Map 1. Eastern Highlands District of New Guinea
Indigenous cash cropping, capital formation and investment in the New Guinea Highlands

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Map: Eastern Highlands District of New Guinea

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Preface

The research on which this bulletin is based was carried out in New Guinea from February to August 1967 while I was an Honorary Fellow of the New Guinea Research Unit supported by a Fulbright grant from the Australian-American Educational Foundation. The analysis of field data and the writing of this bulletin was undertaken at the Australian National University in late 1967 while I was still attached to the New Guinea Research Unit and in early 1968 after my appointment to the Department of Pacific History.

This bulletin is a preliminary and I hope timely account of economic change in the New Guinea Highlands. It represents an attempt to apply anthropological methods, as urged by Firth (1964), to problems of economic development, and this early publication of preliminary results is prompted by a desire to make a contribution towards finding solutions to the problems of promoting indigenous economic growth in New Guinea. The data and interpretations presented here are now being extended by further field research in New Guinea and later will be combined with findings by Ruth Finney on need for achievement (as originally defined by McClelland et al. 1953) and other motivational factors derived from research among New Guinean high school students, in a more general treatment of the relationship between traditional society, contact experience and economic opportunities, and indigenous economic development in New Guinea.

To all the people living in the Highlands who aided me and provided me with information I would like to give my thanks, although as many are subjects of this research they must remain anonymous. In addition, I would like to thank R.G. Crocombe for suggesting this topic and for making the research possible, and A.L. Epstein, T.S. Epstein, R. Finney, M. Reay, D.P. Sinha, W. Stanner, H. To Robert, R.K. Wilson and many others for their suggestions concerning this research. I would also like to thank E.K. Fisk for his many helpful comments on an earlier draft of this bulletin.

Plates 1, 2, 3, 4 and 10 are from the Department of Information and Extension Services, Administration of Papua and New Guinea.

Because of the short time in the field, and the multiplicity of languages and dialects spoken in the area studied, research was carried out using Pidgin English (Neo-Melanesian), which I learned in the course of field work. This is the lingua franca of the Highlands and is, above all, the language of indigenous commercial relations.

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Chapter 1

Introduction

'Achieving the highest possible degree of indigenous participation in the economy' is considered by the Administration to be a basic requirement for the advancement of the Territory of Papua and New Guinea.\(^1\) However, at present the rapidly growing monetary sector of the economy is dominated by Australia and Australians. In the private sector expatriate planters produce the bulk of export crops, and the processing and export of cash crops, transportation, commerce, banking and industry are largely in expatriate hands. In the public sector, which dominates the economy, Australia provides the major portion of funds and also the main Administration personnel. New Guineans\(^2\) participate in the monetary sector primarily as unskilled or semi-skilled wage labourers, or as smallholder producers of cash crops. Their present subordinate position indicates that much ground must be covered before the 'highest possible degree of indigenous participation' is achieved.

There are, however, some important beginnings in the indigenisation of New Guinea's economy. The University of Papua and New Guinea, the Administrative College and other new educational institutions are training future Administration, professional and skilled personnel; indigenous cash cropping is increasing both by the penetration of cash crops into hitherto isolated areas and the increased scale of individual holdings; and indigenous enterprises are beginning to appear.\(^3\) These significant developments demand examination so that future programmes and policies may benefit from a knowledge of present efforts and achievements in increasing indigenous economic participation.

This bulletin examines indigenous economic growth in the Goroka Sub-district of the Eastern Highlands District. The Gorokan example merits attention for several reasons. First, indigenous penetration into the

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1 Territory of Papua and New Guinea (1967:6).
2 'New Guinea' and 'New Guineans' are used in this study to stand, respectively, for the Territory of Papua and New Guinea, and for the Territory's indigenous inhabitants.
3 Cf. Crocombe (1967a).
monetary sector has proceeded rapidly in Goroka and, in the case of some people, has gone beyond the level of smallholder cash crop production. Gorokans speedily adopted coffee cultivation soon after the crop was introduced in the early 1950s and they now produce about 10 per cent of New Guinea's coffee exports. Although most Gorokan coffee is produced on smallholdings, some individuals have started sizeable plantations where production involves the use of modern equipment and wage labour.

Second, Gorokans have been able to save significant amounts of cash from the sale of coffee and other minor crops and to invest a large portion of their savings in commercial enterprises. Their investment activities have been particularly impressive because of their ability to pool funds among themselves in order to initiate commercial ventures requiring far more capital than any one individual could provide.

Third, Gorokan development has been intimately linked with European commercial development in the Highlands, and with Administration measures to promote development in that area. Since the relation between European economic exploitation of New Guinea and indigenous economic growth, and the role of the Administration in fostering that growth, are factors of crucial importance to plans for the future of New Guinea, the Gorokan experience promises to be instructive.

Goroka

The Goroka Sub-district includes 681 square miles of valley and mountain lands in the Eastern Highlands District of New Guinea. The Goroka valley, one of a series of inter-montane valleys which occur at elevations between 4,000 and 6,000 feet along New Guinea's mountain spine, forms the main section of the Sub-district. This valley of approximately 450 square miles is almost entirely bounded by mountain ranges and is drained by the Asaro and Benabena rivers which flow from the Bismark ranges in the north through the valley to join and form the headwaters of the Purari river which empties into the Papuan Gulf. The Sub-district also includes the more mountainous Watabung region located just outside the valley to the west and south-west.

Although the people of Goroka lack a common name and still tend to identify themselves with their local group or linguistic name, for convenience I refer to them as Gorokans. The Gorokans were not unified in pre-European times, but were broken up into some forty or fifty tribal groups with a total population of probably about 50,000. Now the Sub-district is divided into five census divisions - the Bena, Lowa, Unggai, Upper Asaro and Watabung divisions, groupings which partially reflect major cultural units in the area. However, although there are contrasts in language and other cultural features between and even within these groups, there is a broad unity among Gorokan peoples, marked by similar subsistence techniques, ritual practices and other cultural features, which tends to distinguish them from the neighbouring peoples of the Kainantu Sub-district to the east and the Chimbu District to the west.
This broad unity among Gorokan peoples allows the following generalisations to be made concerning social, political and economic patterns that apply, in the main, to all groups within the Sub-district.¹

The Gorokans lived and still live in villages of from approximately 50 to 300 inhabitants. These villages consist of a row of houses, including, except where missionary pressures have been effective, one or more separate houses for men who traditionally live apart from their wives and children. Before pacification, villages were stockaded and usually located on ridges for ease of defence, but now many villages have been relocated on lower ground nearer roads and crops. Surrounding villages are garden lands, pig grazing lands, and now coffee plantations.

Each village is usually formed around one clan or sub-clan. These groups are nominally patrilineal, although many people within a village may not share a claim to patrilineal descent from a common ancestor. In addition to the women of other clans who marry into the group, the village usually also includes a significant proportion of men without a patrilineal affiliation who have been allowed to join the group. The resulting village group is therefore more mixed in composition than its sub-clan or clan identification would imply.² In this study, in which clan (or sub-clan) and village (in the sense of a social group) are used interchangeably, references to clans or clansmen refer primarily to the local village group, rather than to any strictly patrilineal group.

Below the clan or sub-clan level are patrilineages, extended family groups, nuclear and polygamous family groups, and above this level are larger aggregates usually termed sub-tribes or tribes. Although these latter groups do not form compact residential units they do have some territorial unity in that they are made up of adjacent clans. Tribe members acknowledge a common name, share a common tradition of origin, and participate in rituals together. The tribe was the largest permanent group in traditional Gorokan society and was surpassed in size only by confederacies of two or more tribes which came together in times of war. Otherwise, each tribe was an independent unit, potentially if not actively hostile to other tribes. Even today, after more than a generation of Australian control, inter-tribal enmity may be great and occasional clashes still occur in areas remote from Administration centres.

Political leadership among Gorokans follows the dominant Melanesian pattern: 'big men' who rise to power largely through their own efforts are the leaders. Only at the extended family and patrilineage level is

¹ The cultural similarity among Gorokan peoples is discussed by Read (1954:20, 34-5). His account plus that of Howlett (1962:45-50), form the basis of the following summary. Separate treatments of various Gorokan groups are found in Read (1966), Langness (1964), Newman (1965) and Salisbury (1962).
² Cf. Langness (1964).
authority consistently linked with seniority or priority of birth. Above this level leadership is achieved, not ascribed: leaders are the men who attract followers because of their deeds rather than their age or birth order. Although skill in war and oratory was linked with leadership, economic achievement was an important if not prerequisite accomplishment of the big man. Personal wealth accumulation and the ability to organise and manipulate complex exchanges of goods were the marks of many a successful Gorokan leader.

Gorokan economic activities were based on subsistence farming, but also emphasised wealth and complex exchanges of special types of goods. Salisbury (1962:39-111) has analysed the economic life of the Siane, a group located partly in Goroka and partly in the neighbouring Chimbu District, and described their activities in terms of three distinct economic nexuses. Although detailed corroborative data for other Gorokan groups is lacking, Salisbury's model appears to be generally applicable throughout the area and is followed here.

Subsistence activities form the first nexus. Gorokans had a simple but adequate technology based on stone and wood tools and were primarily subsistence farmers. Farming centred around the production of sweet potatoes, taro, yams and other vegetable foods largely grown in individually controlled gardens, the use of which was interrupted by periodic long spells of fallow. The pig was the main domestic animal and was fed on cultivated vegetable foods and allowed to graze in uncultivated areas. Both men and women participated in gardening: men's tasks were largely those requiring axe work - clearing land and building fences; women's tasks centred around the planting, weeding and harvesting of crops.

The second nexus is that of 'luxury' activities involving the production, distribution and consumption of such scarce items as tobacco, salt, palm oil, pandanus nuts and fine stone for adze blades. These goods circulated mainly by means of personal transactions between individuals and often in the form of presents to visiting friends.

Transactions involving 'valuables' - notably pigs, ornamental shells, plumes and other decorative items - form the third nexus. Pig festivals and rituals marking marriages, births, initiation and peacemaking were the primary occasions for exchanging valuables. These occasions were public affairs, usually involving transactions between clans or sub-tribes, in which participating groups competed in the pooling of valuables and the making of presentations. For example, in the Idza Nama festival of the Gahuku (Lowa census division), an event connected with male initiation and the affirmation of friendship ties within the tribe, each participating group made a great effort to amass sufficient pigs and other valuables to exchange with their ally. These events were preceded by a concerted effort of participants to build up their pig stocks through breeding and the exchange of gold lip shells for pigs from other groups. A successful presentation of many pigs (sometimes over a hundred pigs might be involved) and other valuables brought
prestige to the group and to the individuals who contributed to the group's presentation.¹

The big men of each group dominated the accumulation and exchange of valuables. In addition to being major contributors they took an enter-

trepreneurial role in decisions on when and where an exchange was to take

place, in pooling contributions from individuals to make the group pre-
sentation, and in distributing the valuables presented to the group.²

Big men also often took the lead in ordinary economic activities like

clearing land, erecting fences, building men's houses and preparing clan
gardens for the first fruit ceremony. The picture of economic leadership
that emerges - that of men who make decisions, lead others in work, and
direct the flow of valuables - is thoroughly traditional but not, as

will be shown, without implications for the development of modern eco-
nomic leadership.

European contact, control and exploitation

The existence of the Gorokans and other Highlands peoples was unknown
to the outside world until 1930 when gold prospectors entered the High-
lands (Howlett 1962:52-5). The Goroka area was not penetrated until
1932 when prospectors returned for a more extended but fruitless search
for gold deposits sufficient for commercial exploitation on the scale
of those worked at that time in the Bulolo area of north-west New Guinea.
(Alluvial gold was found in stream and river beds and can still be panned
today for a small profit.) Patrol officers accompanied prospectors into
Goroka and established control in a few selected centres, and missionaries
started their work there soon after. The war brought Allied troops into
the area, and led to the establishment of three military airfields in
Goroka. After the war civil administration was re-established, although
the area remained classified as uncontrolled territory until 1947. By
this time all the peoples of Goroka had been contacted by patrol officers
and placed under at least nominal Administration authority.

With the end of the war and the subsequent extension of control
throughout the area, Europeans once again evinced an interest in the
economic exploitation of Goroka. This time, however, they came not as
prospectors but as settlers seeking land for coffee plantations. The
first land was alienated in 1949, followed by a minor land boom in which
some thirty plantations were established in less than a decade (Howlett
1962:222-5). (All were established in the Goroka Valley; none in
Watabung.) This development was, however, cut short in the late 1950s
when the Administration, fearing an eventual land shortage and resulting
conflict between settlers and Gorokans, stopped the alienation of land

¹ See Read (1952:17-20).
² Read (1966:89-94, 206) illustrates the pivotal role of the Gahuku
leader in giving and receiving marriage presentations.
for plantation purposes. Since then the original plantations have come into full production and many have been expanded through planting unexploited portions of the original leases. The resulting development, plus indigenous coffee development, has made Goroka the major coffee centre of New Guinea.

The abundant rainfall of Goroka and the rich soils of the area, particularly the well-drained loams of the valley slopes, combine to produce a premium grade of coffee (Barrie 1956:3). The relatively dense population of Goroka, lacking cash crops and other opportunities for wage labour, could provide cheap labour. And the high value per weight ratio of coffee meant that it could be economically airfreighted to the coast, the only way crops could be moved out of the Highlands until the Highland Highway was fully opened to commercial traffic in 1965. Favourable environmental conditions, availability of labour and moderate transport costs, combined with the high coffee prices prevailing in the early 1950s, made coffee a logical choice for a plantation crop in Goroka.

Many Gorokans supported the introduction of coffee and welcomed European settlement for they hoped that the introduction of a cash crop and the establishment of European plantations in their midst would bring them some of the wealth and goods of the European world. Although some cargo cult-like assumptions concerning the quick acquisition of wealth were probably present, Gorokans seem to have realised that a European plantation close at hand would give them an opportunity to earn cash through land sales, wages, or vegetable sales, and would be a source of supply for tools and other consumer goods ordinarily sold by plantation stores. Many groups were therefore willing and anxious to let a portion of their lands go in order to have a European plantation nearby.¹

Land disputes provided Gorokans with an additional motive for letting Europeans take up land. For example, group A which disputed control of a stretch of land with group B would sell the land to the Administration for a plantation lease, thereby denying use of the land to B and gaining some cash in addition to an increment to local pride for having bested a rival (Orken n.d.).

Although land alienation for plantation purposes has been banned since the late 1950s, there are still some isolated groups anxious for a European plantation to be established in their area, and even some relatively advanced groups that are willing to let disputed land go to block a rival group.²

¹ Land was ordinarily alienated by sale to the Administration which then leased it to European planters, although in some cases it appears that de facto acquisition of the land by the settlers preceded the formal transaction.
² In July 1967 I was approached by a leader of a group located not far from Goroka township who asked me to either buy some land, or bring the
The development of a European plantation economy led to the development of processing, marketing and transportation facilities, as well as the expansion of retail centres and service industries in the area. This development has been focused in and around the township of Goroka. From a small beginning as the headquarters for European control in the Highlands (with a European population of about fifteen in 1950) this town has grown to be a sizeable Administration and commercial centre. In 1966 the town had 4,816 inhabitants, including almost 1,000 Europeans. The latter are employed by the Administration and by private firms which include the three airlines servicing Goroka, branches of two Australian banks, five major wholesale and retail establishments, three truck agencies, several construction companies and a number of other businesses. Light industry is represented by two sawmills, a brick factory, a passion fruit processing plant, a coffee mill and a coffee cannery, which also produces peanuts and potato chips. Two hotels, two accounting firms, and a branch of an Australian coffee buying firm complete this picture of a European commercial and administrative outpost in the New Guinea Highlands.

2 (continued)
land's availability to the attention of other Europeans, which he claimed rightfully belonged to his group but which was being 'unjustly' coveted by another group.
Chapter 2

The Gorokan response to economic opportunity

The subsistence farmers of New Guinea have two main resources available to them for economic growth: their surplus land and labour which can be channelled into cash crop production. According to Fisk (1964), the main problem in tapping these resources is to effectively link the subsistence economy with the external market economy. Roads, airfields and transportation services must be developed to connect the people with the outside world and external markets. Crops must be introduced, extension services provided, and processing and marketing facilities developed to provide the means for cash crop production and sale. And, adequate access to goods is necessary in order to provide or reinforce the incentive for earning cash.

Although Gorokans were essentially isolated subsistence farmers, they were nonetheless relatively affluent in that not all their resources went into subsistence production. Living in a fertile and well watered region1 with an overall population density of eighty persons or less per square mile, and equipped with a large inventory of food plants and an adequate though primitive technology, Gorokans had a measure of land and time available after their subsistence needs were met.2

The Gorokans had not long to wait after contact until they were provided with the opportunity to put these resources to work, for within a generation of the discovery of the Highlands effective linkage with the market economy was underway. By the 1950s cash crops had been introduced, transportation, processing and marketing facilities had been developed, and a network of retail outlets provided. Given the incentive and the means to produce cash crops - mainly coffee - the Gorokans rapidly turned their surplus land and labour to producing crops for the world market. Administration efforts in pacifying the area and providing social order,

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1 Some areas like the dry plains on the eastern edge of Goroka valley were less well endowed than the central and western areas of Goroka.
2 Surplus time available was increased by the introduction of steel tools (which preceded effective linkage with the market economy). Salisbury (1962) estimates that steel tools cut the time required for garden clearing, fence building and other male tasks by 30 per cent.
in building airfields, bridges and road (making use of considerable local labour), and in providing agricultural extension services helped speed this linkage and the consequent development of indigenous cash cropping, but substantial private European investment in coffee plantations and other facilities was also a dynamic factor in promoting local development.¹

European coffee plantations became, in effect, demonstration plantations where the local people could observe cash crop production and, by working as labourers, learn something of the techniques involved. The establishment of these plantations in turn required the establishment of transportation, processing and marketing facilities which could be utilised by Gorokan producers as well. And the flow of investment into the area for developing coffee gave Gorokans their first regular opportunity to earn cash - by working for or selling vegetables to a plantation - and to purchase goods, usually at a plantation store. This provided them with an introduction to the cash economy before they had an opportunity to earn cash through the sale of their own coffee. European investment in Goroka, and the indigenous response to the opportunities opened up by this investment, provide a classic example of the stimulating effect of outside investment on people previously isolated from the market economy.

In addition to outside stimulus, the Gorokan readiness to accept innovations and exploit opportunities was of equal if not greater importance to their economic growth. Their alacrity in taking up cash cropping and other enterprises, and their ingenuity in putting their land and labour (and later their capital) to work, indicates that Gorokan society was not rigidly conservative and closed to change, but was open and receptive to new forms of activity. Indeed, the Gorokan example supports the view of Hoselitz (1961) that in some cases the values and institutions of a traditional society may be adaptable to economic growth, and need not be automatically swept away or altered for development to occur. In the following chapters it will become apparent that the Gorokans were, in a sense, 'ready' for economic change, and were able to react quickly once market opportunities were presented to them.

To anticipate a comparison of the Gorokan experience with that of some coastal New Guinea groups where minimal adaptation or growth is evident, it should be emphasised that unlike many coastal areas which experienced a harsh and shattering imposition of European control, Gorokans had a much different contact experience. To be sure, Gorokans were physically and politically overwhelmed by Australia. But the patrol officers and administrators who extended control through the area, and the missionaries who followed in their wake, showed considerable enlightenment (undoubtedly gained through experience on the coast and elsewhere in New Guinea) in imposing the new rule and standards

without seriously disrupting indigenous society. Although warfare and other practices obviously contrary to Australian law were prohibited, everyday village life, the structure of social groups and the basic right of the people to live where they wished and to follow their own mode of life was not greatly disturbed. Gorokan society under Australian rule was not a shattered society, and the people had not been shorn of all their self-confidence when the opportunity came to participate in the market economy. They were therefore free to react to the modern situation with traditional values and institutions largely intact and operative.

