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## Introduction: Colonialism and Social Change

This chapter attempts to chart in general terms the impact of European capitalism on Papua New Guinean communities and the methods by which previously pre-capitalist modes of production were incorporated into the international capitalist economy. The main effects of this incorporation are three fold:

- (a) increasing urban/rural inequalities;
- (b) increasing regional inequalities within the rural area;
- (c) the rise of new forms of inequality nationally, notably the emergence of new classes and strata.

Although most of the materials drawn upon here have focussed on the agents of the colonial state and on the settlers and planters, it is taken as self-evident that significant changes were occurring in Papua New Guinean communities long before "discovery" and colonial annexation.<sup>1</sup> Accordingly we attempt here to explore the development of class inequalities which have resulted from the complex interaction between forces of change deriving their impetus from within pre-capitalist communities, and the exogenous forces for change in the form of the colonial state and other representatives of colonial capitalism. In passing we will encounter evidence of increasing regional inequalities.

More particularly, we are concerned in this chapter to demonstrate how the changing agricultural policies of the colonial Government and the subsequent strategies adopted by administration and extension field officers fostered certain tendencies already apparent within pre-colonial societies, to the extent that at the present time we can identify new and powerful rural classes, namely the rich peasantry and rural capitalists. We have chosen to study these developments as they have unfolded, admittedly in an uneven and often unsystematic manner, in the Eastern Highlands, because this province, along with the Gazelle and the Western Highlands, represents

the area of most intense agricultural capitalist penetration. For convenience we have told this story in chronological sequence, and although the periods we delimit are "real" in the sense that they are not arbitrary, they are in no sense discrete, but rather interweave and overlap.

### Planting under the Regulation and Co-operative Agriculture

From the earliest days of colonisation in Papua New Guinea, colonial administrations have been concerned with the development of commercial agriculture. Several Europeans had already established copra plantations in the Bismarck archipelago by the time the German Government annexed New Guinea in 1884, and the annexation was followed by a further expansion in plantation agriculture. The German state, a latecomer to industrialisation and colonial expansion, was forced to take a much greater interest in its far flung colonies than was Britain, already rich in colonial possessions, and still at that time the leading industrial power. The "tyranny of distance" also forced the coloniers to establish in New Guinea an embryonic government whose resources, although slight, gave it a measure of self-reliance and strength absent from neighbouring British New Guinea, which proximity to Australia doomed to chronic undevelopment.

One clear indicator of the comparative dynamism of German colonialism was the extensive road system created with forced labour and tax labour. By 1910, a 200 kilometre road ran from the mouth of the Warangoi River to the Baining country. By 1911, New Ireland possessed 180 kilometres of surfaced road, and even Eitape (Aitape) had 70 miles of road. The town roads.

The town roads around Rabaul were being surfaced also. One year later, a road right around New Hanover was completed, and 220 kilometres of road had been laid in Kieta. These roads increased significantly the control the Germans exerted over the colonised, and also helped support and stimulate agricultural production (Rowley 1954: 838-829). It is also clear that the Australian Administration in Papua and the post-First World War Administration in New Guinea were considerably worse off for naval craft for patrolling than the Germans (Rowley 1954: passim). In January 1913 there were 84 officials in New Guinea, comprising 15 percent of the non-New Guinean population.<sup>2</sup> The German Administration was not slow in realising the potential of indigenous agriculture, and in 1887 villagers were compelled to produce food crops and coconuts for sale by the Planting Ordinance. Cheetham (1962/3:68) notes that until the First World War "a large proportion" of the copra exported from the colony was produced by indigenes. Nor was plantation agriculture ignored. By 1909 some 45,000 acres had been developed under the plantation system, thirty times the acreage under cultivation in neighbouring Papua.

Despite the vigour of the German colony, it was Papua's proximity to Australia which finally tipped the balance when the furthest outposts of empire were drawn into the First World War. When Australian troops attacked Rabaul, the acting Administrator, Dr. E. Haber, was forced to surrender after thirty New Guinean policemen and conscripts had died saving New Guinea for Germany. Haber also surrendered to the Australians 380 plantations covering 145,000 acres and seven big trading and plantation companies. A total of 600,000 acres of land

were in freehold private ownership, as well as extensive alienated German Administration lands. This was more than double the amount of freehold land in private ownership ever to be held in Papua (Lalor 1969: 145,154). Having conquered, Australia commenced to rule through the administrators of Australian Naval and Military Expeditionary Force and continued so to do until 1921. It was symptomatic of the relative weakness of the Australian presence that the road system built up by the German administration fell largely into disrepair, and that there occurred a "retraction of the frontiers under the Australians in spite of the comparatively very large resources of trained military manpower available". As late as 1918 patrols were being mounted whose stated objectives included the collection of German-issued luluai hats and their replacement with Australian ones (Rowley 1954: 830; 838). During and after World War II, New Guinea again experienced military government, which it this time shared with Papua. Having considered amalgamating New Guinea and Papua and rejecting the idea in 1919, 1934, and 1939, Australia finally joined Papua and New Guinea in administrative union after the War. It was soon to become obvious that while Territory-wide forms of colonial control (the luluai system, permanent patrol posts, the council system) were to be based on the New Guinean system, agricultural policy and land law was to be heavily influenced by the Papuan experience.

In Papua (previously British New Guinea) the Administration was forced to contend with a barely formed and rather disinterested home government itself attempting to re-establish a viable agricultural sector in the wake of the slump of the nineties. The Australian state, which did not come into existence as one entity until 1901, was in no position to build

an extensive colonial presence in what appeared to be an economically unpromising backwater. Accordingly, the first Administrator, Sir William MacGregor, looked to the indigenes as the main agents for economic growth and adopted coercion as the means by which commercial agriculture would be established in Papua. A series of regulations were passed in an attempt to forge a linkage between production for use and commercial agriculture, the first of which was regulation Number 2 of 1894 which enabled district magistrates to compel villagers to plant coconuts.<sup>3</sup> The magistrates were given the task of fixing the minimum number of trees which were to be planted each year by each village. That this attempt to forge a direct linkage had failed was realised by MacGregor's successor, Captain Barton, who considered that such initiatives were anyway only a stopgap measure to prevent the natives from becoming lazy until such time as full scale plantation agriculture could be effected (see Miles 1956: 319). The problem that Barton confronted in attempting to encourage white settlement was precisely the problem that had led to the reliance on coercion for native agriculture: lack of infrastructure, trained manpower, and capital.

Despite a government sponsored advertising campaign in 1899 to attract settlers from England and Australia, by 1907 only 1,467 acres were under development, although the Administration had alienated 29,000 acres for this purpose. Murray, too, was initially of the opinion that plantation labour was the best means to integrate Papuans into the world economy rather than commercial agriculture, but he was confronted by the reluctance of settlers to rush to this new El Dorado, although the number of acres under cultivation did rise substantially between

1907 and 1914 to reach 42,921. During the war, the settlement programme collapsed, and the Administration began again to think in terms of indigenous commercial agriculture. Nor did settlement pick up after the war. A white population of slightly more than 1000, of whom only 115 were engaged in planting just over 60,000 acres, was all there was to show in 1920 after 21 years of active recruiting of settlers.

Murray realised his own stake and became a strong partisan of commercial indigenous agriculture (at least, until the thirties). Murray's concern for the fostering of economic crops among the Papuans seems to have become particularly marked after 1914 and was perhaps the result of a closer knowledge of and interest in developments in New Guinea. Whatever the cause, references to the planting regulations became a regular feature in Murray's reports after this date. Murray's scheme was a strange amalgam of colonial coercion and village co-operation. Following the failure of the administration to develop a particularly strong foreign plantation sector, and the failure of individual indigenous plantings to make a noticeable impact on output, Murray and his magistrates turned their attention to village plantations. The scheme was most ably demonstrated by Magistrate Lyons in the Western Division (see Miles, 1956:322). The plantations Lyons established were to be owned by all the people of the village and their descendants equally; expenses were to be borne by people living in the village; work would be performed by the villagers by mutual agreement; the coconuts were to be disposed of in a manner which would benefit the village as a whole. The plantations spread, and by 1917 there were 50 in existence, mostly in the lower reaches of the Fly and the Bamu. By 1920 Murray was able to report that some

progress was evident. The communal plantation system was firmly established and other crops were being experimented with. Successful as this scheme was, it is apparent that a fairly high degree of coercion was employed to make it function. The Native Plantations Ordinance, passed by Murray in 1918 and implemented in 1920, contained stiff sanctions. Under this Ordinance the state was empowered to establish plantations on Crown land redesignated as native reserves or to establish plantations on native land with the consent of the natives. Lyons' "mutual consent" regarding labour contributions disappeared, and all eligible males were compelled to work for sixty days. Two months' work entitled the villagers to a remission of his tax. The government supplied the seeds, tools and supervision and took a share (usually half) of the product which was paid to the Native Education Fund. The plantations were under the supervision of a village constable. 112 Plantations were established under this scheme.

