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Foreword

The following papers were presented at the first of the annual Waigani Seminars which was held in Port Moresby on 18-22 May 1967, sponsored jointly by the University of Papua and New Guinea, the Australian National University, the Administrative College of Papua and New Guinea, and the Council on New Guinea Affairs. The seminar, entitled 'New Guinea in Transition', examined indigenous participation in business, industry, politics and society but this volume contains only those papers which dealt with New Guinea people in business and industry. Two papers not presented at the seminar are included because of their relevance to the papers which precede them in this volume. They are the papers by K. Menzies on 'Production and Marketing of Artefacts in the Sepik Districts and the Trobriand Islands', and I.J. Fairbairn on 'Waso: an Extension of the Namasu principle'. The brief concluding chapter of this volume, which was not presented at the seminar, aims to sum up some of the trends which emerge from the papers.

Papers presented at the seminar but not included in this volume were:

'The History of Namasu' by Mr W. Fugmann, and 'Namau as Seen from the Village' by Gillian Sankoff. These two papers will appear in a subsequent *New Guinea Research Bulletin* together with the full analysis of his research on Namasu by Dr I.J. Fairbairn.

'Tolai Cocoa Producers' by Dr Scarlett Epstein. This paper is due for publication in mid-1968 as a chapter in Dr Epstein's book, *Capitalism Primitive and Modern - Some Aspects of Tolai Economic Growth*.

'African Middlemen in West Africa' by Professor J.W. Williams.

'Racial Participation in the Economy of French Polynesia' by Dr B. Finney.

'Marketing in Vila, New Hebrides' by Dr H.C. Brookfield. This paper is scheduled to appear in a volume of essays on Pacific markets edited by Dr Brookfield.

'Pacific Islands Parliaments' by Professor N. Meller. This paper will not be published in the form in which it was presented but some of the data will appear in a forthcoming *New Guinea Research Bulletin* by Professor Meller entitled "Papers on the House of Assembly of Papua and New Guinea".
'Tribal Integration in the Pacific Islands Regiment' by Major H. Bell. This paper has appeared under the title 'Integrating the P.I.R.' in *New Guinea*, Vol.2, No.2.


'Local Participation in Local Government' by Mr B. Jinks.

'Leadership Selection in the Public Service' by Mr G. Ord.

'Indigenous Participation in Mt Hagen' by Dr W.L. Rowe. Dr Rowe's data on his researches in Mt Hagen are expected to be published during 1968.

'Non-traditional Groups in Port Moresby' by Dr B.L. Abbi. Dr Abbi's data on this topic will be published in a fuller form in 1968.

'Changing Roles in the Churches' by Mr P. Chatterton will be published in a forthcoming issue of *New Guinea*.

'Local Participation in the Judicial Process' by Mr T. Barnett is now in the press with *The Journal of the Papua-New Guinea Society*.

'The Revolution in Education' by Dr G.W. Gibson.

The photographs in Chapters 4 and 5 (excluding Plate 1) were provided by the Department of Information and Extension Services, in Chapter 6 by Namasu Ltd, in Chapter 7 by Waso Ltd, in Chapter 8 by Island Products Ltd, and in Chapter 10 by Conzinc Riotinto Ltd.
Chapter 1

Introduction

Margaret Mead

I was unfortunately unable to accept an invitation to the seminar at which these papers were presented but, in partial compensation, Dr Crocombe has asked me to react to them as they are being prepared for publication. In this way my stance is that of the interested reader for whom nothing that is not on the printed page can be taken for granted. For such readers, especially for those struggling with the problems of economic development in other parts of the world, it seems worthwhile to emphasise some of the peculiarities of the situation of Papua-New Guinea. The combined territory of Papua as a colony of Australia, and New Guinea as first a Mandated Territory after World War I, and now a Trust Territory, is one of the very small number of countries in which the colonial system and the more modern system of trusteeship survive. It is subject to an unprecedented amount of pressure from world opinion, and from those countries whose own recent independence depends to some extent on exhortation to others as a counterbalance to some of their own difficulties. Australia - I write here as an American long involved in studies of Papua-New Guinea - has had to face the anomalous condition of assuming the post-World War II obligations of a metropolitan power without the previous history of economic exploitation which is the announced raison d'être for the strength of the anti-colonial movement in the world.

In the post-World War II climate of world opinion and unprecedented change, we have witnessed in Papua-New Guinea the confrontation of some of the technologically least advanced peoples of the world with the most modern technology, and the most sophisticated attempts to involve hitherto isolated, non-literate peoples in full social, economic and political participation at every level of the complex, emerging, world-wide style of civilisation. Methods of economic development designed for farmers in highly developed economies have been transplanted to New Guinea in the form of...
producers' and consumers' co-operatives, companies and industrial organisations, only partly suited to the needs of scattered groups which are linguistically and ethnically diverse. The administration of law has attempted to combine rudimentary regulations to protect indigenous people from exploitation (such as restrictions on land sales and the regulation of working conditions) and elaborate procedures designed to control large and complex Australian businesses. On the administrative side we have two systems, a pre-World War II mission and governmental system which combined a very low expectation of indigenous participation with a highly protective and personal system in which it was assumed that the bulk of the population would remain almost wholly dependent on subsistence agriculture, and the post-war system in which world demands for large-scale economic development, the creation of cities and the building of a nation, have been made. The contrast between the two is mirrored in the different types of progress found in the coastal areas, where the old system had been uneasily and unproductively stabilised, and the newly-opened highland areas where the indigenous peoples' first contacts have been with an inter-communicating, highly technological and aggressively developmental modern world.

Within such a context of pacifying, governing, missionising and educating the tremendous number of pre-literate and linguistically diverse groups, the moral demands for speed have sometimes encountered an understandable amount of pessimism and despair. As the system opened up, as schooling which might lead to university standards of education was introduced, the inherent difficulties of the local cultures also tended to be emphasised. No nation had ever been built so fast and among a people speaking over 500 different languages, without recognisable forms of political authority, without any except the most local ties of loyalty, and with no experience of intermediate pre-industrial technical forms characteristic of those parts of the world within which modern technology has developed. Lack of a standard currency, modern credit, concepts of profit and loss, of capital expenditure and allowances for contingencies, have seemed particularly glaring defects in the local cultures, defects which became conspicuous when efforts were made to encourage entrepreneurship. These defects are exaggerated by those who have vested interests of various sorts and there is inevitable confusion between moral strictures against those who refuse to facilitate indigenous advances and those to whom the difficulties and failures loom larger than the successes.

A set of preliminary case studies such as this volume contains is invaluable in providing a firm groundwork for further advances in both research and application. I hope here merely to suggest a series of questions which arise out of this material and which may be usefully pursued in the future.
If, instead of emphasising the weaknesses of the extraordinarily diversified cultural state of New Guinea, we ask what are the untapped strengths of peoples whose primary loyalties seldom exceeded 500 people, would we arrive at a new kind of answer? True, there is little formal political power by way of kings, chiefs, or native hierarchies. True, the system of Big Men who during their active careers mobilise a cluster of co-operating peers and dependants, is necessarily temporary and unDEPENDABLE. Yet wherever we hear that a particular agricultural, commercial or industrial enterprise has flourished because of the unusual personality of the principal instigator, founder or entrepreneur, and instances abound throughout these pages, we may be reasonably certain that the old system of temporary clusters around a Big Man, in which kin ties and wider ties to other groups are temporarily exploited, has been brought into play. And, without forms much stronger than those which originally supported the Big Man's type of leadership, the strength of the enterprise is almost certain to wane. But it is important to emphasise that this is equally true when the success of an enterprise is attributed to the unusual skill, enthusiasm and leadership of an expatriate co-operative or agricultural officer or mission executive.

The highly particularistic forms of administration which have evolved in response to fragmented indigenous conditions are equally temporary and unreliable. No system, whether administered by indigenes or expatriates, can meet the needs of a developing economy without formal procedures capable of withstanding changes in personnel, and personnel of very uneven calibre. It would be useful to contrast some of the older and more stable social forms which have been imported into parts of the administrative apparatus, such as those in education and health, with more recent, more innovative, and less stable structures associated with co-operatives, councils and indigenous commercial enterprises.

It will be also useful to ask whether there are indigenous cultural forms sufficiently widespread to transcend local differences which could be invoked. Such a structure is the hereditary system of trade friends which crosses tribal and linguistic lines, is maintained through generations with credit given and received, and which has a high capacity to maintain itself in spite of inter-tribal feuding and warfare. In contrast to the indigenous Big Man cluster style, these networks, along which products of various sorts are interchanged with a considerable time-lag, have a form which is relatively independent of personalities. I speak for example of systems like the Kula Ring and the archipelago-wide trade of the Admiralty Islands.\(^1\) In such systems stability is

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1 See Malinowski 1922, also Fortune 1932, which emphasises the economic functions of the Kula; and Schwartz 1963, which gives a more detailed discussion of these networks.
maintained by a sense of form which not only transcends the personalities of individuals but is flexibly adapted to the exigencies of biological kinship, so that inheritance of network ties can be very broadly interpreted. Furthermore, the widespread network ties provided a kind of countervailing device against the narrowness of local kin ties, so that where reliance upon a kin group - to raise capital, or launch a new enterprise out of kin-based enthusiasm - is only a temporary and eventually unreliable source of economic support, network relationships which have explicitly functioned to broaden a kin-based economy might prove much more permanent and flexible.

Experimental attempts to utilise such networks, for recruiting personnel for training, and for the spread of technical innovations from book-keeping to the maintenance of machinery, might be well worth while. Attention should also be given to the development of new networks among students of technical schools, members of the armed forces, medical students, etc. In the pre-World War II history of New Guinea, the creation of any new position, such as that of 'doctor boy', tuttul, or godparent, was seized upon as the legitimate basis for a new network which could be exploited for traditional purposes. It is particularly important to recognise that in these network relationships credit and reliability were understood. The familiar finding that indigenous enterprises break down because of corruption and embezzlement can, when carefully analysed, be found to depend upon the way in which individuals who are members of a local kin group are asked to function in a new way, without sufficient protection against the normal demands of other members of the kin group. As many of these papers emphasise, the introduction of wage labour and the employment of non-kin is a condition of the development of stable modern enterprises. At the same time the existence of older systems of reciprocal credit-giving which require planning and accounting should be explored. And a great deal more attention should be given to the rapid creation of institutions which protect the successful small village entrepreneur from the traditionally sanctioned exactions of his kin - institutions like readily available banking facilities, storage that is heavily assigned to particular purposes, and available retail stores - so that neither money or goods are subject to local pressures. This set of papers emphasises the need for credit. It should be recognised that changed conditions of consumption are also essential to protect the small capitalist, or the clerk in charge of a collective or commercial enterprise.

There are valuable discussions here of the extent to which Australian practices, such as the provisions governing limited

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1 I have discussed some of the requirements for the transition to a money economy in *New Lives for Old*, 1956.
stock companies, may be too elaborate and complexly phrased for conditions in Papua-New Guinea. I would also like to draw attention to the dangers inherent in unsystematic relaxations of these complex systems. Throughout the world we have examples in which individuals reared within modern complex civilisations are asked to operate among less developed peoples, and usually in remote, difficult, unrationised environments. The creation of new, simplified, and more appropriate forms is usually not available to the officer operating on the growing edge of the new economy. The regulations upon which his headquarters insist appear to him to be impossible of execution, whether these are technological, legal or matters of accounting procedures. Clocktime, dates, measurement, calculations: all are initially alien to the local population.

The temptation is great, and is almost always yielded to, to simply relax and degrade the complex system which it seems impossible to apply. As the indigenous people have different ideas of time, the office of a new commercial enterprise becomes increasingly tolerant of an unreliable schedule. The employee who didn't come today but may come tomorrow is matched by the store manager who is breakfasting an hour after opening time. The employee who can't read the regulations is matched by the officer who decides that the regulation designed for the complexities of urban life doesn't apply in the bush. The imported system which should provide a model of precision and form becomes a muddled, relaxed, inefficient mockery of the complex modern system from which it derives. The resulting inefficiency, in sharp contrast to the efficiency of the systems on which it is based, further promotes a sense of low expectation and impaired learning. Failure on the part of the indigenous personnel who are being asked to take over in managerial and technical capacities might provide a very good measure of the extent to which the imported forms have been blurred by the way in which they have been executed. Namasu seems to present a conspicuous case history in which insistence upon high levels of technical and personal performance have been accompanied by low failure rates. There are instances in commercial and industrial enterprises in Papua-New Guinea in which standards have been most rigorously observed, and others where they have been most laxly applied.

An unapplied rule, no matter how inappropriate, ridiculous, alien and archaic, creates an unfavourable learning situation. It might also be that if those in outposts were forbidden, by their training, to introduce such relaxations, as in the traditional cliche of the solitary representative of Britain dressing for dinner in the jungle, the demand for reform and appropriate innovation would be enormously speeded up. Twenty forms which are simply ignored promote contempt for all forms; twenty inappropriate forms laboriously filled out may result in demands for an improved form. There is little doubt that if indigenous peoples are to take
their place, not at the tail, but abreast of the modern progress towards utilisation of the technological revolution, they must be presented not with broken-down, abused, deteriorated versions of that civilisation but with imaginative, high-level, precise and appropriate new forms, specially designed for the new conditions which must combine stone-age childhood with computer-based adult experience.

Finally, we need to give serious attention in Papua-New Guinea to the tendency to think about large groups of people in simple geographical terms (e.g. reference to 'Sepiks', 'Bukas' or 'Keremas'), terms which obscure local cultural differences of great importance, as well as the country-wide cultural style which is encouraged by country-wide institutions. These essentially shallow categories have resulted in utterly unjustified generalisations about the characteristics (such as economic acumen, ability to handle machinery, reliability, and so on) of the members of different heterogeneous districts, by both expatriate and indigenous people in administrative and entrepreneurial positions. In isolated cases where the administrative unit and a genuine areal culture have been combined as is the case with Manus, ethno- graphic generalisations about areal culture may be extremely useful in economic and political planning. But at present, most districts and many council areas have only the cultural coherence of a few years of shared administration, a natural calamity or two, a few well-known personalities and a lightly earned reputation for being progressive, greedy, lazy or recalcitrant. Administratively and entrepreneurially this leads to the use of the least adequate set of cultural generalisations which are available to us. In addition, Papua-New Guinea has characteristics which distinguish its people from the other Pacific Islands people, and even more from the people of Africa from whom so many economic and social models are being derived.

No nation, setting out on such a tremendously complex and difficult task as building a modern country on a stone-age base, has had at its disposal as much modern knowledge of all sorts - technological, economic, anthropological, psychological, sociological and political - as can be made available to the Administration of Papua-New Guinea. It is through conferences such as this seminar, reporting on detailed, responsible work, integrated by discussion and publication, that this knowledge may be made applicable to local conditions. The problem is not so much how fast can the people of Papua-New Guinea learn, as how fast can we learn how to adapt our institutions to theirs.¹

¹ As discussed in Mead 1967.
Bibliography


Chapter 2

Some problems of indigenous businessmen

H.H. Jackman

The indigenous people of Papua-New Guinea, including businessmen and potential businessmen, live in social units much larger than the Australian family, many in what anthropologists term 'extended families'. Economic activities in the village, such as subsistence cropping, fishing, house-building and hunting, are undertaken with the assistance of the extended family. The State does not provide social benefits for the aged and very few Papuans and New Guineans yet have a sufficiently large cash income to set aside savings to maintain themselves in old age. In helping others while he is physically able, the individual builds up a 'credit' which provides this security for old age. The foremost problem of indigenous businessmen, therefore, is their difficulty in building up capital out of profits, because their extended families expect them to continuously pass on to them a considerable part of their cash income. When profits are not retained in a business, expansion has to be financed from outside - a matter to be dealt with below.

The second major problem of indigenous businessmen is their inadequate understanding of economic processes, the difficulty of obtaining trained and experienced indigenous employees and their lack of business experience. Whereas the Australian child grows up in a cash economy and accepts it as the norm, knowledge of modern business principles and management are lacking in the traditional New Guinean culture. Except for a handful whose parents live in towns, children are not in contact with modern business. Their entry into business as youths or adults is, therefore, more difficult. Few Australians understand the basis of note issue by the Reserve Bank, but they accept that it needs more than a machine to issue currency. In Papua-New Guinea, almost every indigene, including many Members of the House of Assembly, believes that the creation of currency is either a magic process, or a simple mechanical technique which white people have mastered but will not tell the indigenous people about. The indigenous businessman not only grows up in this environment, but has to employ and deal with persons in it.
The few Papuans and New Guineans with the Intermediate Certificate or better are mostly either continuing higher studies or are employed in government jobs. Their wage and salary earning opportunities are such at present that few educated indigenes are available for employment by an indigenous entrepreneur and fewer still possess sufficient business experience, book-keeping skill and the like, to start their own ventures. An indigenous entrepreneur whose income is above the Australian basic wage has inevitably either had business experience working for someone else or obtained the services of a skilled indigene. Mirikuro Transport, for example, which undertakes general contracts, including road making, and operates trucks on cartage, firewood supply, passenger transport, etc., was a partnership of two Papuans, one of whom had extensive clerical experience, while the other had been assistant secretary of a co-operative association, able to keep useful financial records and compile financial statements. The business has ninety indigenous employees with book-keepers and clerks who have had considerable experience in co-operative organisations and have undergone formal training in book-keeping. Several successful indigenous enterprises of fair size have competent management by expatriates. Namasi Ltd, a large company owned predominantly by New Guineans, and Palnamadaka Co. Ltd, a furniture-making factory owned by New Guineans at Rabaul, owe their success largely to expatriate management. Similarly the management of most indigenous co-operative organisations depends very much on assistance and advice given by the Registry of Co-operative Societies.

Very few successful Australian entrepreneurs have come straight out of primary school and have not had practical experience in someone else's business. Many poorly educated indigenes, however, possessing no business experience, ask the Department of Trade and Industry to run courses to make them into businessmen. A couple of years ago, the Port Moresby Junior Chamber of Commerce conducted a series of evening lectures for Papuans already in business or wishing to enter business. Only five out of fifteen completed the course. Most of those who attended the first lecture expected some kind of course on 'How to become a successful businessman in ten short lessons'. There is a useful function in seminars, evening classes and full-time theoretical training, but practical experience is needed as well.

Another problem facing indigenes in business or wishing to go into business is lack of technical know-how. This is of little importance in a trade store or lawn-mowing service, but it is vital to a boot repair shop, bus service or joinery business. Hundreds of road transport ventures have failed through lack of driving

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1 See Appendix A.  
2 See Chapter 6.  
3 See p.42 ff.
and/or mechanical skill. A small transport operator must do most of the maintenance himself and also know whether the garage is running economically. There are only a few indigenes with the necessary training at present. In consequence, trucks have been driven inexpertly, maintenance has been neglected, and fuel and repair bills have made the enterprises uneconomical.

Lack of knowledge of financial management and book-keeping or the unavailability of employees with such knowledge, is also a problem for indigenous businessmen. A truck operator needs to plan his operations, budget, and keep records to see whether performance is keeping within the budget. This requires knowledge of simple book-keeping, an appreciation of the need to keep records and application to the task. At this stage, however, there are not enough book-keepers available for employment with indigenous entrepreneurs.

Generally speaking, personnel management is not a major problem of indigenous businessmen. In a few medium-size indigenous enterprises, management apparently had difficulty at the beginning in controlling staff and obtaining the best results, especially where employees were relatives of the manager. This difficulty has been slowly overcome, usually through the manager replacing relatives with people from other districts and by arranging wage incentives for management and staff. The problem in personnel management is now mainly one of outmoded techniques in such matters as work-flow and delegation. In small indigenous businesses, owners may at times succumb to pressure by their extended families to employ relatives: the Kila Kila Builders' Society was a flourishing business, wholly owned by Papuans, until unskilled relatives of working members forced their way onto the payroll, working as little as possible and creating a wages bill that wrecked the society's finances.

Lack of finance may well become a serious hindrance to the emergence of indigenous entrepreneurs. Many Papuans and New Guineans have obtained finance from hire-purchase companies to buy trucks, outboard motors and the like. They have to find a first deposit, usually about 40 per cent of the purchase price. Hire-purchase finance appears to be fairly readily available. The Native Loans Board has lower interest rates than those offered by finance companies. Commercial banks rarely finance the purchase of vehicles, vessels or equipment; their lending policy is conservative, nearly always demanding a higher level of security than indigenous businessmen can provide. Present land legislation prohibits indigenes from assigning traditionally-owned land and only allows assignment of land leased from the Administration. As indigenes acquire greater technical and management skills, their demand for loan finance will increase, but they will not be able to provide the kind of security demanded by Australian banks. This
situation is a challenge to the new Development Bank, and it remains to be seen what risks it will take to develop indigenous entrepreneurs. One can foresee a qualified indigenous motor mechanic or electrician wishing to set himself up in business, requiring finance to rent or build premises, buy machinery, equipment and transport, and have enough working capital to tide him over the initial stages. It is unlikely that he will have more than insignificant savings, and any lender would, therefore, have to accept a risk far greater than the Australian norm. The security which an indigenous tradesman could offer would be his technical skill and experience, and his integrity.

As in Australia, most types of small businesses in Papua-New Guinea find it more and more difficult to compete with larger enterprises which enjoy economies of scale. Small enterprises can overcome this difficulty to some extent by combining in certain operations, for example, Asian trade store owners who pool orders for trade goods and thereby obtain discounts, and primary co-operatives which form associations to buy in bulk and receive book-keeping and banking assistance. In the building trade, small indigenous entrepreneurs may find scope as sub-contractors where they would not be able to undertake a complete job on their own.

The following actions to hasten the emergence of indigenous entrepreneurs and innovators seem indicated and are, to some extent, already under way.

(i) Establishing a framework of civil and commercial liberty conducive to business. Unless government is honest and reasonably efficient, unless law and order are maintained and the laws of the country allow individual or group enterprise, there will be no indigenous businessmen in the Western sense.

(ii) Raising the general level of education. A greater understanding of basic economics and a better knowledge of arithmetic and English are especially necessary for indigenous businessmen. A person with very little education can be trained and learn to become a businessman, but it takes much longer for a semi-literate person to do so than for someone with the Intermediate Certificate. People with no formal education seem to be able to achieve only a certain level of skill. On my staff are Papuans with Grade 7 education who attended one of our book-keeping courses and have since spent more than ten years assisting co-operatives in the field. They are now competent book-keepers but do not have, and are never likely to have, the broad understanding and vision required of a manager. On the other hand, several young men who came to us straight from school with the Intermediate Certificate have learned in a couple of years as much as the old-timers and have the capacity to make good use of further studies. No one with less than Form 6 education can cope with the required studies for modern accountancy. Indigenes wishing to reach top positions in business
will have to be as knowledgeable and competent as businessmen in
countries competing with Papua-New Guinea. We would be foolish to
set standards lower than those elsewhere. Education is, therefore,
a prerequisite to the development of indigenous businessmen. Some
say that increased production must precede education, to provide
money to finance the educational services, but J.K. Galbraith has
pointed out that

education is of high importance both as an object of imme-
diate consumption and as a form of investment for future
production.... Some new countries...have regarded their
steel mills, dams and fertiliser factories as the tangible
manifestation of...development.... I doubt, however, that
any country has yet accepted all of the implications of
education as a form of investment of scarce development
resources. (1963:51.)

Political considerations, too, will of course be a major influence
on priorities.

(iii) Encouraging institutional and semi-formal training in
technical and management skills, accountancy and business finance.
In Papua-New Guinea, the only noteworthy institution for training
indigenous businessmen is the Co-operative Educational College,
owned and maintained by co-operative organisations, with an initial
$14,000 grant from the Reserve Bank. Some secondary schools teach
book-keeping, typing and office procedure, and certain related
subjects are taught at the Administrative College. The Department
of Trade and Industry conducts short informal courses on book-
keeping, costing, etc., but this work is still in its infancy.
The Institute for Higher Technical Education will probably teach
accountancy, and we hope that the University will have a commerce
faculty eventually. Everyone interested in business realises that
there will be little progress till far more well-educated indigenes
look to commerce as a career.

(iv) Promoting on-the-job training and experience through employ-
ment in existing businesses. Expatriate commercial enterprise has
begun to encourage young Papuans and New Guineans by offering
cadetships and traineeships, but on-the-job training in private
enterprise has until now mainly been a by-product of normal business
operations. Little has been done by way of training programmes.
The best achievement in this field has been a planned one, by the
Administration's Registry of Co-operative Societies. Problems in
giving on-the-job training have included language and cultural
differences between the trainers and those whom they train. Also,
there are not enough enterprises to give practical training, through
employment, to the numbers of young Papuans and New Guineans who
must be encouraged to set themselves up in business.

(v) Undertaking surveys of business potential, giving advice,
guidance and assistance in establishing and maintaining enterprises,
and facilitating contact between indigenous businessmen and sources of information and technical and managerial expertise. The Administration has set up an extension service through the Division of Business Training and Management in the Department of Trade and Industry to assess business potential in new areas, introduce new forms of diversified production and new industries, assist indigenous people to establish business enterprises, and give guidance in techniques of business management and efficiency. The Division also, through the Registry of Co-operative Societies, administers legislation relating to the establishment and operation of co-operative societies, and supervises co-operative organisations, including audit and inspection of their affairs. Through its Training Section, the Division maintains a continuous training programme for indigenous entrepreneurs, office-bearers and members of co-operatives and companies, Administration personnel and other indigenes, in economics, commercial law and practice, accountancy and allied subjects.

The Division's activities are not carried out in isolation from other Administration departments, private enterprise, the missions, the university or, indeed, anyone else able and willing to make a contribution in this sphere. Nor is it intended that the Division supersede the services of professional accountants, business consultants and the like. The Administration's extension services are for those who could not manage in some other way. For example, Mirikuro Transport, and Kundiawa Coffee Co-operative Society Ltd have their books audited by expatriate commercial accountants and use expatriate business consultants or managers.

(vi) Providing finance on the basis of skill and personal integrity rather than security. For this we will need an additional lending source. Whether the Papua and New Guinea Development Bank itself, or an intermediary created by it, or, as has been successful in countries like Nigeria, a Development Corporation, will be the best means of doing it, remains to be seen. The experiences of our own Native Loans Board and similar organisations in Fiji and the British Solomon Islands have shown that loans below, say, $1,000 are uneconomical for the lender. Whether borrowers of larger amounts should 'carry' the losses on small loans, or whether some other method of meeting the needs of the smallest entrepreneurs should be found, is beyond the scope of this paper. The Bank is intended among other things, to fill any gap in the existing lending structure in this country. There may be sources of small-business finance besides the hire-purchase companies and the Development Bank. The co-operative movement, for instance, is about to form a Central Co-operative Finance Society to receive deposits from and make loans to co-operatives, and some co-operatives may then be in a position to make crop advances to their members. The new co-operative legislation also permits co-operatives to invest in non-co-operative types of business, including companies.
A consultative committee of businessmen recently set up by the Administration to help it in making policy includes a Papuan entrepreneur. Greater participation by indigenous people in the economic development of the country will be made easier and accelerated by having them take part in decisions affecting economic policy. This is particularly true in the case of indigenous businessmen and I hope we shall see further developments in this regard.