And it would seem that these traditional values and institutions prepared them well for their encounter with the commercial world. Gorokan society could be characterised as an achievement-oriented society in which both individuals and groups, in competition with other individuals and groups, sought to increase their status largely through accumulating wealth and making politic transactions with it. Three features of Gorokan society central to this achievement orientation stand out as features adaptive to market conditions: the emphasis on wealth and the prestige that accrues through its acquisition and control; the facility to pool wealth and other resources for specific goals; and the entrepreneurial style of ambitious and status-seeking men. In a sense, the Gorokans have contributed positively and decisively to their rapid economic growth through application of these features to the modern context of cash cropping and commerce.

For example, the traditional emphasis on wealth and prestige through wealth finds its modern expression in the desire to earn money which is sought as a symbol of accomplishment and prestige as well as a medium for acquiring goods. Significantly, the goods sought are not limited to consumer purchases, but include capital items like trade stores and trucks which are generally considered more prestigious acquisitions than ordinary consumer goods. The Gorokan facility for pooling resources in traditional economic transactions is manifest in modern development in the pooling of labour by various means for clearing and planting coffee plantations, and in the pooling of capital for investment. The latter manifestation is most spectacular for through pooling contributions from many people Gorokans have been able to start retail, trucking and other enterprises even though their per capita income is less than $20 per annum. And the entrepreneurial element in Gorokan leadership has meant that ambitious men have been willing and able to act as leaders in directing the allocation of land, labour and capital into new enterprises. This development has led to the formation of a class of recognised economic leaders who are the entrepreneurs - part-traditional and part-modern - spurring Gorokan economic growth. Aided by a swift and decisive linkage with the external market economy, and a comparatively laissez-faire Administration attitude to indigenous society, the Gorokans have been able to adapt their values and institutions to modern ends. In so doing they have demonstrated the potential for economic growth inherent in a New Guinea society.
The remainder of this chapter analyses the course of Gorokan economic growth, from the initial investment of land and labour in coffee planting and production, to the subsequent investment of cash revenue in trade store, trucking, cattle raising and other enterprises.

Cash cropping

Coffee is the major Gorokan cash crop, although not the first. Vegetables were sold to the Administration hospital as early as 1948 (Salisbury 1962:125), and both peanuts and passion fruit were introduced as cash crops in the early 1950s (Howlett 1962:96-9), but none of these crops have had the impact that coffee has had on the Gorokan economy. Vegetables, mostly the Highlands staple sweet potato, have been sold in large quantities to the Administration, to plantations and after 1957 to town workers and others at the Goroka market, but there has been little commercial development of vegetables except for market sales by Gorokan women. Similarly, although Gorokans sell some peanuts and passion fruit, they show little interest in large-scale production of these crops, as they consider the market possibilities and the prices these crops command to be inferior to coffee. Although coffee has not been free from price fluctuations or marketing problems, Gorokans have considered it to be the most profitable and reliable crop, and every year since the first plantings the number of cultivated trees and the amount of coffee produced has increased (see Tables 1 and 2). In 1967 Gorokan plantings probably exceeded 4,500,000 trees and production was well over 1,000 tons.

Table 1

Coffee trees planted by indigenous growers in the Goroka Sub-district*

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of trees planted</th>
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<tr>
<td>Up to 1962</td>
<td>1,956,000</td>
</tr>
<tr>
<td>1963</td>
<td>481,000</td>
</tr>
<tr>
<td>1964</td>
<td>419,000</td>
</tr>
<tr>
<td>1965 (last year counted)</td>
<td>582,000</td>
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<tr>
<td>Total as of June 1965</td>
<td>3,438,000</td>
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</tbody>
</table>

* Figures obtained from the Department of Agriculture, Stock and Fisheries (DASF). In view of the difficulty of enumerating plantings in remote areas, I would estimate that these figures are at least 10 per cent below actual number of trees planted.

The development and expansion of indigenous coffee production in Goroka surprised many observers for it was contrary to some predictions of indigenous resistance to its cultivation. For example, during an
Plate 1. Villagers picking coffee berries. Sinanoga, Bena Census Division, 1965

Plate 2. Villagers pulping coffee berries at a jointly-owned coffee pulpery. Sinanoga, Bena Census Division, 1965
Plate 3. A coffee planter and his workers drying coffee at one of the first large Gorokan owned plantations. Okiufa, Lowa Census Division, 1961

Plate 4. Women workers sorting hulled coffee at a large European owned coffee factory. Goroka township, 1965
Table 2

Gorokan cash crop production and income*  
(excluding tobacco and vegetables)

<table>
<thead>
<tr>
<th>Year</th>
<th>Coffee**</th>
<th>Passionfruit</th>
<th>Peanuts</th>
<th>Pyrethrum</th>
<th>Gross cash income</th>
<th>Approx. population***</th>
<th>Per capita cash income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tons</td>
<td>Tons</td>
<td>Tons</td>
<td>Tons</td>
<td>$</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td></td>
<td>Income</td>
<td>Income</td>
<td>Income</td>
<td>Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1954-55</td>
<td>1+</td>
<td>360</td>
<td>209</td>
<td>7,114</td>
<td>64.5</td>
<td>4,774</td>
<td>12,248</td>
</tr>
<tr>
<td>1958-59#</td>
<td>100</td>
<td>40,720</td>
<td>449</td>
<td>23,624</td>
<td>75</td>
<td>3,000</td>
<td>67,344</td>
</tr>
<tr>
<td>1960-61##</td>
<td>143</td>
<td>63,420</td>
<td>321</td>
<td>18,939</td>
<td>21</td>
<td>735</td>
<td>83,094</td>
</tr>
<tr>
<td>1961-62</td>
<td>400</td>
<td>177,410</td>
<td>463</td>
<td>27,317</td>
<td>30</td>
<td>1,050</td>
<td>205,777</td>
</tr>
<tr>
<td>1964-65</td>
<td>910</td>
<td>384,385</td>
<td>463</td>
<td>23,400</td>
<td>53</td>
<td>1,835</td>
<td>n.d.</td>
</tr>
<tr>
<td>1965-66</td>
<td>1,110</td>
<td>464,640</td>
<td>380</td>
<td>16,824</td>
<td>53</td>
<td>1,835</td>
<td>n.d.</td>
</tr>
</tbody>
</table>

* All monetary sums in this bulletin are quoted in Australian dollars. One Australian dollar equals US $1.1179.

** Parchment (unhulled) coffee.

*** Estimates for the Sub-district office, Goroka.


## Statistics for this and following years from Annual Reports of the Department of Agriculture, Stock and Fisheries, Goroka. The tonnage and income figures are estimates only as no record is kept of actual production and income.
agricultural conference held in Goroka in 1956, Carne implied that previous experience with subsistence production of such crops as sweet potatoes poorly prepared New Guineans for the cultivation of commercial perennial crops like coffee. In particular, he considered that the long wait of three or four years between planting and first harvest, coupled with the continuous care required during that period, would discourage indigenous planters used to crops that yield in yearly or shorter intervals. He also considered that an indigenous system of land tenure which did not fix ownership or occupancy rights of an area for periods longer than a few years would make it difficult to manage the production of a cash crop like coffee which might bear as long as 25 or 30 years.

Although the introduction of coffee undoubtedly required some adjustments on the part of Gorokans, the predicted difficulties were apparently not serious, and Gorokan enthusiasm for this new cash crop soon taxed the Administration's ability to provide technical assistance. At first, planting was closely supervised by officers of the Department of Agriculture, Stock and Fisheries (DASF) who tried to restrict planting to individuals or small family units and to make sure all plantations were properly laid out, but with the coffee 'boom' of the late 1950s DASF officers could not control all Gorokan plantings. The resultant unsupervised plantings led to poor results in some cases - owing to the too close spacing of trees, etc. - but it did allow traditional work and economic organisation patterns to assert themselves.

Although some Gorokans aided by members of their immediate families cleared and planted in an 'individual' manner, a great deal of coffee was planted using traditional methods of organising group work. One common pattern was for a group - a section of a village or sometimes a whole village - to clear land, fence and then plant it. With a few exceptions, after planting the trees were divided among individuals for their exclusive care and exploitation. Another pattern was for a man to have his land cleared and fenced by a reciprocal work party (his obligation being to join the party in preparing land for others), with planting and subsequent harvesting being left to the man and his family. A third pattern was for a prominent man to organise his followers in a 'big man' manner and have them clear and plant a large area with coffee for his own exploitation. No direct payment was made to workers; the latter shared instead in the prestige that accrued to their leader for having such a large plantation and also stood to benefit from their leader's largesse in times of need.

In most cases I have record of involving group participation in the development of coffee holdings, the ultimate control of the developed land and the right of harvesting the coffee falls to a single individual or a small family group like a father and his son(s). Even in the most

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'communal' cases, as when a big man gets virtually the entire village to develop a large plantation, the land usually remains under the leader's control: he directs the care and harvesting of the coffee and receives the cash revenue from coffee sales. Although no detailed investigation of land tenure was undertaken, my data indicates that the majority of individuals developing coffee holdings appear to have gained land rights following traditional patterns of acquiring land. For example, in most of the cases I recorded, land for coffee was acquired: (i) by converting land formerly used or claimed by the coffee planter for the cultivation of food crops or for pig grazing; (ii) by claiming land formerly used by the planter's father or some other relative; or (iii) by reclaiming lands not recently exploited but considered to be part of the domain of the planter's clan or village. In all these cases patrilineal succession, though prominent, was not the exclusive means of gaining land rights. Membership in the local group, the tracing of rights through maternal relatives, adoptive relatives or others, were important features in some cases. 

Surplus Gorokan labour was the primary investment that went into coffee planting in all but a few cases. A handful of men, who had been able to earn considerable sums of money through vegetable sales, wage labour, gold panning or other enterprises, hired labourers to develop plantations. Although these men, who are discussed in Chapter 3, might seem exceptional, they were actually fore-runners of the entrepreneurial development that followed as soon as cash receipts from coffee started coming in to provide investment capital.

Capital formation and investment

Gorokans regard cash cropping as something more than an extension of or supplement to regular farming practices. They consider the production of cash crops, particularly coffee, to be a 'business' (Pidgin English: *bismis*). And they have not been content to confine their 'business activities' to cash cropping, but have expanded them into retailing, transport, cattle raising and other fields. This Gorokan commercial expansion, except for Administration-sponsored cattle and pig projects, was neither promoted nor expected by the Administration. It was instead a product of the perception by Gorokans of opportunities to invest their capital and talents and their desire for economic achievement.

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1. This and other aspects of coffee development among Gorokans was intensively studied during 1965 and 1966 by Mr G. Hogbin who is now preparing a detailed report of his findings.
2. I know of only one case in which money was exchanged for land rights. An ambitious man without access to much land by traditional means 'rented' the land of others through payments of a few dollars a year and established a large plantation on these lands.
Gorokan investment orientation is striking. Imported goods indeed attracted them, but significantly the goods most coveted at first were tools - steel axes, knives and garden implements - which may be regarded as capital investments since the object of their acquisition was the increase of productive efficiency if not production. Clothing, tobacco, some foodstuffs and various items were also sought-after goods early in the contact period, but it is noteworthy that as their coffee incomes increased the Gorokans did not greatly expand the range of their consumption expenditures. They chose to save much of their income - in bank accounts and in buried tin boxes - and later used it to start their own businesses. In a sense the demonstration effect has operated among the Gorokans more in the investment than the consumption sphere. Instead of being primarily impressed by the superior consumption standards of Europeans, Gorokans have been most excited by European commercial activities and have sought to emulate them in investment rather than consumption.

The first major Gorokan investment activity was the construction and stocking of small trade stores in the mid-1950s. By 1958, when the first records are available, there were five licensed indigenous trade stores in the Sub-district. The number increased slowly to twenty in 1962, but multiplied rapidly thereafter as coffee began to mature and be sold from the extensive holdings planted in the late 1950s. By 1967 the total number of Gorokan trade stores stood at 447, approximately one for every 130 people (see Table 3). (Since many trade stores are unlicensed, the actual number of Gorokan stores, and the ratio of store per population, is somewhat higher.) Gorokan-owned stores have now largely supplanted plantation stores as suppliers of retail goods to villagers, and are a common sight in most villages and along the main roads.

Trucks were the next major items of investment among Gorokans. They range from small utilities to heavy trucks up to five tons and are used for carrying both passengers and freight. The first commercial truck (bisniskar) was purchased in 1957. In 1962, when the available records begin, there were five Gorokan-owned trucks registered as Public Motor Vehicles. (Almost all Gorokan trucks are registered as Public Motor Vehicles so that they may be used to carry passengers as well as freight.) By May 1967 the number of registered Gorokan trucks increased to sixty-eight (Table 4).

---

1 Various shells (particularly the 'gold lip' mother-of-pearl shell) so important in traditional wealth exchanges were popular trade store items in the late 1940s and early 1950s, but demand waned in the late 1950s with their virtual replacement by money in wealth exchanges.

2 Epstein (1965:191) notes the same phenomenon among the Tolai of New Britain.
Table 3
Licensed Gorokan-owned trade stores in the Goroka Sub-district*

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of licences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1958</td>
<td>5</td>
</tr>
<tr>
<td>1959-60</td>
<td>no data</td>
</tr>
<tr>
<td>1961</td>
<td>8</td>
</tr>
<tr>
<td>1962</td>
<td>20</td>
</tr>
<tr>
<td>1963</td>
<td>49</td>
</tr>
<tr>
<td>1964</td>
<td>95</td>
</tr>
<tr>
<td>1965</td>
<td>290</td>
</tr>
<tr>
<td>1966</td>
<td>338</td>
</tr>
<tr>
<td>1967</td>
<td>447</td>
</tr>
</tbody>
</table>

* From Sub-district Office, Goroka.

Table 4
Gorokan-owned Public Motor Vehicles registered in the Goroka Sub-district*

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of licences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1957</td>
<td>1</td>
</tr>
<tr>
<td>1958-62</td>
<td>no data</td>
</tr>
<tr>
<td>1963</td>
<td>5</td>
</tr>
<tr>
<td>1964</td>
<td>17</td>
</tr>
<tr>
<td>1965</td>
<td>42</td>
</tr>
<tr>
<td>1966</td>
<td>58</td>
</tr>
<tr>
<td>1967 (to May)</td>
<td>68**</td>
</tr>
</tbody>
</table>

* Figures obtained from the Motor Vehicle Registry, Goroka.
** Since some Gorokan trucks are registered and purchased in Lae the actual number of locally owned trucks is probably between 70 and 80.

Gorokans became interested in buying cattle in the late 1950s, and in the early 1960s the DASF began sponsoring cattle projects and has provided considerable extension services to promote commercial cattle production since then. Investment in cattle projects, most of which has been channelled through the DASF which furnishes supplies and cattle to the projects, accelerated greatly in 1965, but has waned since because of marketing and other problems (see Table 5). The DASF has also begun to promote commercial pig raising, although as of July 1967 only slightly over $3,000 had been invested in pig projects.
The newest form of Gorokan investment has been in small restaurants. There are now between one and two dozen of these in operation throughout the Sub-district. Most are minor enterprises, and physically consist of little more than a structure of local materials enclosing a wood stove and perhaps a table and chairs; a few, however, represent considerable investments and consist of a European-type structure equipped with a modern stove, a refrigerator and tables and chairs.

Gorokan investments have been almost wholly financed from Gorokan savings, most of which has been derived from coffee sales. As To Robert (1967) has observed for investment by New Guineans in general, external sources like trading banks, Administration agencies or European firms and individuals, have contributed very little to the total amount of money Gorokans have invested. For example, during the period May 1966 to May 1967, I estimate that the total new cash investment by Gorokans was at least $180,000, of which, I estimate, less than $10,000 came from external credit sources (see Tables 6 and 7). Therefore about 95 per cent of Gorokan investments appear to be financed from internal sources.\(^1\)

The bulk of Gorokan investment funds have come from coffee receipts, with minor additions from the sale of vegetables and other cash crops, wages, sales of gold (panned in local streams and rivers) and other sources. Cash that women earn from vegetable sales at the Goroka market

\(^1\) The above estimate excludes operating capital for trade stores, although a similar relationship between internal and external sources of credit certainly applies in this area. Using a conservative estimate the annual turnover of stock purchased would come to at least $300,000. Of this it is doubtful if more than $15,000 to $20,000 was bought on credit for wholesalers grant credit to only a few indigenous trade store owners; most sales to Gorokans are strictly for cash.
Table 6
Gorokan investments, May 1966 to April 1967
(estimate)*

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
<th>Cost  ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trucks (utilities, light trucks and heavy</td>
<td>45</td>
<td>130,000</td>
</tr>
<tr>
<td>trucks)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade stores (building and initial stock)</td>
<td>100</td>
<td>20,000</td>
</tr>
<tr>
<td>Coffee equipment (pulpers, fertilisers,</td>
<td>-</td>
<td>15,000</td>
</tr>
<tr>
<td>fermentaries, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cattle and pig projects</td>
<td>-</td>
<td>12,000</td>
</tr>
<tr>
<td>Restaurants</td>
<td>3-5</td>
<td>3,000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>180,000</td>
</tr>
</tbody>
</table>

* These are my estimates based on trade store and motor vehicle licence records, and on investigations of selected Gorokan enterprises.

Table 7
Investment loans to Gorokans from external sources,
May 1966 to April 1967
(estimate)*

<table>
<thead>
<tr>
<th>Source</th>
<th>Number</th>
<th>Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trading banks</td>
<td>7**</td>
<td>3,800</td>
</tr>
<tr>
<td>Native Loans Development Board</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Private firms and individuals</td>
<td>?</td>
<td>5,000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>8,800</td>
</tr>
</tbody>
</table>

* These are my estimates derived from interviews with officials of the institutions involved, and with individual Gorokans and Europeans in Goroka.

** This includes two vehicle hire-purchase loans which were arranged but not actually financed by local banks.

appears to be primarily used for domestic purchases and does not materially enter into investment funds. The month-by-month variation of investment reflects this dependence on coffee receipts. Table 8 illustrates this with data drawn from the monthly sales receipts from one truck agency (the only one that allowed me access to records); investment is highest during the peak coffee months of May to August and falls off during the rest of the year when little or no coffee money is coming in.

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1 See Appendix I.
How are Gorokan investment funds formed? This question is crucial: with a yearly income of less than $10 per capita from coffee (and less than $20 in all), investment in trucking ventures that involve vehicles costing several thousands of dollars, in trade stores and in other projects would seem to require some mechanism of capital formation. Personal accumulation of savings is important in Gorokan capital formation, but because only a few Gorokan individuals are able to accumulate sufficient funds for major investments, accumulation must be combined with a method of drawing together the capital of many individuals. The method used by Gorokans is known as 'pooling money' (bungem mani). It is an informal process, unrecognised in New Guinea law, by which a group of persons, varying from a few to several hundred, pool their savings for the purchase of a vehicle, the construction and stocking of a trade store or the initiation of some other enterprise.  

The number of persons contributing funds for an investment depends largely on the capital requirements of that investment. Generally, the

---

1 Including estimated income from other cash crops, wages, business enterprises and other sources, the total per capita yearly income was approximately $18 in 1965-66.
2 A small percentage of Gorokan investment money has been channelled through the Administration-sponsored savings and loan societies. As of April 1967, after two years of operation, all societies in the Eastern Highlands District had lent out only $23,016, of which a portion went for consumer goods.
larger the investment the more contributors are required. For example, a modest store built of local materials and stocked with a few cases of tinned fish, rice and other items, might require a cash outlay of about $75. This amount is easily within the range of the combined savings of several men and can sometimes be raised by single individuals more affluent than the average. Larger stores built of European materials and extensively stocked usually require investment of from several hundred to over a thousand dollars. Here pooled funds come into play more prominently and a sizeable number of contributors may be involved.

