days are given to the nearest quarter. Wives were accounted for only when accompanying their husbands, but no account of domestic work was taken.

(2) i.e. average days per man per week over the six weeks to nearest quarter.

(3) Categories of work: Plantation = all classes of plantation work (these are analyzed in Table 3).

U. N. Day = day spent in United Nations Day celebrations organized by government.

Fishing = deep-sea fishing.

Sick = sick or caring for the sick.

Mainland = gone to mainland making sago, smoking fish for sale, buying vegetables and foraging.

Coop. Mtg = Co-operative meeting.

Govt. Mtg = meeting to deal with government business.

(4) Pongat's wife absent on Tarwi Island.

TABLE 3

Analysis of plantation work from Tables 1 and 2 (in man-hours)

Categories of plantation work: Coll = collecting and husking (including ferrying husked nuts by canoe to driers). Cut = cutting and drying. Fire = work by firemen. Bag = sorting, bagging and weighing. Ship = shipping copra. Maint. = maintenance of buildings etc.

| Worker | Week 1 | | Week 2 | | | Week 3 | | | | Week 4 | Week 5 | Week 6 | | | | | Total | | | | | | | | |
|---------|---------|------|---------|--------|--------|---------|------|---------|-------|--------------------|--------|----------------|-----------------------------|--------|---------|----------|---------|---------|---------|---------|---------|----------|--------------------------|---------------------------|----|
| | Coll | Fire | Coll | Cut | Fire | Maint | Fire | Bag | Ship | | Coll | Coll | Cut | Fire | Maint | Coll | Cut | Fire | Maint | Bag | Ship | Total | Pounds of Copra produced | Pounds Copra per 8 hr day | |
| Pouru | 34 3/4 | - | 46 1/2 | 9 | - | 16 | - | 16 | 1 1/2 | | 26 | 34 | 9 1/2 | - | 10 | 141 1/4 | 18 1/2 | - | 26 | 16 | 1 1/2 | 203 1/4 | 719 | 28 | |
| Alibet | 34 3/4 | - | 23 | 9 | - | 16 | - | 16 | 1 1/2 | | 25 1/2 | 36 | 9 | - | 10 | 119 1/4 | 18 | - | 26 | 16 | 1 1/2 | 180 3/4 | 463 | 20 | |
| Taita | 34 1/2 | - | 43 1/2 | 9 | - | 16 | - | 16 | 1 1/2 | | 25 1/2 | 36 | 9 | - | 10 | 139 1/2 | 18 | - | 26 | 16 | 1 1/2 | 201 | 650 | 27 | |
| Kailo | 34 1/2 | - | 37 3/4 | 8 | - | 17 1/2 | - | 15 1/2 | 1 1/2 | No plantation work | 25 1/2 | 34 | 5 1/2 | - | 3 1/4 | 131 3/4 | 13 1/2 | - | 20 3/4 | 15 1/2 | 1 1/2 | 183 | 417 | 18 | |
| Malikis | 34 | - | 38 | 8 1/4 | - | 17 1/4 | - | 15 1/2 | 1 1/2 | | 26 | 36 1/2 | 9 1/2 | - | 10 | 134 1/2 | 17 3/4 | - | 27 1/4 | 15 1/2 | 1 1/2 | 196 1/2 | 371 | 15 | |
| Litau | 34 1/4 | - | 44 3/4 | 8 1/4 | - | 17 1/2 | - | 15 | 2 1/2 | | 25 1/2 | 35 1/2 | 9 | - | 10 | 140 | 17 1/4 | - | 27 1/2 | 15 | 2 1/2 | 202 1/2 | 464 | 19 | |
| Miakuum | 34 1/4 | - | 40 | 7 3/4 | - | 17 | - | 15 1/4 | 1 1/2 | | 26 | 35 1/2 | 7 | - | 3 1/2 | 135 3/4 | 14 3/4 | - | 20 1/2 | 15 1/2 | 1 1/2 | 187 3/4 | 278 | 12 | |
| Pokiap | 25 3/4 | - | 43 1/4 | 7 3/4 | - | 16 1/2 | - | 15 | 2 1/2 | | 26 | 34 | 9 1/2 | - | 9 1/2 | 129 | 17 1/4 | - | 26 | 15 | 2 1/2 | 189 3/4 | 463 | 20 | |
| Pokepen | - | 33 | - | - | 39 3/4 | - | 32 | - | - | | - | - | - | - | 32 1/2 | - | - | - | 136 3/4 | - | - | - | 136 3/4 | - | - |
| Pongat | - | 33 | - | - | 33 1/4 | - | 32 | - | - | | - | - | - | - | 23 | - | - | - | 121 1/4 | - | - | - | 121 1/4 | - | - |
| TOTAL | 266 3/4 | 66 | 316 3/4 | 67 | 73 | 133 3/4 | 64 | 124 1/4 | 14 | | | 206 | 281 1/2 | 68 | 55 1/2 | 66 1/4 | 1071 | 135 | 258 1/2 | 200 | 124 1/4 | 14 | 1802 3/4 | 3825 | 17 |
| | | | | | | | | | | | | (b) | Women (wives of men listed) | | | | | | | | | | | | |
| Pouru | 27 3/4 | - | 37 | 9 | - | - | - | - | - | | | 13 | 34 | 9 1/2 | - | 10 | 111 3/4 | 18 1/2 | - | 10 | - | - | 140 1/2 | - | - |
| Alibet | 7 | - | 6 1/2 | 9 | - | - | - | - | - | | 7 1/2 | | 9 | - | 10 | 21 | 18 | - | 10 | - | - | 49 | - | - | |
| Taita | 34 1/2 | - | 24 1/2 | 9 | - | - | - | - | - | | 13 | 36 | 9 | - | 10 | 118 | 18 | - | 10 | - | - | 146 | - | - | |
| Kailo | 34 1/2 | - | 34 1/4 | 8 | - | - | - | - | - | | 25 1/2 | 17 1/2 | - | - | - | 111 3/4 | 8 | - | - | - | - | 119 3/4 | - | - | |
| Malikis | 25 | - | 33 1/2 | 8 1/4 | - | - | - | - | - | | 21 | 36 1/2 | 9 1/2 | - | 10 | 116 | 17 3/4 | - | 10 | - | - | 143 3/4 | - | - | |
| Litau | 7 | - | 25 3/4 | 8 1/4 | - | - | - | - | - | | 15 1/2 | 27 | 9 | - | 10 | 75 1/4 | 17 1/4 | - | 10 | - | - | 102 1/2 | - | - | |
| Niakuum | - | - | 16 | 7 3/4 | - | - | - | - | - | | 13 1/2 | 27 | 7 | - | 3 1/2 | 56 1/2 | 14 3/4 | - | 3 1/2 | - | - | 74 3/4 | - | - | |
| Pokiap | 7 | - | 43 1/4 | 7 3/4 | - | - | - | - | - | | 26 | 34 | 9 1/2 | - | 9 1/2 | 110 1/4 | 17 1/4 | - | 9 1/2 | - | - | 137 | - | - | |
| Pokepen | - | - | - | - | 18 | - | - | - | - | | - | - | - | 24 | - | - | - | 42 | - | - | - | 42 | - | - | |
| Pongat | - | - | - | - | - | - | - | - | - | | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| TOTAL | 142 3/4 | - | 230 3/4 | 67 | 18 | - | - | - | - | | 135 | 212 | 62 1/2 | 24 | 63 | 720 1/2 | 129 1/2 | 42 | 63 | - | - | 955 | - | - | |
| | | | | | | | | | | | (c) | Men plus wives | | | | | | | | | | | | | |
| Pouru | 62 1/2 | - | 83 1/2 | 18 | - | 16 | - | 16 | 1 1/2 | | 39 | 68 | 19 | - | 20 | 253 | 37 | - | 36 | 16 | 1 1/2 | 343 1/2 | 719 | 17 | |
| Alibet | 41 3/4 | - | 29 1/2 | 18 | - | 16 | - | 16 | 1 1/2 | | 33 | 36 | 18 | - | 20 | 140 1/4 | 36 | - | 36 | 16 | 1 1/2 | 229 3/4 | 463 | 16 | |
| Taita | 69 | - | 78 | 18 | - | 16 | - | 16 | 1 1/2 | | 38 1/2 | 72 | 18 | - | 20 | 257 1/2 | 36 | - | 36 | 16 | 1 1/2 | 347 | 650 | 15 | |
| Kailo | 69 | - | 72 | 16 | - | 17 1/2 | - | 15 1/2 | 1 1/2 | | 51 | 51 1/2 | 5 1/2 | - | 3 1/4 | 243 1/2 | 21 1/2 | - | 20 3/4 | 15 1/2 | 1 1/2 | 302 3/4 | 417 | 11 | |
| Malikis | 59 | - | 71 1/2 | 16 1/2 | - | 17 1/4 | - | 15 1/2 | 1 1/2 | | 47 | 73 | 19 | - | 20 | 250 1/2 | 35 1/2 | - | 37 1/4 | 15 1/2 | 1 1/2 | 340 1/4 | 371 | 9 | |
| Litau | 4 1/4 | - | 70 1/2 | 16 1/2 | - | 17 1/2 | - | 15 | 2 1/2 | | 41 | 62 1/2 | 18 | - | 20 | 215 1/4 | 34 1/2 | - | 37 1/2 | 15 | 2 1/2 | 304 3/4 | 464 | 12 | |
| Niakuum | 34 1/4 | - | 56 | 15 1/2 | - | 17 | - | 15 1/4 | 1 1/2 | | 39 1/2 | 62 1/2 | 14 | - | 7 | 192 1/4 | 29 1/2 | - | 24 | 15 1/4 | 1 1/2 | 262 1/2 | 278 | 8 | |
| Pokiap | 32 3/4 | - | 86 1/2 | - | - | 16 1/2 | - | 15 | 2 1/2 | | 52 | 68 | 19 | - | 19 | 239 1/4 | 34 1/2 | - | 35 1/2 | 15 | 2 1/2 | 326 3/4 | 463 | 11 | |
| Pokepen | - | 33 | - | - | 57 3/4 | - | 32 | - | - | | - | - | - | 56 1/2 | - | - | - | 179 1/4 | - | - | - | 179 1/4 | - | - | |
| Pongat | - | 33 | - | - | 33 1/4 | - | 32 | - | - | | - | - | - | 23 | - | - | - | 121 1/4 | - | - | - | 121 1/4 | - | - | |
| TOTAL | 409 1/2 | 66 | 547 1/2 | 134 | 91 | 133 3/4 | 64 | 124 1/4 | 14 | | 341 | 493 1/2 | 130 1/2 | 79 1/2 | 129 1/4 | 1791 1/2 | 264 1/2 | 300 1/2 | 263 | 124 1/4 | 14 | 2757 3/4 | 3825 | 11 | |

Management, inspection and clerical work. In addition to the above, the manager spent a total of 96 hours on Lenjenning and Anun during the period (though only about half of this time was connected with this gang as tools, bags, twine and equipment for all islands are stored at Lenjenning and controlled by Nabor) the inspectors spent a total of 16 hours grading copra and the storeman spent 1 1/2 hours recording weights.