It seems to me that there is sufficient motivation among those indigenes in business or ready to become businessmen, but their number is still too small to bring about the necessary economic development. Too many indigenes still prefer the traditional way of life, although a growing number look to full-time money earning as a living and are beginning to understand that this involves a continuous effort, usually coupled with some kind of skill. The increasing contact of indigenous society with the cash economy will continue to make the society more conducive to indigenous entrepreneurship. The real concern is whether the development of the indigenous sector of the economy, and through it, the country's overall economy, will meet the people's expectations and demands. Whatever government is in power will have to keep the pace of social development and economic progress balanced if a breakdown of stable society is to be avoided.

In conclusion, let us look at some of our achievements, so that the problems and tasks ahead will not dismay us. The appendices show the development of the indigenous co-operative movement, some information about a few of the larger indigenous-owned companies, and details about Papuans and New Guineans who have received or are receiving some kind of commercial training at government institutions or through private enterprise schemes.

Bibliography

Appendix A

Some indigenous-owned enterprises in Papua-New Guinea in 1966

Co-operative movement (year ended 31 March 1966)

Primary co-operatives mostly operate in rural villages, retailing consumer goods and buying and marketing copra. Some of them buy, process and market coffee and cocoa. The largest coffee factory in Papua-New Guinea is owned by a co-operative; about 40 per cent of the country's coffee production is marketed by co-operatives. Primary co-operatives also market rice, peanuts and shell, and undertake commercial fishing. Secondary co-operatives supply wholesale consumer goods to their member co-operatives, own and operate coastal shipping, import consumer goods and service co-operatives by receiving copra proceeds on their behalf, preparing rebate and dividend distribution lists, and book-keeping. The tertiary co-operative imports consumer goods for distribution to secondary co-operatives, provides premises for the co-operative insurance society, operates a freezer and renders other services. The co-operative movement employs only indigenes, except for Kundiaawa Coffee Society Limited which has an Australian general manager. The largest co-operatives have their books audited by commercial auditors, whilst the records of all other co-operatives are audited by the Registry of Co-operative Societies which also provides management advice. The Registry ensures that co-operatives operate in accordance with their rules and meet their legal obligations under the Co-operative Societies Ordinance.

The co-operative movement in Papua-New Guinea, 1966

($)

<table>
<thead>
<tr>
<th></th>
<th>Subscribed capital</th>
<th>Fixed assets</th>
<th>Reserves</th>
<th>Investments</th>
<th>Annual turnover</th>
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</thead>
<tbody>
<tr>
<td>Primary co-operatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Societies:</td>
<td>303</td>
<td>1,823,091</td>
<td>620,819</td>
<td>564,902</td>
<td>620,407</td>
</tr>
<tr>
<td>Members:</td>
<td>102,120</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary co-operatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associations:</td>
<td>14</td>
<td>623,011</td>
<td>283,413</td>
<td>91,019</td>
<td>219,167</td>
</tr>
<tr>
<td>Tertiary co-operatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federation:</td>
<td>1</td>
<td>149,506</td>
<td>134,710</td>
<td>24,864</td>
<td>17,050</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2,595,608</td>
<td>1,038,942</td>
<td>856,624</td>
<td>7,005,936</td>
</tr>
</tbody>
</table>

* Primary produce turnover $3,064,943; consumer goods turnover $2,044,860.
Mirikuro Transport Co.

For the year ended 30 June 1965, the partners' equity was $49,774, and the annual turnover $117,010. The company has eleven flat-top trucks, thirteen tippers, two front-loaders and two cars. It no longer receives advice from the Administration.

Highlands Commodity Exchange Limited (year ended 30 June 1965)

This company was formed by an Australian farmer at Goroka. It buys cherry coffee from indigenous growers, operates fermentaries and markets coffee. It is involved in passion fruit buying and marketing, quarrying and tea growing and also intends to undertake pig breeding.

| Shareholders | 2,141 |
| Subscribed capital 'A' class | $14 |
| Subscribed capital 'B' class | $47,898 |

'A' class shares are entitled to vote and participate in distributions of profit, etc. 'B' class shares carry no vote but participate in distributions, etc. Most of the 'A' class shares are held by expatriates; New Guineans hold almost all the 'B' class shares.

- Gross profit on coffee trading $23,364
- Gross profit on passion fruit trading $328 $23,692
- Gross loss on gravel operations $6,924
- Gross income for year $16,768
- Dividend recommended $7,182 (15 per cent)
- Annual turnover - primary produce $260,816 and other $10,780.

Appendix B

Some non-governmental commercial and technical training schemes

Reserve Bank of Australia

The bank trains local staff both internally and by releasing members for full- and part-time external study. It also encourages participation in an inter-bank college set up by banks operating in Papua-New Guinea.

(a) Internal training

(i) Branch banking. Clerical functions and procedures have been reviewed at the branch level to simplify and accelerate the assimilation of local staff and their placement at all levels.

(ii) Savings and Loan Society operations. These have been designed for local staffing and the section is now predominantly staffed by local officers who occupy all but the most senior
positions. All new recruits undergo on-the-job training as supernumeraries, usually at the Savings and Loan Society Registry at Rabaul. More advanced residential courses, lasting two weeks, are run during the year, to widen the staff's knowledge both of their own and other banking fields, and to check the individual officer's knowledge and progress.

(iii) Mainland training. All male staff are eligible to be considered for training at mainland offices and staff training colleges regardless of duties. Five have so far been sent and the sixth will go shortly.

(iv) Female. The Bank has arranged to have several girls taught typing at the P.S.C. Typing School, and is willing to pay for and grant time off for private typing tuition. Shorthand courses have been provided. One girl in the Savings and Loan branch undertook training in Sydney.

(b) **External training**

(i) Full-time. The Bank has provided two officers with twelve months full-time scholarships, and at least two others are to be granted in 1967 for officers to attend the University of Papua and New Guinea. In all cases staff on full-time study leave (except trainee typists) retain full salary and furlough entitlements.

(ii) Part-time. The Bank has paid external student fees for university studies for local staff and supports seminars and similar type training in appropriate fields. It covers all correspondence course costs, including text books, in study that leads to some formal qualification (within the Bank's field of interest). Study leave is granted prior to examinations and facilities for study (office after hours, reference books, etc.) are provided.

(c) **T.P.N.G. Bankers' College**

On Reserve Bank initiative a local Bankers' College similar to the Australian Bankers' Institute is being set up in Port Moresby by all banks operating in Papua-New Guinea. It has already run two pilot courses, involving forty local officers from all banks. Residential and correspondence courses will be provided leading to specific qualifications recognised by the banking industry. Some affiliation with the Australian Bankers' Institute is possible.

Sheil Company (Pacific Islands) Ltd

(a) **Technical training in Australia**

(i) At Swinburne Technical College, Melbourne, there are three-year courses, with Intermediate Certificate entry standard. Of eight trainees since 1962, four have completed the course and returned to Papua-New Guinea.
(ii) Two motor mechanics and two fitters completed their apprenticeships in 1965.

(iii) Three motor mechanic apprentices have spent six months in company establishments and similar apprentices will be given the same orientation training.

(b) **Cadetships in Papua-New Guinea**

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commenced training since 1961</td>
<td>46</td>
</tr>
<tr>
<td>In training at present</td>
<td>22</td>
</tr>
<tr>
<td>Drop-outs</td>
<td>14</td>
</tr>
<tr>
<td>Completed training and occupying positions in Papua-New Guinea</td>
<td>10</td>
</tr>
</tbody>
</table>

Graduates of the cadet scheme hold positions as qualified petroleum products driver (5), depot clerk (4) and aircraft refueller (1).

In the company's experience, short-term training in Australia near the end of the local apprenticeship/cadetship is highly beneficial, not only as an incentive but also as a means of developing the apprentice's company and industry understanding and widening his general experience.

The first qualified indigenous tradesmen were employed in March 1965. All expatriate drivers were replaced in September 1965. The first indigenous aircraft refueller qualified in December 1965, and the first indigenous depot superintendent was appointed in June 1966.

**Appendix C**

**Commercial training by the Department of Education**

(a) **Junior high schools**

The course is based upon the New South Wales curriculum in business principles, although emphasis has been placed upon commercial practice in New Guinea. The aim is to prepare the student to manage his own domestic finances and to appreciate normal business arrangements. The work is made as practical as possible by relating it to the actual and anticipated experiences of the pupil. In 1966 there were 135 students taking commercial subjects in Administration schools.

(b) **Business training students**

The purposes of teaching business training are to develop an understanding by the students of their developing society and to provide those who expect to take part in economic development and
commerce with the skills and knowledge to help them find ready employment after the three-year course.

In addition the Department of Education provides training for the Certificate of Commerce, Certificate of Mechanical Engineering and Certificate of Building Construction.

(c) Institute for Higher Technical Education

Discussions have commenced to decide upon syllabi to deal with commercial subjects, including accountancy and management. Full scholarships will be available to all who cannot afford to pay the fees.

(d) Correspondence studies

The Division of Business Training and Management of the Department of Trade and Industry is exploring the possibility and feasibility of indigenes undertaking correspondence studies leading to membership in the Australian Society of Accountants, Institute of Business Management, etc.

Appendix D

Commercial training by the Division of Business Training and Management, Department of Trade and Industry

Course enrolments at Co-operative Education Centre, 1953-66

<table>
<thead>
<tr>
<th>Year</th>
<th>Storemen's course</th>
<th>Advanced storemen's course</th>
<th>Inspectors' and secretaries' course</th>
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</thead>
<tbody>
<tr>
<td>1953</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1954</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1955</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1956</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1957</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1958</td>
<td>39</td>
<td>19</td>
<td>25</td>
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<tr>
<td>1959</td>
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<tr>
<td>1960</td>
<td>44</td>
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</tr>
<tr>
<td>1966</td>
<td>17</td>
<td></td>
<td></td>
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</table>
The Society's secretaries' course lasts eight weeks and covers business principles and elementary book-keeping involving cash and purchase journals. The Association storemen's course lasts six weeks and deals with matters relating to the receipt and despatch of goods, and stock control generally. Typing is also taught. The Association clerks' course lasts sixteen weeks and teaches book-keeping to the trial balance, office procedures, typing and the duties of a shipping clerk. The Association secretaries' course lasts for six weeks. Book-keeping to final accounts is taught, and a study is made of conducting business correspondence.

Courses in simple book-keeping are conducted on a regional basis for local entrepreneurs. The Division has prepared and distributed booklets and notes on such subjects as 'Investment', 'Trucks and Trucking', and 'The Small Trade Store'. Officers of the Division address schools, army units and other groups on subjects such as 'Investing Money' and 'How We Can Produce More'.

A pilot course for owners or owners-to-be of small trade stores was held at Raba Raba (Milne Bay District) in January 1967, and similar courses will be held in the future elsewhere. A course on 'Incentives to Economic Development' for indigenous leaders, including politicians, senior indigenous employees of private enterprise, local officers, etc., was held during April 1967, attended by eighteen persons. In October 1967, a course will be held for senior employees of co-operatives and experienced indigenous officers of the Registry of Co-operative Societies. This course will deal with banking, general economics, insurance and commercial law.
Chapter 3

Credit and indigenous businessmen*

H. To Robert

Credit sources for local businesses can be divided into two broad types. Credit from external sources is made available to indigenes from credit-dispensing agencies, governmental or otherwise, external to the businessman himself and his clansmen. The second type of credit is made available from 'internal' sources by members of same tribe, clan or family and almost invariably without the legal forms and legal arrangements which are one of the hallmarks of externally-provided credit.¹

In another paper² I made several generalisations on the state of indigenous business in Papua-New Guinea which have relevance for my theme in this paper. These were: that there is at present an abysmally low proportion of Papuans and New Guineans satisfactorily engaging in their own businesses, and that the range of business activities carried out by indigenous businessmen is extremely narrow and confined mainly to the tertiary sector.³

So far as I know, no Papuans or New Guineans (apart from those in co-operatives) act as importers and exporters, scarcely any own factories of any size, and very few are involved in manufacturing above the cottage industry level. The other generalisations

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*The following article represents the personal views of the author and does not necessarily reflect the opinions or policies of any institutions with which he is connected.

¹ I am using the world 'external' in this context to mean credit provided from sources external to the indigenous community, not external to the country as a whole.


³ Mainly operating trucks or buses, running small trade stores, performing agency-type services for the recruitment of labour, and the like. There are also a few people running small building sub-contracting businesses.
were that almost without exception, the businesses of Papuans and New Guineans are small-scale, and that many had been unsuccessful. I concluded that indigenous participation in business was insignificant.

A further generalisation which I now add concerns the role of credit. Until very recently, indigenous business activities sustained themselves almost entirely on funds mobilised on an internal or intra-indigene basis, virtually unaided by any form of external or institutional credit. Credit from sources external to the businessmen themselves and their immediate clansmen was very much the exception. The overall contribution of institutional credit is still minimal, but the last two or three years have seen several substantial changes.

A distinction in external credit sources can be made here between governmental and private agencies. The former include the Native Loans Board, the Ex-servicemen's Credit Board, and the Papua and New Guinea Development Bank. The latter include banks, hire-purchase companies, trade credit and private individuals. Savings and Loan Societies sit a little uneasily in this particular categorisation, so I shall deal with them separately.

The first of the official agencies, the Native Loans Board, was started about 1955 to provide credit to indigenes who could not provide adequate security to meet normal bank requirements. Since that time it has approved about $800,000 worth of credit to indigenes, but the majority of loans made by the board have been for land settlement schemes. I do not have up-to-date figures on loans granted by the board to businessmen, but last year these numbered approximately seven of a total of 178 loans approved, which is rather disappointing. Finance has been granted for vehicles and boats as well as to provide assistance with the setting up of a barber's shop. The main criticism of the board has been that the time taken between submission of the application and the decision (whether approved or rejected) has been considerable. This delay may have been due to the need for additional information or to bottlenecks at the committee stages. Shortage of staff may have been a contributing factor, but it is inexcusable that some applicants have had to wait more than eighteen months for their proposals to be dealt with by the board. I know of several cases where applicants have got tired of waiting and simply given up the board as a 'bad job'. The board's assistance to local businessmen has been very small. It is shortly to be merged with the Papua and New Guinea Development Bank.

The Ex-servicemen's Credit Scheme can be passed over quickly, since it confined loans to settlers wishing to establish themselves in blocks of land, and did not ever seek to provide credit for secondary or tertiary pursuits. It has now ceased granting credit even for agricultural purposes, and was probably always something of an anomaly.
The third official credit agency is the Papua and New Guinea Development Bank. It is not possible to say much about this institution, since it did not commence operation until 6 July 1967. Many people hold very high hopes for it. It is our first indigenous bank though rather strangely (to my mind) about 50 per cent of its board members are Australian residents. As a source of credit for local businessmen the bank is unlikely to be bound too much by security requirements, and it is to be hoped it takes a flexible approach to lending. There are a number of problems that any such new institution faces in establishing its policy and the Development Bank, no doubt, has its share of them - but may its teething troubles be short! And may it also succeed where so many other institutions have failed, in forging a sound connection with local people so that they can identify themselves with it.

Although at present it is not intended that the bank should accept deposits from the public, it is my personal hope that it will do so before long so that ultimately it can be self-financing and not have to rely wholly on the government for funds. Political pressures on the bank will need to be kept to a minimum, though I fear this may not be the case.

Now let us consider some of the more obvious private sources of external credit of relevance to local businessmen. First there are the private banks. The picture here is a dismal one. The banking system in this country at the present time, like so much of our financial system and other institutions, is merely a small offshoot of the Australian banking industry, and the banks still apply their policies to this country in very much of an Australian way. I except the central bank from this, because it has shown itself more progressive and active, and in any case is not a provider of credit to individuals in the normal sense. The other banks have not been particularly dynamic, at least not in providing credit. The amount of credit they have made available to indigenes of any sort, whether businessmen or not, is so tiny that it almost amounts to nothing - I estimate it to be a small fraction of 1 per cent. A few loans on an overdraft basis have been made to some local businessmen, usually to finance purchase of a vehicle, but generally for quite small amounts, less than $500 or so, and even these are isolated instances. Some of these loans have been under Administration guarantee. Although it is a guess, I should say that there might be about twenty or thirty loans made by trading banks to individual natives of this country at the present time. On the other hand I would estimate that Papuans and New Guineans have about $10,000,000 of deposits in the banks.

There are a number of reasons why the banks have done so little to assist indigenous businessmen. Bankers are conservative people and have their customers' money to look after. They are not likely to lend money on what looks to them a dubious proposition. They
usually demand security, or some form of backing for their loans, and the traditional form of security for banks has been land. This presents special problems in this country, since indigenously-owned land has been unacceptable as security to bank managers. The Land Tenure Conversion Act of 1963 which provides that under certain conditions indigenous people can acquire individual title to their land ought in theory to be a step towards removing this obstacle, but I do not think that even yet the banks are very willing to take a mortgage over indigenous land as security. Perhaps political repercussions are feared if at any time the mortgage has to be foreclosed; perhaps managers are insufficiently well-versed in indigenous behaviour patterns to know the extent of risk they are involving themselves in by granting credit to an individual businessman. One important reason for so few loans being granted to indigenes is a lack of expressed demand for them. Not many native businessmen go to banks and ask about loans. Without going into the reasons for this apparent reticence we could perhaps ask ourselves whether the banks have done enough of the right kind of image-creating among the indigenous people. The extent of pressure for bank credit from the indigenous sector if banking facilities were widely publicised is unknown, but it will be futile to 'spread the word' unless banks are willing to underwrite any reasonable business that is offered. It was partly to overcome their lack of willingness to do so that the Papua and New Guinea Development Bank was established.

Hire-purchase is the second type of private credit available to indigenous businessmen. Although we have no official statistics on hire-purchase operations in this country, and so cannot document its activities in the aggregate, the upsurge in hire-purchase lending to indigenes in some regions over the past two or three years has been nothing short of phenomenal. For example, in the Rabaul area a high proportion of recent truck sales have been partially financed through hire-purchase agreements. Usually a cash deposit of 50-60 per cent of the cost of the vehicle has to be provided by the purchaser, and monthly repayments of $60 to $70 seem to be average. I estimate that seventy trucks each valued at approximately $3,000 have been purchased under hire-purchase contract in the last two years. On this basis the total hire-purchase outstandings must have exceeded $100,000. Hire-purchase agreements involve less risk to the lender than some other forms of finance since the lender normally retains ownership of the vehicle or other asset until the debt is repaid. Such finance, however, can only be used for a fairly narrow range of lending activities - for household consumer durables, vehicles, and possibly also for some types of machinery. It has to be for some form of physical asset, not for an intangible like finance for wages or working capital. Also the interest rates charged by hire-purchase companies are higher than those charged on comparable items by banks. Nevertheless, the upsurge in hire-purchase
lending indicates that there is a considerable demand by indigenous people for some forms of institutional credit. It is also providing valuable experience for Papuans and New Guineans in learning how to handle such credit and to meet regularly the financial obligation of repayment. I understand that the experience of hire-purchase companies in the Rabaul area shows that these transactions have generally been satisfactory.

The other private external credit source is trade credit - credit granted for short periods by wholesalers and other firms to indigenous businessmen. Here again we have no statistics, but indications are that trade credit is slight. Firms in this country generally want cash from indigenes when they purchase tools, machinery and other assets, and when they purchase vehicles or have them repaired. A few local businessmen, well-known to firms and acknowledged by them as reliable, are granted some credit facilities, but these are the exception rather than the rule. I know, for example, of only three Tolai businessmen in Rabaul who are allowed to run accounts with local garages, although probably there are a few others in Port Moresby and perhaps other towns. But generally speaking, while the European business community in this country relies very heavily on trade credit of sometimes up to three months or more, indigenous people are not so favoured. Most European firms have not yet come to trust local people in the matter of money.

The volume of credit then, provided by official and private agencies to local businessmen has been insignificant to date. Until three or four years ago there were legal restrictions on the amount of credit that could be given to an indigene. The Transactions with Natives Ordinance laid down that no more than $100 could be lent to a native without approval of the local district officer. That section of the ordinance was repealed in 1963, not before time I might add, and thus there are no longer such legal barriers to the granting of credit. To explain the smallness of credit granted by external agencies to local businessmen we have to look to other factors.

Some of these I have suggested already. Banks have been timid and have tended to bog down over the security question. Trade and business people in general have not seen indigenes as worthwhile credit risks. The Native Loans Board has done something, but in general has tried to stick to more assured paths like lending for land settlement. For years a common point of view on the granting of credit to indigenes has been 'they don't ask for it so they don't need it', in other words that effective demand from local people with entrepreneurial ambitions was lacking. This created a kind of vicious circle. No one in the Administration or anywhere else made any real effort to teach local people how to handle credit, where to obtain it, or to what profitable uses money could be put.
Over the last two years or so, however, there have been signs of a new attitude emerging. The Business Advisory Service has been set up and although I am generally critical of their undynamic approach to the whole question of 'business advice' for local people, their formation was a step in the right direction.

The Reserve Bank too, was anxious to do what it could to assist local people to mobilise for useful purposes some of their savings that were either lying idle or going to unprofitable ends. In 1962 it began its programme of assisting local people to form Savings and Loan Societies. These societies consist of small groups of thirty to a hundred people usually living in the same village. They subscribe on a regular basis some of their own savings and this is put in a bank account. Once funds have built up to a reasonable level, members can draw some of the group money as a loan. Such loans have to be approved by a committee of the members themselves. A society works just like a small-scale bank except that it is financed by the village people themselves and under supervision from the Reserve Bank - as the societies progress the amount of supervision is gradually decreased.

After about three and a half years of operation, there are now 177 such societies and they operate in fifteen of the eighteen districts of the country. There are about 10,000 members of these groups and their total savings amounted to $542,000 at the end of February 1967. Far from there being a lack of demand for credit from members of such societies, at the end of February 1967, approximately $274,000 was outstanding with members, and 2,700 members had loans. To assist members with the purchase of goods for stocking trade stores, $74,000 of credit had been granted, $12,000 was granted to assist members to pay for hiring labour, and approximately $8,000 was outstanding on loans for consumer durables. The other very common loan purpose was to assist members to purchase building materials and erect houses and stores. Not all of this credit has gone to people we can call 'businessmen', and not all of the loans have been for productive purposes, but I should estimate that about two-thirds of the credit granted by these societies since their establishment have been for entrepreneurial or semi-entrepreneurial type activities. It is an impressive record, and by far the most significant experiment in credit-giving in this country to date. The funds used belong entirely to the indigenous people, which is significant in itself, and they are learning the pros and cons of managing their own groups in a businesslike manner. Societies are not large impersonal institutions as the banks, the Native Loans Board, etc., tend to

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1 The other banks operating in the country have been particularly co-operative in this matter.
be, but are identified by the people as their own institutions. This is tremendously important. Their activities over the next few years are likely to expand as savings and loan activities are developed in areas where there are few at the moment. In addition to the societies, there are also 353 Savings Clubs with savings of $241,000 and most of these are eventually expected to become societies and give loans to their members.

To date indigenous business enterprise has been small-scale, and most of the funds for such enterprises have come not from institutional sources at all, but from savings mobilised by the indigenous people themselves. When dealing with these intra-indigenous funds, the concept of credit becomes rather blurred and one gets into a tricky socio-economic zone which I have not discussed in this paper. Many people do not understand 'credit' in the western sense, and often money is put into a project with only a vague idea that repayment will take place. I analysed these attitudes to business in my earlier paper to the Papua-New Guinea Society, but several points are relevant here: the first is that funds mobilised between indigenes are usually on a group basis, and that pressures inside a group often contain and restrict a would-be entrepreneur. Kinship ties and the informality of quasi-credit type arrangements usually bring all sorts of problems - difficulties in profit-sharing, conflicts in decision-making and the like. The availability of an external source of credit is valuable in that it often circumvents some of these problems by enabling potential entrepreneurs to get clear of such kinship and social restraints. The Tolai, for example, through experience, rising incomes and increased sophistication in obtaining external credit, are modifying in a very short time their traditional approaches to economic ownership. This is tremendously significant and similar processes of change will undoubtedly continue to take place in other parts of our society as time goes on.

Credit availability has a vital part to play in this process, although of course it is by no means sufficient on its own. In conclusion I would like to stress that I do not think that availability of credit is the only prerequisite to the emergence of a successful entrepreneurial class in this country. Professor Arthur Lewis has rightly said that the problem of development has two parts to it: 'how to find money and how to use it correctly'. Even if we have credit available, emphasis still needs to be placed on teaching people how to use it properly.
Chapter 4

Village industries in Papua-New Guinea

R. Kent Wilson

As part of a study of industrialisation in Papua-New Guinea, nine selected village industries were studied. The selected activities have been divided into five groups and most of the cases are representative of a number of industries of that type. The scale of operations increases down the list.

Handicraft

(a) Loom weaving of sago wall sheets: Purari. Hand weaving of wall-matting from bamboo, nipa or sago is widely practised in New Guinea. In the swampy lowlands sago is ubiquitous, and at Bes, near the Sepik River, a loom was devised by the Roman Catholic mission to promote increased production of sago wall sheets. The design of the loom was modified at the Public Works Department Building Research Station at Port Moresby and a number of looms were built and distributed in the hope that local production of wall sheets would be induced (Brealey 1966:3).

A group of Purari people living in Rabia Camp in Port Moresby took up production of sago sheets, when introduced to the idea at Kaugere Welfare Centre. Production was limited by problems of material supply and transport and it was thus a step forward when Mr Tommy Kabu, the acknowledged leader in Rabia Camp, took a loom home to the Purari and established production there (Plate 1). When the area was visited in October 1966 one loom had been producing for some time in Aerava village on a distributary of the Purari, and another had just been installed in Akoma village on the coast. Kabu's success where other promotion has failed is due to use of a small kin-group as the producing unit. Each is headed by a senior man of his clan and generally contains younger men literate enough to keep records and to do the major work.

1 These studies were carried out in the field and from records with the help of Mr Ross Garnaut, Mr Leo Morgan, Mr Rabi Namaliu and Mr Joseph Tennaku.
The Purari has an abundant supply of sago and when weavers require more than they have or can cut themselves, they buy mid-rib sticks for 1c each. About twenty people supplied sticks regularly to the loom at Aerava. The outer skin is stripped off and becomes the raw material. In 1966 the price paid for sago sheets by the Public Works Department was 80c a sheet, but there were reported requests for $1 a sheet, which was known to be being paid at Kaugere, and in 1967, the price was raised to $1 though the difference was to be withheld for a time to pay for the looms.

Aerava was used as the collecting point for sheets from Akoma in the last months of 1966. Sheets from Akoma were taken to Aerava and uplifted from there by government patrol boats, as payment had been arranged through the district office at Baimuru. In 1967 this system ceased to operate, and administrative and transport problems threatened the whole scheme at the same time as it was being greatly broadened in scope.

The Administration arranged to sell additional looms to Kabu (which he would pay off from sales) and to buy sheets from him at Baimuru. There are few motorised canoes in the Purari and the looms are from eight to twelve hours padding from Baimuru. Nevertheless, in February, March and April he apparently transport 250 sheets from Akoma to Aerava, then waited in Baimuru for payment. The district office there had been closed for lack of staff, and though a pay clerk visited the settlement from Kikori he did not bring any payment for the sago. Finally an oil search firm heard of the goods and bought them for cash at Aerava for $1 a sheet. This windfall saved the situation temporarily but there is no guarantee for the future. Thus a scheme which has overcome a number of difficulties inhibiting production elsewhere is threatened by a failure on the side of official administration.