Because of the great cost (between $1,500 and $5,000) of trucks, Gorokans almost always purchase them with pooled funds. During the coffee season it is a common sight in town to see a group of villagers gathered in a truck agency while their combined fund of several thousand dollars - often in the form of shilling pieces - is being counted before a vehicle is purchased. Although most truck purchases appear to involve mainly people from one or several related villages, in some cases contributions are drawn from sources that are distributed across local group boundaries. For example, in one case I have record of some 784 individuals from nineteen villages contributing, in sums ranging from 10 cents to $484, slightly over $3,000 for the purchase of a truck.

Cattle projects, the other major field of investment, also require pooled funds - mainly because of the high cost (upwards of $750) of developing pasture, fencing and yards, and of purchasing breed stock. Land requirements also promote group investment. Few men are able to gain rights to enough land to raise cattle successfully; most cattle projects involve aggregates of lands held by numerous individuals. Contributions towards the improvement of pasture, for the purchase of stock, and for supplies are therefore normally drawn from those with land rights to the area involved in the cattle project.

The pooling of funds to start a store, trucking operation, or cattle project does not necessarily mean that these enterprises are wholly 'communal' clan or village ventures. This 'communal' theory of Gorokan enterprise requires some modification in view of the strong element of individual entrepreneurship present in most ventures. Funds are pooled and enterprises are operated under the influence, if not direct control, of individual leaders. In all Gorokan enterprises built with pooled funds that I investigated there was always one or two important men who acted in an entrepreneurial capacity in promoting financial support for the project and in directing it.

A final point in this examination of Gorokan investment behaviour concerns motivation. Why have Gorokans been so quick to pool and invest their meagre funds?

If any one term were used to characterise Gorokan investment activity it would be to call it 'conspicuous investment'. Expenditure on costly consumption goods, like radios or private automobiles, is not particularly valued by Gorokans, but the purchase of a truck for carrying cargo and passengers, or a trade store for selling goods, is. And, it seems,
Plate 5. The owner or manager's name, along with that of his village, is inscribed on Gorokan bisniskars for all to see. Goroka township, 1968

Plate 6. A successful bisnisman with his two trucks parked in front of his restaurant. Goroka township, 1968
the more highly visible the capital asset involved - like a 5-ton truck or a substantial trade store on a main road - the more the investment is esteemed. The prestige Gorokans derive from such conspicuous investment, and the consequent increment to the investor's status, are primary goals behind Gorokan investment behaviour.

But other motives are also involved. Gorokans expect to gain service benefits from their investments. A truck, for example, is desired by villagers to enable them to move their produce to the market or take their crops to buyers, and a trade store is wanted to have trade goods easily available. The utility in such investments is particularly high in remote areas which are miles from the nearest store and which are seldom serviced by commercial vehicles. Last, but not least, Gorokans want their investments to 'earn profits' (kisim winmani). Gorokans generally do not perceive that their desires for prestige, service and profit through investment might not be complementary, although as will be shown later, there is evidence that while a conspicuous investment may also provide service, it often does not show a profit. This problem of making investment profitable as well as prestigious and utilitarian is pressing, as will be detailed in Chapter 5.
Chapter 3

Gorokan business leaders

Those Gorokans who stand out in cash cropping and commerce are referred to by fellow Gorokans as bikfela man bilong bisis. This term might be translated simply as 'big businessman', but a translation as 'business leader' is preferable for their reputation rests on their ability to lead others in adapting to the market economy as well as on their own personal accomplishments. Ten of the most prominent Gorokan business leaders were selected for intensive investigation on the basis of their local reputations; they were the men whose names cropped up most frequently in my conversations with Gorokans as being the main bikfela man bilong bisis of the area. Nine of them live within the Sub-district boundaries, and a tenth, who was included in the sample because he was well known in Goroka where he centres his trading activities, lives just outside the boundaries. This chapter is devoted to an analysis of the characteristics and careers of these business leaders in order to shed light on the general problem of economic leadership among Gorokans.

The commercial activities of these business leaders justify their reputations, as can be seen in Table 9. Whereas the mean number of

Table 9
Commercial activities of ten Gorokan business leaders

<table>
<thead>
<tr>
<th>Name</th>
<th>No. of coffee trees</th>
<th>Trade stores</th>
<th>Trucks</th>
<th>Cattle</th>
<th>Restaurants</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>22,000</td>
<td>1, (1)*</td>
<td>1, (2)</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>18,000</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C</td>
<td>12,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>D</td>
<td>7,800</td>
<td>(1)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>E</td>
<td>7,500</td>
<td>1</td>
<td>2, (1)</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>6,700</td>
<td>(1)</td>
<td>3</td>
<td>20</td>
<td>-</td>
</tr>
<tr>
<td>G</td>
<td>6,700</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>H</td>
<td>4,500</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>I</td>
<td>2,000</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>-</td>
</tr>
<tr>
<td>J</td>
<td>1,400</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>1</td>
</tr>
</tbody>
</table>

* Numbers in parentheses indicate trade stores now closed or trucks no longer operating.
coffee trees per indigenous grower in Goroka is probably between 400 and 450, the mean number of trees per business leader in my sample is about 9,000, twenty or more times the general mean. Their participation in trade stores, trucking ventures, cattle projects, and restaurants also indicates their outstanding position. Although their net cash incomes are difficult to estimate, most business leaders probably gross over $4,000 per year. This figure may seem small, but compared to a general Gorokan per capita yearly cash income of less than $20 it is outstanding. In the case of some business leaders the above estimate is far exceeded. For example, one of the more successful business leaders recently died and left an estate valued in excess of $32,000. This evaluation included his coffee trees (but not the land on which they were planted), coffee processing equipment, cattle herd, operating capital for his coffee buying business, three trucks, and a $6,000 life insurance policy.

The business leaders' reputations are, however, based on more than their personal success and wealth accumulation. Part of their renown comes from their leadership in the economic development of the areas in which they live. Most business leaders were the first in their area to start large-scale coffee plantations and other commercial ventures, and their success has provided a model for their neighbours to follow. In addition, these business leaders have usually been free with advice and aid to others interested in starting commercial projects. Gorokan business leaders are proud of their role as leaders in the introduction of cash crops and commercial projects and in the consequent local economic growth - a process they call 'business development' (kirapim bisnis) or 'local development' (kirapim pies) - and do not hesitate to boast of how they have 'helped' (helapim) their people.

Gorokan business leaders have been quick to accept and exploit innovations and, as would be expected, most are men whose experience prior to local cash cropping and business activities was one that gave them some acquaintance with the outside world and Europeans (see Table 10). For example, 4 of the 10 in my sample have had six or more years of schooling - in mission schools, Administration schools, and in technical schools; all have had extensive work experience in jobs, such as school teacher, mechanic or medical assistant, that allowed them to observe and participate in modern institutions. Compared to most of their fellow Gorokans of the same age range (from about 30 to 55 years) who have had little or no schooling and who, if they have worked, usually only had a menial job like plantation labourer, these business leaders have had a comparatively good chance to learn something of the modern world through school and work opportunities.

A few of the business leaders have some knowledge of English, and all are proficient in Pidgin English, which is used for inter-linguistic group communication and particularly for commerce in Goroka. In addition, all of them speak one or more local languages other than their natal tongue. Although these linguistic accomplishments might seem slight,
Table 10
Experience previous to cash cropping

<table>
<thead>
<tr>
<th>Name</th>
<th>Schooling</th>
<th>Private employ</th>
<th>Public employ</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>8 years</td>
<td>mechanic</td>
<td>agricultural station employee</td>
</tr>
<tr>
<td>B</td>
<td>9 years</td>
<td>-</td>
<td>schoolteacher; clerk, prison guard</td>
</tr>
<tr>
<td>C</td>
<td>-</td>
<td>servant</td>
<td>Army service (World War II)</td>
</tr>
<tr>
<td>D</td>
<td>1 year</td>
<td>-</td>
<td>carrier; police</td>
</tr>
<tr>
<td>E</td>
<td>-</td>
<td>-</td>
<td>Headman (Luluai)</td>
</tr>
<tr>
<td>F</td>
<td>-</td>
<td>servant; coastal plantation labourer</td>
<td>Agricultural station employee</td>
</tr>
<tr>
<td>G</td>
<td>6 years</td>
<td>servant</td>
<td>medical assistant</td>
</tr>
<tr>
<td>H</td>
<td>-</td>
<td>servant</td>
<td>Headman (Luluai)</td>
</tr>
<tr>
<td>I</td>
<td>8 years</td>
<td>-</td>
<td>schoolteacher; agricultural assistant</td>
</tr>
<tr>
<td>J</td>
<td>-</td>
<td>servant</td>
<td>-</td>
</tr>
</tbody>
</table>

compared with their age mates the business leaders are far in the forefront in linguistically breaking out of their local environment.¹

The relatively greater school, work and linguistic experience of Gorokan leaders does not necessarily mean that they reject traditional society and are building their careers solely with European-sanctioned methods. It may be true that they are opportunist and ambitious men who have vigorously entered the market economy for their own advantage, but at the same time their behaviour is consonant with traditional achievement values and in particular follows the style of traditional big men. Although they themselves were not traditional leaders at the time of contact (most of those traditional big men are either dead or too old to lead an active life), they have applied big man entrepreneurial skills and methods in planning, organising, and directing economic activities to the modern context of cash cropping and commerce. They represent a new and adaptive generation of Gorokan big men.

In their initial effort to enter the market economy on a large scale, Gorokan business leaders demonstrated an ability to apply traditional

¹ Except for students now enrolled in the recently improved primary schools of the area or in the newly-opened Goroka high school, few Gorokans know any English and even proficient speakers of Pidgin English are probably in the minority.
behaviour to modern ends - to exploit indigenous institutions to build up their own enterprises. A coffee plantation, the first major enterprise for most business leaders, requires much labour to lay out. The services of at least a dozen men are needed for clearing, fencing and planting a plantation of several or more thousand trees. Most of the business leaders were able to recruit fellow villagers for these tasks without paying them a direct wage. Like a traditional big man calling upon his followers for their support, these modern leaders (save a few men lacking in status at the time they wanted to start their coffee plantations) were able to call upon the labour of others without any immediate reward other than a meal or two. Those donating their labour towards building up a coffee plantation, like those supporting a big man, did, however, stand to gain something by their actions from the prestige accruing to the group because of the formation of a major coffee plantation by one of its members and from any reciprocal aid the leader might provide later.

The business leader's reciprocity was expressed in a manner appropriate to a modern big man. Followers might be given food when in need, cash when they required money, and pigs and other valuables when they were required for a marriage exchange or some other transaction in order to reward their support and reinforce the leader-follower relationship. Although these relationships have not always continued in this form as cash cropping has spread throughout the population, they were important in the early careers of many leaders and still retain some significance in the more remote areas where economic growth has only started to penetrate throughout the society. For example, one business leader from such an area, who continues to use some traditionally recruited labour for his coffee plantation, proudly explained to me how he reciprocates (bekim) to those who help him:

When these people are in need I give them some money because they helped me with coffee. Alright, now I help them well - by buying some food when they are short, by buying meat, buying rice, and by giving pigs at a feast.

Although all business leaders appear to have availed themselves of traditionally recruited labour sometime in their careers, some business leaders were apparently not sufficiently known or did not have sufficient status at the time they started their coffee plantations to be able to recruit labour in the big man style. This is the case of three business leaders from my sample. Instead of using local non-paid labour, they recruited labourers from remote groups outside Goroka and paid them a small cash wage to do the clearing and planting necessary to start plantation. To pay their labourers these men used savings derived from other activities. One man used savings derived from school teaching and vegetable sales. Another used capital gained from a variety of enterprises. His story of capital accumulation bears repeating, particularly since it shows an acute pride in his ability to build up his cash funds through investing savings derived from one enterprise into another enterprise.
After service during the war with the Pacific Islands Battalion, this business leader returned to Goroka with $14 savings. With his money he bought seeds and garden tools, and established an extensive vegetable business, selling to local Europeans and to the Goroka hospital. After a few years he claims a profit of $238 (he quotes exact amounts) which he used to fly to Kainantu, a gold mining area on the eastern edge of the Highlands, to buy tools and to hire local labourers to prospect for gold. After three years of panning gold in streams throughout the eastern Highlands, he returned to Goroka with a profit of $1,060, hired labourers, and set out a coffee plantation of over 8,000 trees.

A third business leader told a similar story. While still in his teens he planted a little coffee using family labour, but was unsatisfied with the resultant few hundred trees. Primarily because of his age he was unable to recruit more labour than was available within his immediate family, so he left Goroka and worked for the Administration in Kainantu for a time. He then quit, taking his savings to start a lumber business, and then a gold panning operation. At the peak of his lumber business he employed ten labourers to cut trees and operate the hand pit saw, and his gold panning operation involved up to seven employees at a time. After a few years he was able to return to Goroka with $1,800 in savings, recruit a dozen paid labourers, and lay out what has become the largest indigenous-owned coffee plantation in New Guinea.

All but one of the business leaders in my sample have branched out from coffee production into other enterprises. Revenue from coffee has provided the bulk of capital for the stores, trucks, cattle projects and other enterprises, but not all the cash invested came from the coffee earnings of the business leader involved. Although some business leaders have financed ventures solely with their own savings, most have availed themselves of pooled funds subscribed from clansmen and others. In most of these latter cases the business leader in question makes the largest single contribution to the investment fund. In a few cases, however, a business leader has been able to initiate an enterprise in which he commits a small minority share of the capital. Like entrepreneurs elsewhere in the world, Gorokan business leaders have proven to be adept at soliciting and investing other people's money. For example, one business leader has put only $100 (out of a subscribed capital of $900) into a trade store, and only $168 into a trucking venture (involving a truck costing over $2,500). Yet, despite his small contributions these ventures are considered to be under his control. Those contributing funds accept his control because of his entrepreneurial ability in getting the pooled funds together for investment, and because of his managerial ability. He controls the administration and finances of both the store and the truck, and leaves his son, who has been trained as a bookkeeper in the Cooperative Division of the Department of Trade and Industry in Port Moresby, to direct their daily operations.

Upon close examination business ventures which have the appearance of being financed solely by a business leader often yield a picture of mixed
personal and group financing. One of the most complicated cases of such mixed financing involves two business leaders who are, in effect, majority stockholders in a trade store, a truck and a restaurant. These are all major Gorokan ventures: the store, located on the edge of town, is probably the most profitable Gorokan business; the truck, a heavy duty diesel-powered vehicle, occasionally carries goods between Lae and the Highlands; and the restaurant, equipped with a refrigerator, large stove and large and well-furnished dining area, serves meals to town workers, passing truckers and a few Europeans. These businesses are directed by one of the two partners who gives the appearance of being the sole proprietor and who, upon our first meeting, proudly told me that he had financed all the enterprises himself. He, in fact, enjoys relating a 'Horatio Alger' story of how it all started with 30 cents of self-raising flour which he used to bake scones. The latter were sold at the market, the proceeds were reinvested in more ingredients, etc., and his capital grew, according to the story, until he was able to start, successively, a store, a restaurant and a trucking business. However, it was apparent to me and was eventually admitted by him, that, in addition to his own savings, he has used considerable capital provided by the other business leader plus smaller contributions from many other people to finance his enterprise.

A question which troubles some observers cognisant of the way business leaders use pooled funds, is why local people contribute to ventures which appear to be operated for the sole or main profit of the business leader involved. This question may be extended to cover the business leader's use of donated labour, and also land, for his use of larger-than-average allotments of land amount to a donation of land by other villagers using less clan land. It is easy to assume that business leaders gain more than their 'fair share' of resources through coercion over fellow clansmen, particularly when the leader can claim some Administration sanction for his actions because of his position as a village Headman (Luluai), Constable (Tultul) (previous to the introduction of local government councils) or an elected councillor. However, what looks like coercion to a European may, examined in the light of indigenous values and institutions, reveal a significant element of mutual benefit between business leader and ordinary villager.

The prestige element so important to Gorokan investment affects those who contribute to an investment as well as the business leader who owns or controls it. While the latter may get the major credit for a large coffee plantation, a store, or a truck, all those who contributed towards these enterprises - by donating cash or labour, or by allowing use of clan lands - enjoy some gain in status by virtue of their membership in a group conspicuous in its business activities and by their relationship with a successful business leader. This situation is the modern counterpart of that prevailing among leaders and followers in traditional Kyaka society (Western Highlands). Among the Kyaka, according to Bulmer (1960)

Clansmen take pride in the clan's corporative performance in the Moka [a wealth exchange] and measure this against the performance of other groups. Even socially insignificant men with little or no direct part in the exchanges lend their efforts in preparing the dancing-grounds, building the houses and helping the leaders in the breeding and assembly of pigs.... The performance of the leaders of the clan in the Moka is also seen by its members as the performance of the whole group.

Similarly, those who contribute to a commercial enterprise stand to gain service benefits, such as easy access to trade goods or transport. Although a trade store or truck might be owned or controlled by a single business leader, villagers can benefit by contributing their funds to make the investment possible. This was clearly demonstrated in the case of a business leader living in a remote part of Goroka who was able to collect contributions from hundreds of local villagers in order to buy a truck and start a coffee buying business. Previous to the initiation of his business, coffee sales and production had been depressed because outside coffee buyers seldom ventured into the area to buy coffee. His coffee buying business enabled the easy sale of coffee, which led villagers to boost their production and, consequently, their cash income.

The possibility of sharing profits from a successful enterprise also appeals to the villager who contributes to the business leader's ventures. But, while it seems that a villager may often benefit - through the gift of goods or cash - from the largesse of a business leader he has supported, a regular income from contributions has not become a common feature of Gorokan enterprises built with pooled funds. Many businesses have simply been unprofitable, and, it seems that where a business has been profitable the business leader often retains most of the profits for his own use or for reinvestment. While gains in prestige and service benefits in many cases seem to make up for the absence of regular dividends on contributions, the lack of hoped-for profits disturbs many Gorokan contributors to business enterprises and is beginning to give them second thoughts about freely contributing their funds.

Business leaders are, of course, well aware that their status and continued support by other Gorokans depends largely on their ability to share some of the benefits of their ventures. They know that if they become too cavalier about giving contributors some goods, services or money, or if they become too self-important and want to claim exclusive right over the prestige accruing from their business activities, support for them may be withdrawn.

Many are therefore careful to keep up good relations by giving gifts of cash or goods at the right time, providing a lift in their truck or judiciously granting credit in their trade store. There is even some fear that if they do not keep their supporters satisfied, and begin to stand out too much above them, they will come to be regarded as 'big-heads', and witchcraft will be worked against them by those dissatisfied with their stinginess or jealous of their prominence.
An officer of the DASF told me, for example, of how the fear of witchcraft was affecting the actions of leaders in a remote region of Goroka where he was trying to promote cash crops and other commercial developments. The officer had chosen to begin his extension work with the acknowledged leaders of the area so that their success might be the model for others to follow. All went well and coffee and other cash crops were developed by the leaders, but at this point they requested the officer to change his extension methods. They asked him not to concentrate on them, but to provide extension services for all so that a more even development might result. Their request, he learned later, stemmed from the growing resentment of their followers who were neglected in cash crop development, and the leaders' subsequent fears of witchcraft.

This fear of witchcraft, which is still regarded as a main cause of death by Gorokans, should not be underestimated. During my stay in Goroka in 1967 the recent deaths of several Eastern Highlands business leaders, and a prominent Papuan businessman in Port Moresby, were commonly spoken of as having been caused by witchcraft resulting from jealousy over their business success. For example, in an essay written by a fourth-form student in Goroka high school, the recent deaths of two Gorokan leaders were noted by the student who wrote: 'whenever a man is becoming rich or popular in the district some of his own people quickly get jealous of him and kill him or do other things to make him die'.

One Gorokan leader with whom I discussed this question told me that he, as a business leader, has to be very careful to provide services (such as truck rides or trade store credit) when required, and not to act too big, but, as he put it, to 'sit down level' (sidaun level) with the people in his area. He told me that furthermore he had to play down his personal role in his extensive business holdings (coffee plantation, store and restaurant), and say that:

They do not truly belong to me, they belong to all the people. That's what I say, they do not belong to me, they belong to all the people who pooled their money - I manage them that's all. I don't brag to the people; it would be no good to say they belong to me, they belong to me, or the people would like to injure me or something.