Table 3 breaks down the plantation work into hours spent on particular tasks. This will enable detailed comparison with studies of labour inputs being undertaken by P. Krinks and E. Waddell in Papua-New Guinea, and W.J. Purcal in Malaya.

Output of copra per worker per day for the survey period is shown in the final columns of Table 3. In Table 3 (a) the total output of a married couple is shown against the husband only, for the work contribution of wives is uncertain.⁽¹⁾ Table 3 (c) shows the same joint output against the couple. Output averaged only 17 pounds of copra per day worked by the men (including collecting, husking, drying, bagging, shipping, replanting, and maintenance) or 11 pounds per day if wives are included in the work-force. Output during this period, however, was considerably below normal as a result of the drought mentioned earlier. During the previous three months the line working these islands had produced a little more than twice the volume of copra per month. To produce the known average annual crop this line would need to produce almost exactly double the output of the survey period, though they would probably have to work longer hours to do so. On this basis I would estimate that output averages about 30 pounds of copra per man per day, or 20 pounds per person if wives are included in the work-force.

Output per man-day on M'buke is lower than on most plantations in Papua-New Guinea. Figures supplied by the owners of eight plantations in another part of the country give an average of 41 pounds of copra per man-day over all plantation workers. The average output per worker per year on the above plantations was 5 tons 2 cwt. The M'buke average was 1 ton 16 cwt. We estimate, however, that M'buke men on the plantation work only about 150 days per year as against the plantation average of about 285 days.

(1) When the fireman's wife 'helped' her husband this did not reduce the time he spent on his task, which requires constant attendance (but little physical effort) during the whole drying process. The time spent by wives on 'maintenance' is in cleaning up around the drier, sweeping store sheds, burning rubbish, repairing paths and other minor tasks which contribute little to output. As no detailed observations were made on husbands and wives working together collecting nuts, it is not possible to comment on the contribution of wives to this task.

The difference may be accounted for in part by the fact that whereas most plantations use tractors and trailers to transport nuts to driers, the rough terrain and separate islands of the M'buke plantation necessitate carrying on foot within islands and ferrying by canoe to the islands where driers are located (as listed in Appendix A). The M'buke soils, moreover, are badly leached, and output there is only 5 1/4 cwt. per acre per year⁽¹⁾ as against 8 cwt. for plantations in New Guinea and 5 3/4 cwt. for plantations in Papua.⁽²⁾

Considerable time is spent in meetings, but most meetings are held on Sundays. As the directors receive no remuneration, the fact that they spend a comparatively long time in discussions is not particularly significant.⁽³⁾ According to the minute books only five general meetings have been held during the past two years. Directors' meetings are usually held each month. Meetings of the plantation committee (alone or with the public present) are held much more frequently, but no records of them are kept.

(1) An estimated 225 acres under coconuts (see note 2, Appendix A) and 65 tons copra per year.

(2) Based on average output per acre of mature coconut trees on non-indigenous plantations for the three years ending 31 March 1962 as given in the annual reports for the respective territories for those years. Experienced planters and others connected with the industry suggest that the above figures are too low (probably because the acreage shown in the reports includes abandoned plantations and aged trees which produce little) and their estimates are 9 to 10 cwt. per acre in New Guinea and 7 to 8 cwt. per acre in Papua.

(3) Officers of the Co-operative Division advised the people against paying director's fees until such time as the loan is paid off. Thereafter a small (but as yet undetermined) honorarium will be paid. The directors do of course derive some income from the co-operative in their capacity as shareholders.

Income distribution

For plantation copra the co-operative pays individual producers in cash at the time of shipment from M'buke at the rate of 3d per pound for first grade (hot air quality), 2½d per pound for second grade (fair merchantable standard) and 2d per pound for third grade ("smoke" quality). These prices are 1½d per pound (£ 14 per ton) lower than the co-operative pays members for copra produced from privately owned trees. This £ 14 difference in price is used to pay off the loan with which the plantation was purchased. Each member's output and consequent contribution to loan repayment is accounted for separately, and is credited annually to that member's share capital in the co-operative society. Thus those who produce more acquire more shares. Firemen, inspectors, directors and other 'overhead' personnel do not gain any capital increment in this way.

Net profits on copra sales by the co-operative are distributed to members in cash at the end of each year in proportion to individual output. Again 'overhead' personnel are not included.

Gross income from copra sales during the first two years of operation was £ 6, 374. 4. 3, or an average of £ 56. 3. 0 per ton. This was distributed as follows:

Expenses:(1)

| | |
|--|---------------------|
| Freight by Co-operative Association ship to Lorengau) 113½ tons @ £6. 10 to | 646. 10. 2 |
| Carried by M'buke canoes to Lorengau) £7 per ton | 67. 4. 10 |
| Sacks, twine, branding paint etc. | 498. 15. 0 |
| Payment to directors (nil until loan paid off) | |
| Repairs to buildings | 56. 17. 9 |
| Plantation clearing | 670. 0. 0 |
| Interest on loan | <u>262. 1. 4</u> |
| | <u>£ 2201. 9. 1</u> |

(1) Expenses as listed averaged £19. 8. 0 per ton and the rest belongs to the producers, being either paid out in cash, or added to share capital, or held as reserves for the Society. Average production costs for copra for the country as a whole are understood to average £30 to £38 per ton. (As no reliable data on actual costs is available, this figure is based on opinions given by a wide range of planters and officials. Actual data for eight specific plantations with above-average costs gave an average of £38. 5. 0 per ton. Owing to poor soils, scattered islands and distance to the main port, Edgell & Whiteley Ltd. , had found production costs on M'buke to be in the region of £50 per ton).

Disbursements:

| | |
|--|------------------|
| Cash payment for copra from members 113½ tons at £18.13.4 to £28 per ton (2d to 3d per lb.) | 2651.16. 1 |
| Additions to share capital through cess | <u>885. 4. 3</u> |
| | £5738. 9. 5 |

This leaves £636.14.10 to be accounted for. Unfortunately, during the first eighteen months of business, the plantation accounts were not separated from the store trading accounts. From the joint accounts £253.9.0 was distributed in cash profits, £596.9.0 was paid out in bonus shares, and £146.10.0 remains in the Appropriation Account. A further unidentified (i. e. unidentifiable for this specific period) sum has been paid into the statutory reserves of the co-operative society. A rough estimate of the distribution of the £636.14.10 is as follows:

| | |
|------------------------------------|-----------------|
| Distribution of profits | 150. 0. 0 |
| Bonus shares | 400. 0. 0 |
| Remaining in Appropriation Account | 50. 0. 0 |
| Paid into statutory reserves | <u>36.14.10</u> |
| | £636.14.10 |

The total income received by M'buke people from the plantation venture over the two years was thus £4873.0.0 being made up of:

| | |
|---|-------------------|
| Canoe freight on copra to Lorengau | 67. 4.10 |
| Labour component in repairs to buildings | 52. 0. 0 |
| Plantation clearing (not including payments to outsiders) estimated | 580. 0. 0 |
| Cash payment for copra | <u>2651.16. 1</u> |
| Total cash income | £3351. 0.11 |

| | |
|--|-----------------|
| Additions to share capital through cess | 885. 4. 3 |
| Distribution of profits (estimated) | 150. 0. 0 |
| Bonus shares (estimated) | 400. 0. 0 |
| Remaining in Appropriation Account (estimated) | 50. 0. 0 |
| Paid into statutory reserves | <u>36.14.10</u> |
| Total benefit | £4873. 0. 0 |

This compares favourably with the income which the M'buke people derived from the plantation when it was owned by the company. At that time for an equivalent tonnage they would have received:

| | |
|--|--------------------|
| Contract cutting and drying (est. average £ 17 per ton) | 1921. 0. 0 |
| Foreman (est.) | 100. 0. 0 |
| Clearing | 540. 0. 0 |
| | <u>£2561. 0. 0</u> |

The loan from the Native Loans Board is repaid by quarterly instalments. Repayment is up to date and by the 1st October 1963, £ 1, 225 of the principal had been repaid in addition to £ 262. 1. 4 interest.

Management costs are considerably lower in the co-operative organization than the estimated £ 650 that they would have been under previous European management.⁽¹⁾ The co-operatives leaders spend many more man-hours in management than the company spent, perhaps many times more, but a rule has been adopted whereby no honoraria will be paid to directors until the loan is paid off. Thereafter, members are thinking tentatively of paying the six directors £ 10 to £ 12 per year each, and the manager a higher but as yet indeterminate figure. The manager at first received no payment, but he now receives a token wage of £ 2. 15. 0 per month.

One of the most difficult tasks of the co-operative officers during the early phase was to persuade the people to use profits to increase their share capital. Minutes of meetings and discussion with directors show preference for maximum disbursement of profits to members in cash, and for increasing share capital only from the £ 14 cess per ton. In November 1962 the society's assets and investments amounted to £ 9952 as

(1) This is a rough estimate only and based on a European manager for one fifth of his time at £2,000 per year (i. e. his total cost rather than his salary only) = £400; an indigenous foreman full time at say £100; office and central management overheads £100; transport of manager £50; total £650.

against shareholders funds of £6387. By persuading members to distribute their last year's surplus, 30% in cash and 70% to share capital, the latter had been increased to £6849. (1)

Subsequently, late in 1963, some members of the society became anxious to pay off the debt as quickly as possible and proposed that on every third occasion in which a man works copra, the whole of the income go to increase his share capital (thus allowing the loan to be paid off more quickly). No decision had been reached on this proposal at the end of 1964.