By 1937/8 indigenous copra growers were producing about one quarter of Papua's meagre copra output (Miles, 1956: 324). By 1938/9 the value of the principal agricultural exports from Papua stood at \$221,000 (compared with New Guinea's \$799,000). By 1940, with the bulk of the colony's exports still produced by planters and with the returns to the idignees remaining so meagre and irregular that compulsion still had to be employed, Murray admitted that his unity of opposites (compulsion plus voluntary communalism) had been a failure. The reasons are manifold, not the least being the contradiction in the equation itself. Clearly, inadequate returns to the growers was one of the main reasons for the failure of the scheme. The inadequacy of the returns was partly attributable to the government's

policy of taking a proportion of the crop and its policy of paying out annually. They were also directly attributable to the dramatic price fluctuations affecting copra and the disastrous price fall of the thirties. Returns to the indigenes in the Government scheme reached a high of £497 in 1937 and a low of £54 in 1939 but was generally between £100-£150, not a vast sum when it is realised that this had to be shared among those working on 33 plantations. Other basic causes have a single proximate source: inadequate and/or misdirected state intervention. Lack of expertise and manpower, continued reliance on compulsion, lack of capital and inadequate infrastructure are all derived from this. In the first instance, in 1925, for example, there were in Papua one Controller and three Inspectors and Instructors, not one of whom appears to have been qualified for the work he was undertaking. The number was increased, rather too late, in 1927 to eight instructors when the Division of Agricultural Education was formed. The lack of capital was commented on as early as 1944 by W.R. Humphries, a resident Magistrate with considerable experience of plantations in the Northern Division. Humphries made the point that capital was just as necessary for an indigenous enterprise as it was for a European plantation (Miles 1956:327-8), but the capital available for assisting Papuan agriculture was meagre. Assistance to the Native Plantations Schemes was provided out of the Native Education Fund into which the proceeds of the plantations accruing to the government through the levy on product were paid (see above). Each year, £2,500 was available for the purchase of produce, £570 for mill expenses, £500 for planting necessities, and £2,900 for the payment of instructors. Assistance to Planting under the

Regulation was limited to £300 for planting needs and £300 for marketing (Miles, 1956:328). The amount actually invested (total payed out excluding payment for product and wages for instructors) in improving the means of production and distribution stood at £1,670. The money invested in the Native Plantations Scheme came from the native Education Fund, into which half the product of the plantations under the scheme was paid (see above). The injection of more capital into the scheme was dependent on more money going into the Fund which, since the Administration's contribution was fixed, meant more money need come from the native plantations. It was extremely unlikely that labour productivity would rise because returns to labour were so low, and returns to labour were low because such a high proportion of the product was paid into the Fund. The Administration neither succeeded in raising productivity by providing an adequate cash incentive, nor did it succeeded in accumulating sufficient capital to invest with sufficient determination to boost plantation production by improving the means of production.

The basic problem, that of a poor and penny-pinching administration, was a function of the weakness of the Australian colonial state, and it became apparent in other areas of colonial administration as well. Lyons (Miles 1956:323) recognised in 1919 that in order for the Plantations Scheme to succeed, the colonial field officer needed to be in close touch with the village, "To get anything like a result an officer must be in constant touch with the natives. In this way his patrolling of new districts is handicapped. With an inadequate staff, therefore a choice has to be made between patrolling unknown or little known districts and attending to the improvement of

the village in the civilised districts. To attempt both with an inadequate staff is to try and achieve the impossible, one or another must be neglected". Faced with a lack of trained mappower and a dearth of capital investment, the Administration found solutions common to those found by other colonial government: it promoted differentiation and competition between groups of individuals ("natural rivalry between villages" (Miles 1956:322); it developed intermediaries to function between it and the colonised (village constables); and it relied upon coercion, compulsion and authoritarianism. The first of these, the encouragement of uneven development, later known as "building on the best", was to become a firm feature of Papua New Guinea's further agricultural development. The second was effective not so much in decreasing the gap between the colonisers and the colonised, but in increasing the differences among the latter. And the final solution strengthened the twin colonial stereotypes of the brutish kiap and the lazy, indifferent native.

#### Coffee, Kiaps and Didimen

Reed (1943) suggests that had not the war changed the fate of colonialism in the area, then the Highlands populations would have been incorporated earlier into the colonial economy. As it was, the "opening up" of the Highlands was a slow affair, receiving its main external stimuli from the Second World War, the end of the "long trough" and the beginning of the "second boom" in Australia, and the change in government, and its main internal impetus from the demise of the Morobe goldfields and the subsequent drop in the value of exports, and the "overcropping" of labour which became

problematic after the war.

Jim Taylor established the Upper Ramu Patrol Post (later called Kainantu) in 1932 and followed this by opening the Bene Bena Post beside the Leahy brothers' airstrip. Later in 1933 he and Mick Leahy lead a combined Administration and private enterprise patrol from Bena Bena to Mt. Hagen. Commercial agriculture followed formally in 1937 with the establishment of a research station at Aiyura near Kainantu. Lutheran Missions had earlier planted some robusta coffee, and government agricultural extension officer, R.W. Cottle, reported in July 1953 that there were between 240 and 400 robusta trees in villages in the district. The Aiyura station planted arabica coffee seed from a plantation at Wau established by the New Guinea Department of Agriculture in 1928. Under the ANGAU Administration during the war, Warrant Officer J. Armitstead in conjunction with Captain A.J. Schindler, officer-in-charge at Aiyura, introduced the Kami and Arufa people of Goroka to coffee husbandry. It is not clear what Armitstead and Schindler expected the people to do with the coffee, but Armitstead returned again in October 1945 to check on the progress of the coffee. A patrol visiting the villages in 1949, close to the time that the coffee would be bearing, made specific and detailed comment on agriculture generally, but made no mention of coffee (Munster 1973:37-41). Cattle (see above) mentioned in 1953 that there were about 3.25 acres of arabica in the district in 1953, most or all of which was planted under ANGAU direction.

Although, outside the Missions and the DASF, Eastern Highlanders were the first cultivators of coffee in the district, it was white planters who first introduced the crop on a commercial scale. An enterprising novice didiman, Jim Leahy, was

the first to introduce commercial coffee into the Highlands. Leahy spent the latter part of the war attached to the Aiyura station during which time he learned coffee husbandry. When in 1948, the Administration allowed Europeans to establish plantations and other enterprises in the Highlands, Leahy applied for a licence to establish a trade store and established a small coffee plantation at Goroka.

The Kiap Jim Taylor followed Leahy's lead, resigning from the Administration and commencing to plant coffee in Goroka. By March 1950 Leahy had planted 12 acres, and by 1951 there were about six plantations in the area totalling 350 acres. The Kiap-planter transition continued to be made in fifties, another notable example being that of Ian Downs, the District Commissioner of the Eastern Highlands from 1952-5 who resigned and set up a large plantation in the Upper Asaro valley becoming a leading member of the Highland Farmers and settlers Association. In May 1952, the Highlands were opened up for applications for land lease and in July Leahy sold his first coffee in Australia for about 7 shillings per pound. The rush for the "brown gold" was on.

The quiescent Australian government was rudely awakened to the strategic importance of Papua and New Guinea by the war. The post-war "second boom" in Australia and the high price obtainable for coffee due to the Korean War also helped stimulate renewed interest. In 1946/7 the Australian government committed to Papua and New Guinea nearly fifty times more money than it had done to Papua in 1940, and about eight times more than it had spent in both colonies in 1945/6 (Amarshi, forthcoming). The direct effect of the renewed interest of the colonial state, was the creation by the DASF in Papua New Guinea

of a Division of Agricultural Extension, employing 54 agricultural officers. The immediate concern was the post-war reconstruction of the plantations and with the reproduction of labour power. DASF implemented these two imperatives firstly by directing their extension activities primarily to the planters, the "technicism" of the service being as McKillop (1976:20) points out, appropriate to that role. Secondly, the DASF under the leadership of its director W. Cottrell-Dormer, reshaped its policy on indigenous agriculture. An estimated shortage of labour of 33,000 "units" in June 1948 (Harris 1971:6), the disruption of village cultivation caused by the war, the growing incidence of malnutrition and particularly in the Central Highlands a serious dysentery epidemic, lead DASF to introduce a policy aimed at "improving nutrition and living standards of the native people by mixed farming on individual smallholdings capable of producing adequate subsistence for a man and his family and in addition sufficient cash crops to obtain the money necessary to him for the satisfying of other wants and for the payment of taxes" (McKillop 1976:19). The policy enunciated was away from the old Papuan-based policy of communalism plus coercion and towards a policy of "small-holder mixed farms" giving substance at last to the image of "peasant-based proprietorship" conjured up by Murray. In practical terms, the didimen concentrated on introducing an improved breed of pigs and poultry.