Such a failure would be a handicap to building plans in much of the nearby area of Papua. Sago sheets cost about 3c a square foot of walling, and are easily erected. They are long-lasting and harden into an attractive brown cladding, which may even be insect-proof if tightly woven (Saini 1966:36-8). The most commonly used imported wall sheet, fibro cement, costs 10c a square foot, and requires more sophisticated supports. Sago is thus a vital material in low-cost housing, such as for schools and out-station buildings. A market could be found for much more than 3,000 sheets per year for the Administration in the Gulf and Central Districts.

The Purari could easily satisfy this demand if the transport and communications problems could be overcome. It is possible that Kabu's position as a leader for over twenty years is a handicap. His past role as a leader and businessman is described by Maher (1961:66-76) and Oram (1967:16-21) and the fact that he has been and still is important to the Purari people leads some officials to be lukewarm towards any scheme connected with him. Should this
scheme fail, it will probably be due to administrative and official deficiencies.

(b) Cane furniture manufacture: Malabita, Bougainville. This case illustrates the transmission of a technique between local institutions and local people. According to informants, a Papuan instructor in manual arts came to Buin in 1949 from Idubada to set up a technical course in association with the primary school. Two teachers from Buin locality who taught the course with the new instructor both became artisans in business on their own account, making products which he had demonstrated in the manual arts course. One teacher set up a furniture shop in 1953 and another in 1954. A third man, not a teacher, established a shop in 1957. The capital for the former two businesses was saved from the teachers' salaries and from sale of garden produce and pigs, and for the latter from a successful bakery.

Rattan canes are cut from the bush nearby, cleaned and then dried in the sun. The equipment is not complicated: mainly hand tools for cutting, nailing and bending the material, and some frames and clamps to hold the cane on while it is shaped. Only handpower is used.

The two largest businesses each employ two workers, in one the sons of the entrepreneur. They work forty hours a week, and produce about thirty beds, thirty dining chairs, twenty office chairs and a lounge chair and four tables each month. A South Pacific Commission expert who made a survey of handicrafts in 1963 (McBean 1963:2) described the products as first-class in style and finish. Prices were very low compared with imported equivalents. Local demand for sale to Europeans and villagers far exceeds the supply and furniture is also shipped to Rabaul, Sohano and British Solomon Islands. No information was gained on profitability, but the impression was given that book-keeping may be a weakness. A mention was made of a loss of $150 through its 'failure to reach the manager'.

Both entrepreneurs saw advantages in economies of scale and have agreed to combine their workshops in the near future. They hope to pool capital and expand the scale of the factory and have obtained the agreement of their kinsmen that this would be advantageous.

Artisan

(a) Stabilised earth bricks: Kop Kop near Kavieng. Another project being promoted by the Public Works Department Building Research Unit is cement stabilised bricks (Brealey 1966:4). Suitable earth materials for brick manufacture have been identified in fifty-four centres, and in twenty of them bricks have been manufactured. There has been a wider diffusion of this technique than with loom weaving,
possibly because materials are more readily available. Coronous or earth is mixed with a small amount of cement, pressed in a simple machine similar to the well-known 'Cinva Ram' and the brick is dried under cover (Plate 2).

A project was investigated at Kop Kop near Kavieng. At first the local government council had been tried unsuccessfully as the medium of promotion. Then the welfare officer in the district office organised the scheme, theoretically on behalf of the council. Apart from the press, the equipment was elementary. A small shelter was built to store cement and bricks. A pit was dug in coronous nearby, and there were crowbars, shovels and a wheelbarrow to extract coronous and take it to the shelter. The mixture was made up by using a wooden frame to which a bag of cement was added. Eight bags of cement were used per 1,000 bricks.

Labour was obtained from Kulantigit village nearby under the direction of Mr Peter Anamia. About twenty-five villagers, including nine women worked fairly regularly. The women proved better workers than the men. Payment for work done was by contract at the rate of $16 per 1,000 bricks, and they were sold at $36 per 1,000, the difference paying for cement and leaving a small surplus.\textsuperscript{1} Average payment to workers was about 50c a day, though none worked full-time all the time. This is not enough to support a family as a permanent livelihood. Brick-making thus may be a supplement to other activities, but has not permanently displaced them.

For 83,000 bricks produced in ten and a half months in 1966 villagers received $1,340. Cement cost $1,200, and other materials and expenses $200, thus roughly balancing the income from sale of bricks - $2,590. Receipts from outstanding accounts were used to benefit the Kop Kop community centre. Labour income accruing to Kulantigit village since the scheme began in 1964 had permitted the rebuilding of a number of houses in permanent materials, and the building of a new cocoa fermentary and copra drier.

An output of 100,000 bricks is sufficient to build about thirty classrooms. Thus a small machine and labour force might meet Administration needs in a sub-district. Administration purchases are relatively small at Kavieng because bricks are also produced in the local corrective institution.

The welfare officer plays the key role of book-keeper and clerk. To develop independently a villager with these skills would be needed. The obvious alternative would be the clerk of the local government council. The key to success in promoting brick-making would seem to be finding a village near a market centre, where

\textsuperscript{1} Figures kindly supplied by district office, Kavieng.
Plate 1. Tommy Kabu and weavers at the loom weaving sago wall sheets.

Plate 2. Brick-making at Goroka; the methods are similar to those at Kop Kop.
there is a strong personality able to organise a labour gang. But it would also seem important for the future to wean such an enterprise away from direct expatriate oversight and into the hands of some indigenous organisation or local government council which is at least partly divorced from expatriate direction.

(b) Furniture-making: Tao Moe of Rabaul. Artisans in this country generally work for wages and Tao Moe is one of the few artisans to have worked alone using an acquired modern skill to make goods for sale. He was trained before the war at Malaguna Technical College and worked for a European furniture manufacturer. His own business began in 1951 when some of his clansmen pooled their savings to set him up as an independent artisan making chairs, tables, beds, cupboards and coffins and repairing guitars. Coffins, although high-priced, were the main product.

The workshop stands on land bought in a customary manner from Malaguna village people. He values the buildings and equipment (power was connected) at $4,400. The building was put up in stages by kin who provided capital and labour. The original contributors did not ask for capital back, but received an indeterminate and irregular share of the profits.

When he began, there was a sellers' market. The Administration helped him to get second-hand equipment and orders, but as business in Rabaul expanded his orders came more and more from indigenous people and from missions.

His activities led to jealous talk and in 1966 Tao Moe gave up self-employment for wage work. One of the reasons for his ultimate failure was his inability to change style with the times. He insists that the business will reopen when his son, who is now in Malaguna Technical School, finishes his apprenticeship.

Village service industries

Rabuana bakery near Rabaul. Bakeries are not as common in New Guinea villages as one might expect. The low income and small size of villages, plentiful subsistence foods, and the perishable nature of bread limit its consumption. The equipment for the bakery investigated at Rabuana had been bought by Mr Stanis Boramillet and had been operated by his wife who had learnt the technique when working at Vunapope mission. When he moved to New Ireland he sold the equipment for $500 to a group of entrepreneurs who own Rabuana Carriers, Rabuana Trade Store, Toma Tours and Toma Social Club. The buyers of the baking equipment spent several weeks in the sellers' village learning the techniques before taking delivery.

The oven baked only eighteen loaves at a time and used expensive gas as fuel. Seventy loaves a day required four firings. Because
of the cost of gas, baking ceased for a time but recommenced later
with different equipment. On the advice of a missionary, one of
the partners built an oven of concrete bricks, with a metal frame
and a concreted exterior, heated by firewood and with little
draught. It makes thirty loaves at a time, and production is
between sixty and ninety leaves most days. Bread is sold in the
trade store on the site for 18c a loaf, and for 20c when delivered
to surrounding villages by the business's Kombi wagon. The 2c
difference does not cover the cost of delivery, but passengers are
sometimes carried. If bread production is now profitable with the
new oven, it may be only marginally so. Bread attracts customers
who also buy other things, and as the business complex employs
many people, further activities on the one site may increase the
productivity of labour otherwise only partly-employed. Employees
are mostly middle-aged Toma shareholders.

The market around Rabuana is not yet large enough to absorb a
reasonable output without delivery to distant places. Fishing
villages like Hula which have poor supplies of sago or tubers are
more suitable locations for a successful bakery.

Sawmilling

(a) Haku Sawmill and Housing Society of Buka, Bougainville. The
Haku Sawmill and Housing Society was set up to exploit native-owned
timber and improve housing in villages around Lemanmanu. A more
basic motive was to provide a counter-focus for the minority of
people in seven villages who had not joined the Hahalis Welfare
Society. Disputes between the Hahalis Society and the Haku Society
over whether the saw would be permitted to cut timber from clan
land were surprisingly few. The Catholic missionary at Lemanmanu
initiated the project in late 1962, and bought a Dolmar saw early
in 1963. Over the next twelve months the villagers subscribed
$2,000 in shares to pay for it. Some did the equivalent in work
on the saw or in logging to earn one or more $12 shares.

In early 1967 there were 117 shareholders and 182 shares issued,
to a value of $2,204. Shares worth $600 are owned by the local
Catholic mission, and $200 worth by the Methodist Overseas Mission.
The only other non-indigenous members are one or two plantation
people. The value of the saws would be in excess of share capital,
partly because the second saw was half paid for by a grant from an
English aid organisation.

In form the society is a co-operative, although not registered.
Co-operatives on Buka had an unsatisfactory history even before the
open struggle over the Hahalis Society. The board of directors
represents seven villages and the Catholic mission, but the mission-
ary has the prime management role. Since 1965 he has attempted to
leave the day-to-day management of labour and saws to men in the
field, but complete indigenous management is some way off. The local secretary can handle this side of the business, but much of the book-keeping is done by the missionary.

A second saw was bought in late 1965, and both worked in conjunction with a small circular saw in the mission. The Dolmars cut flitches which were brought out of the bush by tractor and finished at the sawbench. As logging sites got deeper in the bush, access became difficult for the tractors, which were hired at $1 an hour. Flitches were too heavy to be carried from the bush, and it was difficult to coordinate the work of Dolmar, tractor and circular saw. To solve these problems the flitches are now tied together on the Dolmar, sawn again into the required sizes, and carried to the nearest road in bundles. One consequence of carrying out all work in the bush may well be lower productivity as supervision is more difficult.

Skilled labour is available because the mission had trained mechanics and sawyers at Tsirroge and Buka. Saws are repaired at Tsirroge workshop.

Logging is the least skilled task and the householder who wishes to have timber next arranges the logging. The work is credited at the rate of 10c an hour to the eventual cost of the timber bought by the householder. In other circumstances villagers are rostered in turn for one day and paid or credited the same rate. Each saw has a permanent head sawyer paid $1 a day, and two assistants paid 80c a day who are generally engaged for a minimum of three weeks. Work patterns are intermittent except for the few skilled persons, and unpunctuality, absenteeism and irregular supply of logs are constant problems.

Average production of the saws is under 500 super feet (s/ft) per week each. Previously production from one saw was sometimes double this. During 1965-66 approximately 70,000 s/ft of timber was sold, which is a reasonable figure, especially as for the first part of the period there was only one saw. A reasonable objective with two saws might be 2,000 s/ft a week, or about 100,000 s/ft a year. Members have high aspirations for output and some are impatient about it, though not seeing clearly that improvements lie mainly in their own hands. Offcuts are given to anyone prepared to collect them at the site, provided he supplies the workers with midday food. Other timber has gone into school buildings. Most of the thirty houses built or under construction are for shareholders who had savings from outside employment or from cash cropping. Houses cost about #300 for materials and the ordinary villager cannot yet afford so much.

The main cost is roofing, aluminium sheets for walls and plastic shutters, all of which are sold at cost by the society. An associated savings and loan society will lend about $100 for a house,
some of the remainder has generally been earned by the villager from logging work and most dividends (5 per cent has been paid annually) are made over to savings. Timber is sold to members at only $4 per 100 s/ft and to others, the Administration, local government councils, and to native people not members of the society, at $14 per 100 s/ft. The price to members was set too low but it is now not possible to raise it. The difference represents a very large rebate to members. Taking 1965-66 as an example, 45,000 s/ft was sold to members, 21,000 s/ft went to others, and 4,000 s/ft into stocks.

Approximate expenditure on running the saws was: wages $1,000, fuel, etc. $1,000, spares $359, tools and repairs $100, plus, say, $2,500 direct expenditures, or $1.80 per 100 s/ft (excluding overheads and depreciation). The society has been very profitable, and has considerable reserves in the bank. Even if handed to indigenous management and run less efficiently, it would probably settle at a lower level of profitability and still survive.

(b) Barapa sawmill, Eastern Highlands District. The enterprise is located about seven miles from Kainantu. The main shareholders are four men who went to school in Goroka and then worked in a mission sawmill there. They began saving for their own sawmill in 1959. They received technical advice and help in ordering equipment from a European who owned trade stores in the area. He advocated a water-driven wheel, and piping was bought and installed in 1962, but it was too small and was later replaced. A race was dug to bring water to a cliff overhanging the mill site and from here a head of 100 ft was harnessed. Village people made a track into the site and built bridges and a shed to house the bench. The 16 in circular saw is under-powered with the present pipe. The wheel cost about $600, and pipes, saws and other materials another $1,600. The subscriptions came from the four prime movers ($1,370) and kinsmen ($830).

The area selected for purchase of timber rights by the Administration was about 775 acres containing 600,000 s/ft of timber and the whole was heavily covered with bamboo vines. Purchase was finalised in April 1965 after a year of survey and negotiation. The mill began in October 1963 but we have no production figures for the first nine months, though production must have been fairly satisfactory as $700 profit was made before June 1964. In the following full year about 16,000 s/ft of timber was sold, but in the succeeding twelve months sales dropped to 8,000 s/ft.

At first labour costs were low and production was quite high. In the twelve months from June 1964, profitability was at a peak and over $1,000 gross profit was made with $2,120 capital in use, a rate of gross return of almost 50 per cent. In the twelve months from June 1965 to June 1966, a loss of $165 was made because sales
dropped and labour costs rose. With sales of timber of $2,535 in 1964-65, wages and contract labour cost $580; with sales of $1,250 in 1965-66, labour cost $690.

The logs are cut, usually by chain saw, and hauled by a team of six to ten men from higher land above the cliff that overhangs the mill, and lowered down on a rope. The loggers are villagers who are not necessarily related to the shareholders. Up to twenty may be employed at one time, and the team is paid 80c per log. The logs are often cut into two or three flitches by chain saw before being lowered down the cliff. Milling is carried on by ten men, a sawyer, a clerk, handleman, tailor out, and others tacking and operating the dip diffusion process. The mill workers are kinsmen of the partners, and said to be paid $3 a month without rations. As they are shareholders they are supposed to expect their main reward from returns on capital. But the evidence appears to be that wage costs have risen alarmingly, and it seems that labour greatly increased its draw on the cash resources of the enterprise in the financial year 1965-66.

The effective manager is the sawyer, who does not draw any wages according to his partner, Bakuta. Sometimes he is relieved as manager by Bakuta, so that 'he can go and earn some money'. This may be a commentary on the rewards of the partnership.

The operation of the mill has become increasingly intermittent. Holdups of three months or more have occurred while saws are away in Lae being treated. It seems possible that the saws have been inexpertly filed locally and accordingly have to be sent away to be hammered.

Marketing has been easy and stocks seem never to have been large. The problem of transport to Kainantu has not been solved and lately customers have had to come to the mill for timber. Treated timber (the major part) is sold for $16 per 100 s/ft. Second-grade sells for $14 per 100 s/ft. Only a limited amount of timber has been bought by local people, mostly for the frames of houses. Three of the partners have built houses of permanent materials.

As with most small enterprise the desire to invest in improvements has been strong. One felt need was for a tractor to haul logs part-way to the mill. A track was partly built for this. The tractor could also take logs to a depot at Kainantu. A larger saw with an engine has also been proposed, though improved pipe and larger Pelton wheel may be sufficient. Recently the partnership invested in a utility truck, for which there is little need.

Overall the enterprise seems to be on the rocks. The lack of expertise, such as saw-sharpening, has proved a crippling deficiency, while management is neither versatile enough to devise a way out of such problems, nor strong enough to prevent workers and shareholders from increasing their take, even when the business is declining.
(c) Moveave co-operative sawmill: Gulf District. Moveave is a large Toaripi village in the swamp country of the lower Tauri-Lakekamu river mouth. The people have land holdings for many miles up both rivers and their village stands on a very limited area of dry land. Along the rivers are levees of higher land which carry mature rainforest of commercial value.

When the second world war broke out, the Army used the Lakekamu-Bulldog-Wau route as a main line of supply. Moveave people were thus drawn into the war more than many others. In Bougainville a few soldiers got together and agreed that after the war they would establish a sawmill in Moveave. Once home they put the idea to officials and were invited to select men to be sent away for sawmill training. Meantime a co-operative society which was formed in Moveave could have been the focus for the sawmill, but for its inability to raise much capital.

The first trainees returned after a year and said they needed longer. More men were sent away, and this crucial fact of training probably committed the Administration more than any other circumstance. Even so, many times in the subsequent years a sawmill must have seemed a chimera. In hundreds of villages stirred by the war similar ambitions must have arisen, but practically none were realised.

When the nearby Terapo Catholic mission proposed in 1955 that the Moveaves should join with them in a sawmill venture, the Forests Department attempted to buy the Tauri timber rights for $400; a very low price for 6 million ac.ft of timber. The clans concerned refused and the mission put its sawmill elsewhere. In 1960 the Native Loans Board was created, and promised a loan of $10,000. The Moveaves sold the Tauri timber for $400, and the Forests Department undertook to design and install a mill. In 1961 a building of native materials was erected by voluntary labour near Moveave and equipment began to arrive in 1962. But by now the prospect was upsetting to many factions. Much to the surprise of the Forests officer, few would help with installation and the scheme was nearly abandoned.

The equipment cost just under $10,000, but much of it was improvised and put together from scrap. After June 1963 the mill opened under the combined management of three employees and a full-time co-operatives officer. Supply of logs has been the main bottleneck, but sawn timber production reached 364,000 s/ft in 1964, 311,000 s/ft in 1965 and 410,000 s/ft in 1966. Early in 1965 a second sawbench was installed, but production did not increase because of a shortage of logs, and the mill closed for nearly five months. While production per day worked has improved, logging has been a weak point. In 1966 the loggers were permitted to bring logs from the Lakekamu instead of the Tauri which was inaccessible due to low tides. This will probably ensure continuity of supply in future.
Mechanical trouble, and low tides which prevent logs being hauled out of the water are the other main problems. The mill mechanic is not competent, and no early steps were taken to train someone else. Two reasons for increased productivity per day worked (apart from the new sawbench) are stronger management and consequent greater labour efficiency. The recovery rate of sawn output has been very variable, and is still too low.

The manager was born in Moveave but spent much of his life in mission and other non-traditional surroundings in positions of responsibility. He returned to the village for personal reasons in 1963 and was appointed to a management committee for the mill. By February 1964 he was acknowledged manager, and in the many battles he has fought since then he has been successful in combating absenteeism and unpunctuality.

The labour force is of three kinds: loggers, mill hands, and casuals, such as stevedores. Loggers work miles away, felling, hauling and rafting the timber to the mill, for about 70c per 100 s/ft. A small team from the mill cuts the trees with a chainsaw. But logging income is merely a supplement to subsistence for most, and they spend much time gardening and hunting. Higher rates will not necessarily produce more logs, but keeping the Lakekamu open will. Mill labour, by contrast, has become dependent on its wage income. Jobs are sought after, and though wages are lower than for unskilled work in towns, many apply for vacancies. Wages are above the average for similar sawmill jobs, and sufficient to allow workers to depend on bought food. This dependence has strengthened the hand of management.

The gravest deficiency is in mechanics and in forestry (not mill) expertise. Within the mill, workers lack flexibility in application to bottlenecks in production, and casual labour has at times withheld its services. But there is no union at the mill and there has been no real strike. This is not due to local naivete but to the fact that communication between management and labour is ready and frequent. The anonymity of industrial society is absent with a village industry.

While a $10,000 loan from the Native Loans Board launched the mill, its need of working capital was immediate and additional and has grown to $24,000 now, when working fully. This has been raised from the co-operative movement, the Native Loans Board, and a trading bank overdraft of $20,000 with a Government guarantee. Now, even after fulfilling annual loan repayments the enterprise is sufficiently profitable to consider further investment. A debenture system, which is practicable under the new Co-operatives Ordinance, might attract some of the spare capital in Moveave, and a few rewarding investments could be readily made. But the constraint on most potential investments is the lack of mechanical expertise.
The Port Moresby market has been the main outlet from the start, and the local market for village housing (one of the original reasons for the mill) has never amounted to anything. It has been a sellers' market for more than three years. Co-operative ships now provide most of the transport required, though for a long time there was never enough shipping.

Per capita productivity of labour is about half that of labour in a similar mill in Australia. Labour-intensive methods have been favoured because labour is cheaper than capital, and because most investment involves more mechanical expertise than the mill can command. Probably the basic reason for lower productivity is the lower general education, which reduces manipulative skills and the visualisation of production problems. Production bonuses have been inadequately explored at Moveave. But the enterprise has been very profitable. The net growth of all assets gave a gross return (after paying interest) in the year to September 1966, on all capital in use, of 70 per cent. Fixed assets were valued at only $17,400. Stocks of timber and logs, and buyers' debts, were large capital items.

Marginal costs are low, either per 100 s/ft of extra product, or per extra day to be worked. Profitability could thus be greatly increased by higher output per day, or by eliminating stoppages. The Forests Department valued its work on the mill at $6,000, which is one reason for the low capitalisation of the enterprise. But this, like the services of the co-operatives officer (now involving 30 per cent of his time), can be considered extension assistance not different in kind from that received by many other sawmills, or by agriculturalists or mining firms. The actual degree of help has been greater.

Effects of the mill on the village include the flow of cash, the changed pattern of work, and the changing power structure. About $29,000 per annum now flows into Moveave, three-fifths of it from mill wages, the rest from logging and dividends. The cash income of the village has been approximately doubled. Future income may flow more from dividends which in 1966 reached $1,000.

The whole village is now concerned that the mill should keep working, a strong contrast with the opposition or ambivalence of 1963. Behind the mill work there is a growing division of labour in house-building, transport, trading in store goods and bringing foods down-river. In size the mill can have few rivals in Papuan-owned businesses and in profitability, none. Moveave is a prototype of change for the larger Papuan society.

Factory fabricating and processing

(a) Palnamadaka furniture factory. In 1964, a furniture and joinery factory, owned by two partners, was offered for sale in
Rabaul. The factory employed sixteen indigenous workers, and the partners. The Business Advisory Service of the Department of Trade and Industry sought a valuation of the business, and one of the partners approached key employees about forming an indigenous-owned registered company. Much enthusiasm was shown, important Tolai leaders were approached, and the idea of carrying the proposition beyond the Gazelle Peninsula was also mooted.

The company was finally registered in May 1965. During the next two or three months the prospectus was drawn up and the conditions of purchase were worked out. The business was valued at approximately $40,000 with some allowance for stock and goodwill. Conditions of the share offer included that all shares should be fully paid for, the unit was to be $1 (later $2) and subscriptions were to be a minimum of $100. Every effort was to be made to get larger individual subscriptions, at least up to $200, so that the issue would attract 'maximum cash for least paperwork'. About this time the problem of getting a guarantee to help to pay a share of the sale price to one of the partners led to a search for finance, finally solved by an overdraft from a bank which considered that the business was sound and had very good prospects. The other partner was still owed his share of the purchase price.

The directors held their first meeting in September 1965, and a campaign to sell shares was planned. An additional business advisory officer was brought in to accompany directors on a tour of villages, the officer explaining what a share issue was, and the directors encouraging purchase of shares. Meetings varied from forty to a hundred in size, and a score of villages was visited in the first two or three weeks. The most sophisticated villages close to Rabaul tended to be reserved or cool, while enthusiasm was noticeable in some villages further out. The campaign was advertised over Radio Rabaul, and steps were taken to spread it to other districts, but by the end of October only $3,200 had been raised. In November it was decided to lower the minimum subscription to $50, and to inform the 'foreign natives' of Rabaul of the opportunity.

It was felt 'that the element of risk is the main factor leading to the slowness of monies coming in'. Alternative sources of finance were then sought, and again a bank was approached. An overdraft of about $20,000 was approved within a few weeks of it being requested. Then a speeding-up in share subscriptions became

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1 Chief of Division, Trade and Industry to Business Advisory Officer, File B.T.M. 4-1-6/1, 13 July 1965.
2 Business Advisory Officer to Chief of Division, File B.T.M. 4-1-6/1, 17 November 1965.
apparent, a total of $20,724 being reached by 17 January 1966. The directors visited forty-four villages in January and February. Finally in March 1966 the company began trading as Palnamadaka Co., all formalities having been completed. The board held its first meeting towards the end of the month.

Plans to train a new employee to keep the books were not fulfilled and the Business Advisory Service took over daily supervision of book-keeping. The manager, who was made an alternate director, was to train a replacement manager from among his staff.

In June 1966, the statutory meeting was held and the directors revealed that no more applications for shares were being received, as the $24,000 subscribed would be sufficient to cover present requirements. One shareholder asked whether shareholders might have preference in working in the factory, but it was pointed out that there were sufficient staff and in any case only experienced cabinetmaking staff could be employed. Profits for the year to June were satisfactory, but as the company had been trading for only three months, no dividend was paid.

Thus by mid-1966 a business worth $40,000 plus goodwill and stock, had been purchased by 134 shareholders, eleven of them subscribers and/or directors. The company was indebted to the former owners for minor share of the capital but could probably pay off the debt in a short time. The unsolved problems were future management and book-keeping. Book-keeping could be done by outside specialists, but this would be expensive. Management was likely to become a problem when the former partner, now paid manager of the company, decided to withdraw from the business. Could one of the employee/directors take over? The thirteen employees of Palnamadaka Co. came from five districts of New Guinea though half were from New Britain. The average age was 24 years, and ranged from 18 to about 30. Six of them, mostly Tolai, had had some technical education. One employee had been with the firm for twelve years, and a number for six or seven years. The directors were chosen from the better educated and one of them was to be the future manager. Changes of role such as these could place a strain on some of the workers, especially as the day-to-day roles of labour and management seem to have altered little since the change in ownership.

One difficulty facing any of the present employee/directors on becoming manager would be lack of business experience in tendering, estimating materials, ordering both locally and from Australia, clearing materials through Customs, maintaining contact with customers and their confidence that orders would be punctual. Furniture and joinery is a very competitive field and there may be great changes in market and product. An interim solution could be 'guided management' with the business advisory officer helping out for a time. This would depend on the staffing of the Service. If
indigenous management did not prove itself, the choice of going back to another expatriate manager would still be open. Whatever happens everyone concerned is seized of the necessity of maintaining profitability. Palnamadaka will be watched as an indicator of whether expatriate business can be transferred successfully to local ownership and management.

Summary and conclusions

The main features of the enterprises studied are as follows: the majority are located around the coasts (three near Rabaul) and only one in the highlands. This is roughly indicative of overall development patterns. Most are recent, only three having their origin in the 1940s and 1950s. The fact that the remainder date from the 1960s suggests that the rate of establishment has quickened.