Income for the whole population of M'buke island for 1961-63 from sources other than the plantation is as follows -

| | <u>1961-2</u> | <u>1962-3</u> ⁽²⁾ |
|--|---------------------|------------------------------|
| Pearl and trochus shell | 63. 12. 0 | Nil |
| Private copra | 1431. 15. 3 | 1077. 9. 11 |
| Handcrafts etc. (est.) | 50. 0. 0 | 50. 0. 0 |
| Gifts from absent workers (est.) | 100. 0. 0 | 100. 0. 0 |
| Sale of fish on mainland (including barter) | <u>250. 0. 0</u> | <u>250. 0. 0</u> |
| | <u>£ 1895. 7. 3</u> | <u>£ 1477. 9. 11</u> |

Total per capita income on M'buke from all sources is thus just under £10 per annum, which may be compared with the estimated average for the country as a whole of £6. (3)

(1) This despite the fact that when a new co-operative was formed at Malai Bay during 1963, members from that area withdrew their capital (£655.10.0) from the society at M'buke. Analysis of the share register in October 1962 showed a total of 238 members. Share capital per member ranged from £5 to £82.4.0. 131 members held between £5 and £19.19.0, 92 between £20 and £39.19.0, 11 between £40 and £59.19.0 and 4 between £60 and £82.4.0.

(2) Owing to a price recession there was no diving for shell during the period 1961-3, the 1961-2 figure being for shell gathered in the previous year. Private copra was reduced in 1962-3 by drought conditions.

(3) Fisk, 1962:28.

Future possibilities

In its first two years of operation the M'buke co-operative plantation was efficiently managed and earned its members a considerably higher income than they had previously enjoyed; it provided commercial employment for all able-bodied men for such time as they were not engaged on subsistence activities or public projects; and it gave apparently satisfying outlets to the aspiration of members to organize and operate their own economic enterprise. As it has been functioning for such a short time, however, any forecast of future prospects can be at best tentative, but a note on possible trends may nevertheless be relevant.

Managerial efficiency: The manager has held a variety of responsible positions (see pages 55-6, 59) and appears to be quite competent for this one. Likewise the directors, inspectors and committee members (the latter act as foremen) perform their tasks adequately. The guidance provided by government co-operative staff (mainly in relation to budgeting and audit) appears adequate, but necessary.⁽¹⁾ It must be noted, however, that the people aspired for many years to own this plantation, and enthusiasm for the venture is still high. Factional differences are submerged in the joint effort to pay the plantation off as soon as possible and to demonstrate both to themselves and to outsiders that they are capable of operating it.

When the loan is paid off at the end of 1966 a major goal will have been achieved, but a cohesive force will have been lost. The project will have lost its novelty and it may be necessary for management to apply more sanctions in order to maintain cohesion. As there are usually more applicants for plantation work than there is work available, however, job allocation should continue to provide an effective sanction against

(1) The District Co-operatives Officer visits twice annually for one to three days. He prepares the six monthly Balance Sheets for both the plantation and the store, and discusses problems with the directors. A co-operative inspector calls every month or two, but his work is almost exclusively in relation to the co-operative store. The number of accounting errors encountered necessitates fairly frequent visits until more highly qualified office staff are available to the M'buke society.

unco-operative members, and the fact that directors are elected annually should ensure that management continues to act in the interest of the majority of members.

Rights to land: As shown in Appendices C and D most M'buke people claim to know what lands their forefathers held rights to before the land was alienated in German times. Because of differential human fertility, some individuals today would inherit much larger areas than others if the plantation land was redistributed to the heirs of the former landholders. A few individuals who would gain considerably by such action have it in mind that once the loan is paid off, the various islands should be returned to (or at least farmed by) the descendants of their former proprietors. A large majority, however, oppose this view.

Those who would prefer reallocation are assuming that it would be based exclusively on descent in the male line (or through females in the absence of direct male heirs). In the pre-contact situation, of course, descent would not have been the sole criterion for the acquisition of land rights, and families which were diminishing in number would probably have reinforced their strength by adopting outsiders and granting inheritance through the maternal line, or the extent of their land rights might have been reduced by voluntary absorption, encroachment or force. These points are not unnaturally eschewed by those who would benefit greatly from direct patrilineal inheritance.

If proprietary or even usufructuary rights to the plantation were redistributed, a number of problems would emerge. The most difficult would be that of effecting the distribution to everybody's satisfaction. In the traditional society land rights were not transferred according to any rigid rule, rather the outcome was determined by the relative influence of various parties applying one or more of a set of flexible principles in particular situations. Among the traditional processes of acquiring land rights which are still remembered on M'buke today are those by conquest; by inheritance from fathers and/or mothers and their siblings and from one's own siblings; by adoption; by gift from affines or protectors; by payment of goods or services under certain circumstances; or by redistribution after forfeiture. Continuity of rights was related to continued acts of use.

It is certain that subdivision following traditional lines would be opposed by the majority and would result in intense animosities. If it were achieved, it would result in very uneven distribution of the very limited area of land. The whole island group totals less than 500 acres in area and the present population is 432. Apart from the expense and litigation involved in establishing and maintaining the many boundaries that would be necessary, it is likely that commercial productivity would be considerably lowered by less efficient management and by higher local consumption of nuts.

Although most members of the co-operative have no wish to change the present system, they nevertheless recognize some association between certain individuals and the islands held by their forebears. Despite frequent assertions that the plantation must be retained as a single unit, the recognition of earlier land ties is reflected in the appointment of men of authority on the plantation. The first committee member for Patali was Kiliui, the second most senior descendant in the male line from Lala, who obtained the island by conquest. The most senior descendant, Charopwe, was then absent, but he later returned and was able to persuade the directors to appoint him as committee man for Patali the following year.⁽¹⁾ Contrary to an informal rule of the co-operative, he built a permanent house on Patali and dismantled his house in the village. As Patali is relatively close to Tarwi, labour for Patali was drawn from those Tarwi folk who are members of the M'buke co-operative (see page 8 footnote 2). Charopwe has also drawn in two of his Usiai kinsmen from the mainland as labour, though this is contrary to the policy of the co-operative. The labour is not being rotated every three months as the co-operative intended. Both directors and members of the co-operative are aware of the threat that these actions pose to the organization. Charopwe is a determined man, accustomed by years as foreman for the company to living in an environment where he has power but not necessarily popularity. Moreover, he has left the village and

(1) Charopwe had been foreman of the plantation for Edgell and Whiteley Ltd. for some years until it was bought by the co-operative. At the time of sale he requested the firm to sell the balance of the plantation to the co-operative, but to give Patali to him in recognition of his services to the firm.

is thus less vulnerable to social pressures. Charopwe points out that he is the appointed committee man, that as Patali is the most distant island from the settlement it is more convenient to live on the job, and that his grandfather acquired rights to the island by conquest. Even the last point is conceded by other members; the issue is what rights does it entitle him to today. Legally it entitles him to none, but current M'buke values do concede that the historical circumstances give him and his family a different relationship to Patali from that of other members. So far members have expressed resentment and opposition, but no action has been taken.

The committee member in charge of Ewal and Kulinge is descended from the ancestor to whom Ewal was originally allotted, and he remains there in the third year (see Appendix B) despite an original intention to rotate committee members annually. The member for Ahu and Tiombwon traces his descent matrilineally (as his paternal forebears came from outside M'buke) to those descendants of Niachili to whom Ahu was originally allocated. The committee member for Lenjenning, Malon and Anun traces descent from the line to which one segment of Lenjenning was originally allotted.

The directors deny that this pattern of appointments was intentional, but the pattern seems too clear to be accidental. These men have chosen the islands for which they will offer themselves for election to the committee, and it seems not unlikely that their traditional association with the particular islands has been one of the factors making electors consider them to be appropriate members. Once established they are reluctant to move, and as one has established a permanent home and two others temporary houses on the islands they supervise, it is difficult to move them.

The firemen are chosen by the committee member for the island concerned, and in some cases at least both belong to the same descent group. Ideally, the labourers work on the plantation for three months, leave plantation work for three or six months and then return to plantation work but on a different island. The ideal is not always achieved, though labour mobility is fairly high.

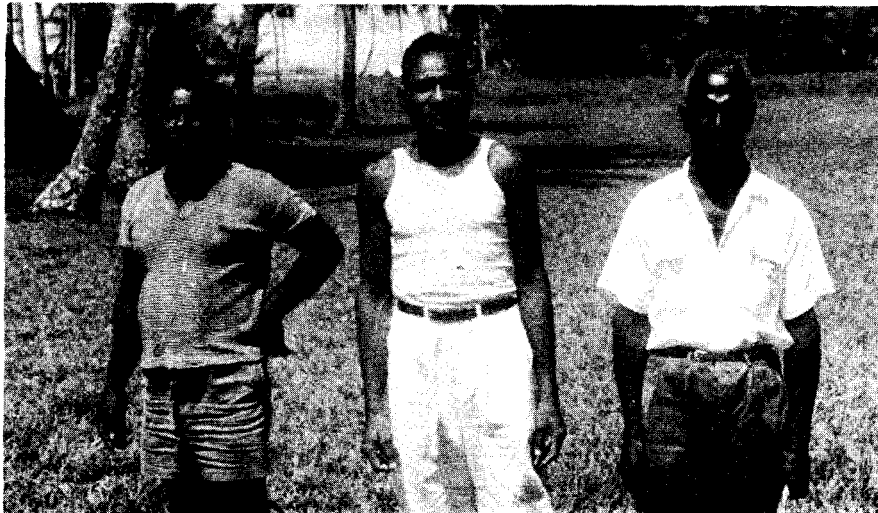
Expansion: Population censuses from 1956 to 1962 show an average increase of resident population of just over two per cent per year. All suitable land on the plantation is already planted to coconuts, maintenance standards are good, and the whole crop is harvested. Only by pest control and the use of fertilizer could yields be significantly increased, but the economic advantages to be gained from these measures is uncertain. (1)

The plantation now absorbs such M'buke labour as is surplus to subsistence needs, and the working of private copra and shell, but some of the work is undertaken by contracts let to outside groups, and more could be if the need arose.