Despite this declared policy some New Guineans were able to build up significant enterprises by entering client-patron relationships with the early kiap-planters. Such a relationship was that between Baito Heiro and Jim Taylor (see Finney 1973:55). Taylor helped Heiro establish a coffee

plantation by providing him with expertise and seedlings from his coffee nursery. By 1957 Heiro was certainly the richest Eastern Highlander owning 5,00 trees and receiving an annual income of \$4,000 at a time when per capita income stood at less than \$10 per annum. This particular period was referred to as a time of "partnership", for the position of the early planters and kiaps was such that they needed to preserve good working relations with the indigenes. The land that they occupied was usually theirs because they had personally negotiated its sale with the land-owners or their representatives. Y. Baron Goto (see below) pointed out in his 1952 report that most of the plantations were badly under-capitalised, and the capital-short planters still needed to resolve the problem of labour. Perhaps it is significant that Heiro had been the bosboi of Taylor's labour line.

Other Eastern Highlanders rose to early prominence by another route. Government in the Highlands was quick to assume its colonial trappings. By 1937 regular patrols were being made through the Goroka area, and between 1937 and 1941 the luluai system, developed under German colonialism, was introduced. A report made by Armitstead (see above) late in 1945 states that most villages in the Goroka area had from 2-4 luluais, and that most villages had Pidgin English interpreters (Munster 1973:15, 40). The luluai system was of prime importance, not only (as we shall see) in the introduction of cash crops, but in the sale of land. In 1948 ten government-chosen luluais representing seven land-owning groups were asked by district officer Jim Taylor if they could negotiate with each other and with patrol officer William Sippo for the sale of a block of land. The precise boundaries were to be determined by the

luluais themselves, and they received payment to distribute to their clansmen as they saw fit. The practice was, as Suck (1971:17) points out, common in German New Guinea. The area totalled 254 hectares, and the price paid was £5.00 per hectare. The district officer noted in June 1948:

The price recommended to be paid is \$5.0.0. (five pounds) per hectare as it is almost all high quality farming land and supports what is for New Guinea a heavy population.. On an open market it could bring from £10.0.0. (ten pounds) to £5.0.0. (fifty pounds) per hectare.

(Quoted in Munster 1973:20)

The 254 hectares comprise more than half the land on which the present township of Goroka stands.

#### Planters and Didimen: The White Highlands

It is extremely difficult to gauge the effect of the short-lived "pigs and poultry" phase of DASF's extension effect, for by 1951 a new policy was in force. Cottrell-Dormer had resigned and had returned to Papua (and the past) to attempt to re-establish communal copra plantations (Cottrell-Dromer 1961:92-112). J.K. Murray was replaced by Cleland whose government in Canberra was a new Liberal one "which believed in private enterprise and naturally reacted against the policy of its Labour predecessor which was so much the object of attack from businessmen and journalists alike because of its discouragement of European enterprise and concentration primarily on native social problems" (West 1956:313). West suggested in (:306) that "the immediate future of the Highlands is envisaged as the translation into practical terms of the early vision of

a new white highlands: a coffee plantation economy with other small but profitable sidelines". Prior to 1952, 4,833 acres were leased to Europeans in the Central Highlands, but with the lifting of the last restrictions on settlement in 1952, in the next two years nearly three times this amount, 13,109 acres, was leased. Something of a land boom was under way, but settlement schemes proposed for the Highlands came up against the problem of land. In the preamble to the proclamation issued by commodore Erskine when the protectorate was established in British New Guinea (Papua) in 1884, it was stated to Papuans that "Your lands will be secured to you", and one of the regulations made by Erskine read "No settlement or acquisition of land is on any account to be permitted" (Lalor 1969:138).

Under the Land Regulation Ordinance of 1888, private buyers were prohibited from dealing in land, and the Administrator alone was able to purchase or lease land, but only land which "the native owners were willing to sell provided that by sufficient inquiry (the Administrator) had satisfied himself that the land was not required or not likely to be required by native owners" (Lalor 1969:139). The Crown Grants Ordinance of 1889 and the Land Ordinance of 1899 respectively introduced and consolidated the notion of "waste and vacant" land. In 1908 an Ordinance was enacted which enabled the establishment of a Board to decide all disputed questions of waste and vacant land as well as ownership of land in which a Papuan was a claimant; formerly such matters had been handled by the Administrator and later by the Lieutenant-Governor in council. Faced with a legal prohibition against using land that might be useful to the owners, a marked reluctance on the part of most

Highlanders to seel, and considerable complexities concerning the act of purchase, the Administration turned its attention to "waste and vacant land" which once gazetted as "waste and vacant" became the property of the state. A Native Lands Commission was established, the function of which was to determine the ownership of disputed land, particularly the "empty" land which lay between neighbouring tribal groups. The intention was to register all customary land titles in the Highlands, and so facilitate purchase. The procedure for land acquisition up to 1954 was that individual prospective settlers would negotiate a purchase with the clan concerned who would then sell to the government. The land would then be leased to the settler, usually for 99 years which was the maximum leasehold period. Hasluck visited the Highlands in June 1952 and wrote (Hasluck 1976:119) that the experience had been a "real awakening" for him. Hasluck announced a "new" land policy, the basis of which had been established more than 50 years previously.

In 1954 the government became the prime initiator of purchase agreements, the land was to be selected by the Lands Department and was to be surplus to the present or future needs of the indigenes. In addition, the sale of land to the settler was to be open to competitive bidding (Hasluck 1954). The search for "waste and vacant" land proved, as Read (1952:440-9) had predicted, somewhat illusory. The land unused because clashes between neighbouring groups were not unusual. But with "pax Australian" Highlanders began to move down from their crowded ridges onto the valley floors. This, plus the weight of previous land legislation, reiterated by Hasluck, effectively halted the "land-boom". But by 1955 there were 55 European holdings in the Eastern Highlands (76 in the Highlands as a whole)

covering 14,642 acres of land, with 2,026 acres under cash crop cultivation. Forty-five non-indigenous and more than two thousand indigenous workers were employed on these plantations. By 1954, although the Highlands plantations had only been established in the previous four years, the Highlands already produced a total of 251 hundredweights of coffee out of a total for the Territory of 1,981 hundredweights, establishing itself as the second largest coffee bearing area in New Guinea. The government responded to the obvious importance of coffee in the Highlands, and in 1954 the agricultural research station at Aiyura commenced a vigorous programme of research into coffee growing and coffee processing.

The rising coffee prices during the fifties pushed up the value of the plantations, and in 1958 two plantations in Goroka were sold for £36,000 and £17,000 respectively. By 1961, one third of the leases had changed hands (Finney 1973:

). Sidelines were also proving profitable to the new planters. In the last six months of 1956, D. McBeath, a planter in Kainantu, purchased one ton of coffee from indigenous growers in the area, more than the only other buyer in the sub-district, the Aiyura research station. At the same time a Gorokan planter, owner of the 100 acre Hobe plantation and later the principal director and shareholder of the coffee-buying, company, Highlands Commodity Exchange, purchased the major portion of the 45 ton peanut output of the Goroka sub-district. M. Matus of Memeneluka No. 1 Plantation established a Potato Chip industry and purchased 22 tons of "English" potatoes during the period.

The enterprising planters not only acted effectively economically, but they were also well organised politically.