A final comment on business leaders concerns the appropriateness of an indigenous as opposed to a Western model for understanding their position. Presented with the evidence given so far, one might be tempted to select certain facets of their behaviour and use these to support the view that Gorokan business leaders are individualistic entrepreneurs in a classical Western sense. Or, one might select another set of facts that emphasises the group aspect of their activities, and come up with a characterisation of these men as simply communal leaders. Neither characterisation would be very satisfactory: the 'individualistic' model represents more a projection of Western ideas of entrepreneurship than ethnographic fact, and the 'communal' model
rests on unwarranted assumptions concerning the organisation of indigenous society.

If a situation from Western business practice were chosen to characterise the position of Gorokan business leaders, it might be that of an entrepreneur who founded a firm, took in shareholders whose financial contributions outweighed his own, but continued to direct the resultant corporation. He would not wholly own the business, and would have to keep the shareholders pleased, but at the same time the corporation would be thought of as 'his business', and he would draw prestige and profits (in the form of a salary, perquisites and dividends) beyond that which would normally accrue to an ordinary manager or to a shareholder.

However, even the above attempt to understand Gorokan business leaders in Western terms is strained. A more appropriate model is an indigenous one: that of the New Guinea 'big man', for, except for leadership in warfare, the Gorokan bikfela man bilong bisnis appears to have transferred many of the attributes of traditional leadership to the modern context of economic development. In his ability to amass wealth, gain support, financial or otherwise, from clansmen, and to lead others in economic development, the Gorokan business leader is 'doing what comes naturally' for an ambitious man in his society.

Furthermore, Gorokan business leaders do not necessarily confine their leadership to the economic sphere. All appear to wield some political power in their communities, and most are interested in confirming or extending this power through election to political office. Two types of office are open to Gorokans: membership in a local government council or membership in the Territorial House of Assembly. Of my sample of 10 business leaders, 7 have sought office in the House of Assembly, which is clearly the most desired position, and 3 have been elected Members. Five of the business leaders (including the three elected to the House) have sought election to their council, and all have been elected. Four of these were subsequently elected by fellow councillors as either president or vice-president. 1 Clearly, Gorokan business leaders combine an interest in economic and political affairs comparable to that exhibited by their traditional predecessors. 2

1 Of the three men in my sample who did not seek office only one expressed no interest in the possibility. The other two had considered the possibility, but preferred to devote their energies exclusively to business.

2 The political participation of Gorokan business leaders is discussed more fully in Finney 1968.
Chapter 4

The operation of Gorokan enterprises

This chapter describes how Gorokans manage their various enterprises and the main problems they experience in management. Coffee production, trade stores, trucking ventures, cattle projects, pig projects and restaurants are considered in turn.

Coffee production

Coffee is produced by Gorokans who control anywhere from a hundred or so trees to many thousands. Although all Gorokan growers share common technical problems associated with the maintenance of their plantings and the harvesting and processing of their crop, there appears to be a great difference between the overall management of small holdings of no more than a few thousand trees and larger holdings, which for convenience I will term plantations, of about four thousand or more trees.

A typical smallholder has about 400-600 trees which he has planted largely with his own and his family's labour, with perhaps some unpaid assistance from fellow villagers. His cash outlay is minimal and is usually restricted to investment into a few hand tools, perhaps some barbed wire fencing, and sometimes galvanised sheeting and plastic film used for drying coffee. Maintenance of the holding, and harvesting and processing the crop can ordinarily be handled by the owner, aided by his wife (or wives) and children, and he need not call for paid or unpaid assistance outside the household.

The bulk of a smallholder's coffee crop is usually pulped (removal of the outer berry), fermented and washed (to remove vegetable matter around the coffee bean), and dried to the parchment coffee stage by the owner and his family. The owner then sells the parchment coffee to coffee buyers. The women of the household usually pick small amounts of coffee for their own use. This they sell in the cherry (unpulped) state to buyers for small change to make trade store purchases or pay their truck fare to town. Occasionally children also pick and sell cherry coffee, often using the money to buy sweets.

The above generalisations are derived from observations throughout Goroka and from an intensive survey of coffee sales undertaken for me by Mr Uro Mikave in his home village of Natauka, Lowa Census Division. Natauka (population 54) has a somewhat higher number of coffee trees
per planter than the Goroka-wide average, but is otherwise undistinguished and coffee growing there appears to follow general Gorokan patterns. Table 11 indicates the preponderance of parchment coffee over cherry coffee in sales by Natauken producers, and also the overall dominance of men in coffee sales.

Table 11

Natauka village coffee sales, 23 June to 22 July 1967
($)

<table>
<thead>
<tr>
<th>Holding; No. of trees</th>
<th>Wife(s)/children*</th>
<th></th>
<th>Husband*</th>
<th>Total sales</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cherry</td>
<td>Parchment</td>
<td>Cherry</td>
<td>Parchment</td>
</tr>
<tr>
<td>1,500</td>
<td>3.20</td>
<td>2.20</td>
<td>10.90</td>
<td>128.60</td>
</tr>
<tr>
<td>1,500</td>
<td>-</td>
<td>-</td>
<td>19.00</td>
<td>45.30</td>
</tr>
<tr>
<td>600</td>
<td>-</td>
<td>-</td>
<td>.50</td>
<td>60.90</td>
</tr>
<tr>
<td>400</td>
<td>-</td>
<td>-</td>
<td>.90</td>
<td>29.50</td>
</tr>
<tr>
<td>2,600</td>
<td>2.70</td>
<td>-</td>
<td>1.60</td>
<td>22.60</td>
</tr>
<tr>
<td>400</td>
<td>.80</td>
<td>-</td>
<td>1.40</td>
<td>22.10</td>
</tr>
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<td>2,240</td>
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<td>-</td>
<td>22.00</td>
</tr>
<tr>
<td>1,000</td>
<td>3.70</td>
<td>-</td>
<td>1.10</td>
<td>12.21</td>
</tr>
<tr>
<td>430</td>
<td>3.70</td>
<td>-</td>
<td>-</td>
<td>11.60</td>
</tr>
<tr>
<td>350</td>
<td>-</td>
<td>-</td>
<td>4.50</td>
<td>-</td>
</tr>
<tr>
<td>600</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>400</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12,020</td>
<td>14.10</td>
<td>2.20</td>
<td>39.90</td>
<td>354.81</td>
</tr>
</tbody>
</table>

* Seller.

Parchment or cherry coffee is usually sold by smallholders to coffee buyers who regularly pass along the main roads of Goroka looking for sellers with stacks of bagged coffee. Europeans formerly dominated coffee buying. Now Gorokan buyers, most of whom work for or in conjunction with European plantations or firms, are becoming increasingly important. Prices paid to sellers are not fixed, but depend on world market prices and may be subject to some bargaining between seller and buyer. (Parchment coffee usually is purchased for about half the export price for fully processed coffee; in 1967 Gorokans were getting about 15 to 18 cents a pound for their coffee which after processing was sold for between 29 and 30 cents a pound.) Sellers in remote areas have little bargaining power because of the paucity of buyers, but those located along main roads can turn away as many as half a dozen buyers looking for a better price. Most sellers are illiterate and unskilled in making rapid calculations, although some overcome this handicap by employing their son or some other schoolboy to calculate and check prices with the aid of a 'ready reckoner'.

Coffee production on smallholdings may be considered as a commercial activity which is supplementary to traditional subsistence activities,
and not as a full-scale commercial enterprise which replaces traditional economic endeavours. The typical smallholder remains primarily dependent on subsistence production for his foodstuffs, and ordinarily allocates surplus labour time (his own and that of household members) to the maintenance of his holding and the production of coffee. As such, a smallholding — once the initial investment of land, labour and a small amount of cash necessary to start the plantings has been made — represents a handy resource which during harvest times can virtually be tapped at will for small amounts of cash. Agricultural officers and other Europeans in Goroka have pointed out to me that some smallholdings are relatively neglected and that below potential yields result. Rather than look upon this seemingly desultory approach to coffee production as an indication of lack of competence or laziness on the part of Gorokan smallholders, a more realistic view might be that suggested by E.K. Fisk: that some Gorokan smallholders allocate their labour in coffee production in order to maximise their cash return per unit of labour, not per area planted. Hence, when returns per unit of labour begin to fall off as more care is needed to maintain and exploit a smallholding to achieve maximum yields per area planted, they may cease to allocate further labour and be satisfied with lower but more easily gained yields.

In contrast to the supplementary character of smallholder coffee production, Gorokan plantations appear to be full-scale cash crop enterprises. Substantial amounts of labour and cash were invested in clearing and planting and in the construction of pulping facilities, fermentaries, drying racks and storage facilities; additional investment is constantly required to maintain the plantings and equipment as well as to harvest and process the coffee. As labour requirements on a large plantation are beyond the manpower ordinarily available in one household, and as it has become difficult for plantation owners to continue recruiting unpaid labourers, a sizeable cash outlay for labour is necessary to operate most plantations. Gorokans owning plantations have reached a stage of development where they are beginning to be confronted with financial and management problems more characteristic of a European plantation than a small cash crop holding.

In particular, labour and the financing of labour present Gorokan plantation owners with great difficulties. As Gorokan plantations have been developed, there has been a general transition from the use of traditionally recruited labour for which no wage payments were required

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1 Personal communication, 12 August 1968.
2 While smallholders typically live within their village in traditional houses, most plantation owners live slightly away from their village in semi-modern dwellings (usually built on a European plan with some modern and some traditional materials) and follow a style of life which makes them distinct from ordinary villagers.
towards partial or exclusive reliance on paid workers. Although plantation owners still have their own labour and that of their dependents (which, as in the case of one business leader with ten wives, can be considerable), they have found it increasingly difficult to recruit clansmen or others to work without immediate pay. The ordinary villager has apparently become too affluent because of the revenue he derives from his own smallholding and can therefore be independent of the big plantation owner's largesse. Not only do villagers refuse to donate their labour, but because of their independent income, they can even afford to reject an offer of paid employment. Like European plantation owners who also have difficulty recruiting workers among the coffee-rich Gorokans, indigenous plantation owners complain of the 'laziness' of Gorokan villagers. Both groups, however, realise that the low wages paid in the coffee industry have little attraction for people of independent means, and seek the same solution to their labour problems: the recruitment of workers from the more remote Highlands areas where cash crops have not yet been extensively developed.

The larger indigenous Gorokan plantations require, depending on their size and the ambitions of the owner, up to several dozen workers for maintenance, harvesting and processing. Some idea of the numbers employed on Gorokan plantations can be gained from Table 12 in which the number of workers employed each year is listed for selected plantations visited by the District Labour Officer. (Seven of the ten plantations are owned by business leaders included in my sample in Chapter 3.) The yearly fluctuation of workers employed partly reflects seasonal variation in workforce requirements (sometimes plantations were visited during harvest time, and other times during the slack season), although some fluctuation is probably due to the changing fortunes of plantation owners who may be financially able to employ many workers one year and have little money available for labour costs the next. The slight downward trend evident in employment for each plantation probably reflects the increasing difficulty indigenous plantation owners have experienced in recruiting paid workers.

The expansion of cash crop cultivation throughout the main populated regions of the Highlands is making it increasingly difficult for both indigenous and European planters to recruit workers. Both groups must, in effect, compete for workers and it appears that European planters are more successful. Not only do they have access to contract workers recruited by the Administration in the Highlands Labour Scheme, but they also seem to be able to offer more to their workers. To many prospective

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1 In the case of some plantation owners there has been a more complicated evolution. For example, one business leader cited earlier who started his plantation with paid workers was, upon establishing his status, able to recruit non-paid labour from among his clansmen. More recently, however, he has been forced to hire workers from the Chimbu District.
workers the attraction of working on a large and well-equipped European plantation is apparently more appealing than that of working on a small and poorly equipped indigenous plantation where the environment and diet, though familiar to their village experience, offer little novelty or excitement. In addition, European planters pay their workers more regularly than indigenous planters, and sometimes pay them higher wages. Both European and indigenous planters are required to pay the same minimum wage ($4 in cash, plus accommodation, clothing and rations worth $10, every four weeks), but while European planters ordinarily meet and sometimes, for selected workers, exceed this minimum wage, the wage payments of indigenous planters often fall short of requirements. The Goroka District Labour Officer has, for example, received many complaints from workers on indigenous plantations about non-payment of wages, or payment below minimum rates. These complaints are at least partially substantiated by information given me by various Gorokans. Some indigenous planters are notoriously stingy to their labourers, and apparently feel that food and lodging, plus an occasional feast or cash payment, is sufficient compensation for workers, particularly young boys who have been recruited from remote areas.¹ Their apparent stinginess

¹ One story has it that a leading indigenous planter once recruited a particularly unsophisticated group of young workers and, in lieu of cash wages, paid them with beer bottles which could be returned to a Goroka store for a small cash refund.
is not, however, solely a reflection of the desire to maximise profits, for they have genuine problems in financing their labour costs.

Some access to regular credit is necessary in order to operate a commercial plantation successfully. This is particularly apparent during the harvest season when cash reserves of the planter - European or indigenous - are likely to be lowest. At this point most European planters use credit provided by banks, coffee exporters and local firms to pay their bills and their workers' wages, so that the new crop can be harvested and processed. Indigenous planters are, however, largely denied credit from these sources. Coffee exporters do not advance money on coffee crops of indigenous plantations, local firms are wary of giving indigenous planters credit, and banks will not ordinarily advance them money because they have no collateral. Collateral in this setting primarily means land, and because Gorokans are adjudged to hold only traditional use rights, not freehold ownership rights, they cannot use their land to secure a loan. Denied access to credit from European sources, and usually unable to raise much in the way of pooled money from other Gorokans (apparently because a capital subscription merely to pay another's labour bill has no appeal to potential donors), Gorokan plantation owners often simply do not have enough money to employ and pay a sufficient number of workers. Their coffee production and income consequently suffer.

Like smallholders, most Gorokan plantation owners sell their coffee in the parchment stage. Some would prefer to process their coffee further by having it hulled, polished and graded in one of the several European coffee mills in the area, in order to get a higher price. Again, however, the lack of cash at harvest time inhibits all but a few from taking advantage of this opportunity. That coffee produced by the occasional Gorokan able to pay for processing can often be of high quality indicates the quality potential of Gorokan producers. In 1967, for example, one of the business leaders in my sample had his coffee processed at a nearby mill operated by a European plantation owner and was able to sell it to an exporter at a higher price than the European planter was receiving for his coffee.

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1 Only one bank loan was apparently granted by Goroka banks to indigenous planters during 1966-67 for the purpose of paying labour. It was for $300 and was granted on the basis of the planter's personal credit rating. From their inception in 1965 to April 1967, all the savings and loan societies in the Eastern Highlands District had only allotted a total of $1,000 for the payment of labour.

2 Indigenous produced coffee is ordinarily rated X or Y because of uneven drying, mixed-size beans and the presence of foreign matter, while the higher quality European produced coffee is usually rated A or B. A or B grade coffee ordinarily brings a few cents more per pound than X or Y grade coffee.
Trade stores

In view of the limited purchasing power of Gorokans, and the high ratio of trade stores per inhabitant (approximately 1 for every 130 people), it is easy to assume that Gorokan trade stores are neither a very efficient nor very profitable means for distributing retail goods among the people. However, such a judgment ignores the considerable utility of trade stores as convenient outlets where villagers may purchase goods otherwise obtainable only in distant town or plantation stores. In a region where the population is scattered over the countryside in numerous small villages the average Gorokan trade store or 'small trade store' (liklik tredstor) may be of immense 'economic' benefit both in terms of convenience to consumers and of the added incentive to produce for cash that easy access to trade goods can provide.

Gorokans have had the benefit of a decade of experience in operating trade stores. Now, although the profitability of many stores appears minimal, the situation is greatly improved over that prevailing during the first years of experimentation.

Formerly, stores often took in less money than was invested in stock, and were frequently forced to close permanently if no further investment funds were available, or temporarily if funds might be forthcoming in the future. Lax handling of funds by the storeowner or keeper, theft of funds or stock by the latter or others and a too generous and unrestricted credit policy figured in many store failures, but a more fundamental factor in early difficulties stemmed from the problem of buying goods, transporting them to the store and then pricing them high enough to ensure a profit. In the early days of Gorokan trade stores an owner would commonly buy his goods in Goroka township at prices equal to or only slightly lower than retail prices. Then he would pay a trucker (usually a European at this time) to transport the goods to his village. Faced with the problem of pricing the goods he frequently resorted to the prices prevailing in Goroka township for a guide, or otherwise picked a price without taking into account all his costs. As a result, many a storeowner sold his goods at a loss until his capital was exhausted and he was forced to close the store.

Despite disappointing early experiences, Gorokans persisted in operating and founding new trade stores, and they have begun to learn something of the rudiments of purchasing, transport and pricing. In addition, recent innovations in wholesaling have lessened the burden on the storeowner. As indigenous retailing has grown, so have European wholesale firms specialising in supplying Gorokan stores. The largest wholesale firm, for example, is a Goroka-based business that has virtually grown up with the expansion of indigenous retailing. Competition between this firm and branch stores of Territory-wide firms has led to a modest lowering of the 'wholesale' prices (now about 10 to 20 per cent below retail prices) and the provision of two simple but extremely useful services to Gorokan storeowners. First, wholesalers send out trucks to pick up

Plate 8. A well constructed Gorokan owned trade store. Vanima, Lowa Census Division, 1968
storeowners in their village, take them to town, and then return them with their purchases to their village. Second, wholesalers suggest retail prices or provide lists of retail prices calculated to allow a reasonable profit above the cost of stock and operating expenses. Today's storeowner can therefore - if he keeps his cash receipts, storekeeper and credit allocations under control - almost automatically count on some profit from running a store.

Table 13 records data on 25 Gorokan trade stores surveyed during June and July 1967. This sample represents about 5 per cent of all Gorokan stores and includes a range of trade stores - from little shacks located on foot trails with a turnover of a few hundred dollars per year at best, to sizeable structures of modern materials (cement floor, sawn timber framing and walls and roof made of galvanised iron sheeting) with a turnover of several thousand dollars per year. Because the sums involved in starting a trade store are usually well remembered (and sometimes are recorded), fairly reliable data was obtained on the initial capital outlay for building and stock as well as the number of people contributing. However, data on turnover and profits was virtually unobtainable. Only two of the storeowners in my sample kept a full record of goods sold and receipts, although neither they nor any other surveyed could give me an exact accounting of their profits (or losses). Some storeowners kept a record of amounts owed them for credit purchases, and where this information was available to me it is recorded.

Although most stores are controlled by one man, a minority were solely financed by a single individual. In the sample in Table 13 only 7 of the 25 stores were individually financed. The rest had from 2 to 25 or so contributors to initial capital. In all stores where multiple contributors are involved, save one which is operated as a partnership, one man ordinarily takes primary responsibility for management while other contributors remain in the background. He usually makes the purchases, operates the store, or employs a storekeeper to do so, controls the receipts, and in some cases appears to use whatever profits there might be primarily for his own benefit.