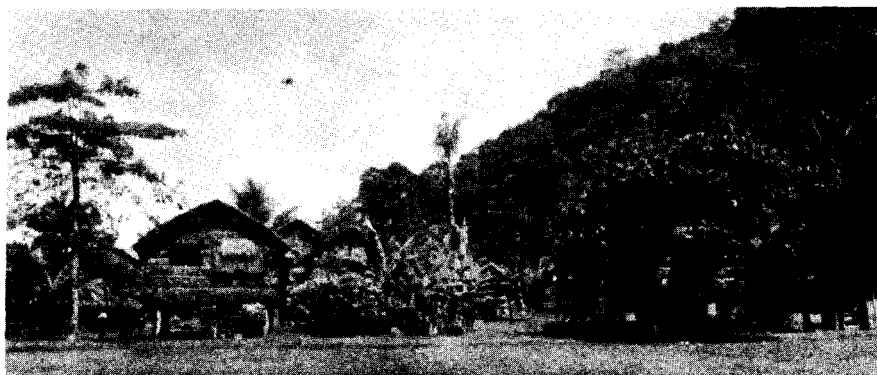
The M'buke people still regard the Purdy Islands as theirs (see pages 47, 66-7) and want to incorporate them into the existing plantation co-operative. Legal ownership at present rests with a European in Australia, but the islands have not been farmed systematically since the 1930s. About half of the group's 130 acres are planted to coconuts, but the M'buke people are willing to buy the property at a price which they consider reasonable, but they do not feel that any other person or group has the right to acquire it. Being small, the operation of the Purdy Islands as part of the co-operative plantation should not cause undue difficulty.

With little possibility of major increases in agricultural output and poor prospects for increased prices for pearl and trochus shell, the only other marketable resource is fish. Manus Chauka (a former policeman) has formed an informal "company" with a classificatory brother (who is the leader of the church), and his wife's brother (who is manager of the plantation). They recently built a small smoke-house and intend smoking fish for sale in Rabaul, selling through the Department of Agriculture. The venture is still in an experimental stage, but the co-operative is considering the possibility of entering this trade - though probably only the marketing and transport side of it.

(1) Re pest control see footnote 1 page 10. On the question of fertilizer Mr Byrne informs me that on other plantations with similar soil conditions his company is getting improved production from fertilizing with muriate of potash.



Three M'buke leaders. From left Bernard Chaminsul (M'buke representative on the Manus local government council), Poliap Kisokau (director of co-operative and M'buke representative on Manus Native Societies Association), Nabor Potuku (manager of the M'buke co-operative plantation).



The inland portion of M'buke village.



The seaward portion of M'buke village with Malon and Silemon Islands in the background. The canoe has just brought a load of sago thatch from the mainland.

Plantation operation by co-operatives

The plantation industry in Papua-New Guinea is based almost exclusively on European capital and management. Increasing costs, static or falling export prices and political changes have halted expansion. Many European planters want to sell their properties, few wish to buy. It is not unlikely that a future government will increase plantation wages, enforce development conditions or resume some foreign-owned plantations for domestic resettlement.⁽¹⁾ Assuming an increasing tendency for foreign-owned properties to pass into indigenous hands, the role of co-operative societies in their acquisition and management merits some attention.

The suitability of any farming system is conditioned by the political and financial environment in which it must operate, and by the social system and values of those operating it. The trading banks in this country will not provide capital to indigenous entrepreneurs on any significant scale; nor are the commercial houses likely to provide loans or extended credit (as was not uncommon to European planters before and even immediately after the second world war). There are few avenues by which indigenous entrepreneurs can earn capital in significant quantities, for not only do they lack formal education and commercial experience, but the structure of commerce is such that lucrative agencies and necessary business contacts are seldom available to them. The only remaining source of capital is one's own social group, whose members may in some cases be persuaded to provide money, labour or land. Capital acquired in this way is not necessarily cheap, for heavy obligations may be contracted in the process. The purchase or development of large scale plantations by individual indigenous entrepreneurs will no doubt occur in some instances, but the numbers are unlikely to be significant for some time.

(1) In the first general elections, held in March 1964, a number of successful candidates included such proposals in their election policies. Sherwin (1963) notes that there are several European owned plantations in the Manus district which have not been worked for several years. These, he feels, will "become co-operatively owned when more capital is subscribed and the present selling prices become more realistic".

Formally constituted indigenous companies may find it possible to borrow from banks to acquire plantations, but the technical complexities of company operation under existing legislation would be beyond the capacity of most communities. The possibility of joint expatriate-indigenous enterprise has at least been considered in some areas. It may well be successful, though it would be surprising if it ever became widespread.

Communal organization, either on the pattern of the Israeli kibbutz (or its Burmese counterpart) or on orthodox communist lines, would be unacceptable both to the Australian government and to the House of Assembly of Papua-New Guinea at the present time.

Plantation operation by local government councils has been discussed at various times (it was at one stage proposed that M'buke plantation be acquired by the Baluan local government council) but has not been tried.⁽¹⁾ As councils serve heterogeneous language and culture groups, are concerned primarily with social rather than commercial issues, and are designed to give maximum participation in parochial affairs rather than to achieve maximum economic efficiency, they do not seem to be appropriate bodies to manage plantations.

Let us turn briefly to the potential of local individuals and communities for commercial activity. Many New Guinea societies place a high value on entrepreneurship. Mead (1956: 45, 50) speaks of traditional Manus society as an "economic treadmill" on which high status could be achieved by economic activity alone, and even persons of rank could not maintain their positions without being involved in a vast network of transactions. Although the Manus economy was more elaborate than many in

(1) Local government councils have, however, promoted three land development projects in Papua-New Guinea. These are the Higaturu Land Registration scheme which is described in New Guinea Research Unit Bulletin No. 2, the Vudal scheme where the Rabaul Council leased a 1,000 acre block from government and sub-leased half of it in blocks of 4.8 acres to individual taxpayers for resettlement; and the Ambenob scheme near Madang where the council leased government land and sub-leased it to local residents for cash cropping. Research on the last two schemes has not yet been undertaken.

New Guinea, the emphasis on exchanges and the relative equality of opportunity may be regarded as typical. The Tolai of New Britain, the Trobriand Islanders, and above all the people of the New Guinea highlands (who account for nearly half the country's population) all possessed complex economic systems, were familiar with debt, and placed a high value on economic enterprise.

It is appreciated that it is government practice (and presumably policy) to encourage indigenous agriculture almost exclusively on a basis of peasant proprietorship⁽¹⁾ but until recently the possibility of indigenous take-over of existing expatriate plantations was not considered. As the M'buke example shows, some communities prefer to undertake such ventures co-operatively rather than individually, and on M'buke there is general opposition to any proposal to subdivide the plantation.

In instances where expatriate plantations are sold to indigenous groups, there are several advantages in acquisition by co-operatives rather than subdivision into family holdings. Firstly subdivision necessitates surveying and possibly the realignment of internal roads; both are costly, and with the present shortage of survey staff there may be long delays. Secondly, co-operatives often possess accumulated cash and other assets, and permit a lending institution to deal with a single large loan rather than many small ones. The latter are more costly to maintain, more difficult to supervise, and probably more difficult to recoup losses from in the event of failure. Thirdly, as the M'buke example suggests, success may be facilitated if existing equipment and facilities are used and the established routines of plantation operation are maintained. Fourthly, extension officers may be able to introduce improved husbandry and managerial practices more easily to a single organized group than to a number of small-holders. Moreover operation of co-operatives gives experience in business management that is seldom available otherwise. A considerable number

(1) This policy is reflected in the practice of the Native Loans Board, which has shown extreme reluctance to grant loans to permit employment of any labour; and of the Lands Board, which has with rare exceptions made available to indigenes only small blocks suitable as family units.

of the indigenous people in the South Pacific who have succeeded in private enterprise, local government and even in cabinet posts, got their basic training in co-operatives. Finally, whereas it is difficult to accumulate capital for productive purposes from small-holdings at existing produce prices, co-operatives often can and do make savings for further investment.

Many observers have noted that indigenous small-holders farm cash crops haphazardly, omitting or delaying necessary husbandry and leaving mature crops to rot from time to time. To the extent that this is due to lack of awareness of the reason for the practices, and to the need for regularity, it is probable that the new behaviour patterns could be more effectively introduced by a large-scale organization such as a co-operative than by individuals. Instances of haphazard handling of crops which I have observed in other parts of the country show that temporary abandonment is often due to sickness or social crises such as funerals or marriages. Whereas in villages the crops of those temporarily absent or in mourning are usually lost, in the M'buke co-operative the individuals are replaced by others not so committed and full productivity is maintained.

The most likely problem associated with co-operative management is accounting. In view of the very limited knowledge of bookkeeping and other commercial technicalities, co-operative plantations would be unlikely to succeed unless existing training, audit and supervisory services were maintained. (1)

Given present prices for copra on the one hand and for imported foods and building materials on the other (especially in isolated areas like M'buke) the income from producing copra on

(1) In the case of M'buke plantation, where these services appear to be adequate, this involved training courses of six weeks' duration for the society's secretary and storeman; and visits from officials of the co-operatives registry amount to about ten days per year by the co-operative officer and about twenty days per year by local inspectors. Only about a third of this time is concerned with the plantation, however, most being spent on the co-operative store. In addition to visits, co-operative officials at the Manus district office in Lorengau spend about thirty man-days per year in assisting with orders, shipping, bookkeeping and advice for the M'buke co-operative.

a full-time basis is inadequate to feed, clothe and house a family. It is generally much cheaper to grow one's own staple foods rather than to buy them, and cheaper to build from predominantly local materials. If a co-operative plantation is to provide maximum increase in consumption levels therefore, it will need to ensure that members have adequate land for subsistence (whether on or off the plantation) and are required to work only such hours as will not interfere with subsistence production. (1) The M'buke co-operative is well placed on both counts and illustrates how the co-operative principle of pay being based on output is well adjusted to a village situation where it is seldom convenient for everyone to work for an equal amount of time. Research to date shows that while the time available surplus to that needed to provide subsistence varies greatly in different parts of the country, it does not generally exceed twenty hours per week. (2)

Whether co-operatives promote initiative more or less than individual small holdings depends both on the persons involved and their environment. The M'buke community is small and homogeneous, it lives in a single village, had six years' experience of co-operative trading and for ten years operated the plantation as a group under expatriate management. Following purchase of the property by the co-operative, the initiative of the leaders is transmitted into effort by the whole group through a cohesive authority structure. It is doubtful indeed that productivity would be maintained, or individual satisfactions be as great, if the property were subdivided and output left to the separate initiative of each small-holder. If on the other

(1) As an indication of the necessity to produce as much as possible of one's own food, the official scale of money paid in lieu of rations at Manus at the time was £1. 2. 3 per week for a single man and £2.18.0 per week for a married man with three children. These rates are to cover food only, and at Lorengau prices according to government estimates. Cash crop production, by comparison, brings the M'buke folk only about £23 per adult male per year for about six months' work (i.e. just under £1 per week worked).