The main voice of the Highlands planters was the Highlands Farmers and Settlers Association (HFSA). The planters were assisted in giving their political demands some weight by the presence among them of the first three top administration officers in the district, Jim Taylor, George Greathead, and Ian Downs. To this strong-minded trio came A.J. Schindler 1963, after more than ten years as an agronomist at the Aiyura station. The planters "first concerns were with three main things: the availability of adequate expertise; the securing of a stable market; and the provision of adequate infrastructure. HFSA set about tackling the first by importing Professor Y. Baron Goto, an expert in tropical agriculture and coffee production, in 1956. Goto toured all through the Highlands area, assessing the potentiality of the coffee plantations. Not all the news was good. The assistant agricultural officer for Kainantu sub-district noted in his monthly report for February 1956 that the six planters in the sub-district had all been visited by Goto, and that "following Prof. Goto's visit to this sub-district there is a general feeling of disillusionment among the settlers, as the majority of them are sitting on non-productive land". The HFSA members also worked in close conjunction with the DASF advisory services, using the central plantations of its members to hold field-days, and providing DASF with space on plantations on which to grow experimental plots. HFSA also encouraged DASF officers to contribute appropriate technical articles to its regular bulletin. The second problem, that of markets, the HFSA set about rectifying in an energetic and straight-forward way. Thanks to HFSA negotiating and lobbying, the Australian Tariff Board introduced a requirement that Australian coffee buyers buy at least thirty percent of their

coffee imports in New Guinea coffee in order to qualify for a general tariff concession on all the coffee they imported. This assured the Highlands planters of a market for their product. The special protection given New Guinea coffee proved important. In 1969 N. Bluett of the Coffee Marketing Board estimated that Australian buyers imported an extra 2,500-3,000 tons of New Guinea coffee because of the tariff agreement (N. Bluett, Report at the District Staff Conference, DASF, Eastern Highlands, November 1969). The HFSA was also active in organising marketing facilities but this problem was largely solved by the Administration for those growers (the bulk of them in the Eastern Highlands) who lived close to Goroka. Because of war-time development, Goroka possessed the best air field in the Highlands, and the growers were able to back-load at low rates DC-3 aircraft which brought in materials and supplies for the Administration. In addition the growers could use the "crude but extensive network of roads laid down by the administration" using Gorokan labour (Finney 1973:54). By 1964-5 the road network included a highway to the sea, obviating reliance on air transport. There is no doubt that by this time the planters were well entrenched, and together with the didimen and kiaps they formed a small tightly-unit community the aspiration of which was aptly expressed by the mast-head of the HFSA "New Guinea Highlands Bulletin": "We Are Here to Stay".

#### Bigmen, Luluais and Agricultural Assistants

The immediate post-war policy of "mixed farming" received considerable attention at the DASF Agricultural Extension Conference held in Madang in August 1955. Two resolutions were passed at the conference which were to have a

dramatic effect on economic and social development in the Territory as a whole, and on the Eastern Highlands in particular. In the first, the conference agreed "that mixed farming is a desirable culture to introduce to our native people but considers that emphasis should continue to be placed on economic cropping".

In the second resolution, the conference was "of the opinion that maximum discretion should be exercised by Administration Officers in the promotion of collective agronomic projects; and especially in regard to perennial crops because of the land tenure and crop ownership problems; and prefers to see such projects developed on a family basis with the smaller holder secure in his tenure". When speaking to the House of Representatives in 1962 Hasluck (quoted in Cheetham 1962/3:69) noted, "...the big majority of the present population are likely to find their advancement in changing from village subsistence to cash cropping, forming a native peasantry that...will not be a major employer of wage earning labour". In so speaking, Hasluck was not announcing new policy, but was projecting into the future what had been occurring at an accelerating rate over the previous seven years. For the territory as a whole, the total income received by indigenous cash croppers had risen from £700,000 in 1950-1 to £4,000,000 in 1959-60 (Swan and White 1962: 27-8). The planting of "small holder" coffee in the Eastern Highlands proceeded at an extremely rapid rate. By the middle of 1959, more than eight times as much coffee had been planted in the Goroka and Kainantu Sub-Districts than was planted prior to 1955.

TABLE 1 KNOWN ACREAGE OF NATIVE COFFEE, GOROKA AND KAINANTU  
SUB-DISTRICTS

	1955-1959		
	Goroka	Kainantu	TOTAL
	(acres)	(acres)	(acres)
up to 1955	158	60	218
1955/6	131	47	78
1956/7	45	60	105
1957/8	301	30	331
1958/9	832	255	<u>1087</u>
Total			1819

Source: Letter from DAO D.J. Kingston to Highland Farmers and Settlers Association, November 29 1959; File No. 1-6-A(1) DPI Archives, Goroka.

In 1953, DASF coffee extension patrols got under way in the Eastern Highlands, and in 1955-6 a farmer training scheme was started up in Goroka based on a similar scheme started at Kerevat in 1932. Just as kiaps and didimen had played a crucial role in the development of agricultural capitalism in the province on one level, their counterparts among the colonised, the luluais and agricultural assistants, played an equally crucial role on a another level.

Because coffee seed retains its viability for only a short period of time, it was first necessary to aid its diffusion by building coffee nurseries in the villages. These nurseries were planted close to the village rest house and were left under the watchful eyes of the village luluai and village constable. In July 1953, the extension officer for the Eastern Highlands district, R.W. Cottle, reported that nine nurseries had been established in the Goroka district. Of these nine, six were being looked after by luluais, and three by "native men". Two nurseries established in the Chimbu sub-district

and one at the Henganofi patrol post were being looked after by the respective kiaps. Finney (1973:93) comments, ".... some of the headmen (luluais) took a large share of the seedlings grown in the communal nurseries for planting in their own plantations". In addition, luluais were required by the administration to organise those under their jurisdiction to build and maintain roads and to carry out other public works projects. It was quite common for such men to use their clansmen" as essentially unpaid workers to clear and plant their plantations" (Finney 1973:93). In addition to the "head start" taken by luluais, those Eastern Highlanders who came into early contact with DASF either as agricultural trainees or as DASF employees were encouraged by Schindler to take back seeds and seedlings to their villages and to put them and their new expertise to good use. When Finney conducted his study of Gorokan entrepreneurs in 1967, he found that of the ten big businessmen that he identified, two had been luluais, two had been workers on the Aiyura agricultural station and one had been an agricultural assistant working with DASF extension patrols. The ten cultivated an average of 9,000 coffee trees, ranging from 1,4000 to 24,000. The average grower around Goroka at that time cultivated 450.

Although the coffee nurseries were said to be "communal" by the DASF extension staff, they took care to emphasise that the ownership of coffee trees must be on an individual basis. In practice, this resulted in the tendency for extension officers "to direct their efforts to the few large growers who more closely met their western models of what a proper small-holder plantation should be like, in the hope that these 'better growers' would be examples to others" (McKillop 1976:24). The policy of helping out the big growers soon had the

obvious effect of making the big growers very big. DASF policy was to have every grower cultivate a minimum of 300 trees. This was seldom achieved by more than half the growers. The following table is derived from a coffee census conducted by lands officer R.J. Giddings prior to payment of compensation for coffee trees standing on a block of land in the lower Bena area to be purchased by the Administration. It is probably then quite accurate.

TABLE 2 COFFEE TREES AND COFFEE GROWERS OF THE KETARABO CLAN AND UPEGU CLAN JULY 1965

	Ketarabo Clan	Upegu Clan
Number of Growers Censused	37	19
Number of Growers possessing less than 300 trees	18	12
Number of Trees Owned by the Largest Grower	980	1206
Number of Trees Owned by Smallest Grower	9	94
Average Number of Trees per Grower	244	428

Table 3 below outlines the average number of trees per grower in 1965/6 by census division. The mean of these means stands at 192 trees per grower, suggesting that in the district as a whole, the target of a minimum of 300 trees per grower was well short of being achieved. The policy of "helping the big growers" was frequently a policy of helping the "big men" since it was the big man who had the necessary control over land and labour to make himself a big grower in the first place. Following a study of eight Highlands villages in 1975, Harris (1975:16) concluded "...big men were the first to begin coffee plantings in their villages....the pattern that emerges is for big men to plant coffee and to be followed, between two and three years later, by a wave of plantings by ordinary men"

(see also Epstein 1970).

The policy of helping out the larger growers was also a de facto policy of helping those to whom the didimen had easiest access. As table 3 below indicates only growers in the Goroka sub-district had reached the 300 average by 1965/6. In particular, growers in the Lowa census division, in which Goroka town was situated, had by far the largest number of growers and the largest average number of trees per grower. The DASF approach to agricultural development increased inequalities not only between individuals, but also between regions.