It may help to put these projects in perspective if the number of other cases of similar types of production is indicative. Many other sago looms have been distributed, but some are not working. Cane furniture is manufactured at Aitape and Sepik missions. Brick-making is widespread, but mainly in corrective institutions. There are very few artisans making furniture. In sawmilling there are about thirty Dolmar saws operating, mainly in Bougainville, and usually in mission or mission-sponsored schemes. There have been many local sawmill schemes in many parts of the country, and some are still working. The purchase of an expatriate factory on the other hand, is quite a new trend.
The broad picture which emerges from the cases presented shows that while much is being achieved, many problems remain to be overcome. There is an apparent need for continued oversight or some form of support. The central problem here is the diversity of skills required to keep any substantial activity going, and the difficulty of providing all the skills in village surroundings. Nevertheless, the establishment of indigenous industries has quickened recently and will probably continue to do so. While this is partly due to promotion by a variety of agencies, it is also partly spontaneous and in line with villagers' felt needs. The movement must therefore be taken seriously and an attempt made to learn from the teething troubles. Though there will be further failures, the number of successes can be expected to increase.

Village people are more likely to succeed with small-scale activities, particularly if the technology is simple, as with bricks or cane furniture. Small-scale activities involve the least break with customary life, and hence minimum change in work patterns. If they pay out on a piecework basis they make least demands on management.

The industries surveyed use widely available natural resources and could be widely repeated before a shortage of material limited their development. Only cement and flour depend on imports, and except for imported equipment, the impact on overseas trade would be small.

Raising capital for the small-scale projects has been easier than for the others. But this is relative, the top of the iceberg as it were, for we have no measure of the number of aspirations unfulfilled because of capital shortage. In the case of Palnamadaka, many large villages in the Gazelle Peninsula bought no shares at all, while considerable sums ($2,250 in one case) were subscribed in quite small villages. A possible implication of this pattern is that there is enough capital available to subscribe to projects like Palnamadaka a number of times over if the right contacts can be made or responses evoked. Non-Tolai shareholders are remarkably concentrated among Rabaul townsmen from Wewak-Maprik. The other immigrant groups, from the New Guinea Islands, Finschhafen and Papua, are little represented. In the case of Moveave the lack of capital long remained the crucial handicap. Only the creation of the Native Loans Board provided a solution. Then the need for working capital became critical, and though the co-operative movement provided some, the commercial banks would do so only with an Administration guarantee. As a result of this and other experiences, the co-operative movement has now set out to make itself independent of outside borrowing as far as possible.

Neither the Native Loans Board nor its successor, the Development Bank, will regard lending for a takeover of expatriate business by local people as a developmental loan. This principle conflicts with
a prime implication of this paper: that it is urgent to develop a Papuan and New Guinean business community. In general, it could be said that the banks must come some of the way to meet the particular conditions of New Guinea, or they will perpetuate the situation where financial arrangements favour expatriate business, as everything else in the present system tends to do.

In this survey private forms of business organisation were more common than others. But these examples do not represent fully enough the role of co-operatives, local government councils and now public companies in this field. In districts where co-operatives have had a recent history of failure, some other form has to be chosen. Otherwise the co-operative is often suited to small industrial-type activities, partly because people are familiar with this form. A case could be made for converting Moveave to a public company. Sawmilling does not suit the co-operative rule that the enterprise should do most of its business by buying from or selling to its producer-consumer members. Further the public company form would rationalise the distribution of profits and allocation of resources. It might also result in the election of a new type of director who would understand more about business than the present 'traditional' figures elected to that office. But rationality is ruled out by the fact that the people are used to their co-operative, they are familiar with its operation, and are becoming more adept at manipulating it. A change to public company status might introduce confusion and instability.

Most of the enterprises in the survey do not have any legal entity, but for access to some resources the law demands they have some legal standing. Can this conflict be resolved simply? Can a form of organisation be devised which will cater for a low level of book-keeping and formal office skills, but by its safeguards help preserve probity? This is largely a problem of the coastal areas. Co-operatives may be readily accepted still in the highlands, though unfortunately the movement has barely penetrated there.

For the larger enterprises the biggest problems are presented by the demands on management for a variety of skills, and for effective control of labour. The demand for secretarial skills is particularly hard to satisfy. It is unfortunate that lack of skilled labour (especially mechanics and sawyers) constitutes such a handicap to sawmilling, because many villagers aspire to set up a sawmill. For larger-scale projects the need is mainly to get production onto a regular basis so that labour can make the transition to full-time work. Labour may be voluntary while initial enthusiasm lasts, then wage demands increase and may continue to do so in the face of deteriorating production. Strong management is needed to check demands for higher wages and to maintain production through a first critical period. Expatriate oversight is most
useful at this stage. But because of problems of language and social distance an expatriate manager will seldom be fully informed of labour problems and on his own can expect a strike or some withholding of labour services. This will probably not happen to the indigenous manager, but more conventional methods may be used to influence or overthrow him.

We were frequently told by expatriates during investigations of these projects that businesses which we knew to be sound were on the verge of bankruptcy, or were being heavily subsidised by the Administration. These attitudes seem to be evidence of a pathological wish among many members of the expatriate community for the failure of indigenous enterprises. In their own interests expatriates must be urged to take the opposite view, as indigenous business success is surely one of the essentials for future industrial harmony.

There is now accumulated a wide range of experience in these projects and a great deal of information about equipment and methods of using it to advance village industries. But so many of these things have been learned in one place only to have to be learned again in another by further experience. A handbook of village industry projects and problems, citing cases, and giving information on various activities, would advance the cause. It might do a good deal to bring into the field many bodies which are in a position to do something, but are inactive for lack of information and inspiration. Some thought might be given to whether extension services for projects of this sort are adequate to meet future demands. As timber projects are so much favoured by villagers, there could be a heavy future demand for extension services from the Forests Department. Many more industrial-type co-operatives are going to be requested in the years ahead. Co-operatives officers possibly know more about this whole field than anyone else and have evolved a pragmatic technique of development. Mission work would expand in this field if there were more exchanges of information between missions.

There is not much room in the present development plan for the extension, promotion and development of indigenous industrial enterprises, or supporting organisations like co-operatives. It might well be asked of that plan: development for whom, and development of whom?
Bibliography


Chapter 5

Production and marketing of artefacts in the Sepik districts and the Trobriand Islands

R. Kent Wilson and K. Menzies

The hopes and fears of the people of New Guinea expressed themselves in many and varied art forms, which recorded their love of beauty, the drama of their lives, the demons they feared, and the gods that protected them. As the culture that produced these art forms changed with the coming of the Europeans, so too did the art. In some areas, the changing social situation made the old cultural symbols not so much wrong as irrelevant (Maher 1961:52). But the demand of Europeans for handicrafts has saved some art forms from extinction. Carving has changed in purpose from a way of expressing cultural symbols to a means of making money. In several parts of Papua-New Guinea where alternative income sources are lacking, particularly in the Sepik and the Trobriands, carving has become an economically significant activity. The emphasis of this report is on the economics of carving, particularly the marketing arrangements.

In this report, 'dealer' means anybody who markets carvings, while 'trader' refers to a person who earns his livelihood from commerce. An 'artefact' is any carving, while 'art' is a carving, generally old, wanted by a museum or serious collector as typical of a certain culture. 'Curio' refers to carvings having no particular historical worth and sold to the general public.

1 Thanks are due to many people who answered questions, provided transport, and helped in other ways. We are indebted to Administration officers and the Catholic mission in the Sepik whose help was invaluable. In the Trobriands, Mr T. Ward (the hotelier), Mr R. Hill (A.D.C. Losuia) and Mr Abraham Wainoba (President of the Kuboma Progress Society) were especially helpful. In Port Moresby, Mr Mannix of the Department of Trade and Industry gave freely of his time. The study is a joint project and was planned and supervised by R. Kent Wilson; the field work carried out by K. Menzies in the Sepik between 21 June and 15 July 1967 and the Trobriands between 3 June and 8 June 1967.
The Sepik districts

The area covered in the survey was the Eastern Sepik district plus the Aitape sub-district in the Western Sepik. The major producing areas are the Middle Sepik River, the Murik Lakes and the Maprik sub-district, while the major marketing centres are Wewak, Maprik, Ambunti, Angoram and Marienburg. Almost everything shipped out of the area goes either through Wewak or Madang.

The 250,000 people in the Sepik have a primarily subsistence economy, with some income from crocodile shooting, cash crops (e.g. rice and coffee) and carving, all of which allow the people to continue subsistence agriculture. The diversity and richness of the styles in the Sepik have allowed carving to become an economically significant activity. One book on oceanic art says:

The variety of Sepik River art is one of its main characteristics. Since the elaborate religious and social ceremonies required a great display of carved and painted objects, there was an ever-present need for new paraphernalia, and this gave rise to a technical proficiency and creative interpretation of traditional forms unsurpassed in any other area of Oceania. (Linton, Wingert and D'Harnoncourt 1946:109.)

The productive process

(a) Maprik sub-district. The focus of Maprik village life (though the people are nominally Christian) is the elaborately decorated house tambaran and the ceremonies using yam masks associated with it. Statues are made for use in the house tambarans, but after one initiation ceremony they have no further symbolic use and are sold as curios. This accounts for about 25 per cent of the artefacts marketed while the remaining 75 per cent is produced specifically for sale. As carvings continue to be used in traditional ways, the style remains traditional and the quality of the items intended for sale is similar to that in use. Carving now, as before, is limited to the part-time work of a few men in each village, who usually pass on their skill to a relative.

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1 This includes all the major artefact-producing areas and marketing centres of the Sepik districts. Some shields are produced in the May River area, but these are marketed through Ambunti and Angoram.

2 Estimate by council adviser. The Greater Maprik Local Government Council (L.G.C.) buys most of the sub-district artefacts.
Maprik art relies for its effect on its four brilliant colours. The red is made by boiling tree roots that have decayed in the bottoms of rivers. The yellow is a clay, the white is lime, and the black is charcoal or charcoal mixed with beeswax. As yellow clay and tree roots are only found in certain localities, both are traded. One bamboo section of red paint costs $2, as does a similar quantity of yellow clay, which is sold in lumps. Lime, which is chewed with betel nut, is also traded. While store colours are available, they are considered unsuitable for use in decorating objects intended for ceremonial use, and the L.G.C. will not buy artefacts decorated with European paint.

The two major technical problems with artefacts are borer infestation (though this can be overcome by good storage), and the fact that paint rubs off and smudges easily. The latter can be overcome by a thin coating of women's hair lacquer spray, but this costs about a third of the item's sale price and so is not used. Other techniques have been tried but none successfully.

(b) Middle Sepik. The traditional carved items of this area include garamut drums, masks, orators' stools, statues and food hooks. Recent additions are figurines, reptiles (mainly crocodiles) and other animals, tables with crocodile heads carved on each end, and carved galip nuts.

The basic tools used in carving are an axe to cut the tree to be carved, an adze, and pen knives. Some people do all their carving with the adze, the blade of which is either bought in a store or made by filing a piece of iron. It is fitted into a wooden handle and bound with a wicker binding. Occasionally chisels are used, with a hammer made from a crocodile jaw.

After items are made they are often suspended by food hooks above the cooking fires, especially to keep rats from lizard skin drums and borers out of the wood, and to make items look old and used. Various dealers also smoke artefacts or soak them in river mud to give them an aged look. Everybody insisted that this was explained to the buyer. As some suspicious buyers have started to drill into the wood to see how old it is, some items are made from poles supporting the houses.

Traditionally a few people in a village carved a limited range of items. As carving became commercialised, more people were attracted and a wider range of items produced, though once a carver has discovered one that sells well, he tends to concentrate on it. All smaller items are made by one individual, though for larger items like drums several people co-operate in its production. Carving is a part-time occupation for villagers though it may be their only source of cash income. Others hunt crocodiles for cash, as well as carving.
Among the full-time carvers are T.B. patients at the Angoram Hospital who must stay there several years. They learn to carve to obtain money for small luxuries and to support the relative staying with them, who may also carve full-time. They produce $2,000-$3,000 worth of artefacts a year.¹ As people from all over the Sepik area are in the hospital and each copies from the others, the artefacts are stylistically confused. Some carvers, who have seen pictures of carvings from other parts of the world, attempt to incorporate items like Javanese head-pieces into their work.

In addition to carvings, there are cassowary bone daggers about 8in long with a 1½in radius handle of sawdust and clay, painted and shaped like a head. Many of the carved masks and small clay heads of the daggers are decorated with teeth, feathers and shells. Black clay, wild pigs' tusks and sago leaves are available locally at no cost, while most shells are traded from the Murik Lakes.² Other items are made of wicker covered with coloured clay. The problem with all products is that in other climates the clay tends to crack.

(c) Other areas: Murik Lakes, Wewak, Aitape. The speciality of the Murik Lakes area is small figurines. At Sissano between Aitape and Vanimo on the coast, some carved painted paddles are produced. At Wewak, artefacts are made by people from the Sepik River looking for work, and also by patients in the T.B. ward of the hospital (Plate 4). These generally incorporate stylistic elements from several parts of the Sepik River.

(d) Pottery. Aibom (a village on the route into the Chambri Lakes from the Sepik River) traditionally produced cooking stoves and water vases that were traded up and down the Sepik River. Now they also make small pencil holders and figurines. The pottery is made from two different clays, shaped by hand, dried in the sun, and then baked in a flash fire of coconut husks. It is frequently ornamented with heads, usually one on each side of the vase's neck, and is engraved.³ The faces are white - a lime paint - or red, the pot's natural colour.

The low firing temperature of these pots makes them fragile. Consequently, dealers are reluctant to export them because of many complaints about breakages. There is now a pottery expert from the

¹ Estimate by Angoram L.G.C. adviser, who buys most of their work.
² See Appendix A.
³ The author was unable to visit Aibom; see Tuckson 1966 for an account of Aibom pot-making.
International Labour Organisation working in New Guinea who hopes to demonstrate the construction of kilns to fire pots at a higher temperature.

Less ornamental and unpainted pottery, all of a simple, squat vase shape, is made at Tumleo Islands (about five miles from Aitape). Two different clays are used, one of which comes from the mainland. The pots are moulded with a smooth stone on the inside and a stick on the outside, then fired in a coconut husk flash fire.

(e) Return to the artefact producer. The average return to the producer for a day's (8 hours) work is estimated at $1, making clay heads on cassowary daggers and painted Maprik figures at $2. The lowest return appears to be on making drums. However, drums continue to be produced, which suggests that villagers may lack a concept of maximising their returns per unit of time. The Tumleo Island potters make four pots worth $2 each in three days. This amounts to about $2 a day, since on average, one of the four breaks.

Marketing

The mark-up on curios sold by dealers to people in the Sepik or to a wholesaler in Australia usually varies between 33 per cent and 100 per cent.¹ The mark-up on curios by the time they reach Australia is sometimes 1000 per cent or more,² so if a dealer can retail the curios himself in Australia the return is much higher. Sometimes curios are priced according to the type of carving (e.g. twenty figurines at $3 each), sometimes in assorted lots of up to 2,000 items (e.g. 500 pieces at $1 each). Curios are worth about $150-$200 a shipping ton (40 cu ft) though they are not sold this way. The bulk of the curios sold are small; the larger-sized items sell more slowly.

Only in the Maprik sub-district are the people offering more artefacts than the dealers can buy.³ While quality is reasonable except for stylistic confusion, dealers do not accept everything offered and this helps to maintain quality. Dealers generally are reluctant to ask people to make specific items as they are often flooded by poor quality items in response.

¹ See Appendix B for approximate prices.
² Possibly the dealer, and the wholesaler in the Sepik get 100 per cent mark-up each and the retail dealer the same, or a minimum price eight times the cost of buying directly in the Sepik.
³ The Biwat L.G.C. adviser says that if he does not buy an item at first, it will be offered again in a few weeks.
There is also a demand by museums and serious collectors for old pieces, preferably made by stone tools, but in practice most items over twenty years old (and many more recent ones) fall into this category. Yet the supply is limited and the quantity of art exported is decreasing. The Middle Sepik has now been almost entirely cleaned out. Large-scale art buying by dealers started in the mid 1950s and reached its peak at the beginning of the 1960s.

Prices have risen from a few sticks of tobacco, to as much as $100 for an item. Even at this price there is often a large profit for the dealer. The price paid to dealers is now demand-determined, as the supply is fairly fixed even if some pieces still remain in native hands. Communication between dealers in the Sepik and those in Europe, the U.S.A., and Australia is considerably better now than five to ten years ago, raising prices paid to the Sepik dealers. The price obtained by dealers in the Sepik for art has increased about tenfold in ten years, especially from the U.S.A.

The demand for curios and art is irregular and several dealers complained of the difficulty of establishing regular reliable contacts. Many people want small shipments as a sideline or to start a business, but shipping, packing and handling costs require an overseas order worth about $500 to be economical.

An Ordinance requires permits signed by the District Commissioner for all items exported. If it is felt that the items should go to the Papua-New Guinea Museum a permit may be refused, and the individual must sell to the museum for approximately cost price. Some items are now exempt from the permit system, but exporters to Australia continue to get permits for all items to avoid delay in Customs. There is considerable evasion of the intent of this Ordinance. Officials are not well informed as to what items are valuable and consequently rare items may be given permits. The museum does not have much money so is unable to buy all it would like. Considerable numbers of items are sent out through the post without permits. Smuggling is relatively easy by getting a permit

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1 A dealer in Los Angeles was in 1965 selling 3 ft lengths of bark cloth for $75 each (price to villagers about 50c each), recently-made stone adzes for $75 to $150 (price to villagers would be $1 to $1.50) and 10 ft carved panels with multiple heads at $10,000 to $15,000 each (the makers might be paid $50 to $100 each for them).


3 Government Gazette, No.54 of 13 October 1966.
to export a figurine and, after inspection, replacing it by an old statuette.

No carved stones can be exported. Some dealers expressed annoyance at this, as they said that people still make them. The museum director defends this regulation by saying that only an expert can tell the difference between a new and an old carved stone, so this is the only way to prevent the export of old stones.

Almost everything exported from the Sepik districts passes through Wewak or Madang. Most is shipped down the Sepik1 while the rest goes by air. Most artefacts are sent freight collect as dealers find that the shippers look after such cargo better. Some buyers ask dealers to accumulate a large order to minimise shipping costs. The following are typical costs per 40 cu ft ex Wewak, to Germany (trans-ship at Madang): $52.10; to Australia: $30.00; to U.S.A. (via Sydney): $90.00.

The main dealers are the Catholic missions at Wewak and Marienberg, the local government councils at Maprik and Angoram, traders at Wewak, Maprik, Ambunti and Angoram, and several overseas collectors and traders. Relations between many of these people are marked by considerable distrust and the clash of strong personalities.

(a) Catholic missions. Originally the Catholic missions regarded tribal art as evil, a rival to their teaching that had to be rooted out or burnt to destroy its influence.2 About fifteen years ago, however, the mission decided that selling artefacts was a useful source of funds for its own work as a way of providing indigenous people with a chance to make money. In addition, when the mission wants the indigenous people to contribute to a project (e.g. school or church) the priest may get them to make carvings to finance the project. Usually part of the proceeds are returned to the carvers and part used for the project.

The artefacts bought by some of the fifty-five priests throughout the East Sepik,3 are sent to Wewak4 as back-loading on mission

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1 Several 100-ton ships ply the Sepik as far as Ambunti.
2 The missionaries of a fundamentalist group still have this attitude. Upon explaining what he was interested in to one such missionary, the writer was lectured for ten minutes on the evils of idols and those people who had any interest in idols.
3 The Franciscan mission operates in the West Sepik. It buys about $400 worth of Sissano paddles which it sends to the Catholic Mission of the Divine Word at Wewak, for marketing.
4 Except from Marienberg. See p.57.
ships or aircraft which carry supplies to mission people in the field. Some items are also bought by the Catholic mission at Wewak from local people, e.g. the T.B. patients and 'unemployed' Sepik River people there. About 5,000 larger pieces and 10,000 smaller ones were in store in 1967. This represents a year's trading in curios and over a year's trading in art. Some house posts and garamut drums are left outside as each weighs about a ton.

About $7,000 worth is sold each year through the store to local Europeans and vendors. The store is attractively laid out but does not have a full-time attendant and is poorly advertised. The bulk of the artefacts (about $30,000 worth) is shipped overseas, about 75 per cent of it to dealers. About one-third each goes to Europe, U.S.A., and Australia. In addition, some artefacts are sent to benefactors of the mission as tokens of appreciation. Art now comprises about 25 per cent of the mission's sales, curios the remainder. Several years ago these proportions were reversed. The mission has been marketing artefacts for about fifteen years and has acquired a good reputation. Consequently, many overseas dealers leave considerable discretion to the mission in deciding what to send them.

The aim is rapid turnover, particularly with curios, and prices are usually slightly lower than those charged by traders. They are the largest dealers and do not want too much money tied up; they also want as many villagers as possible to participate in the cash economy. The priest in the field gets about 15 per cent mark-up (which is used for his pastoral activities), and the central mission puts a 15-20 per cent mark-up on curios, which goes to general funds. The mark-up on art is much higher. Usually two people are engaged in crating and packing. Because of the costs of handling, the mission dislikes shipping orders under $500 unless the items are small enough to go by parcel post. The mission does not separate its artefact marketing from its other commercial activity.

The interest of a particular missionary at Marienberg in business and artefacts has led to that mission marketing direct instead of through Wewak. Some items are bought when this priest visits villages; the rest are brought by the people to Marienberg by canoe. Some are bought for cash, much of which goes directly into the mission trade store; others exchanged for trade goods or gasoline. Thus less working capital is needed to finance buying. The value of artefacts in stock is about $10,000\(^1\) of eighteen months' trading. About half is art and half curios. The mission exports about $7,000 worth a year, about 25 per cent art and the rest curios.

\(^1\) Estimate of Father Lehner which seems very conservative.
The mission's present aim in pricing curios is to pay $1 for a day's work and the price paid has doubled in the last few years.¹ The volume marketed has also increased rapidly in the last three years and is attributed to the introduction of local government councils.²

None of the pieces in storage have prices marked on them; if they had, carvers would expect the same prices for similar items.³ No written records are kept of the prices paid for items, but the missionary remembers what he paid for each and what he wants. No separate artefacts account is kept. The missionary left Marienberg in July 1967 for at least eight months and it is uncertain whether he will return. This could result in a collapse of marketing.

(b) Local government councils. Two councils deal in artefacts, the Biwat Council at Angoram which conducts a large amount of business, and the Maprik Council whose trade is small. Staff changes at Maprik were partly responsible for the slow buying there in 1966, but it picked up in 1967. At Maprik curios are bought by the council clerk at any time during office hours, but at Angoram it is restricted to Saturday morning, and purchasing is done by the council adviser. He makes an offer for about a third of the items on hand, and rejects the rest usually on the grounds of uneven, poor-quality carving. T.B. patients at Angoram offer about half the quantity bought, and the rest comes from villages within about twenty miles. Supply exceeds purchases at Angoram, and at Maprik it required only a small increase in price in 1966 to double the stocks.

Table 1 is a comparative statement of the councils' accounts.

As can be seen from Table 1 Maprik Council appears to make a loss if half-time work on artefacts is credited to the artefacts account. The wages of the council clerks are in fact entered against general council revenues and consequently their records show a profit. The artefacts account is kept on the same principle as other L.G.C. accounts, i.e. progressive cash balances. Although this form is suited to most L.G.C. activities where the item of major concern is how much money is left to be spent in the year, for

¹ Father Lehner's estimate. Not all dealers reported a cost price increase and this increase in part reflects the mission's change in pricing policy.
² Father Lehner's suggestion. The Lower Sepik L.G.C. was established in 1966.
³ Explanation by Father Lehner. Nevertheless, other dealers (e.g. the local government councils) do affix price tags to their items for sale.
Table 1

Local Government Councils' artefacts accounts

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<th>Maprik</th>
<th>Biwat</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expenditure</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchases</td>
<td>1,123.36</td>
<td>5,538.91</td>
</tr>
<tr>
<td>Wages of painters retouching</td>
<td>137.00</td>
<td>-</td>
</tr>
<tr>
<td>Materials for retouching</td>
<td>22.40</td>
<td>-</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>22.88</td>
<td>330.01</td>
</tr>
<tr>
<td>Wages of council clerk (half-time)</td>
<td>390.00</td>
<td>326.20</td>
</tr>
<tr>
<td><strong>Total expenditure</strong></td>
<td>1,695.64</td>
<td>6,195.12</td>
</tr>
<tr>
<td><strong>Receipts: sales of artefacts</strong></td>
<td>1,150.50</td>
<td>7,260.61</td>
</tr>
<tr>
<td><strong>Profit or loss - receipts minus expenditure</strong></td>
<td>-545.14</td>
<td>1,065.49</td>
</tr>
<tr>
<td><strong>Stock</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial stock</td>
<td>(1.7.66) 505.00*</td>
<td>(1.1.67) 976.00**</td>
</tr>
<tr>
<td>Final stock</td>
<td>1.039.00 (10.6.67)</td>
<td>3,466.60</td>
</tr>
<tr>
<td>Change in stock</td>
<td>+534.00</td>
<td>+2,490.60</td>
</tr>
<tr>
<td><strong>Cash - change in cash on hand</strong></td>
<td>-</td>
<td>93.02</td>
</tr>
<tr>
<td><strong>Net profit or loss</strong></td>
<td>-11.14</td>
<td>3,649.11</td>
</tr>
</tbody>
</table>

* Value at purchase price. ** Sales price.

artefacts an account designed to show profit and loss would be more satisfactory. Biwat Council valued stocks at sales price which overstates profit. When account is taken of this a healthy profit of about $2,000 a year is being made. The accounts were taken over eighteen months as there was no stock-taking after only twelve months.

The two councils have different sales policies. Maprik sells to overseas dealers on order, but Biwat insists on payment in advance which inhibits overseas trade as many dealers are unwilling to do this. Biwat thus carries on almost all its business within the country, about half the sales being to visitors and the rest mainly to dealers elsewhere in New Guinea. About 70 per cent of these consignments are shipped by sea and the rest mainly by air freight, at buyers' expense.

Though Maprik Council does business with overseas dealers it advises the purchaser to make transport arrangements through a Wewak firm, a cumbersome arrangement for the purchaser. At present its techniques of description to would-be purchasers overseas are crude, but it is hoped to spend $300-$400 on a coloured pamphlet shortly, and to build a store in Maprik for local sales.
The bulk of the work at Angoram is being done by the council adviser and a clerk who works full-time on artefacts. He is an ex-school teacher with a standard 6 education, and it is hoped that eventually he will be able to take over marketing from the council adviser. At both Angoram and Maprik, the councillors do not appear to take much interest in artefact marketing.

Wewak L.G.C. had been engaged in marketing in 1965-66 but stopped because it was losing money. Its mistake seems to have been the low mark-up of only 10 per cent, which was not enough to cover transport costs from the other councils, who supplied some of their items. Also some artefacts were stolen because there was no proper store.

(c) **Local traders.** Traders in Wewak, Maprik, Ambunti and Angoram deal in artefacts as a part of their business. In no case is it their sole source of income now, but is combined with a store or hotel, or with crocodile shooting. On the Sepik River, some items are bought in the villages by traders and crocodile shooters. Particularly when buying art, it is an advantage to be able to barter as the immediate satisfaction of a desire for an outboard motor may compensate for the loss of tribal property.