(2) A major study of time patterns in various parts of the country is now being undertaken by P. Krinks and E. Waddell. Pilot studies undertaken by R.G. Crocombe and M. Rimoldi appear in New Guinea Research Unit Bulletins and further brief studies will appear in later issues.

hand the buyers were residentially scattered, unaccustomed to functioning as a unit, and divided into antagonistic factions, division into small-holdings would appear to be more propitious.

Whether co-operatives should be concerned with the whole productive process, or none of it, or merely provide services such as loans, transport, processing or marketing, can only be determined in the light of the experiences and ambitions of the people concerned and of existing facilities provided by commerce and government.

We have been concerned in this section solely with the role of co-operatives in the transfer of established plantations from expatriate to indigenous ownership. There are no examples in Papua-New Guinea of co-operatives establishing new plantations, and the feasibility of their doing so has not been considered in this study.

Summary

In November 1961 the M'buke co-operative society purchased M'buke plantation from Edgell and Whiteley Ltd. The plantation comprises eleven islands and an area of 141 hectares. Half the purchase price of £6,000 was paid from members' contributions and half from a government loan.

The plantation is now managed by a co-operative committee which is elected annually by members. Opportunities for unskilled jobs are shared by members who work for an average of six months per year on the plantation. Specialists retain their jobs fairly permanently. Payment for copra-making is based on individual output of copra. Clearing is paid for at contract rates.

Copra output and maintenance standards have been kept at the levels established by the company which owned the plantation formerly. As all income (with the exception of shipping freight, sacks and minor items like nails and paint) is paid directly or indirectly to members of the co-operative, purchase of the plantation has led to a considerable increase in their income.

Factors which seem to be relevant to the success of the enterprise to date are:

(1) The present owners formerly worked on the plantation as employees of the company which owned it previously. They were thus familiar with all phases of its operation except top management and finance. The husbandry practices of the company have been continued by the co-operative.

(2) The co-operative had functioned successfully for six years (in retail trading and produce marketing) before buying the plantation. Members had thus gained some experience of co-operative principles, elementary bookkeeping, and business management.

(3) The co-operative draws almost all its membership from a small, homogeneous and relatively cohesive community with a total population under 500.

(4) There is an adequate labour force available to work the plantation.

Generalizations drawn on the basis of the M'buke experience must take cognisance of the fact that this is a single experiment and that it has been operating for only two years.

Appendix A

Areas of islands and clearing arrangements

| <u>Island</u> (1) | <u>Area</u> (2) (hectares) | <u>Times cleared</u> <u>p. a.</u> | <u>Contract</u> (3) <u>price</u> | <u>Cost</u> <u>p. a.</u> | <u>Approx. man-days</u> <u>each clearing</u> |
|--|-------------------------------|--------------------------------------|-------------------------------------|-----------------------------|---|
| <u>Islands operated</u> | | | | | |
| <u>by co-operative:</u> | | | | | |
| 1. Lenjenning ⁽⁴⁾ | 48.50 | 3 | £40 | £120 | 140 |
| 2. Malon | 2.00 | 2 | £15 | £30 | |
| 3. Anun | 7.63 | 3 | £20 | £60 | |
| 4. Tiombwon ⁽⁴⁾ | 8.85) | | | | |
| 5. Karebo | 0.28) | 3 | £15 | £45 | |
| 6. Ahu | 19.18 | 3 | £30 | £90 | |
| 7. Ewal ⁽⁴⁾ | 27.63 | 3 | £30 | £90 | |
| 8. Kulinge | 8.08 | 3 | £20 | £60 | |
| 9. Patali ⁽⁴⁾ | <u>17.65</u> | 3 | £15 | <u>£45</u> | |
| | 139.80 | | | <u>£540</u> | |
| <u>Islands under customary ownership:</u> | | | | | |
| M'buke ⁽⁴⁾ | | 50.00 (assessed) | | | |
| Bulitangalou | | 1.00 (assessed) | | | |
| Sululau | | 0.32) | | | |
| Silemon | | 1.08) | | | |
| These two islands were legally part of the company plantation but were not used by the company. ⁽⁵⁾ | | | | | |

(1) Spelling: There is no standardized spelling for the names of islands and a wide range of orthographies is used in maps and documents.

(2) Areas: Those maps which show the compass traverse in detail show that measurements were taken around the coast line at highwater mark. Coastal sands and rocky coastal slopes, mangroves, rock outcrops, fringes of bush and inland swamps appear to account for about 35% of the total area. The planted area would thus be only about 65% of the above total (i. e. 225 acres).

(3) Clearing Costs: Amounts paid for clearing are not directly proportional to area of the island, though the discrepancies are not as great as they appear for some islands have relatively large areas of swamp or mangrove (which is never cleared) and others have none. Moreover, the terrain on some islands is more difficult than others. The prices paid by the co-operative are the same as paid by the company previously.

(4) Driers: Islands marked (4) above have smoke-houses for drying copra and act as collection and processing centres for adjacent islands.

(5) Sululau & Silemon: In fact the M'buke people today deny that these islands were ever sold. They are still held and worked by individual M'buke people.

Appendix B

Changes in personnel in managerial roles⁽¹⁾

A. Co-operative society board (formed early 1955: elected annually by members)

| Position | 1955-6 | 1956-7 | 1957-8 | 1958-9 | 1959-60 | 1960-61 | 1961-2 | 1962-3 | 1963-4 | Est. age pres. Mem. | Present remuner- ation |
|------------|----------|----------|---------|----------|----------|----------|-----------------------|----------------------|----------|------------------------|------------------------------|
| Chairman | Poliap | Poliap | Ponawan | Ponawan | Ponawan | Ponawan | Ponawan | Pakob | Pakob | 40 | |
| Secretary/ | | | | | | | | | | | |
| Treasurer | Kulapo | Kulapo | Kulapo | Kulapo | Kulapo | Kulapo | Kulapo ⁽²⁾ | Manus ⁽³⁾ | John | 21 | £4. 18. mnth. |
| Director | Chauka | Noan | Pokatou | Poliap | Poliap | Poliap | Poliap | Poliap | Poliap | 37 | |
| Director | Tapas | Tapas | Maton | Maton | Maton | Maton | Maton | Maton | Maton | 27 | |
| Director | Kichawan | Kichawan | Malikis | Kisakiu | Kichawan | Kichawan | Kichawan | Chawanin | Chawanin | 40 | |
| Director | Alibet | Alibet | Potuku | Potuku | Cholai | Alibet | Alibet | Kaluin | Kaluin | 34 | |
| Director | Pongi | Taita | Poiume | Songau | Songau | Paliau | Paliau | Paliau | Paliau | 26 | |
| Director | Chapau | Kapin | Pongi | Chameiel | Kuluep | Posalak | Posalak | Posalak | Posalak | 30 | |

B. Delegate to Manus Native Societies Association (joined 1955: elected annually by board)

| | | | | | | | | | | | |
|----------|--------|------|---------|--------|--------|--------|--------|--------|--------|--|--|
| Delegate | Alibet | Noan | Pokatou | Poliap | Cholai | Poliap | Poliap | Poliap | Poliap | | |
|----------|--------|------|---------|--------|--------|--------|--------|--------|--------|--|--|

C. Plantation Management Committee (formed Nov. 1961: elected annually by members)

| | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|---------|----------|----|---------------|
| Manager | | | | | | | | Nabor | Nabor | 48 | £2. 15. mnth. |
| Member for Lenjenning Malon and Anun | | | | | | | | Pouru | Pouru | 55 | Nil |
| Member for Tiombwon Karebo and Ahu | | | | | | | | Seleiau | Ponawan | 38 | Nil |
| Member for Ewal, Kulinge | | | | | | | | Chauka | Chauka | 46 | Nil |
| Member for Patali | | | | | | | | Kiliui | Charopwe | 45 | Nil |

D. Copra Inspectors (appointed Nov. 61: by directors from among directors)

| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--------|--------|--|--------------|
| Senior Inspector (trained by Dept. of Agriculture) | | | | | | | | Maton | Maton | | £4. 5. mnth. |
| Assistant Inspector | | | | | | | | Paliau | Paliau | | £2. mnth. |

E. Store Staff (appointed 1963 by directors)

| | | | | | | | | | | | |
|----------|--|--|--|--|--|--|--|--|-----------|----|-----------|
| Storeman | | | | | | | | | Matankiau | 23 | £2. mnth. |
|----------|--|--|--|--|--|--|--|--|-----------|----|-----------|

(1) All persons in these roles are men.

(2) Resigned due to illness.

(3) Dismissed for unauthorized absence from M¹buke.

Distribution of leadership roles

It is of interest to note that no individual holds more than one formal elective leadership role at a time. Neither the local government councillor nor the council committee of 3 men and 2 women has any formal role in the co-operative. Likewise none of the 2 men and 3 women of the church committee, the 3 lay preachers of the church, the 4 men and 3 women of the school committee, and the chairman, treasurer and secretary of the women's club, has any formal role in any other body on the island. All the above are chosen by election (either by show of hands or by 'lining' behind one's candidate, except in the case of the local government councillor who is elected by secret ballot).⁽¹⁾ The people say that the fact that one already holds such a position does not necessarily disqualify him from standing for another (and in the past there have been several instances of persons holding two such roles concurrently) but that they do not want any one man to have too much power on the island. The local government councillor is also a member of the Manus District Advisory Council, but he is nominated by the District Commissioner. The delegate to the Manus Native Societies Association is also a member of the co-operative board, but this is required by the rules. The aged are never elected to office, and with only about 100 adult males on the island, most of the ablebodied men in the 35-50 year age group serve in one office or another.

(1) Likewise when a gang takes a contract to clear part of the plantation, they elect one of their number as 'boss'.