TABLE 3 NUMBER OF GROWERS AND AVERAGE NUMBER OF TREES PER GROWER, EASTERN HIGHLANDS CENSUS DISTRICTS 1965/6

Sub-District	Census Districts*	Number of Growers	Average Trees per Grower	Sub-District
Goroka	Asaro	2704	312	346
	Bena	3022	285	
	Lowa	28989	441	
Kainantu	Agarabi	1668	103	138
	Kamano	1439	173	
	Gadsup	1217	138	
Henganofi	Dunantina	1926	25	25
	Kafe	1700	25	
Okapa	Gimi	1201	194	199
	Keigani Kaniti	1439	226	
	South Fore	981	259	
	North Fore	866	277	
	Auyana	793	37	

Source: Goroka Sub-District Annual Extension Report, Crop Statistics 1965/66

Kainantu Sub-District Annual Extension Report, Crop Statistics, 1965/6

Henganofi Sub-District Annual Extension Report, Crop Statistics, 1965/6

Okapa Sub-District Annual Extension Report, Crop Statistics, 1965/6

D.P.I. Archives, Goroka

\* Excluding Unggai, Yagaria, Tairoa, Fayantina for which information was either insufficient or clearly inaccurate.

The emergent peasantry in the Eastern Highlands had access

to far better services than the village copra growers of Papua. The planters in the district readily performed middle-man buying functions, and the HFSA had already taken steps to establish overseas markets and marketing and transport arrangements. The war had left a large and serviceable airstrip in Goroka. The provision of roads in the Goroka area and the connecting road to Kainantu gave extension staff adequate access to a large number (but by no means all) of the district's population. In addition, the renewed interest of the Australian colonial state in Papua New Guinea (mentioned above) translated itself on the ground into a rapid increase in DASF field staff, as the following table demonstrates.

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TABLE 4 DASF EXTENSION PERSONNEL EASTERN HIGHLANDS DISTRICT\*

1958-1960	1958 June	1958 December	1959 December	1960 December
Agricultural Officer**	5	8	8***	17***
Agricultural Fieldworkers	4	4	4	8
Fieldworker Trainees	27	46	not recorded	19
Farmer Trainees	-	-	-	68

\* Includes Chimbu Sub-District

\*\* Includes Officers on leave

\*\*\* Includes designation "Project Manager"

Source: Six Monthly Reports "Advancement of Native Agriculture File No. 38-5 DPI Archives, Goroka.

The early Papuan experience of communal copra plantations had taught the Administration not that adequate infrastructure was necessary, not that marketing facilities had to be organised, not that better services needed to be provided, not that more capital had to be made available to indigenes but that communal control of production was unworkable. This lesson they brought with them to Highlands societies already possessed of a degree

of stratification greater than that in many other parts of Melanesia. By the sixties it was clear that the melding together of Highlands pre-capitalist social relations with the new forces of production introduced by the colonial state and the planters, cemented by a firm policy of "helping the man who helps himself", had led to the deepening of already existing social inequalities. The prophecy Hasluck had made in 1962 while glancing over his shoulder, was wrong in only one respect. Before the next decade was out, a small number of the new peasants would be quite significant employers of "wage earning labour".

"Collectivisation": Village Pulperies and Rural Progress Societies

Extensive though the planter - and Administration - provided infrastructure and services were, they were not sufficient for the production of only coffee cherry itself. Coffee cherry cannot be kept, and needs to be pulped within 24 hours of its picking to obtain top quality coffee. It was seldom possible to synchronise "purchasing days" with "picking days" as finely as this. Coffee parchment has the advantage of being able to be kept for long periods (as long as it is kept moisture-free) and of being much lighter and easier to transport than cherry. The price for coffee pulpers, recommended by the DASF was far greater than the capital available to the vast majority of growers. The cheapest type of pulper promoted by the DASF in the late fifties cost more than £100. DASF's solution to this dilemma was to organise "Hamlet", "Village" and "Rural Progress Society (RPS)" pulpers. DASF hoped to organise collective processing and in the case of village and RPS pulperies collective sale of coffee parchment, without,

of course, collectivising production itself. A village pulper cost in 1963 £130 to establish. It had quite an amount of equipment, perhaps concrete fermentary vats, washing channels, drying facilities, a pulper and a motor to drive it. The capacity of an RPS pulper was ten times that of the village pulper. It required £991 to establish, and a full time manager and ten workers to operate an RPS pulper. Hamlet pulperies on the otherhand were based on collective ownership of the pulping equipment, but the utilisation of the equipment on an individual basis. For the village pulper, the cherry was bulked together, processed and sold as one lot, and the proceeds from the sale proportionally distributed. The operation of RPS pulperies was to require the payment of cash directly to the grower for cherry taken to the pulper. Despite directives from the centre, such as the one from the Division of Extension and Marketing, Konedobu, to district agricultural officer, Goroka (January 18 1963), "to proceed with the organisation of village pulperies as matter of urgency", village and especially RPS pulperies never really seemed to get off the ground. Peasant growers developed a strong preference for the small Bentall hand pulpers which were spreading rapidly through the area by 1965. The Annual Report for the Goroka sub-district in 1963/4 noted that the number of individually owned pulpers was growing, and that there was continuous demand from the growers for these pulpers.

Problem censuses carried out by agricultural officers Chan and McKillop in Bena Bena census division and Okapa sub-district in July and April 1965, revealed that a number of people were still pulping cherry using their fingers or mouths, that few possessed their own pulpers, and that there was a very

great demand for them. The Annual Report for Henganofi 1965/6 noted that village pulperies had faded and that a large number of privately owned pulpers existed. The hand-pulpers cost about \$60 and were within the reach of small groups of poorer growers or could be owned individually by larger growers.

Large growers soon realised their potential for renting-out, and many of them purchased 2,3 or even 4 pulpers. The rural development officer in Kainantu, J.J. Nitsche, reported in July 1969 that the Aiyura village pulper, the only one functioning on the RPS model in the district at the time, had run into difficulties, and that it should close down. He noted: "The people of Aiyura village proper have their own pulpers and they prefer to process their coffee individually rather than bring it to the fermentary".

The Aiyura village pulper failed basically because it was replaced by less capital-intensive, and hence more accessible, technology. In this sense it was not a "failure", the village fermentaries were established to circumvent the problem of inadequate capital, and now that particular problem was solved by another means. But the problem of capital accumulation continued to be a vexed one for the people of the district as the following discussion of three societies similar to the Aiyura Society indicates. In 1963 four Rural Progress Societies were formed, two in the Goroka sub-district and two in the Kainantu sub-district. The Unggai Trading Society, operating in the Unggai census division, and the Agrabi Progress Society operating in the Agarabi census division, were concerned with the purchase of coffee. Both were started on DASF initiative, the former because the Unggai census division was inaccessible and no private buyers would travel in. The Magaria Progress

Society, operating in the Yagaria census division, was concerned with ensuring "a sufficient production of peanuts to fulfil this Department's (DASF) contract with Nobby's Nuts Ltd" of Perth (Boniwell to chief of division, Division of Extension and Marketing, May 7 1964). The Aiyura village pulper, operating in the Gadsup census division, was (like the Yagaria Society) started on DASF initiative. As the following table demonstrates, the problem which plagued all the Societies, was lack of capital.

TABLE 5 RURAL PROGRESS SOCIETIES: EASTERN HIGHLANDS DISTRICT 1963-6\*

	Yagaria	Unggai	Agarabi	Aiyura
<u>1963</u>				
Full Membership	148	326	127	196
Initial Share Capital	£475.0.0.	£690.0.0.	£576.0.0.	£1200.0.0.
<u>1965</u>				
Share Capital	£780.0.0.	£1635.0.0.		
Gross Income	£52.3.3.	£509.9.11.		
Net Income	£52.3.3.	£389.9.11.		
<u>1966</u>				
Share Capital	\$3699.0	-	-	-
Gross Income	-	-	\$2193.69	\$2326.15
Net Income	-	-	\$177.92	\$302.43

Source: RPS Society Statistics 1967, File No. 23-3-N  
 : Letter to Goroka from Kainantu, September 14 1966, File No. 23-3-N  
 : Letter to Goroka from Kainantu, December 8, 1966, File No. 23-3-N  
 : Report, "Rural Progress Societies" to Chief of Division of Extension and Marketing, DASF Konedobu, from Boniwell, May 7 1964, File No. 23-3-N.  
 All files from DPI Archives, Goroka.

\* By 1966 the decision was taken by DASF officers to wind up to of the societies, and the other two were regarded as in the process of collapse.