A few years ago, when more art was available, it was profitable to travel the Sepik and its tributaries just buying artefacts, but this is now unprofitable as villagers do not always have carvings for sale and transport is expensive. If, however, one is carrying trade goods up-river and back-loading with crocodile skins and artefacts, the cost of transport is spread.

Several traders have employed full-time carvers but this was unsuccessful as wages were sometimes higher than the returns. In addition, if the trader was out of town, the carvers would sell their artefacts to other people while being paid by him.

The traders probably handle about $28,000 of artefacts annually. Several traders have accumulated a stock of art, equivalent to several years of trading, the result, they say, of insufficient outlets. In addition, they probably want a higher price than buyers are at present prepared to pay.

(d) **Overseas traders and collectors.** Several overseas traders and collectors (either collecting for themselves or for museums) visit the Sepik each year. They come to make a better selection of artefacts and to reduce middlemen's profits. Whereas a few years ago

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1 The figure is little more than a guess, particularly with regard to Angoram, and is probably conservative. Some traders declined to give figures.
many organised their own collecting trips for art, they now often buy from other dealers. Now they probably spend about $2,000 to $3,000 in buying artefacts directly from villagers and about the same in buying artefacts from dealers in the Sepik. Their time is generally more valuable than that of the local dealers and they pay villagers higher prices to get supplies quickly. This leads to resentment by dealers who claim they disrupt the market for six months.

(e) **Trade between villagers and visitors.** Carvers prefer to sell their artefacts to tourists as they pay the highest prices. Resident Europeans provide another outlet but Wewak, with a European population of about 2,000, is the only place where their activity is of much importance - perhaps worth around $5,000 a year. Some items are sold in the market, some are hawked to various houses. In addition, patients in the leprosarium at Aitape sell about $250 worth of artefacts a year to visitors. The pots made at Tumleo Island are taken by canoe to Wewak where they are sold to other natives. About $400 worth of pots is traded annually. Artefacts sales in the Sepik in 1966-67 are estimated as:

<table>
<thead>
<tr>
<th></th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roman Catholic Mission - Wewak</td>
<td>37,000</td>
</tr>
<tr>
<td>Roman Catholic Mission - Marienberg</td>
<td>7,000</td>
</tr>
<tr>
<td>Maprik Local Government Council</td>
<td>1,000</td>
</tr>
<tr>
<td>Angoram Local Government Council</td>
<td>5,000</td>
</tr>
<tr>
<td>Traders - Wewak</td>
<td>2,000</td>
</tr>
<tr>
<td>Maprik</td>
<td>1,000</td>
</tr>
<tr>
<td>Ambunti</td>
<td>10,000</td>
</tr>
<tr>
<td>Angoram</td>
<td>15,000</td>
</tr>
<tr>
<td>Overseas traders</td>
<td>2,000</td>
</tr>
<tr>
<td>Carvers to visitors</td>
<td>5,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>85,000</strong></td>
</tr>
</tbody>
</table>

Villagers probably received about half of this, i.e. $43,000. Official statistics for 30 June 1965-30 June 1966 give the export value of native artefacts through Wewak as $46,965 and through Madang as $28,331. Assuming that two-thirds of the artefacts going through Madang were from the Sepik, the value of Sepik material for 1965-66 may have been $76,000. Possibly the export

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1 A journalistic account of one such trip by Dr Buhler of the Basle Museum is contained in Gardi 1960.

2 Territory of Papua and New Guinea Overseas Trade Bulletin, No.11, 1965-66, p.34.
of curios has risen by $9,000 in the past year. The 1965-66 figures show an increase of $16,000 over the 1964-65 ones.\footnote{Territory of Papua and New Guinea \textit{Overseas Trade Bulletin}, No.10, 1964-65. Previous bulletins did not include the category of curios.}

\textbf{The Trobriand Islands}

\textbf{The productive process}

In the Trobriands the traditional life pattern centred on yam cultivation (see Malinowski 1922, 1935 and Ubo roi 1962). A land shortage on Kiriwina Island, the largest of the Trobriand group, limits cash crops to a few coconuts. Consequently, producing curios in time surplus to subsistence needs is the major source of cash income for the 12,000 Kiriwinians. About 10 per cent of the men (300-400) on Kiriwina carve.\footnote{There are 12,000 people on 21 sq miles, which leaves relatively little land for cash crops.} The estimated value of Trobriand curio production in 1966 was $27,000,\footnote{A.D.C. Losuia and hotelier.} giving an average return of about $70 per carver.

Carvers do not specialise in the production of only one type of article though certain villages produce a large proportion of certain articles (e.g. Boitalu - small solid tables and Okaikoda - bowls with carved handles). The return for eight hours of carving is estimated to be slightly more than $1.

Traditionally, Trobriand districts were economically integrated with exchanges of yams, fish and lime pots, and various villages specialising in the production of particular items. Boitalu traditionally was the centre of carving activity and Malinowski says:

\ldots in wood carving, and especially in the working out of the wonderful, round dishes, in the manufacture of plaited fibre work, and in the production of combs, they [Boitalu villagers] are far more skilful than anyone else, and acknowledged to be such; they are the wholesale manufacturers of these objects for export, and they can produce work not to be rivalled by any other village. (1922:67.)

This traditional monopoly has now been broken as carving has come to be looked on primarily as a way of making money. Further, the Boitalu villagers have a low social position (Malinowski 1922:67) and their monopoly applied to only a limited range of items. Most of the curios are new designs.

\footnote{See p. 68.}
Most of the carving is done in meku wood, a brown hardwood of which the supply, according to the villagers, is sufficient for all their needs. A few articles are carved from gai, a black hardwood of the ebony family, but this is in short supply on Kirivina and is found in the south of the island. The largest gai trees left have about a five-inch radios and consequently no more black tables of three-feet diameter are produced. On the outlying islands of the Trobriand group, however, and in the Marshall Bennett and Woodlark Islands, gai is more plentiful. As articles carved from gai fetch higher prices, black shoe-polish is sometimes used on other woods to create the same effect.

Trees are felled, then the rough shape hewn with an adze. The more detailed carving is done with a pocket knife. Rough sanding is done with a clam shell and finer sanding with a stingray skin. Finally, the article is polished with a pig's tusk.1

Most carvings are now of poor quality,2 with a lack of attention to detail and poor polishing. This decline in quality has been explained as due to carving being traditionally done for trade and utility. It was not anchored in religion and consequently was open to outside influence. Nowadays the greatest financial return is to quantity not quality.3

In addition to carvings, as the major item of the curio trade tourists are offered colourful grass skirts (coloured with imported dyes) and pearls. In Malinowski's time there were pearlers on the island (1935:20) but there have been none since the beginning of the war. They taught the Trobrianders the value of pearls and generally only mis-shapen or poorly coloured ones are offered to visitors.

Marketing

Artefacts are sold by the Trobrianders to tourists, traders, missions and the Kuboma Progress Society. The price list4 is based of prices paid by tourists from Port Moresby. The traders and missions pay slightly less than the tourists.

(a) Tourists. Regular week-end charter flights carrying thirty-two passengers started at the beginning of 1966. Recently some

1 Information based on an interview with five carvers in Boitalu village.
2 Judgment of the writer and of every trader and official interviewed.
4 See Appendix C.
Plate 4. Carving at the Wewak hospital.

Plate 5. Making dishes in the Trobriand Islands.
flights have been coming from Lae and Rabaul as well. The local hotelier expects charters of overseas visitors to start coming regularly during the week from July 1967.

The tourists are constantly surrounded by people wanting to sell artefacts. There are usually 100-150 people at the airport, about 200 around the hotel and about 50-80 at each of the villages at which the tourists stop when taken on a truck tour of the island. Though the carving is done by men, they and their kin all participate in the selling. Bargaining is possible and the original price may be reduced 50 per cent. Items costing less than 50c can be obtained for about half the cash price if the payment is in tobacco or chewing gum, as the seller is saved a walk of several miles to the store.

Tourists are the main buyers at present. The A.D.C. estimates that now tourists spend $25,000 a year on carvings. The hotelier's estimate is $30,000 a year based on questioning a wide range of passengers. The people on the charter on which the writer travelled spent about $300. Allowing for a few big buyers and for Lae and Rabaul tourists paying more, we may estimate the tourist-buying at $25,000 annually. When tourists come during the week, this figure can be expected to rise. Since the tourists started to arrive regularly (i.e. the last eighteen months) despite increased production and poorer quality, the hotelier states that prices have risen by 100 per cent.

(b) Traders. Three traders on Kiriwina (the main one being the hotelier) market curios as a small part of their activities. The people bring their curios to the trader and suggest a price which he either accepts or rejects. If rejected, the seller may come back later and ask for a lower price. Traders select what they want from the artefacts offered, as people will not carve to order. It is estimated that traders paid about $4,500 to the people for artefacts in 1966. Better-quality items generally are purchased as this fits the demand in Australia and as expensive freight charges must be paid (about 20 per cent on average of the cost). It costs $24 to ship one ton (40 cu ft) from Losuia to Port Moresby and a further $25 from Port Moresby to Brisbane.

The hotelier is connected with a store selling Trobriand artefacts in Surfers' Paradise, Queensland, and ships about 150 pieces a month. He despatches the curios in newspapers and sawdust inside crates by sea via Samarai and Port Moresby to Brisbane. Articles are inspected at Losuia and Brisbane which leads, the hotelier suggests, to much damage. Some items which he shipped in November 1966 had not cleared Customs in Australia by June 1967.

There is a 27 per cent Australian customs duty which traders still have to pay despite the fact that in 1966 Australia ostensibly removed duties on products of cottage industries in under-developed
countries. The relevant forms had yet to be made available, and their absence had inhibited exports to Australia.  

(c) Missions. The two missions in Kiriwina, Catholic and Methodist, both engage in a small way in exporting artefacts. The Scout shop in Port Moresby sends one of the Catholic nuns $100 whenever it wants Trobriand artefacts. She spends $90 buying artefacts from the people and keeps $10 as the mission's commission. The Scout shop regulates the flow of carvings by the frequency with which it sends cheques. Usually a shipment is sent every two weeks by collect air freight from Losuia to Port Moresby. Anything fragile is wrapped in newspaper and all items are packed in cardboard cartons.

The motive of the mission is to help both the Trobrianders and the Scouts. About $2,000 is paid to Trobrianders and the mission makes a gross profit of $200 a year. The nun says she is offered more than she can buy.

One of the Methodist missionaries is an amateur anthropologist who sends some articles to a museum in South Australia. Sometimes he sends articles free, but when the museum asks for specific items, he is paid the price which he paid to the people. In some outlying islands of the Massim district, people have little cash and he accepts carvings in exchange for bibles and hymn books. The primary concern here is with getting people to value the bible and to ensure its distribution. He seldom buys artefacts for cash as he does not wish to be known as a trader. If he paid cash he could buy much more. A couple of times in the past he has sent shipments to dealers.

(d) Kuboma Progress Society. Since about 1950, villages in the Kuboma district of Kiriwina have been saving money in a semi-organised fashion. In 1964 a progress society was formed to organise saving on a better basis and act as an unregistered co-operative selling artefacts and copra. By June 1967, the society had 303 members who had each bought a share of $10. It had accumulated $3,098.56. Since 7 April 1965 the society has been supplying the Girl Guides' shop in Port Moresby with curios. Each piece is labelled with the carver's name, a number, and the price the carver wants. The Guide shop, however, need not accept the carver's valuation but decides what it can sell an article for and pays half of this. Prices paid were generally about a half to two-thirds of what the carver wanted. For instance, the first consignment was valued by carvers at $262 while the Guide shop

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1 They are now (late 1967) available.
2 Payment is made by sending a cheque to the A.D.C. Losuia, or sending cash via some trusted person, e.g. Mr Lepani Watson, M.H.A.
paid only $143.90. Valuation by the carvers in subsequent shipments usually differs from selling price by about the same proportion. This arrangement involves trust on both sides. The society must send shipments in expectation of getting a fair price while the Girl Guide shop must accept shipments in expectation of finding most items of high quality and undamaged (if they are damaged it loses money because of the cost of the collect air freight). Some carvings were sent packed in copra bags and cardboard boxes without any packing material and some damage resulted. However, payment was made for damaged items. The Guide shop also made several complaints about quality.¹ Sometimes the Guide shop asked for specific types of articles and the president would ask carvers for these types. However, he would continue to accept all items offered to him. Consequently, the shipments are only partially responsive to demand.

While the bulk of its carvings has been sent to the Girl Guide shop, two lots were sent to other people in Port Moresby.² A few small consignments of carvings were sent to the Girl Guides in Samarai, and Burns Philip, Samarai. Table 2 summarises the society's marketing.

Table 2

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount received ($)</th>
<th>Sent to</th>
</tr>
</thead>
<tbody>
<tr>
<td>1965</td>
<td>22.70</td>
<td>Girl Guides, Samarai</td>
</tr>
<tr>
<td>1965</td>
<td>677.00</td>
<td>Girl Guides, Port Moresby</td>
</tr>
<tr>
<td>1965</td>
<td>-</td>
<td>2 lots to Port Moresby</td>
</tr>
<tr>
<td>1966</td>
<td>687.40</td>
<td>Girl Guides, Port Moresby</td>
</tr>
<tr>
<td>to June</td>
<td>40.10</td>
<td>Burns Philip, Samarai</td>
</tr>
<tr>
<td>Total</td>
<td>1,494.30</td>
<td></td>
</tr>
</tbody>
</table>

* Based on receipts for the goods sent.

The society's members do not intend to market any more carvings because one to three months elapsed between shipment and payment,

¹ e.g. Letters from manageress of the Girl Guide shop to president of the Kuboma Progress Society of 22 September 1965, 12 January 1966, 20 June 1966.
² This was in contravention of the agreement with the Guide shop which complained and no subsequent shipments were made.
whereas the new tourist trade pays more and in cash. Moreover, most of the money from the sale of carvings through the society was used to buy society shares. Now that the carvers have bought shares, they are less interested in selling their carvings through the society. Its involvement in marketing artefacts resulted from the initiative of its president and his ability to keep records. Unfortunately he is not able to keep accounts to show whether a profit or a loss has occurred.

The value of artefact trade to the Trobrianders in 1966 was estimated to be:

<table>
<thead>
<tr>
<th></th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourists</td>
<td>20,000</td>
</tr>
<tr>
<td>Traders</td>
<td>4,500</td>
</tr>
<tr>
<td>Mission</td>
<td>2,000</td>
</tr>
<tr>
<td>Kuboma Progress Society</td>
<td>700</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>27,200</strong></td>
</tr>
</tbody>
</table>

(e) Role of other groups. The local government council wants to improve the marketing of artefacts but so far has not implemented any of its ideas. At its seventh meeting, a motion that 'every progress society must have a carving committee' was moved by Councillor Kalubai and passed. The councillors were to report to the A.D.C. the names of the people appointed, but no names have yet been reported. At its eighth meeting, the council recommended that a carving store be built beside the air strip to protect people from the rain, to have people ready to sell carvings, to ease cargo handling and to stop people stealing from the tourist truck.

During the council sessions, the A.D.C. mentioned the possibility of having a special mark to designate Trobriand art, and also suggested that the council build a traditional food house (bwaima) at the council centre as a carving house so that tourists would come to look at the building and buy carvings.

1 L.G.C. meeting No.7, 27 October 1966, Agenda Item No.3. Each of the three regions of Kiriwina has a progress society but only the Kuboma one has ever marketed carvings. The exact nature of a carving committee is not clear from the L.G.C. minutes but it seems to consist of one man inspecting the carvings to see they are of good quality.
2 A.D.C. Losuia.
3 L.G.C. meeting No.8, 16 December 1966, File 1-3-2.
4 L.G.C. meeting No.7, 27 October 1966, File 1-3-2.
5 L.G.C. meeting No.9, 16 December 1966, File 1-3-2.
The Administration is involved in the artefact industry in three ways: it inspects carvings to enforce the Cultural Ordinance, it gives advice to the L.G.C. and the Kuboma Progress Society, and it is engaged in a tree-replanting programme. Four thousand seedlings have been distributed in the last fifteen months and half of them were of a type suitable for carving.¹ Carvers in Boitalu village said that everyone in their village had been given one tree to plant in April 1966, but they attached no particular importance to this as they felt that there were sufficient meku trees for their needs.

The first co-operatives officer was appointed to the Trobriands in March 1967. He plans to reorganise existing rural progress societies as co-operatives.

**Artefact marketing in Papua-New Guinea**

The conclusion of this report must be tentative as only two areas were visited and marketing was approached only from the supply side. The contrasts between the situations in the Trobriands and the Sepik are marked. While both are areas with few alternative commercial activities, and carving has flourished in both places partly for this reason, nevertheless the markets they serve and the impact on quality and volume of carvings made differ strongly.

In both the Sepik and the Trobriands, commercialisation of art has led to more people taking up carving. But it is unlikely that it will become a full-time occupation in either place because of the demands on people's time made by customary activities and village subsistence. In the Sepik there has been a mixing of styles due to contact with carvers from other tribes, while in the Trobriands the one-time specialities of one area are now made in a number of places.

The rapid growth of trade in artefacts is a common feature, but the impact on the Trobriand economy is much greater than in the Sepik. The Trobrianders are estimated to receive $25,000 per annum at present or $2 per head of population, while the $45,000 earned throughout the Sepik is much less relative to the large population.

The markets are also different. The Trobriand artefacts are almost all sold within New Guinea, mainly to local tourists, with only a small amount being disposed of in Queensland, while the bulk of Sepik trade is with overseas dealers. Sepik art has a world-wide reputation which it has maintained possibly because the impact of

commercialisation has not lowered quality to a great extent. The Trobriands retain an aura of the South Seas lingering from Malinowski's writings, but what little reputation they may have had for art would have been destroyed by the drastic lowering of quality over the last few years of commercialisation. While it is not certain that this factor would exclude Trobriand artefacts from world markets, it does make the prospective opening of such markets to them more problematical. Nevertheless the question is worth exploring.

Tourism has been the key to the Trobriand market. It grew following the building of the hotel which is now a centrepiece of the island's cash economy. So far, the tourists have been local, coming from within Papua-New Guinea for weekends, but the advent of overseas tourists will further enlarge the artefact market within the islands. Increased demand from now on will probably lead to an increase in quantity without much further increase in price. As tourists are not discriminating buyers and the present return is to quantity not quality, the decline in quality may be expected to continue.

In the Sepik, a decline in quality due to influx of tourists may be less likely. Although overseas tourists may be expected to come in some numbers within a few years, the population of the Sepik is so large that their impact will be limited. In any case the first response will probably be an increase in price as well as some increase in quantity and this may slow the expansion of the overseas trade, as dealers will have to match the new price level.

A system for maintaining quality would be useful for both areas. One possible way would be the introduction of a trade mark, 'Made in the Sepik' or 'Made in the Trobriands' with the right to affix the mark held by the local government council which would charge a small fee. This might be the most useful role the council could play in the Trobriands, where so far they have merely talked in general terms about council involvement in marketing. Without the intervention of councils or some similar public authority, trade marks will prove impracticable, as their use by traders or missions is unlikely, and would not create confidence in the system.

All the Trobriand marketing agencies except individual villagers have a subsidiary role because tourists are the main market and the villagers can meet them face-to-face. The missions on the Trobriands might find it difficult to adopt the aggressive marketing role of the missions in the Sepik, but in any case their actions to date suggest they are not inclined to. The traders on the Trobriands are also less adventurous than their Sepik counterparts, and it is largely because they have failed to make world-wide contacts that there is no foreign market for Trobriand carvings.
In the short run the market outside the Trobriands could be developed and transport costs reduced if large quantities were sent by sea instead of small amounts by air. Trade would become more profitable if the Customs Department could make available the form required to gain exemption from the 27 per cent Australian customs duty.

The long-run interests of the Trobrianders may come to parallel the contemporary concern of the Sepik trade - the prestige market abroad. But whether this will develop and whether it is worth developing seems to depend on the degree of expansion of the tourist trade. If local people desire to participate in selling artefacts outside the Trobriands the council might enter the field. Alternatively a co-operative based on the Kuboma Progress Society, with its initial capital of $3,000, might be successful, if it could learn from earlier mistakes and if packing and book-keeping methods were improved. But this would be a new field for co-operatives. While they aim at maximum participation of indigenous people in economic activities, maximising returns is often a secondary objective. A co-operative or the council might prove able to tap the overseas market which the traders have neglected.

In the Sepik quite large profits are being made by dealers in art (as distinct from curios), a profit that arises basically from the people's ignorance. But it is difficult to devise a scheme which would confer these profits on the carvers. The missions in the Sepik do not mind being seen as traders and they effect economies in their overall transport operations by buying artefacts. Their aggressive penetration of foreign markets is similar to that of the traders and between them they have been largely responsible for the emergence of this new source of income for the region. The councils have imitated their methods, not always successfully, for much seems to depend on the interests and aptitudes of the council advisers.

There is probably still a considerable potential demand for artefacts which well-organised suppliers could satisfy, but some dealers have not established satisfactory enough connections to maintain and enlarge their export business. Group organisations may not fare well in this field because the successful marketing of artefacts seems to depend a good deal on the interests and abilities of individual carvers and dealers, and the idiosyncracies of individual purchasers. While we may deplore the decline in quality which has been entailed, the ancient art was doomed to extinction anyway, and the new trade has brought unlooked-for income to economically backward regions, their villagers, missionaries and traders.
Bibliography


*South Pacific Post*, 4 August 1967. 'A Pottery Industry for Papua New Guinea?'.

Trade and Industry, Department of, 1961-67. Files relating to production and marketing of artefacts.


### Appendix A

**Prices of materials for decoration in the Sepik districts**

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>String of dog's teeth</td>
<td>0.10</td>
</tr>
<tr>
<td>Cassowary feather</td>
<td>0.01</td>
</tr>
<tr>
<td>20 half-in long shells</td>
<td>0.10</td>
</tr>
<tr>
<td>Bag of half-in long shells</td>
<td>10.00</td>
</tr>
<tr>
<td>4 round shells three-quarters-in diameter</td>
<td>0.10</td>
</tr>
<tr>
<td>3 round shells half-in diameter</td>
<td>0.10</td>
</tr>
<tr>
<td>Cream jar of white clay</td>
<td>0.10</td>
</tr>
</tbody>
</table>

### Appendix B

**Price list: Biwat and Greater Maprik L.G.C.'s**

<table>
<thead>
<tr>
<th>Item</th>
<th>Selling price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black mask, eyes and mouth cut out, features</td>
<td></td>
</tr>
<tr>
<td>highlighted with brown clay with shells,</td>
<td></td>
</tr>
<tr>
<td>pig's tusk in nose, 3 ft long</td>
<td>10.00</td>
</tr>
<tr>
<td>Black mask, single lines, 2 ft long</td>
<td>2.00-4.00</td>
</tr>
<tr>
<td>Mask of red clay</td>
<td>8.00-15.00</td>
</tr>
<tr>
<td>Mask, clay on cassowary dagger, pig's tusks</td>
<td></td>
</tr>
<tr>
<td>in head, dagger 12 in, 4 in high head</td>
<td>8.00</td>
</tr>
<tr>
<td>Murik figurine, 8 in - 2 ft</td>
<td>0.50-2.00</td>
</tr>
<tr>
<td>Chambri vase with 2 heads on, 3 ft</td>
<td>5.00</td>
</tr>
<tr>
<td>Chambri pencil holder, 2 faces</td>
<td>0.50-1.00</td>
</tr>
<tr>
<td>Wicker painted mask, 2 ft</td>
<td>3.00-5.00</td>
</tr>
<tr>
<td>Painted fish hook</td>
<td>1.00-2.00</td>
</tr>
<tr>
<td>Shield, painted pattern cut, 6 ft</td>
<td>6.00-8.00</td>
</tr>
<tr>
<td>Crocodile, 12-18 in</td>
<td>1.00-2.00</td>
</tr>
<tr>
<td>Carved galip nut</td>
<td>0.15</td>
</tr>
<tr>
<td>Crocodile table</td>
<td>30.00</td>
</tr>
<tr>
<td>Stuffed crocodile</td>
<td>5.00-8.00</td>
</tr>
<tr>
<td>Product Description</td>
<td>Buying Price</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Yam mask, 12 in</td>
<td>1.50</td>
</tr>
<tr>
<td>Yam mask, 6 in</td>
<td>0.50</td>
</tr>
<tr>
<td>Maprik face (wood) 8 in</td>
<td>0.50</td>
</tr>
<tr>
<td>Statuette, 15 in</td>
<td>4.00</td>
</tr>
<tr>
<td>Statuette, 12 in</td>
<td>1.50</td>
</tr>
<tr>
<td>Wosera Tubuan 3 ft (a wicker head which rests on the neck)</td>
<td>3.00</td>
</tr>
<tr>
<td>Wood head, 3 ft</td>
<td>6.00</td>
</tr>
<tr>
<td>Statuette, 2 ft</td>
<td>0.60</td>
</tr>
<tr>
<td>Statuette, 4-5 ft</td>
<td>2.00-4.00</td>
</tr>
<tr>
<td>Wall section from house</td>
<td></td>
</tr>
<tr>
<td>tambaran, 2 ft x 4 ft</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Appendix C

**Trobriands price list**

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Selling Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small carved pig, 4 in long</td>
<td>0.20</td>
</tr>
<tr>
<td>Larger carved pig, 7 in long</td>
<td>0.40</td>
</tr>
<tr>
<td>Lime gourd, brown lines painted on 1 in radius</td>
<td>0.20</td>
</tr>
<tr>
<td>Lime gourd, brown lines painted on 2 in radius</td>
<td>0.40</td>
</tr>
<tr>
<td>Comb</td>
<td>0.30</td>
</tr>
<tr>
<td>Crocodile, 10 in</td>
<td>0.80-1.00</td>
</tr>
<tr>
<td>Bowl, carved handle, 1 ft - 2 ft</td>
<td>1.50-3.00</td>
</tr>
<tr>
<td>Drum, carved sides, snake skin top,</td>
<td></td>
</tr>
<tr>
<td>12 in - 18 in high, 2 - 3 in diameter</td>
<td>2.00-3.00</td>
</tr>
<tr>
<td>Walking stick - meku</td>
<td>2.00-4.00</td>
</tr>
<tr>
<td>Walking stick - gai</td>
<td>6.00-10.00</td>
</tr>
<tr>
<td>Table with 3 interlocked legs, 18 in diameter,</td>
<td>3.00-5.00</td>
</tr>
<tr>
<td>carved top</td>
<td></td>
</tr>
<tr>
<td>Table - one piece, base of two figures</td>
<td>6.00-8.00</td>
</tr>
<tr>
<td>supporting a 12 in diameter top</td>
<td>0.50-1.00</td>
</tr>
<tr>
<td>Madonna</td>
<td>0,10 upwards</td>
</tr>
<tr>
<td>Pearl</td>
<td>1.00-2.00</td>
</tr>
<tr>
<td>Grass skirt</td>
<td>0.10-0.20</td>
</tr>
</tbody>
</table>

* Prices are approximate only. They seem to be a function of both size and quality, with size having an unwarranted influence. Prices from one village to the next showed little variation.
Chapter 6

Nama Su: an innovation in economic organisation

I.J. Fairbairn

Nama Su Limited is by far the largest commercial company in New Guinea which is owned predominantly by New Guinean shareholders, and there is much in the Nama Su experiment of interest to those concerned with economic development in Papua-New Guinea and other developing nations. There are features of the company's structure, techniques and objectives which distinguish it sharply from other business organisations in the country. Before discussing these features, some indication is given of Nama Su's trading activities for the seven years to 1966.