Appendix C

Historical notes on leadership and land claims in M'buke⁽¹⁾

The M'buke people trace their origin from the Peri islets off the south-east coast of Manus. The early Peri people travelled widely, knew the M'buke islands and fished near them from time to time. A dispute arose in Peri which involved a leader named Niachili, and his descent group who were known as Champonbungo.⁽²⁾

Niachili went with several men in a single canoe to Bulitangalou. There were no people living on this island, nor on any others in the M'buke group except M'buke itself. Those at M'buke did not live on the seashore as Peri people do, but on the slope of the hill towards the middle of the island. These original inhabitants of M'buke belong to what the Peri folk call the Matankor people.⁽³⁾

The day after Niachili's canoe landed on Bulitangalou two Matankor people came from M'buke to see who they were and what they wanted. They told Niachili that the M'buke people were divided into two separate groups, one of which had two leading men and the other three.⁽⁴⁾ He told them to fetch the two most important leaders, which they did, and a meeting was held on Bulitangalou. Niachili told them that he wanted to bring his people to the M'buke group to live and offered the original

(1) As recounted by a group comprising Nabor, Poliap, Pakob, Litau, Pongi, Bernard and others, between 11th and 22nd October, 1963 and written up from notes recorded by the writer. Interpolations from other sources are identified in footnotes.

(2) Champonbungo was the name of the place they lived rather than of a descent group. It seems likely that large groups took their names from places of residence, and that named descent groups were numerically quite small. However, without a knowledge of the language this is only surmise.

(3) The present inhabitants of M'buke are descendants of both Peri and Matankor people though they consider the Matankor element to be secondary.

(4) The names of the leaders of one group (which occupied the eastern half of the island and lived at Bulol) were given as Bogio and Potau, those of the latter group (which occupied the western half and lived at Kom) were Tiane, Kondrot and Nian.

inhabitants protection in return for occupation. The Matankor are said to have been anxious for Niachili's people to stay in order to protect them from raids by other groups. They gave Niachili's people the right to use all the reef and islands encompassed within the M'buke reef, except M'buke itself. (1)

The Peri people returned home that day and collected their wives, children and property, and brought them to Bulitangalou where they built a village in the lagoon. All the Champonbungo, and only the Champonbungo, came. (2) To cement their friendship with the Matankor people of M'buke, each party took some women from the other group as wives, and inter-marriage continued in later generations.

Shortly after their arrival Niachili distributed the land among the leading men of his party. All the islands on the M'buke reef except M'buke itself were divided (the more distant islands seem not to have been regarded as part of M'buke at this stage). None of the Matankor were included in the distribution which was as follows:

| Island ⁽³⁾ | <u>Leader to whom allocated</u> | <u>Remarks</u> |
|--------------------------------|---------------------------------|--|
| Bulitangalou | Niachili | Part to Kapungau |
| Sululau | Kalopoen | Half to his younger brother Changau |
| Lenjenning (divided in three): | | |
| Pokali | Polapan | Part to his younger brother Cheko |
| Popokei | Labawai | |
| Lompol | Niachili | |
| Malon | Poiai) Pokanip) | These men were brothers. The larger portion went to Poiai's family |

(1) It is emphasized that this is the story as accepted on the island today, but all the present inhabitants trace their descent primarily from Niachili's group rather than from the Matankor folk. The islands encompassed within the M'buke reef are Lenjenning, Bulitangalou, Sululau, Silemon, Malon and M'buke.

(2) It is conceivable that Niachili's group had been evicted from Peri and did not make any return journey, for of the three genealogies collected which go back to this original migration, all these men (including Niachili) had wives from Tarwi or Pelikawa. The Tarwi and Pelikawa people also trace their origin from Peri, but from earlier migrations.

(3) The names used by the Matankor for the various islands were retained by the immigrants.

During Niachili's lifetime the Mulitau (or Purdy) Islands, which were uninhabited, were divided among Niachili's people as under:

Kolipalon (Mole) Island to Niachili's group.

Kolemboi (or Mouse and Rat) Islands to Poiai's group.

Laichei (or Bat) Islands to Polapan's group.

The people did not establish a settlement on the Mulitau Islands, but simply built leaf shelters there during their visits to collect turtles, coconuts and sago. The people of Bipi Island also claimed Mulitau at one stage, but according to the M'buke tradition some Bipi folk were found at Mulitau collecting turtles by a M'buke party which killed some and put the rest to flight. They state that the M'buke claim is not disputed today (though we cannot confirm that this is necessarily so).

The northern islands of the M'buke group were uninhabited and had not been claimed by the Matankor of M'buke. They were acquired by occupation by the descendants of Niachili and allocated as follows:

Tiombwon and Karebo to the descendants of Poiai.

Anun to the descendants of Changau.

Kulinge to the descendants of Polapan.

Ewal to the descendants of Kalopoen.

Ahu to the descendants of Niachili.

In each case the land was allocated to the leader for his group. He then subdivided the land to individual men. Niachili and his people remained on Bulitangalou but the other people went to their respective islands and built villages there.

Patali, the island nearest the mainland, was not then considered to be part of the M'buke group, but Lala and Mapule acquired rights to it after they settled on the mainland at Chapuwai (see page 49).

Tradition records that Niachili had 10 children of his own and that after a successful fighting expedition against the

Matankor of Baluan Island⁽¹⁾ he took Chauka, a young child of the defeated group, brought him back to M'buke and adopted him. This was Niachili's favourite child, and as his own sons were said to be 'big-heads', whereas Chauka was obedient, he insisted during his old age that his leadership role be passed to Chauka. Some of the born issue disputed this choice but Niachili's insistence was respected and Chauka was accepted as leader while Niachili was still alive.⁽²⁾ Niachili died on Bulitangalou as a very old man. Chauka married a woman from N'drowa Island.⁽³⁾

On one occasion a message was received from Mouk Island to the effect that the people of M'bunai had made insulting remarks about the people of Bulitangalou.⁽⁴⁾ Lala, who is spoken of as the 'fight-leader' for Bulitangalou (and who was head of a descent group under Chauka), accordingly led a war-party against M'bunai, burnt their village and took three prisoners: Poniak, Kailo and Popuiap. Poniak was adopted by Lala and married into M'buke. The other two later left the island.

Also during Chauka's time as leader, the 'humbug bilong Germany' occurred. It seems that a European vessel had called at Laichei in the Purdy Islands and left a work party of ten indigenes and one European (possibly to dive for trochus shell). The ship went on its way. A group from M'buke went to Laichei to catch turtles and found the visitors there. A fight ensued and the European and nine of the indigenes were killed. The other, a Buka man named Matande, was brought back to M'buke as a prisoner by Tiraliu who was a member of Poiai's descent group.

(1) This was before the Mouk people from Peri had settled near Baluan.

(2) In recounting the story the narrator, perhaps assuming that we might question the passing of the title to a foreign adopted child, said, "I orait, i olsem Duke of Gloucesterbilong yupela waitman". I did not query the source of his English history.

(3) The N'drowa people had originated from Peri before the M'buke migration. They now live at M'bunai.

(4) The Mouk people traced their origin from Peri also, but had left there after Niachili's group. Two of Niachili's daughters, Niateng and Ndrokelou, had married on Mouk and Niachili's son Pokuru had later married there also. It was their children who reported the insult to the M'buke people.

Matande eventually escaped and presumably made contact with the authorities, for not long afterwards a German punitive expedition came to M'buke.⁽¹⁾ All the people from the surrounding islands fled to M'buke itself (which is the largest and hilliest of the islands) and hid with the Matankor people in the dense bush. The German ship anchored in the lagoon and boats were landed with German officers and native police. They burned all the villages and destroyed property and pigs along the shorelines. Canoes which were hauled up on the beaches were destroyed, but a number of people had sunk their canoes in shallow water for safety. That night they raised their sunken canoes and fled to the mainland taking the Matankor people with them. Only a few old people and some children were left behind. The following day an expedition from the ship went inland and killed two old men and one old woman. Then the ship departed. The survivors were later rescued by those who had fled to the mainland.

The M'buke people were given refuge by some Usiai people on the mainland. The M'buke folk supplied the Usiai with fish and other marine products and were allowed to settle at Chapuwai (near Malai Bay). Not all M'buke folk settled there, however, and some went to Chowai and others to Kali on the west coast of Manus. Chauka remained with the main group at Chapuwai. The remaining Matankor people of M'buke (of whom there are said to have been few left) were now completely absorbed by Chauka's people and they do not appear as a separate entity in tradition beyond this point, nor do they in any subsequent generations in the genealogies collected.

Chauka later persuaded the M'buke people then living at Chowai and Kali to rejoin the main group at Chapuwai. In retaliation for the punitive expedition to M'buke a group of M'buke men from Chapuwai attacked a trading schooner which called there and massacred the German captain, whom they called "Master Charlie", and his crew.⁽²⁾ They pillaged the cargo

(1) Manus was part of the colony of German New Guinea from 1884 to 1914.

(2) "Master Charlie" was killed by a M'buke man named Lala the younger, the son of Lala mentioned on page 47 and the father of Charopwe.

but, knowing little of the relative values of these strange commodities to Europeans, they tipped the rice in the sea but kept the sacks, threw away the canned meats but extracted the nails from the meat cases, and they jettisoned the tobacco. But they kept the muskets and shot.

Using the pillaged muskets they expanded their earlier range of warring and fought against a number of mainland villages and coastal islands. Going round Manus to the east they claim to have conquered as far as Pityilu Island on the north coast. Travelling west they fought as far as Ponam Island. They had only to conquer Andra and Hus Islands to complete their circuit of Manus. But at that stage the German authorities arrived and further fighting was stopped.

The German government was evidently not aware of the massacre of "Master Charlie", and there were accordingly no reprisals. Then a Japanese trader named Captain Gumini came to settle in the area and he became friendly with the M'buke people at Chapuwai, and especially with a man named Mapule (alias Narwi). Captain Gumini advised them to send the muskets back to the German authorities. He took two young M'buke men named Mundam and Molean (who were selected by Mapule) to the German authorities in Rabaul. The authorities are said to have stated that no punishment would be imposed if the muskets were returned.⁽¹⁾ The muskets were accordingly collected and sent to Rabaul.

Soon after the two young men returned from Rabaul, Chauka died. He was an old man. He was succeeded by his second son Chanan as "boss bilong ol M'buke".⁽²⁾ Chanan too

(1) The M'buke people consider that the lack of retaliation was due to the fact that they still had the muskets, and assumed that the Germans were therefore afraid of them.

(2) Chauka's first son, Angol, had been blown off course on a voyage to Mulitau and landed in the Western Islands. Chanan was with him but, whereas Chanan returned to Chapuwai, Angol married in the Western Islands and remained there. Some of his issue subsequently rejoined the M'buke people but most have remained in the Western Islands. Informants suggested that the reason Angol remained in the Western Islands was that his M'buke wife (who remained behind) had borne him only one child, a girl.

lived until old age, and on his death was succeeded by his eldest son Poliap.