In most stores one or more storekeepers are employed. Typically they are village teenagers or men in their early twenties who, through school or employment, have gained sufficient knowledge to handle money and make simple calculations. Some are literate or partially literate in Pidgin (and more rarely English) and attempt to keep some record of transactions. However, no storekeeper or owner among the stores sampled was knowledgeable about bookkeeping or kept records sufficient for accounting purposes. The only Gorokan store that I heard of (but was not able to survey) which has a storekeeper skilled in bookkeeping, is that operated by the business

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1 All Goroka wholesale firms are European owned and operated except for the Namasu Ltd store which is a branch of a Lutheran Mission-inspired firm substantially owned by New Guinean shareholders (see Appendix IV).
Table 13
Gorokan trade stores, June-July 1967

| Approximate age of principal(s) | Location: distance to Goroka | Road | No. of persons pooling funds | Initial capital ($) | Wholesale value of stock at hand ($) | Turnover per annum ($) | No. of creditors owed | Total capital ($) | Primary building materials |
|--------------------------------|-----------------------------|------|-----------------------------|---------------------|-------------------------------|------------------------|-----------------------|-------------------|-------------------------|-----------------------------|
| 1. 31                           | 0                           | Main  | 8                           | 380                 | 410                           | -                      | -                     | -                 | Local                   |
| 2. 39                           | 6                           | Secondary | 20                        | 900                 | 117                           | -                      | -                     | -                 | European                |
| 3. 32                           | 7                           | Main  | 3                           | 117                 | 64                            | -                      | 34                    | 20.10             | Local                   |
| 4. 45                           | 7                           | Main  | 13                          | 362                 | 57                            | -                      | 11                    | 13.10             | Local                   |
| 5. 46                           | 7                           | Secondary | 5                         | 350                 | 54                            | -                      | -                     | -                 | European                |
| 6. 45                           | 8                           | Secondary | 1                         | 110                 | 39                            | -                      | 17                    | -                 | European                |
| 7. 34                           | 8                           | Secondary | 3                         | 500                 | 72                            | -                      | 34                    | 71.80             | European*               |
| 8. 45                           | 9                           | Secondary | 3                         | 85                  | 27                            | -                      | -                     | -                 | Local                   |
| 9. 50                           | 9                           | Secondary | 2                         | 410                 | 27                            | -                      | 27                    | 11.40             | European**              |
| 10. 34                          | 10                          | Secondary | 1                         | 38                  | 27                            | -                      | -                     | -                 | Local                   |
| 11. 27                          | 10                          | Secondary | 2                         | 40                  | 21                            | -                      | -                     | -                 | Local                   |
| 12. 30                          | 14                          | Track | 4                           | 77                  | 80                            | -                      | 24                    | 33.90             | Local                   |
| 13. 45, 37                      | 14                          | Secondary | 25?                        | 682                 | 289                           | -                      | -                     | -                 | European                |
| 14. 31                          | 14                          | Main  | 2                           | 180                 | 23                            | -                      | -                     | -                 | Local                   |
| 15. 35                          | 15                          | Secondary | 1                         | 300                 | 108                           | -                      | 8                     | 8.50              | European                |
| 16. 35                          | 15                          | Secondary | 1                         | 104                 | 55                            | -                      | 19                    | 23.10             | European                |
| 17. 27                          | 16                          | Track | 4                           | 40                  | 33                            | -                      | 17                    | 13.05             | Local                   |
| 18. 43                          | 17                          | Secondary | 1                         | 1,300               | 194                           | 3,512                  | -                     | -                 | European                |
| 19. 45                          | 17                          | Secondary | 3                         | 200                 | 149                           | -                      | 19                    | 31.60             | Local                   |
| 20. 38                          | 24                          | Secondary | 2                         | 96                  | 49                            | -                      | 21                    | 28.10             | European                |
| 21. 29                          | 25                          | Secondary | 1                         | 12                  | 113                           | 1,635                  | 20                    | -                 | Local                   |
| 22. 47                          | 26                          | Secondary | 9                         | 207                 | 172                           | -                      | 13                    | -                 | Local                   |
| 23. 27                          | 27                          | Main  | 1                           | 100                 | 22                            | -                      | -                     | -                 | Local                   |
| 24. 42                          | 27                          | Secondary | 6                         | 160                 | 101                           | -                      | -                     | -                 | Local                   |
| 25. 34                          | 28                          | Main  | 3                           | 124                 | 55                            | -                      | -                     | -                 | Local                   |
| Means: 36                       | 14                          | -     | 5                           | 275                 | 94                            | -                      | 20                    | 22.09             | -                         |

* A combination store.restaurant; initial capital includes cost of refrigerator.
** A combination store.restaurant; initial capital includes cost of stove.
leader mentioned in Chapter 3 who employed his son, who has had formal bookkeeping training, to supervise his store.

The inventory of most trade stores is small; in the sample of 25 the mean wholesale value of stock was only $94. These small inventories typically include a small range of foodstuffs, utensils and tools, clothing and sundry items. The inventory of store No. 24 in the sample is fairly representative both in value and items of Gorokan trade stores. It contained:

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>155 tins of mackerel pike</td>
<td></td>
</tr>
<tr>
<td>35 tins of corned beef</td>
<td></td>
</tr>
<tr>
<td>20 small bags of rice</td>
<td></td>
</tr>
<tr>
<td>4 cartons of matches</td>
<td></td>
</tr>
<tr>
<td>2 tins of kerosene</td>
<td></td>
</tr>
<tr>
<td>2 kerosene lanterns</td>
<td></td>
</tr>
<tr>
<td>15 spoons</td>
<td></td>
</tr>
<tr>
<td>10 tins of talcum powder</td>
<td></td>
</tr>
<tr>
<td>10 bottles of hair oil</td>
<td></td>
</tr>
<tr>
<td>16 men's shirts</td>
<td></td>
</tr>
<tr>
<td>3 men's singlets</td>
<td></td>
</tr>
<tr>
<td>7 women's skirts</td>
<td></td>
</tr>
<tr>
<td>15 towels</td>
<td></td>
</tr>
<tr>
<td>1 pair of shoes</td>
<td></td>
</tr>
</tbody>
</table>

A small inventory can, however, be deceptive, because it can be rapidly sold and replenished as wholesalers usually come out to pick up storekeepers twice a week to bring them to town to replenish their stocks. This is particularly true of the peak coffee season between May and August, for when the coffee revenue is coming in sales in trade stores boom. This relationship is evident in Table 14, which shows monthly sales records from store No. 18 in my sample (the only store surveyed which kept a daily record of sales). Although this store, which is one of the largest rural Gorokan stores, operates the year round, other smaller stores sometimes close for lack of business or capital during the slack period between coffee harvests when ready cash has been exhausted both by the storeowners and their customers.

<table>
<thead>
<tr>
<th>Month</th>
<th>Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1966</td>
<td>560.68</td>
</tr>
<tr>
<td>August</td>
<td>354.27</td>
</tr>
<tr>
<td>September</td>
<td>233.87</td>
</tr>
<tr>
<td>October</td>
<td>214.81</td>
</tr>
<tr>
<td>November</td>
<td>152.55</td>
</tr>
<tr>
<td>December</td>
<td>250.14</td>
</tr>
<tr>
<td>January 1967</td>
<td>164.92</td>
</tr>
<tr>
<td>February</td>
<td>177.64</td>
</tr>
<tr>
<td>March</td>
<td>150.75</td>
</tr>
<tr>
<td>April</td>
<td>264.91</td>
</tr>
<tr>
<td>May</td>
<td>600.45</td>
</tr>
<tr>
<td>June</td>
<td>386.90</td>
</tr>
<tr>
<td>Total</td>
<td>3,511.89</td>
</tr>
</tbody>
</table>
A hand-lettered sign proclaiming in Pidgin that absolutely no credit is allowed is a feature of many stores. For example, one typical sign in a store read:

All clansmen are forbidden credit at this store. All sales are for cash. Credit is strictly forbidden.¹

But this store, and most others I was able to obtain detailed information on, does grant credit. Although many storeowners would like to avoid making credit sales, they are more or less forced to by local kin and community pressures. (Those who have contributed to a store cannot, of course, be easily refused, and the granting of credit appears to be one means of paying back contributors.) Although most of the credit totals listed in Table 13 are relatively modest, a too liberal credit policy has apparently brought many storeowners, low on business acumen and resistance to credit requests, into financial difficulty.

However, other more acute storeowners have been able to limit credit sales so as not to tie up or lose too much capital, and some have been able to use credit transactions to maintain a sizeable and satisfied clientele. The credit policies of one business leader in my sample, who owns the most profitable Gorokan store (No.1 in Table 13), bear examination in this light. He told me that he must grant credit to those customers who have financially helped him with contributions or who, as fellow clansmen or neighbours, demand his aid. Otherwise he would lose their goodwill and future support and business. He added, however, that he seldom had bad debts as he knew all his credit customers well and could collect his money as soon as they sold their coffee. What he neglected to add was that he covers the cost of allowing credit by selling goods at a sizeable mark-up over wholesale prices and that his prices considerably exceed those in nearby European stores.

Trucks

Bisniskar, the term Gorokans use for the motor vehicles they own, indicates the commercial motive Gorokans have for buying vehicles. Gorokans do not ordinarily buy motorcycles or private automobiles. Instead they purchase utilities, light trucks, heavy trucks, and even passenger buses.

They operate their vehicles in three main lines of business: freight hauling, primarily for European firms; combination passenger and freight hauling for other Gorokans; and coffee buying. Gorokans have just begun to enter the commercial freight hauling field. They get a few contracts around Goroka, and two heavy trucks sometimes take cargo between the

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¹ This is a free translation of the Pidgin: 'Ologeta barata yufero inoken dina long disfero store. Man mas baem sitelet long mani tasol. Tabu turu dina.'
Highlands and the coast, but none have yet been able to obtain contracts to keep their vehicles constantly occupied either in the area or on the lucrative Highlands-coast traffic. Gorokans have penetrated the coffee buying business to a greater extent and are beginning to oust Europeans who once monopolised the business. About a dozen Gorokan truckers work for or in association with European coffee mills in coffee buying. They and their truck are either directly hired by the coffee mill, in which case a mill employee is often sent along to do the actual buying, or they use operating capital supplied by the mill to do their own buying. Although some truckers who do their own buying sometimes make costly mistakes by paying too much for their coffee, or by accepting poorly dried coffee, on the whole the coffee buying business appears to be developing into a profitable business for the few truckers involved. A few Gorokans have from time to time attempted to buy coffee independently, using their own capital and selling the coffee to a mill, but so far, with one exception, their success has either been minimal or short-lived because of poor financial management or the breakdown of their vehicles.

Mixed passenger and freight hauling for local villagers is the major commercial activity of Gorokan truckers. Most of this business comes from carrying cash crops and people from rural villages to Goroka township, and then returning them, with their purchases, to their villages. This trade is at its heaviest on Saturdays and Wednesdays when the public market is held, but continues throughout the week.

To gain some idea of the volume of this traffic and the revenue accruing to truck operators from it, all truck and passenger arrivals were counted at the Goroka market on Saturday, 3 June 1967 and the following Wednesday, 7 June. I was aided in this by a knowledgeable Gorokan who formerly owned two trucks. He also counted the number of passengers coming into Goroka during the week by covering, on separate days, the three access roads entering Goroka from the north, south and west. The data from this week, which probably was a comparatively active week as market vegetables were in good supply and people were beginning to get some coffee money for purchases in town, are shown in Table 15.

On Saturday, the major market day, forty-one trucks brought in over 1,500 passengers to the market. The mean number of trips per truck was 3.5 (range 1 to 7), and the mean passenger load per trip was 10.8 (range 3 to 27). On Wednesday, the minor market day, only twenty-five trucks were involved in taking over 600 passengers to the market. Mean number of trips per truck was down to 1.9 (range 1 to 3), although mean passenger load was up slightly to 12.6 (range 3 to 25). During these days, and throughout the week, the greatest number of people came into town from the more populous and affluent areas to the west of the town. An estimate, based on the survey figures (and allowing for an extra 500 passengers for those who come to town on Sundays, or come into town but not to the market on market days), of total passengers for the week would be 5,300. Calculating that each passenger would pay a mean of 45 cents per round-trip (an estimate derived from data gathered during the Saturday survey) this
Table 15

Passenger movements into Goroka on Gorokan-owned buses and trucks,
3 June to 8 June 1967

<table>
<thead>
<tr>
<th>Day</th>
<th>Passengers from:</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>West</td>
<td>North-east</td>
</tr>
<tr>
<td>To market:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Saturday, 3 June</td>
<td>1,153</td>
<td>287</td>
</tr>
<tr>
<td>2. Wednesday, 7 June</td>
<td>543</td>
<td>78</td>
</tr>
<tr>
<td>To town:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Monday, 5 June</td>
<td>483</td>
<td></td>
</tr>
<tr>
<td>2. Tuesday, 6 June</td>
<td></td>
<td>92</td>
</tr>
<tr>
<td>3. Thursday, 8 June</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated non-market weekday total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Traffic would involve payments of about $2,385 a week, a figure which would probably be significantly lowered when fewer market vegetables are being sold or when no money is coming in from coffee. With about 45 trucks participating in this service, the mean weekly revenue would be about $50 per truck at a maximum.

An estimate for the maximum gross revenue potential of a truck in the trade would therefore be about $2,500 a year, a figure which, after deductions for fuel, maintenance, depreciation and salaries (if any) would leave little or nothing in net revenue. This pessimistic estimate of possible profit margins, given the number of vehicles and present traffic volume, would seem to be borne out by the testimony of many truckers who complained to me about the difficulty of making money in the trade. Indeed, except for a few men who operate their businesses with great efficiency, or who skilfully combine their passenger-freight activities with coffee buying or contract hauling, it would appear that most Gorokan trucking ventures cost their owners a great deal more than they ever bring in.

Aside from a seeming oversupply of trucks for the limited trade available, the unprofitability of Gorokan trucking enterprises can be traced to a combination of extremely high operating costs and generally poor maintenance and management.

High operating costs are largely attributable to the inflated costs of petrol (50 cents or more per gallon) and maintenance in the Highlands, and the rough roads. Although the main Goroka road, the Highlands Highway, is fairly well graded and maintained (though unpaved), the secondary roads linking villages with the main road are almost all rutted, full of potholes and often impassable because of slides or bogs. Because of the rough roads and high fuel and maintenance costs, the cost of running a vehicle such as a four-wheel drive utility or a light truck is at least
25 cents a mile.\(^1\) Therefore, to make a profit, or even meet costs, Gorokans must carry virtually a full freight or passenger load at all times when their trucks are on the road. However, few do; typically a large portion of their mileage is taken up in riding around without a paying load, or with a load too small to pay or exceed costs.

Compounding this problem is the ignorance of most Gorokan truckers of the true cost of running a vehicle. They usually consider that receipts over the cost of fuel and oil represent profits,\(^2\) and they typically fail to set any money aside for repairs or depreciation. When repairs are necessary there is usually no money available from revenues to pay for them and fresh capital must be expended to get the truck back on the road. This is harder to obtain for a second round of repairs, such as the replacement of a ruined transmission or a burned-out motor, and trucking ventures often fail at this point. Since ordinarily no money has been put aside for a new vehicle this means that the individual or group involved is out of the trucking business.

The generally poor driving ability of Gorokan drivers and their lack of mechanical knowledge further complicate the problems. Drivers frequently run off the road, they do not know how to shift gears properly or how to avoid overloading an engine, and they tend to neglect such routine tasks as filling the radiator with water or keeping the engine oil level up. The typical trucker frequently fails to bring his vehicle to a garage for regular maintenance, even when maintenance is covered under a warranty. Consequently, most trucks require serious repairs within the first half year after purchase, and few survive more than a year. (The head of the major truck agency in Goroka estimates that his trucks last between 10,000 and 20,000 miles in Gorokan hands.) Gorokan mechanical ignorance is understandable - they have been able to purchase trucks before they had experience with motorcycles, bicycles or even mechanical toys - but nonetheless disastrous to any attempt to run a profitable trucking business.

Management, both in a business and a mechanical sense, is doubly difficult in the case of collectively owned or controlled trucks. Perhaps 25 per cent or less are individually owned or fully under the control of one man. Most fall under some degree of collective control, although not all contributors (who may number into the hundreds for a single truck) try their hand at driving or handling receipts. A typical venture might include two or three men, who because of the size of their contribution or their aggressiveness are able to exercise some degree

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1 According to estimates made by the Goroka Town Council for operating their vehicles.

2 Gorokans generally consider gross receipts as constituting a 'profit' (winmanni or profitmani in Pidgin), and typically fail to make a linguistic distinction between these and net receipts.
of personal control of the vehicle. Such group control does not generally lead to satisfactory maintenance or financial accounting, and one typical form of joint management whereby each contributor controls the operation of the truck for a week (either by personally driving it and taking in fares, or by employing someone to do so) can be particularly unfortunate. Not only does the man in charge for the week tend to keep all or most of the receipts for himself, but he often neglects to undertake any maintenance or to even check the oil and water levels. Cumulative neglect promoted by this system of management, and the absence of any funds put aside from revenues for repairs and depreciation, tends to shorten the life of such truck projects. Those who originally pooled their money to buy the truck are sometimes willing and able to pool enough funds for the first round of repairs. But commonly they become disillusioned when a second subscription of funds is called for to pay for another round of repairs, and the vehicle and venture are often abandoned at this point.

Despite the manifold difficulties and apparent unprofitability of most trucking projects, the total picture is not entirely discouraging. Some truck ventures, particularly those controlled by one man, are beginning to be profitable as proper maintenance and management practices are learned. One man, for example, who has driven his truck over 57,000 miles operates it successfully in buying coffee and in carrying passengers on Saturdays and during the weekdays between coffee harvests. With the help of a trained mechanic, an Australian volunteer worker attached to the Goroka Town Council, he has learned how to maintain his vehicle, and he manages to retain a portion of his profits for reinvestment when a new vehicle will be necessary. (The vehicle was originally purchased by him and other members of his clan, but realising the need for rational management he bought them out using proceeds from his own coffee and his trade store to gain sole ownership of the vehicle.) While such ventures are in a minority, they indicate some progress in learning how to operate trucks economically.

So far the prestige and service aspects of trucks have been ignored in this analysis. If the gains in status and transport services to the individuals and groups involved are included in an assessment of the utility of trucks they appear as much more successful ventures than a strict appraisal of them as money-making projects would indicate. However, at some point in the evolution of Gorokan trucking it would be reasonable to expect that the large losses sustained could be reduced or eliminated so that, at a minimum, these otherwise useful investments would not divert too much local capital away from other investment possibilities.

Cattle projects

Gorokans have been buying cattle since the late 1950s. In 1960 the DASF established three pilot cattle projects in the Bena area and in 1962 seven more projects, financed under a Reserve Bank grant, were started. Since then the DASF has been actively promoting cattle projects and has been the main source of supply for Gorokans buying cattle.
Plate 9. Women market sellers alighting from a Gorokan owned bus at the Goroka market, 1968

Plate 10. An early cattle project in the grasslands of the Bena Census Division, 1964
The DASF has an experimental breeding station for both cattle and pigs in Goroka, and several officers are assigned to assist and instruct Gorokans in the development of commercial cattle herds. Gorokans normally qualify for DASF aid in starting a cattle project by demonstrating that they have sufficient land for grazing, by building a fenced paddock of at least 5 acres and by building a suitable set of yards, although promise of making these improvements may sometimes be accepted for qualification. Once these requirements have been fulfilled Gorokans can buy cattle from DASF at reduced prices ($40 for a steer, $60 for a heifer) and start to build their herd. These purchases, with a few exceptions, come out of deposits that Gorokans have built up with the DASF to finance their projects.\(^1\)

By early 1967 some 58 Gorokan cattle projects had been developed to the point where stocking could begin, and another 20 or so were beginning to be developed but were not yet at the stocking stage. A DASF survey of the 58 projects reveals the following characteristics.

Mean cash investment per project channelled through the DASF was $446 (range $130 to $1,252). Since this figure is derived from data that includes many projects that still require additional investment, and does not take into account cash investment not channelled through the DASF, at least another $300 should be added to the mean to have some idea of the minimum costs of starting a small cattle herd. The resultant minimal figure of about $750 indicates that Gorokan cattle projects are significant ventures for Gorokans in terms of capital requirements.