Scale of operations

Nama Su's gross sales bear out the remarkable growth of the company. As shown in Table 1, sales reached $1,700,000 by 1966 and will probably exceed $2,000,000 in 1967 - a level which is achieved by few trading organisations in New Guinea.¹

Nama Su's net profits and dividend payments have grown in step with sales: 1960, $9,338 (6 per cent); 1961, $962 loss (6 per cent); 1962, $14,938 (7½ per cent); 1963, $24,474 (7½ per cent); and 1964, $30,480 (7½ per cent). Profits rose considerably in 1965 but fell slightly in 1966. The dividend rate has risen in response to the upward trend in sales and profits: a rate of 10 per cent was declared in 1965 and 1966.

A major factor underlying the impressive sales record has been the geographic spread of the company. At first, apart from a small volume of trade carried by ship along the southern part of the

¹ To give some idea of comparative size, these sales figures can be compared with the total turnover of $2,146,000 recorded for 1966 by the 162 registered co-operative societies in New Guinea. Had Nama Su not encountered problems arising from limitation of staff and storage facilities, especially in the years 1960-64, its sales would have been considerably higher.
Outstations  Produce  Shipping and wharf  Other*  Total

1960  30,152  57,360  50,500  1,768  139,780
1962  84,798  137,862  50,788  127,548  400,996
1964  209,608  292,356  53,550  184,496  740,010
1966  804,098  386,580  65,998  443,622  1,700,298

* This comprises gross earnings from merchandise trading in Lae, the book and curio shop, a coffee and coconut plantation and a soft-drink plant.

Madang coast, Namusu's trading activities were confined to points within the Morobe district. From these points Namusu traded directly, both on a retail and wholesale basis, with New Guinean planters, storekeepers and consumers, as well as with many mission and congregational stores. The move to the highlands in 1963 marked a major development, with large bulk stores (with retail sections) being set up in major centres along the highland road. At present, Namusu has eighteen branches and sub-branches in operation, and it contemplates setting up at least six more stores, thus giving the company a trade store in every major centre in the Eastern and Western Highlands, Madang and Morobe.

Other lines of activity have also contributed to the rise in earnings. One of Namusu's ships has, for some years, been engaged in carrying bulk cargo for other commercial organisations, and this has proved a particularly remunerative arrangement. The company holds a long-term lease on a 1,200 acre plantation containing several hundred acres of coffee and coconuts, and operates a soft-drink plant (acquired in 1966), a small dressmaking outfit, and assists in the management of a book and curio shop. A sharp increase in sales is expected from the plantation because the considerable plantings made in the past few years are only now coming into full bearing.

Ownership

Namusu is the first company in the country to operate on the basis of joint ownership between Europeans and New Guineans. Its basic objective has been to involve the indigenous people as active partners in a modern commercial organisation, and to provide them with an opportunity to invest their funds. There are at present about 5,300 New Guinean shareholders, and they account for slightly over half the total issued capital of the company. Namusu wants to
see the New Guinean share rise and it consistently emphasises the future possibility of complete ownership by New Guineans to European and New Guinean shareholders alike.

A number of considerations ruled out an earlier proposal that only New Guineans be allowed to hold shares. Section 5 of the New Guinea Ordinance (1933-1938), repealed in 1960 as a result of pressure from Namusu, stipulated that two-thirds of the issued shares of a company registered in New Guinea had to be held by, or on behalf of, British subjects, and New Guineans were not British. It was also believed that the amount of capital which could be collected from New Guineans would be inadequate (although in fact, their one-third share was fully subscribed in 1960, and under the Ordinance, further applications had to be refused). In addition, Namusu was envisaged as a 'bridge institution' where both Europeans and New Guineans shared ownership and control. Finally, it was considered desirable for the first few years that Lutheran bodies should be in a position to exercise a controlling influence by holding a substantial share of the total capital.

Nevertheless, Namusu has gone a considerable way towards increasing the New Guinean proportion of the total shares, as can be seen from Table 2.

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shareholding</td>
</tr>
<tr>
<td>$()</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lutheran Mission of New Guinea</td>
<td>40,000</td>
<td>40,000</td>
<td>40,000</td>
<td>40,000</td>
<td>40,000</td>
<td>40,000</td>
</tr>
<tr>
<td>Europeans</td>
<td>11,934</td>
<td>16,978</td>
<td>21,554</td>
<td>23,664</td>
<td>23,870</td>
<td>24,392</td>
</tr>
<tr>
<td>New Guineans</td>
<td>30,572</td>
<td>31,728</td>
<td>46,576</td>
<td>49,950</td>
<td>63,354</td>
<td>74,316</td>
</tr>
<tr>
<td>Total</td>
<td>82,506</td>
<td>88,706</td>
<td>108,130</td>
<td>113,614</td>
<td>127,224</td>
<td>140,708</td>
</tr>
</tbody>
</table>

There are several reasons for the pattern in Table 2. On the demand side, the company's capital needs have been high, and at times considerably above the funds available from share subscriptions, profits and loans. Given the company's cautious attitude towards relying too heavily on borrowed funds, this has meant a continual state of under-capitalisation. The gap has been particularly large since 1962, when the expansion into the highlands called for large capital expenditure.

On the supply side, it was understood from the beginning that the Lutheran mission would not act as a continuing source of capital. Its initial investment of $40,000 has not changed, and there is some desire on the part of the mission to withdraw it as soon as
appropriate. The desire to raise the proportion of shares held by New Guineans has limited the number allocated to Europeans - at least since the two-thirds provision of the New Guinea Ordinance was removed. Europeans were encouraged to invest in Namasu so long as indigenous capital was flowing in at such a rate that the New Guinean proportion of ownership was rising, or at least being maintained. The heavy inflow of European funds in 1966, as will be indicated later, was an important departure from this rule.

During the last few years the inflow of New Guinean investments has been well below the rate Namasu desired. The result of share promotion work carried out in the villages has been disappointing, and suggests that a state of diminishing returns in relation to effort has been reached. The easier capital situation of the early years was due to factors which are no longer present or are less significant. One of these was the strong desire by the people in certain areas for Namasu to set up trading services in their locality, particularly in remote areas which lacked regular marketing and trading services. A common pattern was for groups of villages (assisted perhaps by the local missionary) to collect large amounts of money, which would be offered to Namasu as share money to encourage it to enter that area. However, once Namasu had established itself in the area, the people were less anxious to invest further as their initial goal had been achieved.

Another consideration was the personal influence of the manager, Mr Fugmann, who was widely known and highly regarded in the Morobe district as business manager for the Lutheran mission. Personal visits by him to hundreds of villages in the district built up trust in Namasu and assisted in mobilising share capital. But as he was comparatively unknown in the highland areas, this technique could not be applied there.

Other factors which have contributed to the poorer response to Namasu's share drives in recent years include the appearance of alternative channels for New Guineans to invest their money (in co-operatives, trade stores, plantations and capital equipment), and Namasu's failure to meet the unrealistically high expectations held by many shareholders in the matter of returns from their investment. Further, the company's method of distributing dividends, and the existence until 1966 of different dividend rates for ordinary and preference shares, tended to breed confusion and dissatisfaction. 1

1 Dividend payments are calculated for shareholders on a village basis, with the responsibility for their distribution to individuals usually entrusted to some leading personality in the village who holds shares in the company. The effectiveness of this method of distribution cannot be judged with certainty owing to the lack of
Now that investment by large groups is less common, the company must increasingly deal with individual New Guineans, or with small groups. This, coupled with the small amounts subscribed by indigenous investors, makes for certain diseconomies in the collection of share money. The most common amount invested by New Guineans was $10 (which is the minimum amount subscribable) and the overall average for New Guineans was $15.

The difficulty over the supply of New Guinean capital in the face of strong demand for additional funds underlay two major developments in 1966. First was the acceptance of a considerable amount of European capital: of the total of $79,744 share money approved in 1966, Europeans accounted for $40,240 (of which $29,704 originated in Australia). This left $39,504 from New Guineans and of this amount, $24,000 was claimed by ELCONG (Evangelical Lutheran Church of New Guinea), so that the total amount subscribed by individual New Guineans was comparatively small. Second was the resort to higher levels of loan money: Namasu successfully negotiated an appreciably higher overdraft limit at the bank.

These developments highlight the conflict between the company's long-term aims and more immediate needs for additional capital, but a similar inflow of European funds is unlikely to be repeated. The demand for capital will ease as the present expansionary phase tapers off, and Namasu's profits and reserves are expected to play an increasing role as a source of investment funds. Moreover, Namasu is presently considering new techniques for mobilising indigenous capital, including the training of local staff for full-time share promotion work in villages.

Directorship

Five of the nine members of the first board of directors of Namasu were New Guineans, while the present board comprises six New Guineans out of a total membership of twelve. There has been a tendency to choose directors with Lutheran backgrounds who have been prominent as mission workers, school teachers, traders or leaders in their own communities. The geographic groupings of the shareholders have also been taken into account in the selection.\(^1\)

(continued)

information, but in principle it leaves much to be desired as there is no way of making certain that each shareholder is actually paid his dividend. A major reason for having preference shares was to reduce the risk in New Guinean investment. They were abandoned in 1966 because holders of preference shares (and this involved most New Guineans) complained that they were getting less than holders of ordinary shares. The fact that Europeans held only ordinary shares made it necessary to eliminate this source of confusion.\(^1\)

The highlands have not yet a representative on the board, probably due to the recentness of Namasu's arrival there.
Further, it was considered desirable that the indigenous directors should be young and have a reasonable grasp of the English language.

The appointment of indigenous directors was regarded as an integral element of the firm's structure from the beginning, despite the recognition that their contribution to policy-making might be small in the early stages. Their inclusion gave them the opportunity to participate in the operation of the company and to familiarise them with the mechanics of a multi-purpose commercial organisation. From this experience it was hoped that they would be able to make a more positive contribution to an enterprise which was concerned primarily with the indigenous people.

The contribution of New Guinean directors to policy formation so far has been limited. I did not come across any major policy matter being brought before official meetings on their initiative. Their participation is largely in the form of requests for clarification and explanation of issues being discussed. The present limited level of business experience by New Guineans and the complex nature of a large trading enterprise make this situation unavoidable. Nevertheless, their influence should not be underestimated: no policy matter can be adopted without their concurrence, and at times this has not been easy to secure. For example, in 1960, considerable effort was needed on the part of the managing director to convince the New Guinean directors that widening the basis of shareholding to include those not of the Lutheran faith would not undermine the basic character and objectives of the company. Again, in 1966 they were largely responsible for the rejection of a motion proposing to embark on a share promotion drive among Lutherans in the United States.

While fuller participation by the New Guinean directors is developing, several measures could assist them in the short run. In interviews, several indigenous directors said that a serious problem they had to face was a lack of information on the activities of the company. The problem was particularly acute for those living in remote areas. The New Guineans therefore suggested that Namasu should produce a regular bulletin or circular in pidgin, informing them and shareholders of the company's development. Further, directors should be informed, in writing and in pidgin, of matters in the agenda for discussion at board and general meetings well before they are held, so that there can be enough time to carry out preliminary discussions and perhaps to seek explanations of such matters. Minutes of meetings should also be recorded in detail and copies made available to the directors for future reference. If

1 Since 1960 shareholding has been open to 'such members of the Evangelical Lutheran Church or such other persons as the Directors in their discretion may...think fit'.
such measures could be implemented, they felt that they would be better prepared for the discussion of policy matters and thus make a more positive contribution. They would also be better equipped to explain company matters to shareholders.

**Employment**

Nama's policy is to appoint New Guineans to positions of responsibility wherever possible, but there are insufficient experienced and qualified New Guineans to handle responsible positions at the top of the company structure. In mid-1967, there were approximately thirty New Guineans, compared with fourteen Europeans, occupying leading positions in the office, bulk store and branch stores - a ratio in favour of New Guineans which is probably not equalled by any other commercial organisation of comparable size in the country. The clerical staff at central office comprises two Europeans (an accountant, who is also assistant manager, and a receptionist-secretary) and approximately twelve New Guineans (Plate 6). The latter, most of whom are graduates of the Commercial School and trained by Nama, handle practically all the clerical work, including the highly complicated accounts section. In shipping there are three New Guinean captains and one European; while in trading, indigenous managers are responsible for all but six of the twenty branches and sub-branches. One notable aspect of the employment of New Guineans in these positions is their low rate of staff turnover. The company has made more effort in staff training than any other company in the country. The necessary experience, education and attitudes can only be acquired over a lengthy period of time, and to push New Guineans prematurely into top managerial positions may retard the rate of growth of the company. The indigenous directors interviewed considered that Nama will have to depend on European managers and supervisors for some time, but they also emphasised the need for the company to do more in the way of training indigenous people.

Promotion to top managerial positions will probably occur in the rural trading sector within the next few years, although for the moment it is necessary to rely on expatriate managers to handle the major trading points, not only because of the large volume of trade involved, but also because of strong European competition in these places. The New Guinean finds himself at a comparative disadvantage in such a situation.

**Assistance**

Nama's assistance to New Guineans includes those activities which are directed towards providing New Guineans with a particular service, even though it may not be warranted on strictly economic criteria. They are primarily motivated by the company's desire to help the indigenous people in their efforts to achieve social and
Plate 6. Namasu's headquarters at Lae

Plate 7. Cargo-handling at the Namasu wharf, Lae
economic development. The fact that some of the activities concerned have resulted in tangible economic benefits to the company, or have the potential for doing so, does not invalidate the basic motivation.

Namasu's shipping service may be taken as the first example of such assistance to New Guineans, despite the fact that on the whole it has been a paying proposition (Plate 7). Three of Namasu's vessels provide the only regular transport service to the approximately 300 miles of coastline from Lae to Madang, a stretch of land that is sparsely populated, economically backward, and largely neglected by other commercial bodies. Many of the villages are small and remote (especially along the north coast), and the volume of produce bought and merchandise sold is too low to justify regular calls. In such places Namasu's shipping service has enabled the people to market their cash crops at regular intervals and to purchase fresh supplies of trade goods and, most importantly, allowed them to plan their production activities to fit in with the arrival of a ship. Villagers now find it easier to travel to the larger centres for education, hospital care, business and social visiting. The general effect of services has been to stimulate economic development in the region and the large increase in Namasu's sales in the area in recent years reflects this.¹

Another example concerns the New Guinean trading store sector, where a high casualty rate is commonplace. It has been the company's policy to encourage New Guineans to handle their own retail trading and, with this aim in view, it has not only concentrated its own trading activities on wholesaling in areas where New Guinean storekeepers are providing an adequate service, but also provided practical help to New Guinean entrepreneurs.² Thus, branch managers in all stations are instructed, as a matter of policy, to familiarise themselves with the local village economy and to provide technical and managerial assistance to New Guineans whenever possible. For example, many local storekeepers need assistance with pricing merchandise (under-pricing and outright 'gifting' of trade items are common problems), designing and purchasing material for building trade stores, or purchasing trucks and other capital goods. Namasu's managers set up and provide regular supervision of a simple set of accounts for some indigenous storekeepers. The European managers of Namasu's bulk stations I interviewed appeared to be fully conscious of the importance of these aspects of their

¹ Namasu raised its total sales in the coastal area from Lae to Madang by over 60 per cent during the three years to 1965.
² Namasu prefers to establish bulk stores which supply New Guinean and mission stores, and to provide a retail service only if it is necessary.
work, and devoted a considerable amount of their working time to it. The fact that Namasu deals with over 600 New Guinean-owned stores gives some idea of the training value of this type of assistance.

The promotion of New Guinean entrepreneurship and the desire to reduce the dependence of indigenous businessmen on European and Chinese traders (both of whose propensities to exploit New Guineans are well known)\(^1\) are the basic rationale for Namasu's assistance in this area. From the viewpoint of the company's own interest, also, the policy has considerable merit. The development of its bulk trade requires a growing village retail sector, while the highly competitive situation in certain areas, such as in some of the large highland centres, demands that a trading body must offer more than the usual trading services in order to retain its competitive position.

Direct assistance to villagers has assumed other forms. Thus, the building of the Hube mountain airstrip in 1959, vital for the marketing of coffee from the area, was organised by Namasu (built by voluntary local labour, it was later taken over by the Administration). In 1962 the company appointed a 'project manager' to advise and provide practical assistance to villagers on the growing of marketable vegetables, the operation of trade stores, and the construction of copra kilns and driers.\(^2\) Namasu has also helped villagers in their road-building programmes (e.g. the current project at Waringai), and has always been ready to act as consultant on a wide range of problems (e.g. to the Boanas, during the latter part of 1966, on whether they should use their money to build a road or to buy an aeroplane).

Another type of assistance involves Namasu's training activities at the Commercial School - the only one of its kind in Papua-New Guinea. The school was founded by Namasu in 1959 to teach elementary book-keeping, commercial correspondence, arithmetic and English composition,\(^3\) but in 1965 it was taken over by the Lutheran mission. The school now enrols about forty students in Forms 2 and 3, and

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1 Many New Guinean storekeepers themselves indulge in such practices as over-pricing of merchandise and short-weighting of produce.

2 Finance for this project was obtained from an international Christian organisation (The Bread for the World Fund). Although it was short-lived, the project achieved some notable results, including the many kilns built in the Buang mountains and Malamaki, and the onion-growing experiment in Dedua.

3 Lessons were conducted by members of Namasu's staff from 6 a.m. to 7.30 a.m. during working days.
its facilities, including student living-quarters, are of a high standard. Students spend several months of the year doing practical training work at Namasu, in return for which they receive contributions towards their upkeep and a regular wage. Of the annual crop of graduates, usually only a small number are employed by Namasu although twelve found employment there in 1966; the remainder are employed by other commercial organisations and mission bodies. The benefits of such a scheme therefore extend well beyond Namasu.

Namasu's activities in connection with the book and curio shop, which was established in 1959, are another form of assistance. It has continued operating despite the fact that its contribution to total earnings of the company has always been negligible, partly because books are sold at cost. Literature of a serious nature, with emphasis on Christian works and publications in the vernacular, is sold, and until recently the shop was the only outlet in Lae for indigenous handicrafts. It was originally planned as an outlet for handicrafts produced at schools and mission bodies, but the response from them has been poor. The literature section of the shop has now been taken over by the Christian Book Centre of Madang, but Namasu remains in charge of curios and stationery.

**Namasu and the Lutheran mission**

Much misunderstanding exists about the relationship between Namasu and the Lutheran mission: a widely held view is that the company is controlled and predominantly owned by the mission, so that a considerable part of the profit accrues to this body. Namasu has gone to considerable trouble to emphasise that it is a trading company which functions quite independently of the mission, and that any dealings between them are conducted purely on a commercial basis. Nevertheless, the relationship is a complicated one, and there is little doubt that Namasu has benefited in a number of ways from the mission, just as the converse, though to a much less extent, has been true.

The existing arrangement about the manager of Namasu represents one obvious link between Namasu and the mission which has been vital to the development of the company. The present manager is a lay missionary on the Lutheran mission staff, formally on loan to Namasu. For this service Namasu pays an annual fee to the mission. This arrangement arose from the circumstances of the company's beginning, but was not intended to be a continuing feature, and will probably be broken when the present manager retires, and the position becomes open to anyone whom the board of directors finds suitable.

The possibility of a non-Lutheran becoming manager of Namasu caused some concern to one of the New Guinean directors interviewed: he felt strongly that this link with the mission should be maintained
much as, for example, the Administration's link with a particular co-operative is maintained through the co-operatives officer. However, on the basis of recent developments within the company, it is unlikely that such a view will prevail. The three most senior members of the staff at central office who may possibly be in line for promotion as manager, are not members of the Lutheran Church.

Namasu's mission background and links have also helped secure low-interest loans and outright grants from special sources. A particularly valuable one was a grant of $42,000 (which, however, Namasu chose to treat as a loan) obtained in 1959 from a church organisation known as Neuendettelsau.1 This money helped considerably in getting Namasu off the ground. Part of it was used to buy a trading vessel, part to employ a 'project manager' to be concerned with economic development in villages, and part to help finance the work connected with the Commercial School. Namasu has relied on other international and local church bodies for loan money on subsequent occasions.

Other benefits deriving from Namasu's association with the Lutheran mission include the patronage of Namasu's stores by New Guinean Lutherans (mission and congregational stores among them), the contribution made by mission personnel, especially New Guinean evangelists, in stimulating interest in Namasu in new areas (e.g. in certain highland places such as Kainantu), the use of mission-controlled lands as store sites in certain areas, and the tendency, particularly marked in 1966, for people working in mission organisations to invest their savings in Namasu. Namasu has also often turned to senior mission personnel for advice.

Conclusion

The main purpose of the foregoing survey has been to describe the major features that distinguish Namasu from other trading enterprises in New Guinea, and to point out a number of problems arising from the apparent conflict between certain of these features and the immediate practical needs of an expanding corporation. While no attempt has been made in the paper to assess the significance, if any, of these special aspects for the impressive rate of expansion achieved by Namasu over the period to 1966, some mention was made of their importance for the process of economic

1 This money was secured from The Bread for the World Fund, an inter-denominational Protestant corporation to which all Protestant churches in Germany belong. Funds are collected annually (during the Christmas season) from all over the world, and made available to underdeveloped countries to assist in the implementation of various social and economic projects.
development, particularly as it relates to the economic well-being of the indigenous people. Namasu's principal contributions would appear to be as follows.

(i) It has demonstrated that a corporation form of economic arrangement, modified to allow for a considerable degree of New Guinean ownership and control, can function effectively. This type of organisation therefore becomes a further possibility for the promotion of indigenous participation in the commercial sector, in addition to existing forms such as co-operatives and privately-owned enterprises.

(ii) It has conducted a more efficient allocation of resources, firstly by combining European managerial skills with indigenous capital, and secondly, by providing an investment outlet for indigenous funds which might otherwise have been used unproductively.

(iii) It has provided vital links between the subsistence (or semi-subsistence) sector and the advanced sector by its shipping service and network of trade stores. It has thereby stimulated the demand for trade goods among New Guineans and provided the mechanism for the effective exploitation of the productive potential contained in the village economies. Both of these factors are critical for stimulating economic development among the indigenous people.

(iv) The company's wholesaling activity has benefited the village retail trade sector by providing a readily accessible source of supply of trade goods, while its assistance to New Guinean storekeepers has helped raise the level of indigenous entrepreneurship.

(v) The rise in cash income and the realisation of various external economies made possible by Namasu's activities in certain areas have induced other service organisations to enter such areas.

No doubt the innovations for which Namasu has been responsible, especially the most crucial one of admitting New Guineans into the company as investors and directors, will continue to arouse considerable interest. The 'demonstration effect' of these innovations is likely to be of some significance, more so as Namasu continues to expand and becomes better known throughout the country. In fact, the process is well under way, as the examples of Waso Limited of Wapenamanda, Highland Commodity Exchange of Goroka and Oro Limited of Popondetta show. However, a note of caution may be sounded at this stage: the available evidence on these companies shows that while Waso Limited has been very successful, the Highland Commodity Exchange has had only moderate success, and Oro Limited has been experiencing considerable financial and staff difficulties. The mere fact of admitting New Guineans as shareholders and managers does not by itself guarantee the success of an enterprise, and other factors (including training) may be even more important. But the fact that Namasu has been able to achieve so much in such a short time shows that the opportunity exists for wider New Guinean participation in large business ventures.
Chapter 7

Waso: an extension of the Namasu principle

I.J. Fairbairn

When the New Guinea Lutheran Mission in the Western Highlands established a trading enterprise called Waso to promote economic development among the 130,000 people of the Wabag-Laiagam area, many of the features of Namasu were reflected in its aims and organisation.

From the 1950s, the mission's trading facilities were becoming increasingly inadequate to cope with the rapidly mounting demand for economic services in the area, but the mission had no desire to become a large-scale trading enterprise itself. A separate commercial organisation was therefore proposed. The mission's traditional emphasis on the need to develop both the social and economic aspects of New Guineans - as embodied in their concept of the 'whole man' - had not changed, but the need for a specialised body to deal with the economic side was recognised. An important objective was to provide an opportunity for New Guineans to share in the ownership and control of a large enterprise. Not only would this provide valuable training, but it would also ensure that part of the profits and benefits of the company accrued to New Guineans. The new organisation was also to take control of mission and congregational property which these bodies wished to dispose of from

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1 The day the previous paper on Namasu was presented at the seminar, Mr Ed Dickie, the manager of Waso, invited me to visit this enterprise, and the materials and impressions contained in this paper are based on a visit there on 28-29 May 1967, under the sponsorship of the New Guinea Research Unit.

2 'Waso' in the local Enga language spoken by about 90 per cent of the people in the Wabag-Laiagam area, means 'to create, to produce, to make'; 'Namasu' means 'inner kernel of a coconut' as well as standing for 'Native Marketing and Supply Service'. This trend to the use of words with some traditional significance in naming new forms of economic and social organisations is becoming increasingly widespread.
time to time. Although the merits of a special organisation were recognised, the mission wished to retain some measure of control. The example of Namasu suggested that a corporate enterprise with considerable New Guinean participation as shareholders and directors was the most suitable arrangement. Thus Waso was established early in 1964 to market coffee and vegetables, supply trade foods, clothing, tools and building materials to New Guineans at reasonable prices, and to provide transport, stores and other necessary services to support and encourage indigenous entrepreneurs.

**Scale of operations**

Some idea of Waso's level of sales, commission incomes and their sources may be derived from Table 1. The estimates shown for produce (1965-66) involve approximately 300 tons of vegetables and 50 tons of coffee. In 1966, direct payments to New Guineans in the form of wages, outlay for produce and dividend earnings (a rate of 10 per cent has been paid each year so far) amounted to $80,000. For a great many New Guineans, income derived from Waso comprised their only source of cash.

| Table 1 |
|---|---|---|
| Waso Limited: gross sales and commission income (\$) | | |
| **Gross sales** | | |
| Vegetables | 65,045 | 53,210 | 70,960 |
| Coffee | 33,594 | 40,700 | 54,000 |
| Fuel | 52,272 | 54,458 | 72,600 |
| Timber | - | 688 | 918 |
| Stores | 76,570 | 92,747 | 124,000 |
| **Gross commissions** | | |
| Ansett-MAL | 3,880 | 4,366 | 5,820 |
| Post Office | 1,818 | 1,530 | 2,040 |
| Commonwealth Savings Bank | 630 | 522 | 696 |
| Insurance | 298 | 996 | 1,328 |

* Wages paid to cargo labourers have been deducted from figures shown.

**Ownership**

A significant feature of Waso is that shareholding is open to both Europeans and New Guineans - an arrangement found in only a few trading organisations in the country. At the outset, Waso was
envisioned as a 'bridge' institution in which ownership would be shared but where the New Guinean element should dominate - 50 percent New Guinean ownership was considered a basic minimum. In January 1967, their share was $35,000 out of Waso's total paid up capital of $40,000. The New Guinean figure comprised $16,000 held by 502 shareholders and $19,000 held by the indigenous church - the Wabag Lutheran Church. The remainder was claimed by fifty-seven Europeans, located both in New Guinea and overseas.