Mapule was the head of one of the descent groups under Chauka, but because of his friendship with Captain Gumini his influence grew during Chanan's time as leader and Mapule became more important than all other heads of descent groups except Chanan (and later Poliap).

The German authorities are said to have consulted Captain Gumini about the selection of the first luluai (official head man) and to have concurred in his recommendation that Mapule be appointed. Mapule was then very old, and asked that the office be vested in his son Polongou and this was done. Molean (who had been sent to Rabaul about the muskets) was later appointed as a tutul (minor official) under Polongou.

While the people were living at Chapuwai a German bought the island of Anun. He made payment to Mapule in tomahawks, tobacco and other trade goods. The German planter (whose name is not remembered) built a house, trading station and wharf at Anun and then cleared the bush and planted coconuts. At first he used labourers from New Ireland and Buka, but later he hired some Manus labour also: Usiai people from the mainland, Matankor people from Rambutso, and others, but no M'buke people were hired. Then he took over the neighbouring islands of Tiombwon, Kulinge and Ewal one by one and planted them. The people claim that he did not buy these islands, but just took them over without asking "long pasin bilong waitman" (in European fashion). (1)

(1) It is conceivable that Mapule sold all islands (irrespective of his right to do so) but informed his people that he had sold only those to which his family had rights. There is unfortunately no means of checking these facts as the relevant documents were destroyed during the second world war. All that can be said with certainty is that the German administration recognized the sale of all islands and issued the purchaser with appropriate title deeds. These were used as a basis for new deeds issued between the wars in favour of the Custodian of Expropriated Properties. At the time of purchase, most of the islands were covered with virgin bush. A considerable amount of capital must have been required to clear the bush and establish a coconut plantation. Whereas the M'buke people emphasize the low original selling price of the land, this is irrelevant to the buyer who bought it from the Custodian of Expropriated Properties in 1928 for £4,600.

The people are said to have recognized Polongou as the white man's luluai only, and to have continued to recognize Poliap as the 'true' leader of the M'buke people. Poliap died of illness while still a relatively young man. Though married, he had no born children though he did have an adopted son Muli. Muli had not yet reached puberty when Poliap died, and Muli himself died at the age of about 55 in 1963. Leadership of the group devolved on Poliap's next younger brother, Kichili.

By this time the people at Chapuwai had become divided into two factions, those who supported the government luluai Polongou and those who supported the traditional leader Kichili. Most of Kichili's people then decided to return to the M'buke group to settle (though Kichili himself was aged and wished to remain; he had no children of his own).

The M'buke islands (except Anun) had been uninhabited since the German punitive expedition several generations earlier, though while living at Chapuwai the people had made fairly regular visits to the islands to collect turtles and fruits. Once the German planter settled at Anun, however, they made their visits to M'buke at night, or made wide detours so as not to be seen by the planter who got angry with them for visiting the group. After the Territory of New Guinea was taken over by the Australian authorities in 1914, however, they visited more frequently, and a few built houses and settled on Bulitangalou. (1) These people were followers of Kichili.

The people chose Tano as the leader of the group who returned to Bulitangalou. Asked why Tano was appointed, informants replied that it was because he was the senior man in the line 'straight from Niachili' through the latter's youngest daughter Poilep. Poilep married a man named N'dramana whom they say was a M'buke man of no importance. Tano was their eldest son, and at the time of the migration was ageing, older than Kichili himself (and senior to him in generations), but still active. There had earlier been some competition between Kichili and Tano for leadership of the group. The pre-

(1) Bulitangalou was not included in the original purchase by the German planter. The people cannot remember when this resettlement began, but the Chapuwai Village Book for 1921-4 (no earlier record is preserved) contains several references to individuals leaving Chapuwai to live in the M'buke group and vice versa.

vious land divisions among the descent groups as made by Niachili were retained.

The German planter remained at Anun for several years after the Australian military occupation and the migration back to Bulitangalou. About 1920, however, civilian government was established and the planter was repatriated to Germany. Tano was made a luluai and Nouna a tultul under him by the new regime.

The M'buke people claim (though this claim has not been verified) that as revenge for the M'buke attack described on page 48, the M'bunai people made a false report about them to the 'English' (i.e. Australian) government and a group of native police came and destroyed Bulitangalou village. The police landed at night, chased the people from the village, and burned the houses and destroyed the property. (1)

So the people left Bulitangalou and came to settle on M'buke itself. They divided into two groups, the one under Tano built Bulol village on the eastern end of the island, and that under Chankel built Korn (which is the site of the present village). Chankel had been a 'family boss' of a sub-group under Tano and had been a medical tultul since about 1921. (2) At some time in the 1930's Korn was abandoned and its people went to Bulol to settle.

After the German planter was repatriated, the M'buke plantation was taken over by the "Mokerang Company". (3) The Mokerang Company engaged the M'buke people as plantation labour for the first time. (4)

(1) There is probably another side to this story, it has merely been recorded as related.

(2) This and subsequent dates of appointments shown in this appendix have been inserted after consulting the appropriate Village Book.

(3) This was the Custodian of Expropriated Properties whose headquarters were located at Mokerang.

(4) The workers camped on whatever island they were working, and were paid 2/- per month in cash, and 3/- per month in savings, plus food and regulation issues such as clothing, soap and tobacco. This pay rate remained until the outbreak of war.

When the Mokerang Company was disbanded in 1928, Mr Whiteley purchased M'buke plantation.

In 1926, after Tano's group had settled on M'buke proper, Mundam (one of Polongou's group from Chapuwai) decided to settle on Bulitangalou. Mundam is said to have approached the Mokerang Company and a meeting was held at which it was agreed that if Mundam would send some of his people to work as plantation labour for the company, the company would allow Mundam's people to live on Bulitangalou. (1) They came and settled and the government appointed Mundam luluai for Bulitangalou. (2) Tatou was appointed tutul under Mundam.

At this time Tano was old and had relinquished his luluaiship. None of his surviving children were of sufficient maturity of years to take over and on Tano's recommendation Malai was appointed luluai in his stead. Informants pointed out that the people had insisted on the selection of Malai as he was the senior male descendant of Niachili. (3)

Malai died relatively young, while his predecessor Tano was still alive. By this time Tano's son Kapin had reached maturity whereas Malai's son Posalak had not and Kapin was chosen as luluai by the people and confirmed by the government. When the tutul Nouna became sick he was replaced by Pokichong, and when the latter died Sapona was appointed. (4) Sapona died in 1943 and because of the war no official replacement was made until 1945 when Nabor was appointed. On Bulitangalou, the tutul Tatou died during the war and was replaced by Charopwe.

(1) The people produced a document dated 11th May 1926 and signed by the manager of the Mokerang Company stating that Mundam's people could reside on Bulitangalou 'in consideration of a certain sum paid'. The sum was not specified but the people say it was 10/- per year.

(2) People said that Lala's son Charopwe would have taken over as luluai owing to his being the eldest direct descendant from Lala, but he was too young and when he became adult he went away to mission school.

(3) The genealogy compiled later showed that he had an elder brother Chalapan. Informants stated that the elder brother was then alive, but did not have the necessary qualities of a leader and had been passed over.

(4) Sapona's elder brother, Koiap, was then away training as a medical assistant.

A better understanding of the selection by the people of Nabor and Charopwe as tultuls, and of later changes in leadership patterns, can be obtained by a short digression on changes in the religious and political environment.

About 1932 the Roman Catholic Mission came to Manus and established a station at Papitalai on the north coast. Indigenous catechists were posted to various places in the district, including Kabanu on the south coast of Manus. Four M'buke men went to Kabanu for some months to learn the new religion. They were Charopwe of Bulitangalou and Tapas, Poursu and Otto Sikot of Bulol village on M'buke. At the end of their stay they went to the mission headquarters at Papitalai and remained there for several years. An Usiai man from the north coast was then posted to Bulitangalou as catechist and he sent one further batch of four men to the mission about 1938. They stayed for three years. No women or children were ever sent.

In 1936, Nabor joined the police force and was sent to Rabaul for training. He had not attended the mission, but had spent the previous five years working as a cook for Mr Whiteley, firstly on M'buke plantation and later on Inrim plantation. In Rabaul he became friendly with Paliau of Baluan Island who was also working in the police force.⁽¹⁾ From Rabaul he was posted to the Sepik district. Nabor says that from his work for Mr Whiteley, from what he saw of European ways and property in Rabaul, and from his experience of very primitive people in the Sepik district, he became convinced that adherence to custom was responsible for the fact that his people on M'buke did not enjoy the prosperity of the Europeans.

On his leave to M'buke in 1938 he held meetings and told the people to abandon the property exchanges and other customs which came from the ancestors and adopt the ways of the white man. He says that many of the younger men were receptive to his ideas but the two luluais and the catechist led the elders in opposition to him. One of the changes he advocated was the adoption of European dress but, he and others maintain, the mission taught that it was 'big-headed' and wrong for them

(1) Paliau's history is given in detail in Schwartz, 1962.

to wear European clothes and if they did so God would punish them. The luluais and the catechist tried to take him to 'court' before the priest but he refused to go and was denied entry to the church as punishment. He returned to police work in New Guinea.

In 1940 Nabor left the police force and returned to M'buke. He held secret meetings with the young men on Lenjenning Island and enlisted their support for major changes in the way of life including abolition of bride-price and subsequent gift exchanges at births and deaths, abolition of prohibitions on eating with in-laws, abolition of puberty exchanges and feasts at ear-piercing, the adoption of European clothing and the orientation of all effort to the acquisition of money. When his teaching became widely accepted the luluais allowed him to hold meetings in the villages but they did not support his views. People agreed in principle to adopt changes, but not many were adopted in fact. (1)

Sapona, the tultul of M'buke, died in 1943, and Tatou the tultul of Bilitangalou was killed by a grenade in 1944. The people selected Nabor to replace the former, and his main supporter Charopwe (the son of Lala) to replace the latter. They were confirmed in these positions when civilian government was resumed in 1945. It is of interest to note, however, that while they based their claim to leadership on a revolution in way of life, Nabor and Charopwe were close competitors with the tultuls they replaced and with the then luluais on traditional criteria of descent. (2)

The people of M'buke supported the Allied cause during the war and in 1944 took four Japanese prisoners. The plantation had been vacated by its European owners in 1942 and a District Officer who came to collect the Japanese prisoners

(1) Further details about Nabor (or Napo) are given in Schwartz (1962:228-30) which I had not read at the time of writing the above.