Frequently the only way a Society could raise sufficient capital to commence buying during the flush or harvest was by selling more shares. It was noted at the combined General

Meeting/Directors Meeting of the Yagaria Society in July 1966 that "a constant drive of share capital is necessary to deal with the fact that on a buying day \$500.00 are easily spent and the lack of cash is always apparent at the end of a month of trading, especially in the flush period from April to September of each year". The Yagaria Society was able in the late sixties to gain some relief by obtaining advances from a large trading company. But the advances from Coffee International Ltd (CIL) were at interest rates described by the co-operatives officer in 1971 as "excessive". Another co-operatives officer noted that "prices received from CIL have not been competitive for obvious reasons". District rural development officer, J.J. Nitsche, was blunter: the "present system of accepting advances from Coffee International Ltd for the purchase of coffee may have been convenient but that is where the advantage ends. The Society is committed without bargaining power". On the 1971 "Society Data Sheet", Nitsche noted this as the main problem confronting the Society was confronted with similar monopsonistic and monopolistic practices in the sale and marketing of its peanuts. Nitsche commented in mid-1964 that "the kernels purchased... were then picked up by A.J. Thick Trucking Company at one penny per lb. This seems to be a rather high cost, but as this company has the monopoly in cartage, one cannot obtain any cheaper rates". Later in the year, the same officer noted "the society was losing hard cash due to the contract with Nobby's" (Yagaria Progress Society Reports, June, August 1964; November 1964, File 23-3-N (2), DPI Archives, Goroka).

The coffee buying societies were soon faced with stiff competition from expatriate buying companies. Highlands

Commodity Exchange and Goroka Coffee Producers Ltd were both active in the Goroka and Asaro valleys in 1964. The Annual Extension Report for 1965 provided information on the buyers of the more than 900 tons of green bean produced in the Goroka sub-district. The Unggai Trading Society purchased about 4 percent of the crop, and the Yagaria Society less than 1 percent. That year the Yagaria Society passed a resolution to the effect that private companies should not be allowed to purchase coffee and peanuts in the census division (Minutes, Directors Meeting, December 14 1965). The resolution was to no avail. In June 1967 the society had to raise its purchase price from 14 to 16c per lb because members of the society were selling to commercial buyers. Competition forced the Agarabi Society into recess in March 1967. The agriculture officer in Kainantu recommended this course of action in December 1966, as there was "no real need for an RPS in this area as the service from coffee buyers is quite good". The societies also seemed unable to reach agreement among themselves. Between March 1965 and March 1966, the Unggai Trading Society purchased 9,700 lbs of green coffee. One third of it came from the Yagaria census division.

As well as facing problems of lack of capital, high costs as a result of monopoly, and competition, the societies all suffered from a lack of expertise. The clerk of the Yagaria Society, for example, was hired because he was "an ex-mission teacher with a reasonable knowledge of weights, values etc" (Yagaria Progress Society Report, April/May 1964). The knowledge he possessed of book-keeping and agriculture was, however, almost non-existent. The societies endeavoured to remedy these problems by sending their clerks for additional

training. This left the Societies without clerks for quite long periods. The Yagaria clerk did not complete his course at Aiyura because he left to compete in a by-election, and the Unggai clerk passed a course in Port Moresby, but did not return. Although the Societies were DASF initiated, DASF in the Highlands said they were too short-staffed to give them adequate guidance. Boniwell (see above) commented: "The running of all societies could be improved if more time could be spent by DASF staff in supervision". The problem was further compounded by rapid staff circulation in DASF. The Report for the Lufa sub-district, 1965/6, noted that the area had not had a European didiman between 1962 and 1964, and that since 1964 six different officers had been in charge. The re-report noted that this had adversely affected the Yagaria Society.

In 1966 the decision was taken to wind-up Unggai and Agarabi Societies, and in 1969 and 1971 it was decided to wind up the Aiyura and Yagaria Societies. The failure of the collective enterprises came as a surprise to no one, least of all to the didimen and growers, although they did tend to offer different explanations for it. Nor should they have found the failure surprising. DASF had insisted from the beginning that cash crop production in the Highlands was to be firmly in the hands of the individual grower. The attempt to graft on to private control of production, collective control of processing and marketing was almost sure to fail, especially since the Societies were designed to resolve a series of specific and different problems; the problem of inadequate capital (the pulperies), inadequate infrastructure (Unggai Trading Society), and inflexible marketing arrangements (Yagaria Progress Society). In using the collective form to resolve a series of different

problems, the Administration failed to tackle adequately the set of problems basic to them all. Lack of capital, lack of expertise, inadequate supervision were problems confronting all the Eastern Highlands Rural Progress Societies, just as they had confronted the communal copra growers in Papua.

The problem of access to markets was resolved by the planter-middlemen and by the large merchant trading companies; but they in turn created for the trading societies problems of competition, monopoly and monopsony. But, although as collective enterprises, the Rural Progress Societies "failed", they were for some men stepping stones to greater wealth and political power. The secretary of the Yagaria Progress Society, James Yanepa, emerged from the ashes of that society possessing a trade store, a trucking company and a piggery.

#### Cattle, Land Loans

As early as 1956 concern was being expressed by DASF at the rapidity of the spread of "native coffee". In April of that year Henderson, the acting Director of Agriculture wrote to the district commissioner in Goroka; "the policy should be to continue active coffee extension work in those areas where the crop already is planted and to concentrate in such areas on the improvement of technique and the bringing of existing plots up to optimum size, but not to further encourage the planting of the crop outside these areas" (letter, 10 April 1956; DPI Archives, Goroka). By 1959 orders had been issued to DASF extension staff to reduce the emphasis on coffee planting, according to McKillop (1976:25) because of the "conflict of interest between indigenous and expatriate growers". In 1961, Australia (and hence Papua and New Guinea) became a

member of the International Coffee Agreement Organisation (ICAO). The terms of membership proscribed the further alienation of land for European plantations, and extension work designed to spread coffee growing among the indigenes. The joining of I C A O meant the end of the active phase of coffee extension work (Finney 1973:66). This was to have a dramatic effect on the unevenness of development between sub-districts in the Eastern Highlands. The Baruya (the "Kukakuka") of the Marawaka sub-district, for example, "discovered" by Jim Sinclair in 1951 and settled among by the Administration in 1960, were supplying labour for Gorokan and coastal plantations in 1963, but did not receive cash crops until 1973-1975 (Godelier, 1978). The under-development of this part of the district is strikingly apparent today in terms of basic infrastructure (there is still no road access) and education (see Donaldson and Good 1978a) as well as other basic economic indicators. The absence of the institution of the "big man" among the Baruya, and the prolonged resistance of the people to colonialism, must also figure largely in any attempt to account for their present situation of relative poverty.

With the decision to stop actively creating more coffee growers, DASF turned its attention to other forms of agriculture such as passion fruit, peanuts, vegetables, pigs, and particularly cattle. The change away from coffee was assisted by the announcement in 1959 by Minister of Territories, Paul Hasluck, that agricultural extension was to be stepped up, and that it was to involve "close supervision of individual farmers". DASF accordingly adopted the "trickle-down" theory of diffusion of innovation which involved paying almost exclusive attention, initially at least, to "progressive

farmers". The change away from coffee was also assisted by the slump in coffee prices in 1961, and by the desire of the Administration to offset its adverse effects on the balance of payments; in 1959-60 Territory imports of fresh, chilled or frozen beef (excluding tinned meat) amounted to the equivalent of 2,100 head (Anderson 1962:139). This choice was facilitated by the existence already in the Territory of a national herd which had grown from 3,722 head in 1951-2 to 17,000 in 1961 (Anderson 1962:139; Annual Report 1952). But the unsupervised growth of the national herd worried DASF officials. Cattle, obtained from missionaries and European cattle owners, had been owned by indigenes at least since 1958, and by the end of 1960, indigenous-owned cattle totalled 288 (Anderson 1962: 140). DASF were concerned to control the development of the cattle industry among indigenes at least to minimise the problem of disease.

In 1960 DASF established three pilot projects in the Bena census division in the Eastern Highlands. The controlled introduction of cattle into the district was assisted by DASF Korofigu livestock station situated in Bena half an hour's drive east of Goroka on the Highlands Highway. One of the pilot projects was at Korofeigu, the others at Kapugamarigi and Safaiyufa. Bena was selected because of its rolling grasslands, and the people to whom materials were provided by the Administration and to whom cattle were sold at £15 per heifer and £30 per cow, were carefully selected by DASF field officers. In Korofeigu "a very powerful village group" which had in the past "dominated much of the Bena region" was chosen. This village owned "huge areas of land most of which [was] open grassland showing great potential for cattle". In addition,

"their early planting of coffee [had] made these people a very rich group amongst the natives". Of the six men who controlled the project, one had been a tultul, one was a councillor, and two were agricultural committeemen. As for the people of Kapugamarigi, "the people of this village together with the neighbouring Korofeigu's [were] a very powerful group amongst the Bena people, and they were thus selected for one of the pilot cattle projects...". In Safaiyufa, it was individual differentiation rather than group differences which mattered; "the majority of the cattle [were] owned by one Luki who [was] employed by the DASF" quoted from McKillop, Report on Native Cattle Projects in the Goroka and Chimbu s/ds. June 1963, File No. 14-3-3(5), DPI Archives Goroka).