Considerable effort was put into share promotion work among New Guineans during the early phase of development. Major centres of population were visited by Mr Dicke and his assistants, care being taken to inform the people of Waso's objectives and functions, and to encourage them to take part as shareholders, customers and suppliers. Usually a whole day was spent in a single community to carry out this task. Explanations were kept as simple as possible, and were facilitated by the use of simple 'picture charts' which proved an invaluable aid to communications, particularly in giving the New Guineans some idea of the meaning of such concepts as 'investment', 'shares', 'dividends' and 'company', and in emphasising the importance of supporting the trading activities of the company. The trouble taken in this respect no doubt helped many people to gain a useful understanding of what was involved and the generally enthusiastic response of the people was largely due to this. Thus by June 1964, 270 New Guineans had subscribed $10,000 to the company.

The enthusiasm of the early period has not, however, been sustained and during the past year the rate of share buying has fallen considerably. A major reason for this is that Waso has not been able to put as much effort into share promotion work as in the past; but there are other reasons, including the New Guineans' conception of the economic and business process and an incomplete understanding of company relations. For example, many feel that a 10 per cent dividend is a poor return on their investment, while many appear to be under the impression that their money has gone not to Waso but to Mr Dicke as a personal loan. Many fail to see why Waso should need more capital as it is plain to them that the company is already a going concern, judging by its buildings, trade stores, trucks and other visible signs of wealth.

As against the decline in the rate of new investment, an increasing number of shareholders reinvest their dividend earnings. Thus, when dividends were distributed late last year, 119 persons chose to use their earnings to buy more shares. Altogether, about 35 per cent of the present shareholders have reinvested their earnings at one time or another. This has been a regular practice among the large shareholders.¹ This impressive record, which to

¹I counted sixteen New Guineans with holdings of $40 or over; of this number, five had holdings of over $100, the highest amount being $250.
my knowledge is unmatched by any other trading body in the country, can be attributed largely to Waso's initiative, for as each shareholder is paid his dividend, he is immediately asked to buy more shares. (Any shareholder can do so from his dividends, since a rate of 10 per cent will allow a person holding $20 - the minimum amount subscribable - to purchase one share.) There is little doubt that many have chosen to reinvest because of the impressive achievements of Waso, including the comparatively large dividend payments.

**Directorship**

The involvement of New Guineans as members of the board of directors is another notable feature of Waso. The present board comprises four Europeans (who are members of the mission) and three New Guineans. Apart from the manager-director, candidates for directorships are nominated and elected by the shareholders. No provision exists in the Articles of Association to regulate the minimum number of Europeans and New Guineans, but in spite of this, the racial composition of the board has remained unaltered.

A brief examination of the background of the present indigenous directors suggests that shareholders have tended to favour those who have had some previous business experience and a measure of formal education. Thus Wetes Yonge (aged 27) is a trader who had previously worked for the supply department of the mission; he does not speak English but has a firm understanding of company affairs. Thomas Ango (27) is the first certified teacher from the Enga people and his English is good. The third, Eriko Ete (35) is spoken of as a 'natural' leader among the people of the Tsak Valley, and is currently the president of the Wapanamanda Local Government Council; he is also an interpreter for the mission.

The advantage of giving New Guineans an opportunity to participate in decision-making in a large and diversified company was recognised from the start, and this aspect has been emphasised throughout. In board meetings, not to mention company meetings, a great deal of time is devoted to explaining and clarifying basic issues - both in pidgin and the local language. The New Guinean directors' major contribution to company affairs lies in the area of public relations: they serve, as it were, as the 'eyes and ears' of the company. Their intimate knowledge of the economic situation of their people has been of practical value to Waso, especially in relation to such problems as the implementation of new buying procedures, choosing new sites for stores and undertaking new lines of activity.

**Employment**

On the matter of employment, Waso has probably gone further than any other large company in New Guinea in appointing local people to
responsible positions. There are only four Europeans out of a total staff of about seventy; the four are the manager-director, produce manager, book-keeper, and the manager of the Post Office and bank agency. (However, four more Europeans from Australia have been signed up for employment, and are due to begin work some time this year.) The New Guineans who handle responsible jobs, mainly at the intermediate level, number about thirty-six. The positions include cashiers, fuel agent, foreman at the coffee processing plant, supervisor of vegetable packing, trade store inspectors, managers and clerks. New Guineans are in charge of all trade stores.

Though the policy of giving New Guineans maximum opportunity to handle positions of responsibility is one to be commended in principle, its practical implementation may entail costs in terms of reduced efficiency. This appears to be true in certain activities where some New Guineans are filling positions for which they are not fully qualified. This applies, for instance, to trade stores - an activity which so far has shown an unusually low rate of return. The only qualification of most New Guineans in this category is previous employment with the mission as clerks or labourers, and only two of Waso's employees have attended secondary school. Waso has made some attempt to raise the level of business skills - classes in elementary book-keeping are held during part of the year and managers of trade stores are occasionally brought to Wapenamanda and given instruction in such matters as store display, selling techniques and the handling of cash.

**Assistance**

There are few places, even in New Guinea, where a single trading organisation plays such a focal role in the economy of a region. Waso is willing to look beyond the normal axioms of economics to assist New Guinean development - a feature which stems largely from the company's Christian background. It regularly buys produce from remote areas such as Munitaka, sixty-five miles from Wapenamanda, despite the fact that the volume of business involved often makes it uneconomic. Its coffee and vegetable marketing service is the only one available over much of the Wabag-Laiagam area. Several vehicles manned by trained buyers are used to carry the produce. The 'market place', of which there are about twenty, is usually some central spot along a road where New Guineans have assembled with their produce: coffee (in season), cabbage, lettuce, potatoes, carrots, beans and cucumbers. Quality is emphasised (rejected produce can be inspected by all) and growers advised of any change in the market demand for particular vegetables. In most cases the value of produce bought from each grower amounts to only a few shillings. From the buying points, produce is then trucked to a central warehouse in Wapenamanda, where it is sorted, packed and finally air-freighted to customers in coastal towns such as Madang, Lae and Wewak.
Plate 8. The Waso retail store at Wabag

Plate 9. Selling petrol outside one of Waso's stores
Waso's network of trade stores has brought essential merchandise closer to the rural New Guineans, while its wholesale facilities (which, as yet, are relatively small, accounting for only 10 per cent of total sales) are available to those New Guineans who wish to start a trade store; it will also provide advice, help buy building material, stock and large capital assets such as trucks and tractors.

In addition, Waso acts as sub-agent for Shell Oil Co., Ansett-MAL and an insurance company, and operates a local branch of the Post Office and the Commonwealth Savings Bank. Late in 1967, it will also take over the mission supply house which at present does a considerable amount of wholesaling.

Waso and the Lutheran mission

From the beginning, Waso relied heavily on the material and human resources of the mission and this dependence does not appear to be diminishing. Mr Dicke, a mission member of staff, is the present manager of Waso, and he is available on loan with no charge levied by the mission for his services. Mr Dicke was formerly in charge of the mission supply service and played a leading part in bringing Waso into being. The sum of $18,000 invested in Waso by the mission is the largest single holding, and this money was of vital importance during the early period. The fact that Waso was able to rent the mission buildings and network of trade stores helped reduce the early need for capital. In the day-to-day operations of the company, the mission link has brought various benefits. Thus the coordination of freight loadings on air charters has resulted in savings, the use of Waso's travel, fuel and other services by the mission accounts for a considerable part of the total sales of services, while mission bodies throughout the area have always been sympathetic and willing to provide practical assistance to Waso.

Future of Waso

It is difficult to make firm predictions about the future course of development. The take-over of the mission supply house, the fact that it is the only marketing body in the area, the strong loyalty displayed by the local people and the diversity of the company's activities are among the major factors which favour continuing expansion. On the other hand much depends on the company's ability to overcome a number of problems which it is at present facing. Three appear particularly important, viz. transport, capital and training.

In air-freighting produce to the coastal towns, Waso faces the prospect of sharply increasing costs. The Department of Civil Aviation - responding to pressures from the Pilots' Federation to apply progressively the aircraft safety standards required for
operations in Australia - has recently reduced the outward load of a chartered DC-3 leaving Wapenamanda from 5,000 lb to 2,500 lb. Moreover, it is the declared policy of the department to phase out completely the use of DC-3 aircraft, which would mean Waso will have to resort to the use of more expensive aircraft such as the Caribou. For Waso these developments have exerted, and will continue to exert, pressures on costs which may seriously jeopardise the viability of its marketing operations. An effective alternative to air-freighting is not available due to the perishable nature of vegetables and the rough condition of existing roads to neighbouring airstrips (such as to Mt Hagen). The extension of the present airstrip at Wapenamanda to allow the use of DC-3s and to permit a higher payload would go a long way towards eliminating this problem, but this is essentially a task for the Administration.

Until now Waso has been able to get by with a minimum of capital funds. Office space and trade stores have been rented from the mission, while rented vehicles owned by local New Guineans have accounted for most of the cartage. However, at the present time a considerable amount of money is needed for the take-over of the supply house, the building of new warehouses, trade stores, staff quarters and facilities for its agencies' services, and for improving existing facilities. Waso would like to see a considerable part of the required capital come from New Guineans, and it plans to accelerate its share promotion work; but even allowing for the most favourable response it is unlikely that this source will provide more than a small proportion of the funds required. As Waso is reluctant to admit a too disproportionate amount of European capital, recourse to borrowing from mission and bank sources appears unavoidable; otherwise, failing exceptionally large increases in its own profits, the rate of expansion will have to be considerably curtailed.

The third problem concerns the need for raising the level of skills of Waso's New Guinean employees. One important area for improvement of this kind has been mentioned, viz. the management of trade stores, but the need is more general. There is little doubt that there will be a growing premium on skills, particularly with the anticipated rise in the volume of business. (Rising competition is also a possibility.) To remedy this deficiency Waso may have to supplement existing on-the-job training with a more formal course. The employment of four more Europeans this year may give scope for this development.

Conclusion

Waso is a welcome development in a country where the need for new forms of economic organisation, tempered to the requisites of the local situation, is so vital. The company's contributions are readily apparent: it has given momentum to the development of the
Wabag-Laiagam area by providing marketing, merchandise, banking and related services; it has provided the opportunity for New Guineans and Europeans to share in the ownership and directorship of a common enterprise (apart from non-economic advantages, this has tended to promote the efficient allocation of resources by combining European entrepreneurial and technical skills with New Guinean capital and unskilled labour); and it has achieved certain welfare objectives usually considered by other trading organisations as outside their field of operation. These include the training of New Guineans, the servicing of remote regions and assisting fledgling indigenous traders. Finally, it has provided - along with Namasu - an example of yet another path by which New Guineans can actively participate in the cash economy. In this regard, Waso's experience has value for both mission and private organisations alike.
Chapter 8

A training scheme for business executives

G.D. Cannon

The urgent need to train indigenous people in the skills which will enable them to do those jobs now done by Europeans, and to proceed to positions of higher authority in both commerce and government is being increasingly recognised. In 1965 the W.R. Carpenter organisation announced what is perhaps the most ambitious programme for indigenous training yet contemplated by commercial interests in this country.

The scheme was undertaken by a group of companies (the Carpenter group) which is peculiarly capable of providing a wide range of training facilities. Through its thirty-four estates and plantations, it was able to offer its cadets agricultural training in the production of copra, cocoa and coffee. Tea production has now been added to this training schedule with the current development of more than 5,000 acres of tea plantations in the highlands. Training in engineering is available through the group's automotive and industrial enterprises, the former conducted throughout the country by Boroko Motors Limited, and the latter by Coconut Products Limited near Rabaul. In addition, the group provides a wide range of commercial opportunities through its operation of stores and warehouses under the name of Island Products Limited in Port Moresby, and New Guinea Company Limited in other centres. Total employment in these facilities is about 4,000 people, of whom about 3,700 are Papuans and New Guineans. It is expected that employment in the group will rise sharply as the tea project comes to fruition and a new desiccated coconut project at Rabaul begins operating. The training scheme which I now administer is designed to allow indigenous people to benefit from these opportunities.

The scheme offers selected indigenes free training at centres of technical education throughout the country, free board and lodging while they study, a weekly spending allowance while they are at the technical college, and on-the-job training at standard rates of pay during college vacations. They also take annual leave during these vacations. On graduation, they proceed through the various grades; provided they are prepared to study and work, there
is no position in the organisation in New Guinea to which they cannot rise.

Originally a minimum educational standard of Intermediate Certificate (Form 3) was required for persons inducted into the Executive Cadet Training Scheme, but with swiftly changing educational standards, we have now raised the standard to Form 4. In the first year (1966), after careful research into the numbers likely to be available, the likely educational standards and the jobs to which such persons might ultimately aspire, we decided to seek eighteen young men. After interviewing more than 200, we found eleven of the appropriate standard and these young men have now been with us for nearly eighteen months, and are doing well. Our second intake of twenty-four cadets in January 1967 brought the total at various institutions throughout the country close to the target figure of thirty-six in the second year. We will want another eighteen young men in 1968, bringing the total to fifty-four. After that, we will assess results, consider the future availability of executive positions, and decide a rate of subsequent intake accordingly.

Plate 10. Desmond Bundu (left), an engineering cadet, and Joseph Muriki (right), a trainee in commerce, who both joined the Executive Cadet Training Scheme in 1966.

Rising educational standards have had a significant effect on our recruiting and budgeting; our three agricultural cadets at Vudal in the first year of intake, for instance, were all of Form 3 level. One passed his course following a lifting of standard requirements half-way through the first year, but the other two
failed because they did not have adequate basic education. One of these was reassigned to Popondetta, where he will continue his agricultural training at a slightly lower level, and the other was transferred to a commercial course at Lae. However, at Lae Technical School there are also problems. Where we originally expected a three-year course for commercial and engineering cadets, it now appears possible that only a reduced two-year course will be available. On the other hand, an institute for higher technical education has been established providing four or five-year courses at virtually university degree standard. There is very little between these extremes to cater for what one might normally regard as an extension of apprenticeship or technician training. This very substantial gap will no doubt receive the further consideration of the education authorities. There is not much point in providing an elite core of graduates and a large group of people below normal tradesman level, without providing the essential, large group of competent journeymen in between. It is from this middle group that an organisation such as ours, and in fact all other commercial operators, might normally expect to recruit people who would, by virtue of the experience they gain on the job, ultimately become experienced executives.

What we have done is capable of achievement by all commercial organisations in the country, both large and small. Their planning must be geared to their ability to undertake such an effort, but it would be well worth making, and the results would handsomely repay the investment. Cynics told us, 'You will never keep these young men...they won't stay at school', but so far, they have been proved wrong. We looked for and got young men of a superior standard, we offered them a career, and we hope that most will make their career with us. The scheme is an affirmation of faith in the future of New Guinea, and in the capacity of these men to ultimately assume senior responsibilities in the organisation.

Many factors influenced the decision to establish the Carpenter scheme. Post-war experience in Africa and elsewhere had demonstrated the need to have sufficient people trained to appropriate standards well before self-government. In the late 1950s the race towards independence by all three states of East Africa, for instance, was far more intense than it is at present in Papua-New Guinea. Organisations, both government and commercial, were caught napping by this tremendous surge, and local training programmes had not developed sufficiently to cope with the heavy demands made upon them. The newly independent governments were insistent that Africans should be placed in prominent positions in both government and commerce, regardless of their ability to carry out the work successfully. Little imagination is needed to appreciate the results of such a policy. Many firms instituted training programmes, and worked hard to make them effective. A large number of Europeans, however, were extremely reluctant to teach the Africans, as they
believed this would eventually result in the loss of their own positions. This, of course, was not correct, and it is very important that all who plan to promote training throughout Papua-New Guinea realise this fact. The natural retirement rate of European staff provides the opportunity for the build-up of local staff and allows the training programme to be developed logically without interfering in the career of any such staff. It also allows for essential on-the-job training under the guidance of competent and practical staff, training so necessary to the success of any such scheme.

An important factor influencing our group directors was their conviction that the time had arrived when Papuans and New Guineans should be trained to take a more active part in the operations of the various group enterprises that had already contributed to the country's development. It was recognised that the pace of economic and social development was quickening and that the company was expanding its interests, and would require more and more skilled, semi-skilled and executive-class people to conduct its operations. In a public statement when the scheme was initiated, the directors said they believed a decision to train Papuans and New Guineans as future executives would provide a steadily increasing flow of young, well-educated, soundly trained local people having the ability to help the company grow, and at the same time benefit from that growth themselves. They hoped that the training scheme might help establish a pattern for the development of the country's human resources which would swiftly be reflected in the achievements and living standards of its people. This belief reflected the earlier pronouncements by the World Bank Mission, in the section of its Report dealing with manpower and education:

substantial forward progress in the economy will be dependent upon the training of the indigenes in appropriate skills...there is every reason to believe that with appropriate education and training, they will be able to fill more and more managerial, professional and administrative positions in due course.

Our scheme, however, is only a drop in the ocean. There are other schemes in operation but much more needs to be done by other commercial interests in training men for ultimate senior responsibility in commerce in New Guinea. As the World Bank Mission's Report says: 'It is important that the fullest and most economic use be made of what, for several years to come, will be small numbers of relatively educated and skilled human resources.'

In its section on the public service, the Report emphasises the 'eventual goal of economic and financial viability', and this should motivate commercial interests in developing indigenous people for senior positions within their organisations. In the future this country, like any other, will be able to afford only what it can
earn. Consequently prices, wages, salaries and everything else will establish themselves at levels which the nation and community can afford. It is important therefore that any organisation - be it a government department or a commercial enterprise - arrange its staffing and other affairs so that it can operate on a basis that it can afford. In that way, the organisation will be able to perform its appropriate services, provide employment and opportunity and remain economically viable.

All industry, and government too, is going to require an increasing number of Papuans and New Guineans encompassing all fields of employment. There must be general acceptance of the need for industry to play its part and to train and absorb indigenes to fulfil most day-to-day functions and eventually hold the most senior positions. The sooner this can be achieved the better it will be for the whole country. There will be difficulties, not only for the employer but also for the indigenous employee, because of his lack of knowledge of the value and purpose of such training and the widespread belief that obtaining a degree or diploma automatically earmarks one as an executive. Responsible Papuans and New Guineans in the House of Assembly, in local government, and others already holding senior positions must be encouraged to dispel such thinking if real progress in the shortest possible time is to be achieved.

Coupled with the industry's willingness to train indigenes for all positions must be an acceptance by the trainees that the end of their training marks the start of a long, hard, but very worthwhile career. If both parties see the wisdom and urgency of these requirements, future employment problems can be resolved, as moves towards the ultimate goal of self-determination and finally independence are progressively made.
Chapter 9

Trends in the plantation industry

G.C. Elworthy

Cash cropping in Papua-New Guinea has developed from a primitive plantation form of growing coconuts which must have existed for centuries. Torres found 'Groves of Coconuts' at what was probably Mullins Harbour in 1606 and Dampier reported coconuts in groves in New Britain. However, the first commercial nut plantations occurred about 1895 in both Papua and the then German Territory of New Guinea, and were wholly owned and financed by Europeans. Coffee was introduced in Madang about 1895, and cocoa about 1902 by the German Administration from Samoa. Rubber, both Hevea brasiliensis and Ficus elastica, was introduced in the German Territory about 1907, and the former only, in Papua in 1908. Tea was planted by the Administration at Garaina in 1948 and was subsequently planted in the Eastern Highlands by private enterprise. Quinine was brought in by the Administration of the Mandated Territory in 1941 as an experiment, and pyrethrum and pepper were introduced later. From these beginnings, Table 1 shows the degree to which expansion has taken place.

Table 1

Production and known planted acreage for year ended 30 June 1966

<table>
<thead>
<tr>
<th>Crop</th>
<th>Production (tonnage)</th>
<th>Area planted (acres)</th>
<th>Indigenous</th>
<th>Non-indigenous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coconuts</td>
<td>87,854</td>
<td>300,000 (approx)</td>
<td>260,578</td>
<td></td>
</tr>
<tr>
<td>Coconut oil</td>
<td>21,900</td>
<td>21,900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rubber</td>
<td>5,389</td>
<td>1,500 (approx)</td>
<td>22,851</td>
<td></td>
</tr>
<tr>
<td>Cocoa</td>
<td>16,747</td>
<td>33,000 (approx)</td>
<td>112,400</td>
<td></td>
</tr>
<tr>
<td>Coffee</td>
<td>10,839</td>
<td>34,000 (approx)</td>
<td>10,851</td>
<td></td>
</tr>
<tr>
<td>Tea</td>
<td>75 (approx)</td>
<td>75 (approx)</td>
<td>2,000</td>
<td></td>
</tr>
<tr>
<td>Pyrethrum</td>
<td>3,000</td>
<td>3,000</td>
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Indigenous participation in early planting

The indigenous people were early introduced into planting methods because labour was required to plant coconuts. It was not generally regarded as a means of obtaining income or goods for the indigenous people, but rather as a matter for white men. In work gangs, an indigenous overseer would be appointed over every thirty or so labourers, and planting procedure explained more fully to him. Generally, however, he failed to make use of his greater knowledge when he returned to his district. This situation continued on European and mission estates until about twenty years ago, when some mission estates used 'assistants' chosen from mixed race or more advanced indigenous people. The most recent advance is the introduction of courses for assistant plantation managers as outlined in Chapter 8.

There have always been difficulties in management and control for an indigenous overseer or assistant manager as he finds it difficult to refuse requests for favours from his kin. I remember the overseer on my estate asking me not to employ any of his relatives because it tended to diminish his authority.

Development of native-owned plantations

Under German rule, natives were compelled to plant and maintain a prescribed number of trees. In Papua, too, from an early date, it was policy to extend the area of native cultivation by compulsion if necessary. In this and other respects, compulsion had Hubert Murray's support to the end. Regulations in 1903 obliged natives to plant a specified number of coconuts or other useful trees. They were not taken very seriously, and were revived by Murray in 1912. From then until the disillusionment of the economic depression in the 1930s, administrative officers devoted a good deal of their energy to enforcing them. In some places, villagers began to plant without compulsion, but this was rare and enthusiasm generally waned after a year or so. Refusal either to plant or to maintain the trees was dealt with by imprisonment. The same legislation was used to encourage the growing of cocoa in Kokoda in 1917-18 and of rice in the hinterland of Kairuku and Kerema in 1920.

In 1923 the first Director of Agriculture for the Mandated Territory of New Guinea wrote

In the past the efforts of the Administration have been directed principally, if not exclusively, to increasing the area of village coconut gardens, and this, perhaps in the absence of adequate explanation of its importance in the interests of the native inhabitants, or in the presence of native suspicion of the white man and his motive, or of a natural distaste for work, or of a native resentment of
interference in his affairs, whatever the case, has been accompanied by an unfortunate disinclination to engage in cultivation.

A new type of compulsory planting was introduced by the Native Plantations Ordinance of 1918. This provided that land might be set aside near any village for a plantation which natives might be compelled to cultivate, and that part or all of their tax might be remitted at the discretion of the Lieutenant-Governor. Today this seems a severe means of 'popularising' planting. But now, some forty or so years later, the grandchildren of the original planters are reaping the benefits of the compulsory planting, and much of the prosperity of the village people now is due to it. Last financial year, for example, over 30,000 tons of copra were produced from native-owned groves, bringing a return of $3,750,000.

Ex-servicemen's schemes

Many indigenous people participated in the second world war as carriers, police or soldiers. As a result, there was after the war a favourable emotional regard for the indigenous people by Australians and the Federal Government, and a Commonwealth Reconstruction Training Scheme (C.R.T.S.) was introduced. Natives were trained in planting rice, vegetable, soya beans and ground nuts and in some animal husbandry, and in Amau, in the Marshall Lagoon sub-district, several small copra plantations were started and one man commenced grazing cows. Very little good came of this scheme, though there could have been if a follow-up programme of land settlement had used the students from C.R.T.S. However, it did awaken interest among native people in planting cash crops themselves. They only awaited direction.

The Ex-servicemen's Credit Board was established in 1958 and loans were granted to both European and native ex-servicemen to assist in establishing plantations. To date, 143 indigenous ex-servicemen have participated with varying degrees of success. They were granted a loan of up to $1,400 for planting such quick maturing crops as coffee or cocoa, and $2,400 for coconuts. This has, to a certain degree, been tied up with the land development scheme outlined below.

Administration land development schemes

With the advance in education, many indigenous people wanted to establish their own plantations after the European model. Many small plantations of coconuts and coffee were established on family land, but as the land was held under customary systems of tenure and inheritance, disputes arose over ownership and succession. This led to a desire for individual title to the land which an individual could develop.
In Malaya a comprehensive land development movement was instigated by General Templer to resettle a population of Malays, Chinese and Indians who had become destitute with the emergency there. In Papua-New Guinea a Native Resettlement Scheme was inaugurated whereby Crown Land, often purchased for the purpose, was subdivided by the Lands Department and allocated by the Lands Board to indigenous settlers who were given leasehold title to the land. Thereafter the scheme was directed by the Department of Agriculture. To date, approximately 60,000 acres of land have been distributed to 2,200 applicants in holdings of about twenty-five acres each. The introduction of the settlers to their blocks, and assistance and advice, was given by the local agricultural officer and to date, approximately one-sixth of the land has been cleared and planted with high-yielding rubber, cocoa or coffee.

Unfortunately hard-pressed agricultural officers already had a large district to patrol and could give only limited time to the instruction and encouragement of planting. Development work was generally carried out very slowly. Much has depended on the personality and enthusiasm of individual agricultural officers and where there was little leadership, there was little development. The Native Loans Board has lent $196,549 to a total of 784 settlers and is committed to a further $404,000 expenditure to complete development for these settlers, not including the Tolai cocoa project.

On 27 February 1967, Mr John Guise, Member for East Papua in the House of Assembly advocated

That a special section be established within a Government Department to handle every aspect of Land Resettlement, including the making of loans and the granting of land, with the object of centralizing and co-ordinating all such matters of land resettlement and control under one authority. I consider this absolutely necessary for the efficient administration of such an important aspect of development.

**Expatriate land development schemes**

At the conclusion of the war, there was a revolution in the methods of employing labour. In 1945 all indentured labourers had their contracts of service annulled by the then Minister of Territories, Mr Ward. This led to chaos in the plantation industry, for all indentured labourers (95 per cent of the work force) were suddenly told that their contracts were not binding and that they could, or in most cases would have to go home. The traditional respect for a contract of service was shaken and the future looked depressing for expatriate estates. Recruiters reaped a rich reward by resupplying plantations with new labour, and the Administration opened the highlands of New Guinea to recruiting for coastal plantations, and acted as recruiting agent.
Estate management began to realise that a new outlook was needed to make estates attractive to labour, and the Department of Labour introduced new regulations to better the conditions under which labourers would work and live. Estates which endeavoured to carry on as they had pre-war generally found difficulty in obtaining labour. On more progressive estates, sports fields were built, some estates provided moving pictures, others a bonus system for production, and others began to allow labourers to use surplus plantation land to make gardens. In some cases produce was bought back from the labourers, thus providing extra income. This land was returned to the estate when the labourer completed his time on the plantation.

Even more significant perhaps was the decision of several estates to start resettlement schemes of their own using surplus land, and to reward long-term employees, for instance, the Merani Estate in the Cape Rodney district. This was a privately-owned estate of about 1,500 acres of which approximately 400 had been planted. The owner had planned to develop a further 400 acres which would leave 700 acres surplus to requirements. The owner had made several tours of Malaya and had seen the large land development schemes introduced by the Land Development Board there, as well as privately-owned schemes which aimed to establish village communities on the edge of the estate to provide a nucleus of labour, improve relations between expatriates and indigenes and reward overseers, headmen or labourers who had proved loyal during the emergency.