(2) A number of genealogies was collected, but they are insufficiently complete for publication. They are available from the New Guinea Research Unit, Port Moresby.

gave the M'buke people permission to use the plantation. (1)

In 1946, Paliau sent a message to Nabor to come to Baluan with other M'buke leaders. He and Charopwe went with three canoe loads of men, but the luluais did not go. Some days after their arrival 'everything capsized'. Under the influence of a cult leader (not Paliau), people broke out in shaking fits, canoes and other property were destroyed, money was thrown into the sea and government books and badges of office were burned. When the M'buke people returned home some had similar fits, some threw away their money and killed their pigs. But there was much confusion and argument about what was the right thing to do and many opposed the revolution. The government books were not burned.

In 1947 Paliau visited M'buke and told the people that shaking fits and destruction of property were wrong and that they must follow the new way which consisted of abolishing traditional feasts and obligations, working hard to acquire money, forgetting tribal and other differences, and joining together for the common good.

Shortly after Paliau's visit the people of M'buke and Bulitangalou met and decided to unite as Paliau had advised. The villages of Bulol and Bulitangalou were abandoned and late in 1948 all settled together at Korn on M'buke. (2) Instead of building over the sea as formerly, most built on the land as this was part of the 'new way'. Since then Korn has remained the only village in the M'buke group, though it could be regarded not as a single village but as two contiguous villages, for each group

(1) The District Officer's written note gave the people the right to plant temporary gardens (pending further investigations of alienated areas) on European owned islands in the area - Bulitangalou Village Book 19 July 1944.

(2) The Village Books, however, disclose that this was preceded by disputes of some years' standing over the use of land at Korn. According to official sources the land at Korn belonged to Mundam, the luluai of Bulitangalou and he several times requested government support to stop the Bulol people building there. On one occasion in 1945, when requested by a District Officer, he gave formal approval to the resettlement of Bulol people at Korn, but local informants say he withdrew it when the District Officer left. The Paliau movement eventually brought the two factions together.

occupied a clearly demarcated half of the village. (1)

Following Paliau's advice they decided to select a single 'boss' for the whole group. A public meeting was held and Nabor was chosen as luluai and Charopwe as tultul. The appointments were confirmed by the government. Of the two former luluais Mundam was aged and Kapin, who had been somewhat discredited for his opposition to the new way of life, later removed to Malai Bay and settled there.

Charopwe was dismissed as tultul shortly afterwards owing to personal trouble, and was replaced by Litau Pankowas. Litau joined the police force in 1953 in another district, and was replaced by Manuai.

In June 1954 the Baluan Local Government Council was established and the posts of luluai and tultul were abolished. M'buke was entitled to two councillors, one of whom was chosen by those who previously lived on Bulitangalou and the other from those who previously lived at Bulol. (2) At the first elections Nabor and Chakumai were elected as councillors for M'buke. At the 1956 elections Nabor and Bernard were elected and in 1960 Kaluin and Bernard. In 1962 the council was reconstituted and M'buke was allocated only one councillor. Bernard was re-elected.

The story as related suggests, as other incidents relating to leadership suggest, that subject to the overriding condition that one accepted the revolution, many of the old principles of organization and leadership selection remained. Pakob said, with the apparent approval of the group, "All the people agreed that Paliau was right. We were one people. We all came from Niachili as one people and the division into different parts that had happened in German times was wrong. So we all came to live together at M'buke. The people wanted

(1) Today there is a certain amount of interdigitation over the boundaries, and the boundary itself has been formally abandoned in the effort to unite.

(2) The District Officer tried to persuade the two segments of the population to amalgamate and all vote for two councillors who would have joint responsibility to the whole village, but this was unanimously opposed.

Nabor to be boss because he was the senior man straight from Niachili."⁽¹⁾ Charopwe, they said, was the eldest living son of Lala, who was the 'fight-leader' of the group.

On the other hand, Nabor had had considerable experience of the white man's world, and this too seems to have been an important prerequisite to leadership in the new situation. He had been five years a cook and four years a policeman (perhaps the two most influential and prestigious occupations an indigenous person could hold in those days) and had travelled widely. Charopwe, on the other hand, had obtained elementary education at the catechist's school at Kabanu, and education was still scarce and highly valued.

Nevertheless, there were several others who had been to the catechist's school, and others who had been away to work elsewhere. As most are now dead it is impossible to compare their personal qualities, but it seems highly probable that one of the crucial distinguishing factors in the case of Nabor and Charopwe was their descent.

Schwartz (1962: 224) speaks of high status in pre-contact Manus society as being "partly hereditary, partly achieved, always requiring validation through entrepreneurial initiation of exchange". It appears likely that the hereditary criterion still has at least partial validity on M'buke today and that traditional achievements have been replaced by non-traditional experience in terms of schooling, travel and responsibility (whether as a paid employee off the island or as an effective organizer on the island).

The genealogical data collected are insufficiently complete to permit positive conclusions to be drawn, but they do suggest that more leadership roles, including elective roles, are held by persons who are the eldest resident men in their

(1) Examination of genealogies collected later showed that Nabor in fact had an older brother, but informants say that he lacked the personal qualities for leadership. Posalak was senior by descent but was only a young lad. The two luluais Kapin and Mundam were also senior, but they had not accepted the new way. It is of interest to note that Nabor traces his descent to Niachili through two females, but he associates himself with this line rather than with that of his father or his maternal grandfather whom he says were persons of no great consequence.

families of birth, than by those who are younger brothers. A number of younger brothers do, nevertheless, occupy important

individually owned and may be taken from anywhere on any of the 'home' islands. Trees such as mamak (which is valued for making canoe outriggers) or kasta (which is used for caulking) and the daka creeper (which is chewed with betel nut) are considered as private property even if they grow wild within a grove of coconut or other economic trees. If, however, they grow in the bush they may be used by anyone, irrespective of the descent group with which the land where they grow is associated.

The Purdy Islands

As noted on page 32, the M'buke people claim rights to Mulitau (Purdy Islands). They maintain that during their stay on the mainland and after their return to M'buke in the 1920's they made periodic visits to the group to collect turtles. (1) After Captain Gumini's trading station was established at Chapuwai (see page 50) they also made expeditions to the Purdys to dive for trochus shell.

They assert that the islands were taken over by Europeans without payment or permission. (2) A plantation was established and the M'buke people were no longer permitted to visit the islands. The plantation was abandoned at the time of the second world war and the M'buke people resumed visits there. Expeditions to collect turtles, trochus shell and copra have been made from time to time since and are still being made.

Whereas in former times persons could only visit the island which had been allotted to their descent group, since the war these divisions have been disregarded and any M'buke person may gather from any of the islands. On the other hand all expeditions to the islands must now be approved by the council committee, and large numbers travel together.

(1) Census patrols visiting the islands have several times noted in the Village Books that some of the M'buke men were absent in the Purdy Islands at the time of their visit.

(2) Unfortunately the original documents were lost during the war. As the islands were not then inhabited it is possible that they were considered to be waste and vacant

Land rights on the mainland

M'buke people still claim the area of land at Chapuwai where they settled when they fled from M'buke at the time of the German punitive expedition. They make frequent visits there to make sago, collect thatch and gather wild foods. The extent of their claims is, however, disputed by certain mainland people. Their claims to areas at Sapondralis, Lopia, and other mainland areas, as well as to such coastal islands as Chowai, Buluchewei and Choupach are also disputed, and the Village Book discloses that these are disputes of long standing. Patrol staff have given decisions about access to the land from time to time but the matter still causes friction between the groups. (1)

The M'buke people also claim rights over areas of sea adjacent to the lands they claim on the mainland. These stretches of water contain trochus and mother-of-pearl shell and during this study a meeting was held to protest about mainland people diving for shell there. It was decided to send a delegation to the District Commissioner. There was not enough time to gather information on the grounds of the various claims. (2)

(1) A number of cases are recorded in the Village Books. In 1924 a government officer ruled that land on the Saleu river which was claimed by M'buke people then living at Chapuwai belonged to people of Kabanu village but that all the coconut, betel and daka trees growing on it belonged to M'buke folk. A similar decision was given in 1937 in respect of land and trees at Sapondralis. In 1929 the District Officer warned Matankor people not to touch coconut trees on Chowai, Buluchewei and Choupach islets as they belonged to residents of Bulitangalou (but he did not decide the ownership of the land itself). The same dispute arose again in 1934 when Matankor people from Koko village tried to settle on Chowai. The District Officer noted that the trees had been planted by M'buke folk but that if the Matankor people insisted on settling he would 'hold court to determine ownership'. All the above, and others in respect to lands at Duluu, Moenai Point and elsewhere, are still in dispute today. Since 1959, patrol staff have not been permitted to give decisions about the ownership of land or reefs. This task is reserved for Lands Commissioners, but there are none in the Manus District.

(2) Again evidence in the Village Books confirms the people's contention that disputes between themselves and other groups about fishing and diving rights have gone on for several generations. Patrol staff seem generally to have informed disputants that any person may dive or fish in any place which is covered at high water.

Bibliography

- Custodian of Expropriated Properties, 1926. Catalogue of New Guinea properties: sale of expropriated properties in the Territory of New Guinea (3rd group), Melbourne.
- Department of Trade and Industry (Co-operatives section), 1951-63. Files relating to M'buke co-operative, Lorengau.
- Digby, Margaret, 1957. Co-operatives and Land use (F. A. O. Agricultural Development Paper No. 61) Rome.
- Fisk, E. K., 1962 "The economy of Papua-New Guinea", in Bettison, et al., The independence of Papua-New Guinea, Sydney.
- Mead, Margaret, 1956. New lives for old, London.
- Schwartz, Theodore, 1962. The Paliau Movement in the Admiralty Islands, American Museum of Natural History Anthropological Papers, No. 49, part 2, New York.
- Sherwin, John H., 1962. "M'buke Native Society Limited, plantation owners", Kibi (Annual journal of Federation of Native Associations Ltd.) No. 2., 30-32.
- Sherwin, John H., 1963. "An appraisal of co-operatives in the Manus district", being a paper presented to the Co-operatives Officers' Conference, Port Moresby.
- Singh, Charan, 1959. Joint farming x-rayed, Bombay.
- Village Book, Bulitangalou, 1932-48.
- Village Book, Chapuwai, 1921-30.
- Village Book, M'buke, 1932-63.