The basic policy towards the development of cattle farming and cattle ownership was spelled out by DASF director, Henderson, in 1960:

Considerable thought has been given to the best method of introducing cattle into the native economy....

The Department's experience with co-operative ownership of the means of production, as distinct from marketing, through the Territory has not been very happy....in a large number of cases co-operative ownership as a means production just stultifies future development. It appears to me that with cattle the advantages of private ownership and co-operative operation can be successfully combined. Our plan envisages the individual ownership of animals with co-operative management.... I do not believe that progressive natives or a progressive family would have any difficulty in raising the price for one beast....

In these trial runs we propose to carry out in your district we are seeking the participation of the more advanced and progressive people who should have sufficient financial standing to provide the money required (letter, May 12 1960, to district commissioner, Eastern Highlands File No. 14-3-3(5), DPI Archives, Goroka). The plan was to establish carefully supervised cattle projects in the district among the "progressive" farmers. A progressive farmer was generally one who had succeeded in coffee, and who was (or had been) a big man, luluai tultul councillor, or DASF employee. The scheme also involved fencing a paddock, in which the cattle herd would be placed at night. During the day the cattle would range freely under the direction of a cattle herder. The night holding paddock was to be at least 5 acres, planted with improved pasture and containing a suitable set of yards. The timber for yards and fencing cost between £40-120. It is clear that in order to become a cattle farmer, a villager needed to be very progressive indeed: he had to raise the money to buy the stock, to build fences and yards, and he had to command enough influence within the sub-clan to ensure sufficient land on which to build the project and to obtain enough labour to help him carry out the fencing. As McKillop himself noted in 1976 (p.30): "In the Highlands areas the only farmers likely to have enough capital were the 'big men' who had planted up large areas of coffee. The majority of the population were excluded, either by lack of capital or lack of land suitable for cattle grazing".

The number of cattle projects and the number of cattle on them grew rapidly as table 6 below indicates. In November 1965 it was obvious that demand for cattle was outstripping supply. The district veterinary officer in the Eastern Highlands reported to the Division of Animal Husbandry, that "the demand for cattle in the Highlands far exceeds supply. In the Eastern Highlands £15,000 is held in deposit for cattle development. In the last three months in Goroka alone deposits have totalled £2000 per month".

TABLE 6: CATTLE PROJECTS AND CATTLE NUMBERS, EASTERN HIGHLANDS DISTRICT\*

	1963 - 66		
	1963/4	1964/5	1965/6
Total Number of Cattle	332	493	856
Total Number of Stocked Projects	34	53	110
Total Number of Unstocked Projects	31	87	73

Source: McKillop, EHD Cattle Projects Annual Report 1965/6  
DPI Archives, Goroka.

\*Including Chimbu Sub-District

By mid-1964 there were a total of 31 cattle projects in the Goroka, Kainantu and Okapa sub-districts. After just over three years of extension work on cattle it was already clear that, as with coffee, significant differences were emerging between regions and between individuals in the ownership of cattle; a fact which is hardly surprising, for as McKillop reported in 1965, "in the great majority of cases the money to buy fencing and cattle is derived from coffee". McKillop also noted with some satisfaction that although one project was permitted to be built up with many owners (each single owner owning at least one beast), in practice, 55 per cent of the projects were financed by one or two men. Since it required

4 heifers to begin a project at K60-70 each, plus the money for fencing and pasture improvement, the establishment of a cattle project by one or two men represented a considerable outlay of capital. Having successfully established a class of big growers, DASF was well on the way to establishing a class of relatively wealthy mixed-farmers.

TABLE 7: THE NUMBER AND SIZE OF CATTLE PROJECTS IN THE EASTERN HIGHLANDS

Number of Cattle per Project	1963/4		
	Goroka	Kainantu	Okapa
0-5	5	3	2
6-10	6	4	1
11-15	4	1	
16-20	2	2	
21-25			
26-30	1		
Total Number of Projects	18	10	3
Average Number of Cattle per Project	10	8	3

Source: Native Cattle Project Annual Report 1963/4, DPI Archives Goroka.

The vision of the "selection" the "close settler" of Australia's own colonial history, had for a long time enthralled colonial administrators and agricultural policy makers in Papua New Guinea. In the early sixties it came closest to being realised. In August 1964, R.N. Amos, the district agricultural officer, stated: "The ultimate aim has always been to have individually owned stock on individually owned land and current projects are only regarded as 'temporary holding paddocks for individually owned stock'...." For McKillop the concrete realisation of this vision was "the development of small mixed farms of 10-20 acres with closely integrated cash cropping, food gardens and cattle on improved

pastures". The problem was one of the availability and ownership of land.

As early as 1954 Hasluck had suggested that "in the future, the needs of an expanding native population may not be met by inheritance in the traditional system of tenure and we may have to keep in mind the possibility that some of the natives themselves may require land under a European form of tenure". The policy was reiterated by him in April 1960. He announced that the ultimate and long-term objective of the Administration was to introduce throughout the Territory a single system of land holding regulated by the central government which would provide for secure individual registered titles. The necessity for this change was argued on the premise that since agriculture was the basis of the Territory's economy, changes in land tenure were necessary to ensure economic progress (Lloyd 1971:4). Legislation to give effect to this policy was subsequently passed and the following acts came into effect in 1963 and 1964: the Lands Titles Commission Ordinance 1962, the Lands Registration (Communally Owned Land) Ordinance 1962, the Land (Tenure Conversion) Ordinance 1963. Under the first, the commission had the function of hearing land claims and disputes. Under the second, customary land, the boundaries and ownership of which had been determined by the commission, could be registered as communal land in a special register. The third ordinance provided for the conversion of customary land into individual freehold tenure, and it was this which was to be the principal instrument in transforming the agronomy.

McKillop was able to report ("Native Owned Cattle in the Eastern Highlands-a- Review to Date", n.d. that by April 1965 the first of his "mixed family farms" was underway on a 15 acre leasehold block near Goroka. The problem DASF faced was that many farmers did not seem to be particularly concerned with converting their land, and those that did were faced with an extremely long wait while representatives of the commission investigated their claims. By April 1971 a total of 427 conversion orders had been received by the Registrar General from the Land Titles Commission and 273 individual titles had been registered. 252 of these were in the Northern District where a pilot project had been mounted based on the distribution of clan land to members of the clan (Grove 1972:70). In the later sixties Administration staff in Eastern Highlands began seeking a suitable block of about 1200 hectares in the Kainantu sub-district near Aiyura. The Arona cattle project eventually comprised 15 blocks ranging from 72-132 hectares. DASF called for applicants to buy and settle on the blocks and submitted a list of 35 names ranked in order of credit-worthiness and farming ability to a selection committee. After the selections were made in January 1970, the regional rural development officer wrote to the assistant director, Development and Marketing, Konedobu:

Three blocks have been sacrificed as pawns, to politics. Two of them were granted to illiterate cohorts of a ministerial member, neither of whom can speak pidgin or had the experience needed or any intention of raising cattle. Another was granted to a 21 year old son of a local member....Four other blocks were granted to people who we consider very

poor credit risks....In effect 50% of the scheme has been sabotaged.

The significance of the Arona allocations and this reaction is not so much to do with corruption, but with its implications for DASF. It was becoming clear that technical judgements and decisions were no longer sacred. New Papuan and New Guinean members of the House of Assembly were realising to some degree the essentially political nature of "technical" decisions. The Arona scheme was the first and last large resettlement development in the District.

McKillop's dream of "small mixed farms" and Hasluck's plan to subdivide 7,500 blocks by 1967 were wrecked by the intervention of the World Bank. The visit of the World Bank Mission to Papua New Guinea in 1962/3 and the subsequent in the Territory, at least in so far as it confirmed and by doing so, accelerated, existing tendencies within the new, slowly emerging, systems of agricultural production. McKillop noted as early as mid-1966 ("EHD Cattle Projects Annual Report 1965/6") that "one pleasing feature has been a trend toward fencing of larger areas...Those projects of up to 100 acres appear to well on the way to becoming complete pastoral holdings of an extensive nature". McKillop did not perceive in this a tendency antagonistic to his vision of the small mixed-farm. The World Bank however did, and it came down heavily on the side of the larger cattle farmer. The World Bank commented that farmers confined to small areas with small herds, combined with the policy of encouraging the conversion of individual usufructory rights over clan land to freehold title, tended "to continue and expand the creation of potentially non-economic holdings" (Dowling 1971:39). The World Bank

suggested that the development of large areas of land for cattle farming as single undertakings would be advisable. By 1968-9, Livestock Officers with the DASF were using the Animal Disease and Control Ordinance to destroy the remaining "night paddock plus free grazing" systems of animal husbandry, by insisting that stock be kept fully enclosed (McKillop 1976:34). In 1966 about 820 acres had been enclosed in the Eastern Highlands. By 1971-2 this had risen to about 20,000. Although the acreage had increased by a factor of 25, the number of holdings had not quite doubled. Table 8 below summarises comparative data for 1965 and 1971,<sup>3</sup> and table 9 describes more fully the situation in the district in 1971.