The investment of such a sum of money is beyond the means of all but a few and most projects involve multiple contributors. Gorokan cattle projects are normally registered in the name of a few major contributors or managers - the 58 projects show a mean of 3.2 principals (range 1 to 9) - but in a majority of cases there are many more contributors. For example, one project has involved the investment of $329: $135 came from the two principals under whose name the project was registered, and the remainder came from twenty-six contributors who put in from $2 to $34 a piece.

All but one of the 58 projects have a fenced paddock. Of the projects with fenced paddocks the mean enclosed area was 12.1 acres (range 2 to 30). Some 44 of the projects had pasture that had been improved through clearing, ploughing with a hired tractor (or, in some cases, with hand tools), and planting grasses more suitable for grazing than local grasses. The acreage involved was, however, small: the mean was 3.2 acres per project (range 1 to 10). Forty-one of the projects had cattle yards meeting at least minimal standards for enclosing a small herd.

\(^1\) Since 1967 an effort has been made to channel investment in cattle projects through local savings and loan societies so that investors, particularly ambitious individuals who want to have their own cattle project, may have the advantage of being able to draw loans for the purchase of cattle and supplies.
Cattle purchases among the 58 projects range from 1 to 27 head per project, with a mean of 8.4. Although exact data is lacking, there does not appear to have been any significant increase in these initial Gorokan herds. Indeed, DASF records and my own interviews indicate that many projects have been losing more cattle through disease or injury than they gain through births.

In Chapter 2 the decline during 1966 of the rate of Gorokan investments in cattle projects was noted. This decline has been largely due to Gorokan disenchantment with commercial cattle production because of their own difficulties in managing cattle projects and because of the Administration's failure to complete the Goroka slaughterhouse. The lack of the promised slaughterhouse has removed much of the incentive to produce cattle for the market, for without a slaughterhouse, sales to Europeans or other Highlanders are difficult to arrange. The completion and opening of this slaughterhouse, scheduled for late 1967 or early 1968, should do much to increase local incentives, but difficulties experienced by Gorokans in their cattle projects do not, in contrast, seem to be so easily remedied.

Gorokan difficulties stem mainly from the problem of acquiring and maintaining sufficient land for adequate pasturage, and their lack of experience in cattle handling.

The need for considerable amounts of land, in addition to the high cash requirements of a cattle project, virtually dictates that Gorokans wanting to start a cattle project must, unless they are wealthy and powerful men, band together to pool their resources. The requirement of anywhere from fifty to several hundred acres for a small to moderate size cattle project ordinarily calls for a group of men to join land to which they have claims to form a common pasturage. Many Gorokans have enthusiastically pooled their lands for cattle projects, but often enthusiasm has waned as the difficulties of building up and caring for a herd are realised and some contributors have regretted their allocation of land rights to the project and have attempted to withdraw land for gardens or coffee plantings.

Cattle require almost constant and skilled care, but few Gorokans have shown much ability as cattlemen. Injuries and diseases are often neglected through ignorance or indifference with a consequent high mortality rate. The holding paddocks where cattle are penned during the night are often too small for night grazing and also tend to promote parasite infestation because of their small size. In the worst cases of neglect, cattle may

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1 The slaughterhouse was opened in 1968. This, plus the establishment of an agricultural training school in Korofeigu, Bena Census Division - a dry grasslands are suited for cattle - has led to a resurgence of interest in cattle projects and now demand for breeding stock exceeds that available in New Guinea.
not be taken out to graze during the day, but are kept penned up with insufficient feed. Projects divided among many co-owners seem to be most disposed to such occurrences: commonly one of the co-owners neglects to take his turn herding cattle which are simply left penned for a day or more in their overgrazed paddock. In addition, neglect by herdsmen charged with watching cattle in unenclosed pastures, or inadequately fenced enclosed pastures, leads to difficulties over cattle depredations in gardens and plantations, and occasionally results in the killing of a marauding cow.

Failings in cattle management can be largely attributed to the novelty of cattle and the gross ignorance of most Gorokans in proper cattle handling procedures. The DASF has attempted to overcome this both by extension work and by sending promising young men to a special school for cattle management. However, extension work has not proved to be very effective, and the selected men who are given a year's training have not so far been able to use their skills with much effectiveness. Upon their return their skills and advice are often ignored by the older men who are the main contributors to the cattle projects, and these young men, most of whom have no major financial stake in a project, are inclined to quit in frustration.

Other ventures

The DASF also encourages commercial pig raising among Gorokans. According to DASF officers, the first attempts in the early 1960s to improve local strains of pigs and to build up local holdings for commercial sale failed because the new ventures were not sufficiently separated from traditional pig raising. Stud boards, huge in comparison to village boars, were distributed among villagers but few survived to breed because the transition to the rough village environment, with its unbalanced diet and high parasite infestation rate, proved too much for boars raised under ideal conditions in DASF piggeries. Because of this failure DASF efforts have been directed towards promoting pig projects featuring modern piggeries. Pigs are sold to individuals or groups that build modern piggeries with concrete floors, timber or concrete walls and a permanent roof and make provision for adequate feeding and hygiene. As these projects are all in the establishment stage it is too early to assess their success. However, given the high demand for village pigs and pig meat at the Goroka market, it would seem that if these projects can successfully overcome diet and hygiene problems, and if the pigs are not drained off into traditional transactions, a profitable market awaits commercially raised Gorokan pigs.

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1 McKillop (1965) gives a complete analysis of Gorokan cattle projects and their main problems up to 1965.

2 See McKillop (1966) for a detailed analysis of the difficulties of commercially raising pigs in the Highlands and DASF plans for commercial piggeries.
Restaurant ventures are minor compared to other economic activities, but are significant because they indicate the degree to which Gorokans are willing and able to provide services for a price to other Gorokans. Although no survey of restaurants was taken (only the two restaurants located in town are licensed), I encountered a dozen or so while surveying trade stores and other enterprises and would assume that at least another dozen exist in the Sub-district. To my knowledge only three Gorokan restaurants serve complete meals - usually a plate of meat, vegetables and rice plus tea - which they sell mainly to town workers (two of these restaurants are in town), passing truckers (all three restaurants, including the rural one, are on the Highlands Highway) and an occasional European. The rest serve mainly such dishes as pan fried bread or 'scones', which consist of a large hunk of deep fried dough, sometimes enclosing a piece of sausage. I have no systematic data on these restaurants but many appear to be fairly profitable mainly because:

(i) it is easy to control the costs of the main item - scones which sell for 10 cents - by controlling the amount of ingredients; (ii) the restaurants have usually been started by a man experienced in running a trade store and are usually attached to it as a profitable sideline.

One commercial activity which Gorokans have not yet taken advantage of is that of an independent contractor. There is a constant demand in Goroka for contractors to do carpentry, pour cement, paint buildings and perform other construction jobs which European firms are not usually interested in undertaking. All the indigenous contractors I was able to obtain information on were from Papua or from coastal regions of New Guinea. Of the 68 contracts involving indigenous contractors recorded in the Goroka District Labour Office (from 1958 to June 1967), no contractors from Goroka, or any other Highlands area, are represented. The contracts went to 21 contractors who were from coastal Papua, 1 from Lae, and 1 from Rabaul. These statistics are in line with the general dominance of Papuans (who, apparently because of mission training programmes, have developed a high level of skill in this field) in contracting and construction throughout the Territory.¹

So far the only manufacturing venture that Gorokans have attempted independently is that of making bricks of earth stabilised with concrete. There have apparently been several unsuccessful attempts at this, and in 1967 only one man, recently retired from the police force, was experimenting with brick production. He, however, was unsure whether or not he would try commercial production. His uncertainty was not without foundation for the one local brick-making business, a European enterprise, was then in financial trouble because of its inability to find a sufficiently large market for bricks.

Finally, the Highlands wool weaving scheme, which involves weaving centres in Goroka, Kainantu and Chimbu, bears mentioning. This scheme,

¹ See Langmore (1967) for a study of Papuan contractors in Port Moresby.
which is sponsored by the Department of Trade and Industry and the Australian Wool Board, was originally conceived as a domestic handicraft industry to get Highlanders to weave blankets, ponchos and other items (using Australian wool) to protect them against the chill weather of the region. However, it is developing into an interesting, though as yet minor (weavers in various centres now receive about $25,000 annually for their products) commercial industry as European residents and tourists are anxious to buy these striking products, and the weavers much prefer to buy cheap imported blankets and pullovers for themselves and to sell their own products at four or five times the price of imported items.\footnote{See Wilson (1968) for a detailed analysis of this scheme.}

\textbf{Summary}

Coffee has been a steady source of cash revenue for Gorokans since the late 1950s, and has been their most important single source of cash at least since the early 1960s when their plantings began to bear well and when they withdrew from the labour market to concentrate on their own coffee holdings.\footnote{According to officials of the Highlands Labour Scheme, the number of Gorokans volunteering for two-year labour contracts began to decline markedly in the late 1950s, and has been negligible since 1962.} In contrast, the enterprises Gorokans went into subsequent to taking up cash cropping have not yet yielded steady profits, though trade stores present the best picture. With increasing Gorokan business sophistication, and with recent innovations in wholesaling practices to aid the retailer, many trade stores have begun to show a profit regularly. The other major Gorokan enterprises - trucking businesses and cattle projects - are still largely experimental and unprofitable in terms of cash revenue. Although these enterprises have undoubtedly provided service and prestige benefits to investors, the substantial financial losses incurred by many cannot be overlooked. Yet it may be that the considerable amount of money expended in trying to operate enterprises has not been entirely wasted.

If Gorokans are going to participate in the market economy other than as cash crop producers or labourers, they must learn to operate their own businesses. Though instruction in motor vehicle maintenance, bookkeeping and other commercially valuable skills is greatly needed, Gorokans have little opportunity for instruction in them. Formal instruction opportunities are limited to evening classes in commerce held at the Goroka high school, and extension work by a single Business Advisory Officer attached to the Department of Trade and Industry in Goroka and by several agricultural officers attached to the DASF there.\footnote{In 1968 a technical school began operation in Goroka.} As these classes reach only a few literate Gorokans living near the high...
school, and as the extension officers are too pressed to provide intensive and continuous instruction,\(^1\) their impact is slight. Informal advice and instruction offered by some European businessmen, planters and tradesmen reaches a few, and is appreciated, but this type of aid is neither widespread nor regular.\(^2\)

Considering the lack of educational and training opportunities, and the difficulty most Gorokans, who are illiterate and unskilled in mathematics, would have in following any regular instruction programme that the Administration would offer, the seemingly brash Gorokan attempts to operate businesses before they know much about commerce might be the only practicable way for them to learn business skills. This may be an expensive procedure, but if the learning trend evident among some trade store owners and others is any indication, it may prove to be the only feasible way for Gorokans to learn the rudiments of commerce.\(^3\)

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\(^1\) The Goroka-based Business Advisory Officer is charged, for example, with providing aid and advice to indigenous businessmen throughout the Eastern Highlands District.

\(^2\) In 1967 three Australian volunteer workers were attached to the Goroka Town Council as clerk, engineer and mechanic, respectively, but there were apparently no plans to assign volunteers to work on local economic development.

\(^3\) In this connection, it is noteworthy that even a group like the Japanese who are now so famed for their technical and business skills did not always enjoy such a high reputation. For example, Japanese analysts (cited in Inukai and Tussing 1967:52-3, 60), writing in 1884 after the first upsurge of Japanese entrepreneurial activity following the Meiji Restoration, severely criticise the technical and managerial deficiencies that led to the failure of thousands of newly started businesses in this period. They are even scathing in comments about their countrymen's mechanical aptitude: 'Because of their lack of knowledge about machines, Japanese cannot even open a lock if it is a little complicated.'
Chapter 5

Conclusion

However impressive Gorokan economic accomplishments may appear, their limited character must not be overlooked. Gorokans have penetrated quickly into the world of cash cropping and commerce, but their efforts so far have been on a minor scale. Despite a dramatic rate of increase in cash income, they still earn very little money, and they remain largely dependent on and subordinate to Europeans and European interests in their market activities.

Although Gorokan coffee production may soon surpass European coffee production in Goroka, even the largest Gorokan plantations do not compare in size or output with European plantations.\footnote{A fairly large Gorokan plantation of about 10,000 trees would cover about 15 to 20 acres. The original European plantations in Goroka were in the 75 to 100 acre range, but some of these have been enlarged through further planting, and the current trend is for large firms to buy up estates to form holdings of many hundreds of acres.} Per capita income therefore remains low, and, despite the Gorokan facility for pooling funds and making investments, they have not yet begun to compete with European businessmen or the European firms which dominate the local economy. The limited character of Gorokan economic accomplishments, the dominance in Goroka of European interests, and the great distance Gorokans must traverse before they achieve a reasonably autonomous position within the developing economy of their home area and of New Guinea, must be borne in mind when considering the conclusions and suggestions put forward in this chapter.

The Gorokan example

In Chapter 1 the Gorokan experience was offered as an example of rapid economic growth and increasing indigenous economic participation in New Guinea. A comparison of indigenous economic growth and participation in Goroka and other regions of New Guinea is beyond the scope of this bulletin, but certain features of the Gorokan experience merit stressing because of their wider relevance.
Gorokan values and institutions have proved, in a sense, to be 'pre-adapted' to the market economy. As a people oriented towards the achievement of status through wealth accumulation and manipulation, Gorokans can be thought of as entrepreneurs prepared by their culture for market opportunities.

But pre-adaptation to the market economy was not sufficient to initiate economic growth. Goroka is favoured for cash cropping by fertile soil and abundant rainfall, and the Gorokans were given a chance to participate in commercial exploitation when it began. The Administration, by imposing stable rule, and by constructing roads (largely with indigenous labour), an airfield to provide a link with the coast, and eventually the Highlands Highway, provided basic infrastructure requirements which were supplemented through the development of coffee, and the establishment of processing and marketing facilities by European interests. With the aid of a vigorous extension programme by the DASF, and a less organised, but nonetheless important aid effort by some European businessmen and planters, the Gorokans were able to take advantage of the availability of coffee as a cash crop, the communication, processing and market facilities, and start on the road to economic change.

The weight I have given to favourable pre-conditions is consonant with views current among development economists and planners in New Guinea, but my emphasis on the potential for economic change imbedded in traditional Gorokan values and institutions may present some departure from assumptions about non-market societies in general, and New Guinean societies in particular. The Gorokan experience may be related to indigenous economic development in New Guinea, for the value and institutional system central to Gorokan pre-adaptation to the market economy is not unique in New Guinea. Indeed, the wealth and achievement orientation of the Gorokans is considered to be a general, if not distinctive, trait for much of New Guinea (and also for other areas in Melanesia). If the postulated relationship between this orientation and economic growth is valid, it should follow - other things being equal - that other New Guinean societies with a similar orientation would show similar signs of economic progress. There are cases in New Guinea of similar development. Other Highlands societies, notably those in the Chimbu and Western Highlands Districts, are developing along the lines of the Gorokans, and the Tolai people of New Britain, who have been intensively involved with cash cropping and commerce for several generations, are far ahead of the Gorokans.\(^1\)

Many other New Guinean societies, however, are not experiencing the same rapid development, and I suggest that the lack of favourable pre-conditions, not any lack of potential for change within the society, is the variable most crucial to their underdeveloped state. The presence of all or most of the favourable pre-conditions that Gorokans enjoyed -

\(^1\) Cf. Epstein (1965).
availability of high value crops, a suitable environment for growing these crops, the roads, transport, processing and marketing facilities necessary to make cash cropping economically attractive, and a European-indigenous relationship conducive to indigenous development - in other Highlands societies undergoing growth and among the Tolai of New Britain supports this thesis, as does the absence of one or more of these pre-conditions in many societies not undergoing a similar development. Where no suitable cash crops are available or can be grown, where roads, transport, processing and marketing facilities are absent or too distant from potential producers, or where indigenous initiative has been discouraged, little development can be expected no matter how 'pre-adapted' a society might be for the market economy.¹

A word about cargo cults is relevant here. To many casual readers it is the cargo cult, not cash cropping and commerce, that is seen as the typical New Guinean response to modern conditions. Cargo cults have been common in New Guinea, and cargo thinking - the belief that Western goods and wealth can be obtained through ritual action - is widespread. But participation in cash cropping and commerce is also widespread, and many New Guineans on the periphery of the market economy are intensely interested in entering that economy.² Cargo cult actions and market-oriented activities can be thought of as competing ways open to New Guineans to obtain wealth and it appears that where favourable pre-conditions are present, cash cropping and commerce with their demonstrable

¹ While I emphasise the importance of variables external to New Guinean societies in stimulating economic change, variation from society to society in traditional values and institutions, and the possible relation of this variation to responses to economic opportunity should not be overlooked. There is, for example, some indication that in New Guinean societies where trade-partnerships were important, this type of relationship may be utilised in adapting to the market economy and result in a different type of adaptation than as exemplified by the efforts of Gorokan business leaders (cf. Lawrence, cited in Salisbury 1967:115; Mead 1967:5-6). In addition, a different type of adaptation might be expected in societies where there is an important hereditary, as opposed to achieved, element in leadership. Such societies are found on islands off the Madang coast, off the southern New Britain coast, in the Massim, and on the southern Papua mainland (personal communication: Ann Chowning, 5 September 1968). (Although Meggitt 1967:22-3 and Sahlins 1963:228 mention some of these societies in their reviews of leadership patterns in Melanesia, to my knowledge the distribution of hereditary elements in leadership over New Guinea and the rest of Melanesia has not been fully studied.)

² Cf. Papuan Entrepreneurs (Crocombe 1967a) and other New Guinea Research Bulletins for varied examples of indigenous efforts to become more involved in the market economy.
returns are preferred to cargo cult activities.\(^1\) There have been cargo
cult outbreaks in the Goroka area and other parts of the Highlands now
involved in market activities, just as there have been recent outbreaks
among the most economically advanced group in New Guinea, the Tolai. How-
ever, these outbreaks, or at least those which have occurred in recent
times, have been shortlived and the people involved have turned to
' rational' means of obtaining material wealth offered them by economic
opportunities in their respective areas.\(^2\) While New Guineans may be
predisposed to cargo cult thinking, where economic opportunities are
available and significant economic growth is possible, bisnis, to use
the Pidgin term, is usually preferred over the ritual of the cargo cult.

Prospects for continued economic growth

This final section examines factors which may inhibit further Gorokan
economic growth, and areas in which outside aid seems most needed.

(i) Coffee and crop diversification

Gorokan economic growth has been based primarily on cash crop produc-
tion and commercial ventures connected with and largely funded by receipts
from cash cropping. Unless major mineral deposits are discovered in the
area, or some other unforeseen development occurs, it seems likely that
continued growth in the immediate future will depend on further develop-
ment in cash cropping, and the service enterprises and other ventures
connected with or funded from cash cropping.

Coffee enabled Gorokans to enter the cash economy but prospects for
further significant growth based on coffee are limited, as world over-
production has led to lower prices and there could be serious difficulties
in marketing New Guinea's crop. As a signatory to the International
Coffee Agreement, the Australian government has agreed to discourage
further expansion of coffee plantings in New Guinea. Under the Agree-
ment, New Guinea's export quota is based on Australian coffee consumption
(although not all New Guinea coffee is sold to Australia) and current
production estimates place New Guinea coffee production at or near
Australia's consumption, leaving no room for expansion except as the
Australian demand for coffee grows.

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\(^1\) Cf. Lawrence (1967:274-5) whose latest comments on the Madang area,
which is noted for cargo cult activity, indicate that an improvement in
economic opportunities there may lead to the acceptance of development
as a satisfactory alternative to cargo cults.

\(^2\) T. Scarlett Epstein informs me that two separate cargo cult outbreaks
occurred among the Tolai when she was doing research there in 1960. In
both instances, when the cargo was not forthcoming the participants re-
turned to their homes and plantations and resumed normal cash cropping
and other market activities (personal communication, 6 September 1968).
Gorokans have already felt the coffee crises through falling prices in the last few years, and through the recent withdrawal of Administration aid and instruction for further coffee planting. Although Gorokans continue to plant more coffee, they realise that coffee is a declining crop (though few understand why) and are asking the Administration for new cash crops to supplement or replace coffee.