In the Merani Estate scheme six married men were chosen who had been working there for ten years or more and who the owner considered able to benefit from the scheme. A contract surveyor was paid to survey six blocks of land, each ten acres, and these were allocated to the six on condition that the whole should be cleared and planted with coconuts and a cover crop within three years, that a house be built on each block, and that a well be dug and fruit trees planted. Were these conditions fulfilled, each block would be deeded to the man who developed it. A fund of $4,000 was set aside to provide loans for the settlers to purchase seed nuts, tools and materials for houses.

Within two years, all conditions having been complied with, the owner found that ten acres would not be sufficient for the economic independence of a family, so a surveyor was asked to increase the holdings to fifteen acres. By then the Administration had become interested and a surveyor was sent from the Department of Lands, Surveys and Mines. In 1956 Merani Estate surrendered its lease of the land and the blocks were leased by the Crown to the six Papuans. The settlers continued to work in Merani Estate and so to receive their pay. When work was finished on the estate each afternoon they would hire estate labour at the rate of 15c per hour to assist them on their blocks. This provided a diversion for labourers who
were thus able to earn extra money. The six blocks came into production in 1962-63 and for the year ended 30 June 1966, the average income was $800. The loan fund was repaid and the owner was so happy with the outcome of the scheme that he requested another survey and cut a further eleven blocks, each fifteen acres and gradually settled other estate labourers on them. The scheme has been a pronounced success in every case but one. Title deeds have been granted to all and the Department of Public Works has made a graded road between the blocks. Now, eleven years later, only six of the settlers no longer work on Merani Estate. Relatives of the settlers work on Merani which makes a very happy arrangement. Of the settlers, one has used his income to purchase a tractor, trailer and recently also purchased a truck. This equipment is contracted out as a commercial enterprise. Another has two trade stores and a group are planning to purchase transport. The greatest advantage to the owner has been the excellent relations enjoyed between management and labour. This was evident in 1966 when there was an upsurge of cargo cult among natives of one district. Merani labour, after discussing the situation, decided to remain at work, while every other native of the district where the cargo cult developed returned home. The success of the scheme was due to the fact that the settlers were carefully selected and that the owner used every method of persuasion plus his own knowledge of planting to make the scheme a success. It could be called a partnership between management and labour to their mutual benefit, and it is a trend in the plantation industry which could very well be of great assistance to the industry's continued existence.

Other trends on non-indigenous estates

Over the past ten years there has been a steady decline in the prices of all tropical produce. The price of rubber has fallen to half what it was ten years ago and heavy falls have occurred in the prices of cocoa and coffee. At the same time, wages, rations, freight and other costs have risen considerably. Larger estates have been able to meet these increased costs by reason of their size, but the smaller, say 200 to 300 acre estates have been hard-pressed to find means of carrying on. As overall costs are bound to rise again shortly, the smaller plantation faces great difficulties to keep going.

There have been several methods in meeting these increased costs and the decline in world prices. The trend in large companies with ample capital has been towards larger estates or an agglomeration of estates in one area where there can be centralised management, centralised factory processing, machinery maintenance and recruiting. This has reduced their internal costs and increased efficiency. Rubber estates have been planting higher-yielding types of rubber, also expanding estates to decrease the processing costs through a central factory. However, the smaller plantation faces a dilemma
and must find either a means of carrying on or selling out. Trade stores run by the estate owner can make up the deficit and other owners are turning to the establishment of garages, or sawmills or even boat building. There has been one extremely interesting trend in which the small M'buke coconut plantation near Manus was sold in 1962 to a local co-operative group. The owners had been making a profit, but difficulties in management and supply had made costs high, as this plantation was a long way from the owners' other interests. The co-operative society purchased the plantation with its own funds plus a loan from the Native Loans Board and is now working the estate with its own co-operative members. It appears to be working very well and with encouragement, other plantations could be sold in this manner.

Conclusion

We have seen how native participation in plantations developed from labouring to rather unwilling planting of village groves of coconuts (which are now of great benefit to their economy), to an interest started partly by C.R.T.S. schools and furthered by various land development schemes assisted by the ex-servicemen's credit schemes and the Native Loans Board. The interest is now stirred and it is of vital importance that it be maintained. How best can this be done?

The House of Assembly is certainly on the right track in debating the necessity of a land development board. This will have to include the co-operative movement to market any cash crops which are grown while the permanent crop is maturing. For at present there is little assistance given to getting such produce to town markets. Much work will have to be done to give indigenous people title deeds to land so that land a man has developed personally can be deeded to his own son and not through matrilineal descent. The Administration will have to build central factory facilities for the processing of rubber on twenty-five acre blocks. I believe this is being considered already at Cape Rodney.

There are schemes for very large-scale European development in tea and oil palm with native small-holder development which will match the European acre for acre, and with European capital or combined commercial-Administration capital providing processing factories for both tea and oil palm. Because of the great expense involved in their erection, both the large estates and the small-holders would use these factories.

All these plans offer great hope for the future and I am very optimistic, provided appropriate encouragement is given. For by this means, and only by this means, will the alarming drift of young people from the country to towns be arrested and only by this means will a stable economy be established to provide the taxation necessary for an independent administration.
Chapter 10

The Bougainville copper project

D.C. Vernon

Modern exploration

The pattern of exploration has changed from the old time prospector with his pick to the big industrial enterprise with modern geophysical equipment and geochemical techniques. The necessity to use these expensive techniques causes a substantial increase in the cost of exploration, but because of the shortage of high-grade ore bodies this increased expenditure does not necessarily result in the discovery of a 'bonanza'. It is not unusual for mining companies to spend several million dollars on exploration without finding anything.

Exploration in New Guinea is much more expensive than exploration in Australia. Perhaps the main reason is that remoteness and rugged terrain necessitate the use of helicopters here. The cost of helicopters alone over the past twelve months was $600,000. C.R.A. (Conzinc Riotinto of Australia) has already spent $4 million on Bougainville and expect to spend another $6 to $8 million before a decision is made on whether there is sufficient copper ore present to merit an economic operation. Another reason for the unusually high exploration costs on Bougainville is the necessity to prove a very large ore-body because of the low grade of ore involved - less than 0.7 per cent copper. Because of this low grade it is necessary to treat a very large daily tonnage for an economic operation and hence it is necessary to establish a very extensive ore body to merit the investment. If this deposit were in Australia or Arizona it would be economical to treat; but in the remote Crown Prince Range on Bougainville where annual rainfall is 240 inches, where there are regular earth tremors and where the whole area is covered in a volcanic ash, the problems of establishing such an operation are magnified manyfold. We have so far established the existence of something like 90,000,000 tons which is not yet sufficient for an economic operation. If and when a full-scale operation is undertaken, the capital cost of establishing it would be between $100 million and $150 million.
In addition to this work on Bougainville, our exploration company has recently spent six months in central New Britain, three months around the Abau River in Papua, twelve months with the Craestar (an exploration ship fitted with a helicopter landing pad) covering 18,000 sq miles of New Ireland, New Britain, Duke of York Group, New Hanover, Manus, and the north coast of New Guinea around Wewak. In addition, the Craestar spent three months covering 4,000 sq miles of the British Solomon Islands, and in April 1967 company explorers moved into the Western Highlands of New Guinea. Any mining company carrying out exploration work spends a considerable amount of money on abortive exploration.

History of Bougainville exploration

The first prospecting authority was granted to C.R.A. over an area around Panguna in December 1963, and our first geologist arrived at Kieta in April 1964. After discussions with the A.D.C., the geologist proceeded to Panguna accompanied by a representative of the Mines Department who acted as liaison officer and explained C.R.A.'s presence to the local people. On arrival at Kupei village the party was met by a large group of people from the villages of Guava, Moroni, Pakia and Kupei. One of the luluais named Oni, who has since been discredited by his people, was at that time the chief spokesman and had been a man of considerable authority since the war. A two-day conference took place during which time C.R.A.'s intentions were outlined and the principle of prospecting rights and the law of ownership of minerals was explained. The people appeared to be satisfied with these discussions and gave C.R.A. full co-operation until August 1964 when without warning the senior geologist was told, again by Oni, that the people did not want C.R.A. in the area and wanted them to leave. Between April and August 1964 the Mines Department officer had been in constant touch with both C.R.A. and the people, explaining what was going on.

Because of the objections of the Guava people, our geologist returned to Kieta with the Mines Department officer to discuss this matter with the A.D.C. The Administration organised a meeting to which they invited leaders from a wide area of Kieta sub-district. Once again a full discussion took place of C.R.A.'s prospecting rights and their intentions. The local people were given the opportunity of voicing their objections and all matters brought up were discussed openly. The people appeared to be satisfied and again returned to their villages with every intention of cooperating with C.R.A. Work proceeded without obstruction and the first drilling operation commenced successfully in November 1964.

The prospecting authority came up for renewal in December 1964 and a Warden's Court heard this claim in Kieta in January 1965. This Court was well-attended by representatives of the people from
the whole of Bougainville. The proceedings consisted of an open forum at which all matters relating to the work being carried out by C.R.A. were discussed in full. This gave the people the opportunity to air their views and to formulate their complaints for the formal court hearing which was to follow. The court hearing was very orderly and the people appeared to be satisfied. Incidentally, prior to the company's arrival in 1964 the Panguna valley was virtually uninhabited. On only two occasions was it found necessary to destroy sections of garden for the access road and in each case the landowner was compensated.

Operations continued without incident until July 1965 when an attempt was made to carry out some survey work in a new area - Mainoki. Despite deputations from the Administration, the local mission and C.R.A. personnel, the people of this village were firmly against entry onto their land. Although work had been proceeding in the Kupel-Panguna area during this period, it was apparent that the feeling of resentment against the company was growing as we became more permanently established. Around this time numerous stories began circulating regarding the work being carried out by C.R.A. For instance, it was suggested that we were pumping the copper out of the ground, putting it in small bags and sending it to Australia for sale, and from all this money which C.R.A. were supposedly making, the local people were getting nothing.

In an effort to educate the people and thus squash these rumours, it was decided in September 1965 to send representatives of the local government councils from Sohano, Nagovissi, Kieta and Buin on a tour of some of the major mining operations in Australia. They found the mines and cities very interesting, although perhaps confusing, but unfortunately this visit did little to help the situation on Bougainville and by February 1966, opposition to C.R.A's exploratory activities threatened to interfere seriously with the company's programme of investigation. Discussions with individual villages showed that the people providing most resistance to C.R.A. were from Guava and Kokeri, and these people had placed 'Tambu' signs in various places around the area of operation. Unfortunately as most of our travelling in the hills was done by helicopter, several of the 'Tambu' signs went unnoticed by us and, as might be expected, this apparent obvious disregard of the 'Tambu' signs made the local people even more hostile. By the time the House of Assembly sat in June 1966 to discuss the new Mining Ordinance, operations on Panguna were restricted to a relatively small area. The Mining Ordinance was designed to enable the company to make payments to landowners for land of which they were deprived during prospecting and subsequent mining. Immediately the ordinance became law the Administration sent an A.D.C. into the Panguna area to settle any land disputes so that the mining warden could assess the compensation payable to the landowners. The mining
warden, who arrived with the A.D.C., was also given the job of explaining the ordinance and its implications in detail to the local people. By this stage, however, the landowners were not prepared to listen, and refused entry into areas not already occupied by the company. In some cases they even insisted on the cessation of drilling operations in areas in which we had been working for several weeks. As a result, three of our ten drills were shut down by August 1966 because of land disputes. This was obviously unsatisfactory to C.R.A., and after very serious thought we agreed with the Administration that the law should be enforced. Consequently in September 1966 an Administration patrol post was established at Barapinang with the A.D.C., mining warden, one patrol officer and twelve native policemen in residence. This move was made as a last resort and would have been avoided by both C.R.A. and the Administration if at all possible.

Slowly and patiently we moved back onto areas which we had previously occupied until, by the end of October 1966, all drills were again in operation. Isolated incidents have occurred since, but none of a major nature.

However, as far as the local people are concerned, our operations should still be confined to the area occupied in October 1966. This means that any spread of our activities, which is essential for the proving of the deposit, is done unfortunately against the will of the landowners.

Why has there been this change in attitude from one which appeared to be almost complete acceptance in 1964-65 to one of rejection in 1966-67? I feel it is a combination of poor communications and an understandable suspicion of the unknown. We and the Administration went to considerable trouble in the early days to explain what we intended to do and the people appeared to be happy. But did they really understand? How could they understand? Not only do they not understand what we have done in the past, but how do we explain to them what we hope to do in the future?

Establishing good relations

In the early days of exploration on Bougainville it was recognised that if we were to set up an operation it would be essential to employ a high proportion of indigenes at all levels if we wished to establish and maintain good relations with the local people. At present, however, we are engaged in exploration only. For this reason our expenditure to date has been directed towards the gathering of information and the selection and training of indigenes. In this way we hope to be well-equipped to make wise decisions in this field if we establish an operation.
Initially the indigenes employed were all local people (twenty in April 1964 increasing gradually to 300 by the end of 1965) and it was felt that by providing work for these people there would be an immediate increase in the amount of money available in the villages with a resultant increase in the standard of living. However, as the trouble developed and a high proportion of the people, particularly those from Guava and Kokeri, refused to work for C.R.A., it was found necessary to recruit indigenes from outside the Kieta sub-district. Moreover, the local people were not entirely satisfactory because they were largely uneducated and had no specific skills, they had never been employed in a regular capacity before and their attendance was most unreliable, and even when at work they had a tendency to sit and do nothing whenever possible. It was found that money had little meaning to these people because there were no shops in the area. In order to overcome these problems it was decided to examine the approach made by other firms which had faced similar problems. Consequently, two senior members of C.R.A. visited Zambia in October 1966. It is only in recent years that the mines on the copper belt of Zambia have introduced an extensive selection and training programme and, in my opinion, they are currently doing an excellent job of 'Zambianisation'. Unfortunately, the companies are still criticised because the programme of 'Zambianisation' did not start in earnest until the time of independence. It is our aim to employ and train as many indigenes as possible from the outset.

It has been found in Zambia that with suitable training, illiterate Africans can perform routine repetitive jobs extremely well and we feel sure that the same will be true of New Guineans. The method of selection of illiterates in Zambia was of particular interest to us and information was obtained on the tests used. More recently we have been assisted by Administration psychologists in this field.

One strong recommendation made to us in Zambia was that coincident with, if not before, the introduction of a training programme, we should learn more of the background and culture of the local people: their beliefs and values, their likes and dislikes. To obtain this information we sought the services of a specialist, preferably with training in anthropology, psychology or sociology. We have been in touch with most of the experts in these fields on the east coast of Australia, and although everyone to whom we have spoken is extremely interested and very sympathetic, we have found it virtually impossible to get capable people who are prepared to live in the villages for one to two years in order to get to the bottom of the present resentment. We have been told, and we agree, that brief studies are likely to cause more problems than they solve.

On the training side we appointed in November 1966 a training officer who had been responsible for introducing a training programme
for local staff in the copper concentrator at Nchanga, the largest mine in Zambia. Because of personal problems he was in Bougainville for only four months, but during this period he was able to outline a basic policy which is now being followed. Another training officer was recently appointed.

We are currently employing about 500 New Guineans in the following capacities:

- Clerks and radio operators: 10
- Drivers and plant operators: 25
- Camp construction: 50
- Camp operations and messing: 115
- First aid assistants: 5
- Geologist assistants: 15
- Draughtsmen: 2
- Drill core measurers: 18
- Driller assistants: 90
- Drill site preparation: 30
- Surveying: 15
- Sample preparation: 8
- Tradesmen's assistants: 6
- Road gang: 110

Programmes are in hand for the training of cooks, carpenters, drillers, drivers, draughtsmen, mechanics and laboratory assistants.

The senior geologist who was in charge on Bougainville until June 1966 established relatively good personal relations with the majority of people in the Kupei-Panguna area. He spoke to them quietly, listened patiently and at all times endeavoured to meet any request they made. Helicopters were provided on several occasions to fly patients to the Kieta hospital, and whenever possible local people have been given lifts in company vehicles which move between Kieta and Panguna.

Since the development of a first aid post at Barapinang, the people from surrounding villages have been coming for treatment. To cope with the expected increase in demand for medical treatment over the next two years, plans are in hand for the construction of a temporary hospital, staffed by two fully-trained sisters. Various sporting facilities are being provided around Panguna and Barapinang. A practice cricket pitch is in use and it is hoped shortly to clear sufficient land for a football oval and basketball field.

Vegetables grown by the local people have been bought by the company to supplement food bought from Rabaul. For many months C.R.A. has encouraged the development of additional food crops but the local people appear unwilling to take advantage of this increased demand as a possible source of increasing income.
Plate 11. One of the radio operators trained and employed by C.R.A.

Plate 12. A heavy-equipment operator at work at Panguna
A trade store will be constructed shortly to provide the indigenes with their basic needs and banking facilities will be provided for those who wish to save their earnings.

C.R.A. aims for full integration of the work force and the general community. The office staff are already fully integrated, with expatriates and indigenes sharing messing and accommodation facilities. But integration has presented some difficulties, one of which is communication, as we have a high turnover of expatriates and few of them become proficient in Pidgin. For this reason indigenes who share our messes must have a reasonable grasp of English. We have decided that it is important not to force an indigene into an integrated society against his will.

In an effort to provide assistance to the younger people the company awards scholarships (costing $10,000 per annum) which keep two boys at school in Australia, two apprentices in training in Port Moresby, three boys at Malaguna Technical School, four girls at Madang Domestic Science School, two studying surveying at the Institute for Higher Technical Education, two studying commerce at Lae Technical College, and two girls at the Marionville Memorial School. We propose to visit these schools regularly to keep in touch with the scholarship holders and to show films, explaining the operations on Bougainville and to tell the students something of the future opportunities if a mining operation is established. In addition, C.R.A. has also assisted the Education Department in the formation of a Junior Technical School at Kieta.

It is recognised that in order to reduce the communications problem on Bougainville it is highly desirable, if not essential, for every member of the staff to be fluent in Pidgin and arrangements are in hand to run a series of Pidgin classes for expatriates. At the same time the possibility of introducing English classes for the indigenes is being considered.

The firm is currently seeking a public relations officer, whose sole duty will be to move among the villages in the Kieta sub-district explaining what C.R.A. are doing and what they propose to do. He will show slides and distribute booklets which are currently being prepared for this purpose.

Again, let me emphasise that at present we are only an exploration company but, in the hope that we may one day become an operating company, we are anxious to learn as much as possible about the people so that we make the correct decisions when the time comes. We have a long difficult road ahead of us, but we sincerely hope that with patience and understanding we will ultimately obtain the trust and co-operation of the local people.

Epilogue

On 6 June 1967 an agreement was reached between the Administration and Bougainville Copper Pty Limited, a subsidiary of C.R.A.,
and subsequently approved by the House of Assembly as the Mining (Bougainville Copper Agreement) Ordinance 1967. Among other things it provides that the company will, within two years of receiving the special mining lease, give the Administration the option to secure at par value up to 20 per cent of the share capital of the company. These shares will be held either by the Administration itself, or by a statutory authority approved by it. Within the first fifteen years not more than one-quarter of such shares can be transferred (other than to the Administration or an approved statutory authority) and then only to 'eligible Territory Residents'. While at least 15 per cent of the company's shares are held in this way, their holders will be entitled to appoint a special director of the company.

Another important feature of the Ordinance is the provision for a three year income tax holiday from the date of commercial production. After this period, however, income tax on the company will be substantially higher than for any other company operating in Papua-New Guinea. In return it is guaranteed that its future total tax liability will not exceed a fixed (50 per cent) proportion of taxable income. Other taxes, duties and royalties will be payable as soon as production commences.
Chapter 11

Concluding Remarks

R.G. Crocombe

The papers in this Bulletin demonstrate a strong and increasing desire by Papuan and New Guinean people to participate more fully in every phase of business and industry. Though their expectations from firms in which they share are initially unrealistically high, experience both moderates and matures them. To give people everywhere the opportunity to join at least one commercial organisation (whether a co-operative, company or otherwise) should be a first aim of policy.

Economic aspirations are rising much faster than the facilities for their realisation, and the indigenous share of commercial and industrial turnover is estimated to be only between 5 per cent and 6 per cent of the total. About two-thirds of that is accounted for by co-operatives and the remainder includes organisations like Namasu which have both indigenous and expatriate shareholding. There must be few countries in the world where the proportionate share of commerce held by the people of that country is so 'abysmally low' to quote the term used in Chapter 3.

The need for training stands out in every chapter. But the facilities for training, relative to the needs of a country of over two million people, are extremely limited. The co-operatives organisation has probably provided more training than any other, and many other forms of enterprise have benefited from engaging staff who were earlier trained in co-operatives. Nevertheless, co-operative leaders are the first to agree that their training programme is in great need of expansion. Missions which sponsor business enterprises have also made significant efforts to provide training. The least efforts at training have been made by the large foreign firms who, in the longer term at least, have most to gain from it. The pioneering executive training scheme undertaken by the Carpenter group (Chapter 8) is a tremendous advance, but even that project only provides for an intake of eighteen cadets per year in a rapidly expanding firm which already employs 300 expatriate executives and skilled personnel. It is probable that a self-governing New Guinea will use selective restrictions on the
entry of expatriates to speed indigenous staff training by business firms. In Fiji, Western Samoa, Tonga, the Cook Islands and many other developing countries, firms wishing to bring supervisory and skilled staff from other countries have to demonstrate to a local immigration committee that there are no local people available who could reasonably be trained to take such positions. The conditions of importation are progressively tightened and it quickly becomes in the interests of the firms to train local staff as far and as fast as possible.

The need for credit is emphasised in a number of chapters. The banks are thought to be holding about $10,000,000 of savings and deposits of indigenous customers (Chapter 3) but almost all of this money is used to develop expatriate enterprises in New Guinea and Australia. The record of the banks in providing credit to indigenous entrepreneurs is described (in Chapter 3) as 'dismal'. Adhering to their traditional practices much more tenaciously than any indigenous tribe, the commercial banks constitute an obstacle instead of an avenue to indigenous advance in commerce and industry. It is twelve years of operations the Native Loans Board made only a handful of loan money available to indigenous people in commerce. The extent to which the new Development Bank will change this situation is as yet unknown. With an official practice of laissez-faire it is hard to avoid the conclusion (Chapter 4) that 'financial arrangements favour expatriate business, as everything else in the present system tends to do'.

The forms of business organisation may in some cases need modification for New Guinea conditions as Mead (Chapter 1) has pointed out. Many village industries constitute no legal entity because the law, being little modified from the Australian, is unnecessarily complex for such enterprises (Chapter 4). The Forestry regulations which assume exploitation by expatriate firms seem particularly ill-adjusted to the growing efforts of village people in sawmilling. The regulations take it for granted that villagers will sell their rights to timber and then sit by while outsiders utilise it. The need is to involve them in all levels of the process of forest exploitation.

The role of missions in promoting indigenous participation in business and industry stands out in Chapters 4, 5, 6 and 7. It is an unusual role for religious organisations, and one which they themselves feel uneasy about, but their achievements are in many cases remarkable. In instances like Namusu and Waso, as well as many sawmills and other enterprises, they provide high quality managerial talents at very low cost, they usually provide more training for local people than other organisations of similar size, they instil their trainees with an effective ethic, and the missions themselves are strongly motivated to get the organisations going efficiently and get out, leaving them to trained indigenous owners
and managers. The mission role in this field is not intended to be, and should not be, a permanent one. But in the process of equipping local people with the means to participate fully in the economy of their country, they have an extremely important part to play.

The compelling conclusion of these papers is that means must be found to increase greatly the share of indigenous people in business and industry. The C.R.A. agreement (Chapter 10) constitutes a very important breakthrough in that sector, but advances are needed in every sector. An obvious starting point is the village and an initial objective could be to see that the villagers' own produce and trade needs are handled by a business in which local people have a major share. The corollary to this is that in rural areas licences to trade and transport goods should be progressively limited to indigenous people, or to organisations in which indigenous people have a major share in management and ownership. The success of Moveave sawmill (Chapter 4) demonstrates the scope for village industries. These need not be based on timber, but could be one of a number of light industries for which there are markets in the country already. With more concerted planning, and less hand-to-mouth origins than Moveave, one could envisage many such industries being established over the next decade, provided the resources are made available.

Villagers grow more than half the country's coffee. It is not unreasonable to expect that effort and resources be made available to ensure that their half is processed and marketed by organisations mainly owned by native people. Palnamadaka (Chapter 4) indicates that the purchase of an existing business is an obvious entry point for indigenous investors. But neither the former Native Loans Board, nor the newly-formed Development Bank have regarded lending for a take-over of existing business as a development loan. This rule conflicts with a major conclusion from these papers, that the development of a Papuan and New Guinean business community is a matter of urgency.

Every enterprise described in these papers has had the advantage of the skills or advice or finance of expatriate persons or organisations. The rapid expansion of indigenous participation necessitates the further transfer of skills from expatriates to indigenes. As seventy years of contact has shown, the mere presence of expatriates does little to transmit skills. Only where suitably qualified people devote themselves to that task is the objective achieved. The need is not for more expatriates per se, but for a higher percentage of the available funds and personnel being devoted to this end. For example the highly successful Merani scheme (Chapter 9) resulted from the after-hours activities of one planter. But he is the only planter in the country to our knowledge to have equipped local people with secure title to land (surplus to the
planter's needs) and set them on the road to successful commercial farming and entrepreneurial activity. The same could be done by many hundreds of expatriate planters. Some missions have provided very considerable stimulus in this field, but relatively few business firms have yet done so.

In Chapter 8 a political imperative is laid down. Newly independent governments which feel that their people have had an inadequate share of the economy often insist on promotions and preferences regardless of their effect on the firm or the economy. But in the field of business and industry in this country today the main beneficiaries of the government's present development plan are Australian firms. With Commonwealth expenditure of the order of $20,000,000 a year on military bases, one wonders what relative sum might properly be expected to be available for the development of indigenous participation in commerce. The present government contribution through the Division of Business Management and Training, including the Registry of Co-operatives, is $414,154.
Notes on the contributors

Dr Margaret Mead has been actively concerned with research in New Guinea for forty years. She began field research in this country in 1928 among the Manus people, worked among the Arapesh inland from Dagua in 1931, and among the Mundgumor people of the Yuat River, and on the Tchamburi Lakes in 1932-33. In 1939 she studied the Iatmul of the Middle Sepik. She returned to studies in Manus in 1953 and has made a number of subsequent research visits there. In 1967 she inaugurated a return field trip to Iatmul under the direction of Dr Rhoda Metraux. Among her many publications on New Guinea are Growing up in New Guinea in 1930, Kinship in the Admiralty Islands in 1934, the three-volume work, The Mountain Arapesh between 1938 and 1940, Sex and Temperament in Three Primitive Societies in 1952, New Lives for Old: Cultural Transformation in Manus, 1928-1953 in 1956. In addition, she has undertaken field studies in social and economic change among American Indians, Samoans, and Indonesians. Her more general works on problems on economic and social change include Cultural Patterns and Technical Change and a number of papers in professional journals.

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