In 1967 the DASF in Goroka was promoting crop diversification, involving intensive food crop cultivation, the raising of cattle and pigs by modern methods, and cash crops other than coffee. Passion fruit, peanuts, tobacco, pyrethrum, and sweet potatoes were the crops receiving most attention. My interviews with Gorokans indicate that although many of them were interested in large cattle and pig projects, the mixed-farming schemes and the production of the cash crops mentioned above were not considered adequate supplements or replacements for coffee. Gorokans tend to make invidious comparisons between coffee, which they consider to be easily produced and profitable, and those other crops which they consider to yield much less revenue for the work involved in their production.

Whether or not these alternative cash crops can be made attractive to Gorokans is open to question. Much depends on marketing possibilities as well as price, as Gorokans have experienced marketing difficulties with some of these crops and are wary of them. There would seem to be some opportunity to expand passion fruit and peanut production (largely for the Australian market), tobacco production (largely for Territory tobacco firms) and pyrethrum production (largely for the international market), but, as with coffee, markets may be limited and Goroka is only one area which produces these crops. As for the production of food crops like sweet potatoes, unless markets are developed in urban coastal areas like Lae or Port Moresby, the demand would be limited to the needs of town workers, plantation workers, and prisoners, students and others provided for by the Administration.

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1 Planting is also continuing on some European plantations in Goroka. Although no new leases have been let in Goroka for coffee since the 1950s, European planters are still free to plant coffee on unplanted portions of their land.

2 In 1967-68 the heavy plantings of the early 1960s began to bear well and Gorokan coffee production reached an estimated 2,500 tons, more than twice that of 1965-66.

3 There are prospects for marketing about 60,000 gallons of processed passion fruit in Australia and present New Guinea exports are around 30,000 gallons.

4 The costs of transporting Gorokan crops by road to Lae or by air to Port Moresby and of marketing them would have to be considered before proposing any extensive export scheme of Gorokan food crops.
Gorokan awareness of possible limitations of demand for these alternative cash crops reinforces their opinion of their limited value compared with coffee. Many Gorokans have heard of the programme to introduce tea in the Western and Southern Highlands Districts, and are anxious to plant tea, believing that it will be a high value crop like coffee. However, they have been informed that there are no Administration plans to develop a tea industry in Goroka and that they must be satisfied with the cash crops that they have. Although this decision may be logical in terms of the development needs of the Western Highlands and Southern Highlands Districts as opposed to those of more prosperous Goroka, and in terms of limited private capital and Administration personnel available to initiate the tea industry,\(^1\) it is frustrating to Gorokans who have done well with coffee and who now want to go into tea because they believe it is the crop which will enable them to continue their economic expansion.

(ii) Europeans and Gorokans

Gorokans and other Highlanders were perhaps fortunate in that their inaccessibility staved off contact with the outside world as long as it did, for they have fared better in the contact situation than many of their coastal countrymen whose experience with Europeans dates from the late 1800s. Not only did Highlanders escape decimation from diseases Europeans carried yet could not control,\(^2\) but they were also spared the depredations of 'blackbirders', severe retaliatory raids, and the stultifying effects of control by an insufficiently-funded Administration concerned with promoting European investment rather than indigenous economic participation. From the vantage point of four decades of intermittent observation in New Guinea, from the 1920s before the Highlanders were 'discovered' to today, Mead (1967:4) contrasts the experiences of early-contacted coastal regions with those of the Highlands:

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

\(^1\) Tea is being developed in joint projects involving European investors who put up the costly tea processing plants and are granted leases for large tea estates, and New Guineans who develop smaller tea holdings and sell their tea to the European firms. Without a sizeable investment, and Administration approval, it is therefore virtually impossible for Gorokans or any other New Guineans to initiate tea production independently.

\(^2\) Gunther (1965:404-5) notes that the spread of bacillary dysentery, tuberculosis and other diseases introduced to New Guinea by Europeans was controlled in the Highlands by prompt measures instituted soon after the establishment of European control.
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.

Spared from the mistakes and inadequacies of early European (Australia, British, and German) administration in coastal New Guinea, the Gorokans were given the chance to participate meaningfully in the economic development of their area within a few years after full administrative control was established. An image of Europeans has therefore developed which features them as givers of opportunities and aid, of people who have 'helped us' (helapim mipela).

Now, after a generation of increasing European administrative control and commercial development in Goroka, it is legitimate to ask whether this tutelary image of Europeans is not being altered. One still hears from Gorokans testaments of the utility of the European presence, but also apparent is a considerable amount of bitterness born of the seeming inability of Gorokans to become wealthy (with the exception of a few business leaders) like Europeans, and the solidifying of caste-like relations between Europeans and Gorokans. Gorokans appreciate the economic gains they have made, and appreciate the European role in these, but they also see in their midst a swelling European community of increasing affluence and wonder why they are so slow in catching up to them. Similarly, although Gorokans may appreciate some of the services of the banks, wholesale stores, coffee processing companies and other large Europeans firms that have played a role in the general development of Goroka, they are anxious to gain some share of, or voice in, these firms which control the local economy and whose decisions increasingly affect the Gorokans as they become more and more involved in the market economy.

Curtin (1968) holds that a programme of general economic development dominates Australian economic policy, and that as long as it retains first priority indigenous economic participation will inevitably be limited. To Curtin, emphasis on general development has meant that planning and resources have been primarily focused on the development of export crops, grown, processed or marketed mainly by Europeans, and that the modern economic structure erected to promote and service the European investment is too large and complex for New Guineans, with their limited financial and managerial skills, to participate in effectively now, or take over in the near future. Accordingly, to avoid a prolongation of what he sees as a pluralistic and self-perpetuating system, Curtin calls for a reassessment of economic policy and the placement of indigenous economic development as its primary object.
As far as the Gorokan situation is concerned, without further alteration of economic policy concerning the relative roles of European and indigenous enterprises, Gorokans will be hard-pressed to rise above the level of small primary producers and petty entrepreneurs.

There have been some efforts by members of the local European planter and business community to upgrade indigenous economic participation. Two European coffee planters have each organised coffee processing firms with capital contributed by Gorokans,¹ some local firms are looking for trained Gorokan staff,² and the Highlands Farmers and Settlers Association - the group representing European plantation interests - follows a policy of enrolling leading Gorokan coffee producers and promoting them to positions of some responsibility within the organisation. There is even some feeling within the European community that individual Gorokans should be given financial aid to buy out some of the smaller European plantations which are now being bought up by large concerns. An editorial in a recent (1968:7) New Guinea Highlands Bulletin (the publication of the Highlands Farmers and Settlers Association) calls for such an investment policy for New Guinea in general in order to fill the otherwise widening gap between huge European estate-owning groups and small-scale New Guinean cash croppers, and to create an indigenous elite whose status is derived from control and exploitation of extensive land holdings.

Judging from my interviews with European planters and businessmen advocating this policy, there appears to be an important element of self-interest involved in their efforts to upgrade indigenous economic participation. By promoting an indigenous landed and commercial elite they hope to create a group of leaders who will act as a balance in the national political scene to leaders without commercial interests or backgrounds, and who will recognise their commercial interdependence with Europeans and European interests, and oppose moves towards the latter's expulsion or expropriation. While these motives need not be wholly denigrated - particularly if the continued flow of European investment capital is considered essential to further development in New Guinea - it remains to be seen how much this private European initiative can effect an upgrading of indigenous economic participation.

Relations between Europeans and Gorokans are difficult to treat with brevity, but it is apparent that the semi-egalitarian relations indicated by Gunther (1965:406-7) as applying a generation ago when Goroka was virtually a frontier outpost, have become partially overshadowed by

1 These are described in Appendix III.
2 At present those New Guineans working in Gorokan firms in positions above the clerk level are educated or experienced men from coastal areas. The most highly placed New Guinean in Goroka is the manager for the local branch of a large petroleum products firm who is from the Gazelle Peninsula, New Britain.
general Territory attitudes and patterns of interaction as the European presence has increased. With extensive European settlement in Goroka have come the institutions of a plural society: de facto segregated housing, the inevitable 'club' and other social facilities reserved for Europeans, and the 'masta'-'boi' terminology along with the attitudes and status differential that it implies. That Gorokans resent their subordination, the verbal slights they receive (some Europeans use terms like 'coon', 'rock-ape', or 'black bastard' as terms of reference and sometimes address), and the occasional cuffing or kick they receive from employers or others displeased with their performance, cannot be doubted. Although there are plenty of examples of exemplary relations between Europeans and Gorokans, the effect of their general subordination and the overt slights Gorokans receive should not be underestimated.

How much any strain in relations between Europeans and Gorokans affects prospects for future Gorokan economic growth is open to question. It might even be argued that subordination could serve as a spur to efforts at self-betterment, economic or otherwise, in order to be accepted more equally. But any such argument must face the fact that even the most advanced Gorokans may sometimes be shabbily treated. To some Europeans, the business leaders of Goroka have stepped out of the proper 'native' role: they have become too 'cheeky' in their general demeanour and in their interactions with Europeans, and may be regarded as 'spivs' or 'bigheads' (to quote terms I have recorded in use) to be put in their proper place. And Europeans in positions of power, even the lowliest clerk, who hold these views, are able to insult or harass business leaders, given the current organisation of social relations in Goroka. To the business leaders - the Gorikan men who have progressed furthest along the road to modernisation - these attitudes and actions, plus what they consider to be discrimination in such matters as credit availability, are often interpreted as manifestations of European duplicity. Whether or not one agrees with this interpretation, it is difficult not to agree that the poor aspect of European-Gorokan relations represented here serves to undermine the sincere and skilled efforts of the many Administration personnel and private Europeans aiding the Gorokans.

The Gorokan potential

Assuming that traditional Gorokan values and institutions were pre-adapted for the initial transition to market activities, it may be questioned whether this potential is sufficient for sustained growth beyond the cash cropping and petty entrepreneurial level so far achieved.

Data presented in Chapter 4 indicate that while Gorokans are able promoters of business enterprises, they have many shortcomings as managers of these enterprises. In addition, a diminution in their ability to pool labour and money was noted. The spread of prosperity, as the small plots of coffee now owned by almost every Gorokan have begun to bear, has led to a virtual end of unpaid labour transactions of the big man style, which in turn has meant that Gorokans owning large plantations have been increasingly forced to seek labour from the paid
labour market. And, the unprofitability of many businesses, particularly costly trucking ventures, plus disagreements over the management of pooled-money enterprises and the distribution of revenue from them, is threatening to make groups less disposed to pool their money, and to make it more difficult for business leaders to have access to pooled funds.\(^1\)

The withdrawal of unpaid labour from plantation work may be an inevitable concomitant of increased monetisation, but the difficulties in obtaining pooled funds and of managing enterprises built with them need not necessarily be so. If external funds were freely available for investment, reliance on pooled money would no longer be necessary, but up to 1967 trading banks and other credit agencies had made little credit available to Gorokans.\(^2\) In 1967 Gorokan leaders based hopes that the situation might change on a programme for converting traditional land rights to individual title which they thought, once achieved, would enable them to use their land as loan collateral, and on the Development Bank of Papua and New Guinea which was then being organised.

Their expectations concerning bank loans using land as collateral are probably over-optimistic. The investigations (by the Lands Commissioner), the hearings (in which unanimous consent to granting of title must be given by all clansmen involved), and the final granting of individual title constitute a lengthy process and one that will probably result in many claims for individual title being rejected. (The first Gorokan to gain individual title was a business leader in my sample whose claim was approved in 1967.) And, it is questionable that trading banks will lend money with land as a collateral when the seizure and sale of land following non-payment of a loan would be likely to arouse great resentment in the Gorokan community. Unless a market for land develops among Gorokans so that land becomes a commodity banks can take a risk on, or unless a crop lien system were developed so that crops, not land, could be used as collateral, it is difficult to envisage any greatly increased availability of credit for Gorokans from trading banks.

In addition, it would seem unlikely that all Gorokan desires for credit could be satisfied by the new Development Bank. Although its

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\(^1\) The dissatisfaction expressed by some contributors to pooled money ventures is sometimes matched by that of leaders who organise and manage such ventures because of what they feel are unreasonable demands made by contributors for service and cash returns. For example, one prominent man who had bought a truck with the financial support of many contributors was trying to sell that truck, rescue as much of his capital from it as was possible, and then buy a smaller and less costly truck on his own. He was exasperated with the tendency for contributors to commandeer the truck for 'joyrides' around the countryside, as well as constant demands for distribution of revenues, and wanted to be the sole owner of a vehicle which he could use for coffee buying and passenger hauling.

\(^2\) See p.19.
policy is to 'provide credit for both indigenes and non-indigenes for the purpose of primary production, and for the establishment or development of industrial or commercial undertakings where provision of finance is desirable and finance would not otherwise be available on reasonable terms and conditions' (Cameron 1968:46), it may prove difficult for an organisation charged with funding development all over New Guinea to service any great number of entrepreneurs or groups from a single area like Goroka.1

While it may be argued that credit from external sources (particularly from banks which hold significant indigenous deposits but allocate so little credit to indigenes)2 should play a greater role in Gorokan development, given the unlikelihood that all the credit desired by Gorokans will be available from these sources, the need for maintaining and enhancing the Gorokan facility for pooling their own money for their own projects is all the more apparent. Instead of allowing this internal mechanism for capital formation to stagnate or wither, a policy designed to build on this mechanism and to encourage indigenous capital formation is called for. Such a policy could have the twin merits of stimulating locally generated development and of avoiding overdependence on external credit sources which must be stretched to cover all New Guinea.

Implementation of such a policy would require special planning and extension work. A concerted programme of instruction for Gorokans in business principles, mechanical work and other skills needed in their businesses is called for, as is some means of regularising the pooling of money, its investment, and the financial management of the resultant enterprises. This need for the regularisation of pooled-money ventures extends beyond Goroka to all of New Guinea. Both Epstein (1965:187) and Salisbury (1967:116-17) raise the issue about the adequacy of the present formal alternative - a limited liability company adapted from Australian

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1 Cf. the statement made recently by a Gorokan business leader and Member of the House of Assembly to the Goroka Local Government Council (cited in Fox 1968): 'In finance for the increasing number of native businessmen in this territory, the Development Bank is not providing the facilities we hoped it would, primarily because there are insufficient branches. We in Goroka have sufficient native businessmen and small planters to warrant the establishment of a branch of the Development Bank here and I could name another 20 towns in this territory requiring the same facilities.'

2 Information on how much indigenous depositors have deposited in the two trading banks of Goroka was not made available to me. On the basis of Gorokan ability to save and my own observation of the widespread ownership of savings accounts, I would estimate that Gorokan deposits could amount to from $200,000 to $500,000. (As of June 1966 indigenous people in Papua and New Guinea had $9,181,712 deposited in Territory savings banks (personal communication: K.M. Archer, Commonwealth Statistician, 4 July 1967).)
models - now available to New Guineans if they wish to regularise their informal companies, and urge that some new corporate form be designed to serve New Guinean needs and to be comprehensible to the mass of the people. If such a form could be introduced, and be implemented by appropriate aid and instruction, the indigenous facility for capital formation and investment might be stabilised and reinforced so that New Guineans could increase their participation in the economy through better utilisation of their increasing revenues from cash crops.¹

The premise underlying the above argument - that Gorokans (and other New Guineans) need assistance designed to enhance their already considerable ability to adapt to the market economy, rather than aid which bypasses or ignores their potential - applies to Gorokan economic growth in general. If Gorokans are 'conspicuous investors', and if their investment skills are not matched by their ability to operate their enterprises, it does not necessarily follow that prestige as an incentive for capital formation and investment should be ruled out. If it were, and only more 'business-like' motives be allowed to come into play, then a major incentive for investment would be lost, and along with it might go the entire vitality of Gorokan economic growth. Rather than ignoring Gorokan desires for prestige, or trying to eliminate them from their commercial transactions, a policy attuned to Gorokan values is demanded. If local appreciation of the efficiency of an enterprise, and its profitability, could be elevated to the point where good management brought as much status as the initiation of an enterprise, the prospects for continued Gorokan economic growth would be enhanced significantly.

¹ In addition to regularising Gorokan pooled-funds ventures like trade store and trucking businesses, attention might be given to the formation of larger-scale enterprises such as would be possible in coffee processing. At present Gorokans are the majority shareholders in two processing firms organised and managed by Europeans, and many Gorokans from the Watabung area are members of the Chimbu Coffee Society headquartered in the Chimbu District. These organisations, and Gorokan participation in them, are discussed in Appendix III.
Appendix I

Market sales from Natauka village

There are three main public markets in Goroka: the Goroka township market; the Asaro market and the Bena market. The Goroka market is located within the township and is maintained by the Goroka Council which has constructed (using revenue largely derived by a market tax) several permanent covered market buildings for use of sellers who come by foot and by truck from surrounding rural areas. It is open on Wednesday and Saturday mornings, and is usually crowded with from several hundred to well over a thousand sellers, buyers and onlookers. Local foods available at the Goroka market include sweet potatoes, taro, sugar cane, bananas and other minor crops which are sold primarily to New Guinean workers living in town, as well as corn, tomatoes, lettuce, cabbage and other imported crops sold primarily to local Europeans. (In addition, a few pigs and cooked portions of pigs are sold, primarily, it appears, to other rural Gorokans.) While the Asaro market is located in a cleared square and features a few temporary sheds and racks, the Bena market is hardly more than a gathering of buyers and sellers along a bend in the Highlands Highway. In both markets the crops are sold almost exclusively to other rural Gorokans rather than to town workers or Europeans. Although sales are minor compared to the Goroka market, these two markets are nonetheless significant in that they indicate the degree to which market transactions and some division of labour are beginning to penetrate into the production and allocation of food crops.¹

Market selling, and the raising of crops for the market, is pre-eminently a woman's occupation, and, although income derived from market sales would not come anywhere near that derived from coffee and other cash crops, it does provide women with some independent means. In order to gain some idea of the extent and relative importance of market sales in a Gorokan village I employed Mr Uro Mikave to record data on market sales from his home village of Natauka. Natauka is a small village of some fifty-four people located about seven miles from town - within walking distance and a 20 cent truck ride away. The period surveyed, 10 June to 22 July 1966, fell at the end of the wet season and the

¹ In early 1968 a patrol officer informed me that three small roadside markets were operating in the Watabung area.
Table 16

Market sales by women of Natauaka village from Saturday, 10 June to Wednesday, 22 July 1967

<table>
<thead>
<tr>
<th>Date</th>
<th>Seller</th>
<th>Sweet potato (lbs)</th>
<th>Sugar cane (lbs)</th>
<th>Taro (lbs)</th>
<th>Bananas (lbs)</th>
<th>Kumu* (lbs)</th>
<th>Taga** (bundles)</th>
<th>Amount received ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturday, 10 June</td>
<td>A</td>
<td>-</td>
<td>48</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.30</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.50</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>.40</td>
</tr>
<tr>
<td>Wednesday, 14 June</td>
<td>A</td>
<td>-</td>
<td>42</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
</tr>
<tr>
<td>Saturday, 17 June</td>
<td>D</td>
<td>16</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>.50/.10</td>
</tr>
<tr>
<td>Wednesday, 21 June</td>
<td>B</td>
<td>74</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.60</td>
</tr>
<tr>
<td>Saturday, 24 June</td>
<td>B</td>
<td>40</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.00</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>-</td>
<td>32</td>
<td>-</td>
<td>25</td>
<td>-</td>
<td>-</td>
<td>.70/.70</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>-</td>
<td>-</td>
<td>92</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.70</td>
</tr>
<tr>
<td>Wednesday, 28 June</td>
<td>D</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>.20</td>
</tr>
<tr>
<td>Saturday, 1 July</td>
<td>B</td>
<td>44</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.90</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>.50</td>
</tr>
<tr>
<td>Wednesday, 5 July</td>
<td>B</td>
<td>40</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.80</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>.50</td>
</tr>
<tr>
<td>Saturday, 8 July</td>
<td>B</td>
<td>48</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.10</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7</td>
<td>.70</td>
</tr>
<tr>
<td>Wednesday, 12 July</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Saturday, 15 July</td>
<td>B</td>
<td>28</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.20</td>
</tr>
<tr>
<td>Wednesday, 22 July</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>232</td>
<td>236</td>
<td>96</td>
<td>25</td>
<td>2</td>
<td>22</td>
<td>22.40</td>
</tr>
</tbody>
</table>

* A Pidgin term for several related leafy vegetables (Howlett 1962:82).
** A Pidgin term for vegetable material taken with betel nut.
beginning of the dry season and so would probably be fairly representative of the year as a whole.

Table 16 records the main data on number of sellers, crops sold, and amount received. None of the Natauka women have separate gardens for market crops; all those selling crops during the survey period (only 6 of the 11 women with gardens made sales) took them from gardens also used for supplying food for the household and for pigs. The amount received, $22.40, from market sales during the survey period is minor compared to what Nataukan men received from coffee. Although I do not have data for on coffee sales for the entire six weeks, I do have data for one month between 23 June and 22 July: during this month the men sold coffee worth over $400, while women's garden sales brought in only $15.00. Although the predominance of coffee over market crops is exaggerated during this time because it was the height of the coffee season, the general relationship between the two holds throughout the year, as judged from general market statistics and from informant reports.¹

Market sellers from Natauka village were also asked what expenditure they made on the days they made market sales. These data, recorded in Table 17, indicate that nearly half the income is spent on truck rides, foodstuffs and tradegoods. Most of the remainder, according to the women, is spent between market days for foodstuffs and tradegoods at local Gorokan stores.

Table 17

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck rides</td>
<td>2.00</td>
</tr>
<tr>
<td>Market foodstuffs</td>
<td>.20</td>
</tr>
<tr>
<td>Foodstuffs from town or village stores</td>
<td>5.25</td>
</tr>
<tr>
<td>Trade goods (cloth, blanket)</td>
<td>2.10</td>
</tr>
<tr>
<td>Total</td>
<td>9.55</td>
</tr>
</tbody>
</table>

¹ Goroka market statistics indicate that between 60,000 and 70,000 sellers enter the market on separate occasions within one year. If each seller sold crops worth $1 on each occasion then the per capita income from market sales would only be about $1 per person, less than 15 per cent of coffee income. (The $1 estimate per seller is probably too high, although the small sales in the Asaro and Bena markets might balance any overestimate of revenue derived from the Goroka market.)
Appendix II

Food consumption patterns in Natauka village

In recent years foodstuffs appear to have become the most important category of consumption goods purchased by Gorokans. Rice, tinned fish, tinned beef and other foodstuffs imported from Australia, Japan, China and other countries dominate the shelves of Gorokan trade stores. In 1967, according to Downs (1967:8), foodstuffs accounted for over 65 per cent of all sales in rural and town stores. This estimate contrasts with the results of a 1952 survey he cites which indicated that clothing and hardware were the main categories of goods purchased by Gorokans, and that foodstuffs amounted to less than 5 per cent of sales. Clearly, Gorokan purchases of imported foodstuffs have risen greatly in recent years, but the question of how much imported foodstuffs have penetrated the Gorokan diet and altered the former exclusive dependence on subsistence-produced goods remains to be answered.

To provide data useful for answering that question I had Mr Uro Mikave record all food items consumed at meal-times in his home village of Natauka (also the site of the coffee survey reported in Chapter 2 and the market sellers survey reported in Appendix I). The survey method used was that developed by Belshaw (1957:88-94, 100-1) for a study of diet preferences in Hanuabada near Port Moresby, and used by Finney (1965) in a study of Tahitian diet preferences. With this method each household is visited at or near meal-times and all foods consumed and the number of people partaking in the meal are recorded. For example, a meal for a family of six would be recorded as '6 meal-units' and each food item consumed would be given a score of '6 meal-units'. By compiling the total number of meal-units observed in the survey, and the scores for each food item, and then by comparing the scores of each food item expressed in per cent of total possible score, some indication of the relative consumption of various foods can be gained. Although this method does not indicate the quantity of each food item consumed, it is useful for gaining an idea of food consumption patterns for a large sample of households and meals, and for spotting trends in changing diet habits.

Table 18 records data from the survey. The total frequency of usage of each food item is listed, followed by a breakdown according to how (subsistence or purchased) and where (own household, other household, village store, etc.) the food item was obtained. The relative frequency of food item usage, expressed by the proportion of meal-units recorded
### Table 18
Food consumption in Natauka, 9 June to 23 July 1967, expressed in meal-units

<table>
<thead>
<tr>
<th>Food categories and items</th>
<th>Locally-produced</th>
<th>Imported</th>
<th>Total usage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>By own household</td>
<td>By other household</td>
<td>Bought at village store</td>
</tr>
<tr>
<td></td>
<td>(not purchased)</td>
<td>(purchased)**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total units</td>
<td>Frequency (%)</td>
<td>Total units</td>
</tr>
<tr>
<td></td>
<td>Frequency (%)</td>
<td></td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>I Starchy vegetables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweet potato</td>
<td>4,968</td>
<td>95</td>
<td>129</td>
</tr>
<tr>
<td>Taro</td>
<td>652</td>
<td>12</td>
<td>528</td>
</tr>
<tr>
<td>Rice</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Yam</td>
<td>425</td>
<td>8</td>
<td>411</td>
</tr>
<tr>
<td>Wheat products***</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Banana</td>
<td>205</td>
<td>4</td>
<td>178</td>
</tr>
<tr>
<td>Manioc</td>
<td>105</td>
<td>2</td>
<td>146</td>
</tr>
<tr>
<td>II Other vegetables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kumu</td>
<td>1,701</td>
<td>33</td>
<td>373</td>
</tr>
<tr>
<td>Sugar cane</td>
<td>786</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Pumpkin</td>
<td>112</td>
<td>2</td>
<td>24</td>
</tr>
<tr>
<td>Green bean</td>
<td>79</td>
<td>2</td>
<td>36</td>
</tr>
<tr>
<td>Peanut</td>
<td>74</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Corn</td>
<td>93</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Other*</td>
<td>83</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>III Protein</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pork</td>
<td>298</td>
<td>6</td>
<td>734</td>
</tr>
<tr>
<td>Tinned fish***</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Frozen chicken***</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Fresh beef*</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tinned beef**</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* Expressed in per cent of meal-units recorded in relation to total meal-units observed during survey (n = 5,229).
** Purchased from another Gorokan either in Natauka or another village, or at Goroka market.
*** Bread, scones and biscuits.
* Cabbage, cucumber, onion and tomatoes.
** Primarily from Japan, Korea and China.
*** From Australia.
* Purchased from a European butcher who buys meat from European producers primarily in the Markham and Ramu valleys. Gorokans occasionally buy frozen Australian meat, though none was recorded during this survey.
** Primarily from Australia.
for each item to the total meal-units recorded in the survey, follows
the meal-unit total scores, and scores for each category of origin.

 Taken as a whole the data recorded in Table 18 indicate that sub-
sistence foods (whether raised by the consuming household or procured
from another household through non-monetary traditional transactions)
still dominate the Natauka diet. Some inroads of imported foods are,
however, obvious. Although sweet potatoes dominate in the starchy
vegetable category, rice and wheat products are of some importance,
ranking third and fifth, respectively, out of seven food items in the
category. Usage of imported protein foods (tinned fish, tinned beef
and frozen chicken) almost equals that of locally raised pork, the
traditional source of animal protein. If fresh beef, most of which
comes from European-owned herds in the Markham and Ramu Valleys, were
considered an imported food then consumption of imported protein sources
could be said to exceed that of local pork.

 The bias involved in using Natauka as the survey village, and in con-
ducting the survey during June and July, requires some discussion before
the survey results can be made applicable to Goroka as a whole. First,
Natauka is a moderately prosperous village close to Goroka township and
would therefore tend to have a higher usage of imported foods than a
relatively poor village located far from town. Second, imported food
consumption among Gorokans is highest in the months from May to Sep-
tember apparently because of the ready cash available from coffee sales
and because of some scarcity of local foods in this relatively dry season.
This seasonal change in food purchases is attested by variation in sales
of both trade stores (see Table 8), and wholesale stores. Table 19 re-
cords this seasonal variation in sales (primarily of foodstuffs) of one
wholesaler in Goroka who was kind enough to furnish me the data.

 However, even if the penetration of imported foodstuffs revealed in
the Natauka survey is considered to be somewhat greater than the average
penetration for Goroka as a whole (and for all seasons), the indication
of at least an incipient importance of imported foodstuffs is there.
That imported foodstuffs might gain a dominant place in the Gorokan
diet - or, at least, in some categories of that diet - must be con-
sidered a strong possibility, especially if cash cropping and other
commercial activities continue to expand without any concomitant promo-
tion of the production and distribution of local foods. This possibility
applies primarily to rice and wheat products which, because they are
cheap, portable, and easily stored, have come partially to replace tra-
ditional foodstuffs in many areas of the Pacific.¹ Still, the alternate
possibility that imported foodstuffs will primarily act as supplements
to traditional foods rather than replacements of those foods must also
be considered. It can be seen in Table 18 that even though rice and
wheat products consumption is significant, the main staple, sweet potato,

¹ Finney (1965).
Table 19

Monthly variation in the value of sales from one Goroka wholesaler expressed in relation to March 1967 sales (=100)

<table>
<thead>
<tr>
<th>Month</th>
<th>1965</th>
<th>1966</th>
<th>1967</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>-</td>
<td>74.1</td>
<td>59.6</td>
</tr>
<tr>
<td>February</td>
<td>-</td>
<td>70.5</td>
<td>72.9</td>
</tr>
<tr>
<td>March</td>
<td>-</td>
<td>119.4</td>
<td>100.0</td>
</tr>
<tr>
<td>April</td>
<td>-</td>
<td>85.01*</td>
<td>74.01</td>
</tr>
<tr>
<td>May</td>
<td>-</td>
<td>184.0</td>
<td>142.1</td>
</tr>
<tr>
<td>June</td>
<td>-</td>
<td>141.1</td>
<td>152.1</td>
</tr>
<tr>
<td>July</td>
<td>-</td>
<td>138.6</td>
<td>79.9</td>
</tr>
<tr>
<td>August</td>
<td>-</td>
<td>129.0</td>
<td>-</td>
</tr>
<tr>
<td>September</td>
<td>-</td>
<td>72.5</td>
<td>-</td>
</tr>
<tr>
<td>October</td>
<td>-</td>
<td>53.0</td>
<td>-</td>
</tr>
<tr>
<td>November</td>
<td>-</td>
<td>61.5</td>
<td>-</td>
</tr>
<tr>
<td>December</td>
<td>86.4</td>
<td>60.0</td>
<td>-</td>
</tr>
</tbody>
</table>

* This figure is low because of closing for Easter Holidays.

** Figures in parentheses are estimated sales if sufficient supplies could have been obtained from Lae to meet heavy demands for rice, tinned fish and other goods.

is eaten at almost every meal. Informants suggested that rice and wheat products were especially appreciated as a tasty addition to their diet, and one that means the difference between going hungry and having a full stomach during periods in the dry season when traditional staples may be in short supply. The supplemental role of imported protein foods is probably even more significant than that of vegetable foods, for the traditional Gorokan diet based primarily on sweet potatoes and other vegetables is deficient in protein. Tinned fish and other imported protein products are probably having a significant effect on the health and energy levels of those Gorokans who consume significant amounts of them.

That these imported foods may have a beneficial effect on the Gorokan diet as food supplements does not mean, however, that production of these or similar foods in New Guinea is not needed. There are obvious benefits to be obtained - in terms of improving the balance of payments situation for New Guinea and in terms of stimulating local development and increased division of labour - from promoting the production and distribution in New Guinea of rice, beef, fish and other foods, and, if the Gorokan situation is any indication, there will be an increasing market for them in prosperous rural areas as well as in urban centres.
Appendix III

Indigenous coffee processing firms

Two coffee processing firms in Goroka are wholly or largely owned by Gorokan shareholders, although they are managed by Europeans. The larger of the two is the Highlands Commodity Exchange (HCE) which was founded in 1962 by a European planter who explained to me that his primary motive was to upgrade the quality of Gorokan coffee and to give Gorokans a better price for their product and an assured outlet. As Gorokans apparently had some difficulty in selling and processing their coffee at that time, and as they were attracted by the idea of having an organisation which they thought would rival European coffee mills, the European organiser's appeal for funds yielded almost $50,000 in six weeks. This money was combined with the organiser's personal funds to purchase processing machinery, trucks and other equipment, and to provide operating capital. The HCE began full operations in 1964, and now operates in the following manner: HCE employees, or Gorokan truckers working in co-operation with the HCE, purchase coffee from members and others which is then processed and sold by the HCE mill. (The mill also processes the coffee from the European organiser's plantation, where the mill is located, but this is kept separate from HCE transactions.) Profits, if any, are then distributed among shareholders.

Over 2,000 Gorokan shareholders hold virtually all shares in the company, but control by the organiser is assured by issuing shares in two classes: 'A' class shares which entitle holders to vote and participate in the distribution of profits, and 'B' class shares which give no vote but provide for sharing of profits. Most 'A' class shares, which represent only a very small proportion of the capital, are held by Europeans, while almost all 'B' class shares are held by Gorokans (Jackman 1967:18).

The other Gorokan coffee buying and processing organisation in which local capital is combined with European management is directed by another European planter who says that the initiative for forming the business came from villagers living near him: in 1959 he returned from a vacation to find that a number of local people had made cash collections, deposited them in a bank, and had requested him to use their money to start a coffee buying and processing business. The European planter then took their funds (amount not disclosed to me) and used them as operating funds for the buying and processing of their coffee, using his equipment. In return for his services, he required that contributors
be willing to work (for regular wages) a few days every week on his plantation, thereby assuring himself of a stable local labour force.

Both organisations enjoyed a measure of success in their first years of operation, although recently they have run into difficulties. The HCE in 1964, its first year of operation, was able to pay a 10 per cent dividend. This was increased to 15 per cent in 1965, but in 1966 a net loss was recorded and no dividend was paid. HCE's financial position had recovered somewhat by mid-1967, although profit prospects did not appear to be as good as they had been in 1964 and 1965. According to the manager, the financial difficulties which started in 1966 stemmed from the intense competition in coffee buying. In 1966 a great many independent European buyers were operating in Goroka which made it difficult for HCE buyers to secure sufficient coffee, particularly since HCE members often sold their coffee to whoever was first along the road, or to whoever offered the best price, rather than waiting for the HCE buyer and accepting his price. To purchase sufficient coffee for economic operation of the coffee mill the HCE was forced to meet or exceed competitors' prices which therefore cut down the possible profit margin. In addition, some Gorokans (including HCE members) took advantage of this competitive situation to sell undried coffee as dried coffee,1 and some funds were allegedly embezzled by buyers and clerks acting in collusion, all of which led to a net loss for the year.

The expectations for the HCE held by many contributors appear to have been unrealistically high: not only did they imagine that it would pay a substantial yearly dividend (an idea which the dividends paid in 1964 and 1965 reinforced), but they also thought it would become an organisation as big or bigger than European mills. When no dividend was given in 1966, and when it was realised that the HCE was a modest enterprise compared to the main coffee mills, many contributors became bitterly disappointed and blamed the European organiser for the organisation's lack of success (but apparently ignored any part played by members and employees in its financial difficulties).

The other coffee buying and processing organisation has - according to the information given me by the European organiser - yielded good returns to investors in the form of dividends and rebates to coffee sellers. In all, the organiser estimates that the initial capital invested has yielded more than a 100 per cent return. Despite this return, and despite an assured market for their coffee, many of the shareholders are apparently discontented. According to the organiser, this discontent stems mainly from the fact that their money has not gone into any visible

1 According to the manager, some Gorokan growers filled coffee bags almost full with slightly dried and therefore heavy coffee beans, and topped the bags off with fully dried coffee. HCE buyers inspected the beans on top and offered a price per pound based on the dry coffee rate which meant, in effect, they were buying a lot of water.
capital asset to which they can point with pride as being theirs. Instead, the capital has gone primarily into operating funds while the organiser's trucks and equipment have been used for buying and processing. In an attempt to remedy this apparent lack of a 'conspicuous investment', in 1967 the organiser was using some of the organisation's funds to construct a sizeable facility for fermenting members' coffee beans.

These two Gorokan cases suggest that the successful operation of large-scale enterprises using New Guinean capital and European management is not an easy task. As in the case of the HCE investors may expect too much, and not understand (or ignore) the need for their support and co-operation in making the operation profitable. And, as in the case of the other organisation, a good return, without some visible sign of an important and successful enterprise, may not be enough to satisfy investors. Both cases indicate that the gap between the New Guinean understanding of the goals and requirements of a successful enterprise and that of a European organiser or manager, may be a difficult one to bridge, particularly if the latter assume that they alone know what is best in planning and operating an enterprise.

There are no co-operative societies operating in Goroka, although there are two small rural progress societies, operated by the DASF, which may be developed into full-fledged co-operative societies. Many Gorokan coffee producers from the Watabung area adjacent to Chimbu do, however, belong to the Chimbu Coffee Society. This is a co-operative society formed, like another New Guinean co-operative described by Crocombe (1965), by using indigenous capital to buy out an existing European enterprise.

Because of high population density and consequent pressure on land, the development of European plantations was restricted in the Chimbu District. Indigenous cash cropping alone was encouraged and the Chimbu people, following the lead of Gorokans, started planting coffee in the mid-1950s. European business interests were then allowed to build a coffee mill in the district, but this policy was later reversed, apparently because of growing Chimbu discontent over the virtual monopoly over coffee buying held by the firm. In 1964 the Administration, acting through the Co-operatives Division of the Department of Trade and Industry, organised a capital subscription among the Chimbu (which netted over $140,000 in the first year) to buy out and operate the European firm, and then supervised the organisation of the present co-operative society.

The Chimbu Coffee Society is one of the largest indigenous enterprises in New Guinea. As of July 1967, total subscribed capital was over $270,000 (contributed by over 11,000 members), and another $300,000 to $500,000 from bank loans and overdrafts had been invested or was available for operating capital. The Society buys, processes and sells the bulk of Chimbu-produced coffee, which amounts to over 15 per cent of New Guinea's total production. It has a fleet of trucks for coffee buying,
a modern coffee mill, and is starting a new wholesale division to supply goods to members with retail stores. The general manager is a European, but except for several staff members from coastal regions, the employees are all from Chimbu.

In the last two years, the Chimbu Coffee Society has run into operating difficulties occasioned, apparently, by poor planning and management at the beginning, an unforeseen and steep rise in Chimbu coffee production which led to unexpectedly high capital requirements, and a lack of full co-operation with the organisation by many indigenous members who expected too much, too soon, from the society. Symptomatic of the society's difficulties has been the disaffection of shareholders or prospective shareholders. Between April 1966 and July 1967 the society was able to obtain only an additional $4,000 in capital subscriptions, whereas in previous years they had collected about $270,000. Although generalisation from a single case is impossible, this situation indicates that co-operative coffee processing mills may be subject to difficulties similar to those of the HCE and the other Gorokan-owned organisation, and that a co-operative society structure may not be a panacea for the ills of large-scale indigenous enterprises.¹

¹ Another large firm operating in Goroka which is funded largely by New Guinean capital is Namasu Limited. This firm, which was founded in 1960 in the Morobe District by Lutheran missionaries to involve New Guineans in modern commerce (Fairbairn 1967), has recently opened a wholesale store some miles outside Goroka township on the highway to Chimbu. Despite the New Guinean funds invested in the company, most Gorokans consider Namasu Limited to be another European firm (albeit one somehow connected with the Lutheran Mission), probably because few of them, if any, are shareholders, and because the local store is managed by a European.
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