TABLE 8: CATTLE HOLDINGS, EASTERN HIGHLANDS, MID-1965 AND MID - 1971.

	1965	1971
Cattle Population	856*	2376
Number of Stocked Projects	110*	227
Area Fenced (acres)	827	20,000***
Average Area Enclosed (acres)	7.5**	88
Average Cattle per Project	8	11

Source: R. McKillop, EHD Cattle Projects Annual Report 1965/6  
A.W. Marsh, Native Owned Livestock Statistics,  
Highlands Region, June 30 1971.  
DPI Archives, Goroka.

\* Including Chimbu sub-district

\*\* Obtained by dividing the area fenced in the Eastern Highlands by the the number of projects in the E.H. plus Chimbu sub-district. The size of the enclosures in the province in 1965 was therefore smaller than this figure.

\*\*\* Approximation only.

As with coffee, the size of the cattle farms varied enormously. The farms of less than 20 acres accounted for 45 percent of the projects, but only 17 percent of the cattle. The largest farms, of more than 400 acres, amounted to 4 percent of the total, but carried 20 percent of the stock. In

a circular memorandum dated July 1965, D.A. Boniwell, regional agricultural officer, advised that future cattle projects would be developed only in those areas with resources capable of sustaining a herd of 25 head. Table 9 below suggests that less than 5 percent of the cattle farms had achieved that aim by 1971.

TABLE 9: A SUMMARY OF LIVESTOCK STATISTICS FOR THE EASTERN HIGHLANDS JUNE 30 1971.

Fenced Area (acres)	Number of Projects	Number of Cattle	Average Number of Cattle per Project.
less than 20	102	409	4
21-100	55	106	8
101-200	40	602	15
201-200	22	418	19
more than 401	8	492	61

Source: A.W. Marsh, Native Owned Livestock Statistics Highlands Region, June 30 1971. DPI Archives Goroka.

The increase in the number of cattle holdings, and more spectacularly the increase in the size of the holdings, did not occur by DASF, or even World Bank, fiat. The major catalyst in facilitating the rapid growth of the cattle industry in the district was the provision of credit. Land and labour were available to a select few through traditional mechanisms; infrastructure and marketing mechanisms had been provided by the planters and by the agents of the colonial stage-the importance of providing expertise was becoming more and more apparent to the administration. The last major obstacle, the provision of credit, began to crumble in 1961 when pilot cattle project were introduced, following the successful establishment of three in Bena in 1960. A further ten projects were established nationally, six of them in the Eastern Highlands.

The projects were financed with a grant from the Commonwealth Bank Rural Credits Development Fund. Impetus was also given to the easing of credit for indigenous farmers by the introduction of the Tenure Conversion Ordinance and resettlement schemes. Two credit organisations existed in the Territory which were prepared to lend money to indigenes, the Native Loans Board, established in 1955 and the Ex-Serviceman's Credit Scheme which was established in 1958. The latter made capital available to finance agricultural development by Australian, Papuan and New Guinean ex-servicemen. The Ex-serviceman's Credit Board required that land being developed be offered as security for the loan. Applicants were required to hold land under leasehold or freehold title, and so land held under traditional tenure was not acceptable as security (Cheetham 1962/3:74). Those indigenes wishing to borrow from the Board had to participate in one of the government resettlement schemes. The first loans to Papuans and New Guineans were granted toward the end of 1960. When the scheme closed down in November 1962, 136 loans had been granted. Cheetham 1962/3:75).

The Native Loans Board made a change of policy in November 1958. Formerly it had provided loans to co-operatives, societies, councils, and welfare associations, but it then decided that it would make loans to individuals. It also required security over land being developed, and did not consider land under traditional tenure to be acceptable security. Most farmers interested in borrowing also had to participate in one of the government settlement schemes (Cheetham 1962/3:75-6). The World Bank Mission devoted some attention to both agencies, and found them lacking. It concluded that development

could be speeded up by the injection of more credit in the private sector and that the existing credit structure was inadequate for that task. It recommended the establishment of a new institution which would "provide credit for the development programme in amounts and on terms and conditions which meet the requirements of the Territory" (Crellin 1972:508). Accordingly the Papua New Guinea Development Bank was established absorbing the two earlier instrumentalities, and it commenced operating in July 1967.

The basic philosophy of the Development Bank as described by its first managing Director, K.G. Crellin, was of "lending to the man" and the Development Bank used five basic criteria for determining the credit-worthiness of the individual borrower: i. Is the proposition viable in relation to the cash and labour to be invested? Will the project return a reasonable income and allow the borrower to repay the loan? ii. Is the borrower assured of continued use of the land? iii. Has the borrower sufficient managerial skills for the projects? iv. What equity (cash, labour) can the borrower contribute? v. Is adequate supervision available? (Crellin 1972:513-4).

Supervision was the key to the success of the Development Bank lending scheme. It was provided by DASF staff, when in 1967 field officers were made agents of the Bank. The ready availability of credit encouraged the already existing trend toward large holdings, which fitted in well with DASF emphasis on technique. For DASF larger projects meant more effective supervision, improved breeding performance and better disease control (McKillop 1976 34). The new role of DASF

extension officers placed a severe burden on existing manpower, and accordingly the number of DASF personnel in the district increased sharply from 20 in 1963 to 150 in 1973 (McKillop 1976:44).

The combination of credit and close supervision made possible through extra manpower, led to a rapid rise in the number of indigenous-owned cattle in the country. The total rose from 379 in 1961 to 8,862 in 1970. By 1971, cattle loans to Papuan and New Guinean cattle farmers stood at \$829,000. The loans extended to indigenes averaged about \$1600 in 1967-8, dropping steadily to \$1110 in 1970-1. The average cattle loan was less than \$2000, although two borrowers had received \$50,000, and a few were in the region of \$10,000; by comparison, loans received by foreigners averaged about \$20,000 (Crellin 1972: 511, 509). The largest loan received by an Eastern Highlander up until 1970 was that of Norifo Kindino. Kindino who had worked 18 years with DASF, received a loan of \$28,600. In 1970 Kindino ran 24 head which he planned to increase by buying 80 breeder cattle from Australia, and 15 steers and two bulls from local sources. Over a six year period he planned to expand his herd to 270 head. With an expected turnoff of 50 beasts, he could anticipate an annual income of 7,000 (Black 1970:19).

Kindino's success story was perhaps not typical. Von Fleckenstein (1975:30-67) reports on the Ketarovo cattle scheme in Bena which commenced in 1969 and was a "quote" cattle project. Von Fleckenstein (1975:60) noted that "individuals did not receive benefits in proportion to the work and money they had put into the project.....When the money and labour put into the project is subtracted from the

money received, it is evident that only the leaders and the old men....have received any net benefits from the project. At the end of 1973, the others had mean net costs of K50 to K150..... Many of the men who contributed some money and labour to the project.... felt that cattle was a good business and that the Ketarovo cattle project had been helpful in making Ketarovo well known, but they also felt vaguely uneasy that they were being exploited". The project leaders controlled the land, the Development Bank loan, and the buying and selling of the cattle. The others possessed some cash from the selling of their coffee which they invested at a loss in the project, and their labour power which they gave free.

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The Development bank continues to lend handsomely for cattle projects. Lending to Papua New Guineans and Joint Venture enterprises rose from \$5.1 million in 1975/6. Of the total lent to Papua New Guineans and Joint Ventures since the Bank has been in operation up to June 1976, about one third has gone to agriculture. Of this K20 million, K8 million, by far the largest single portion, was loaned for cattle projects. The next largest recipient of Development Bank loans in agriculture, was loans in connection with the oil palm settlements, totalling about K4 million<sup>5</sup> (Woodward n.d.: 7, 15).

It was coffee, however, which continued to be the most important agricultural product in terms of the rapidity of its spread, and the number of Papua New Guineans involved in its production. By 1973, Wilson and Evans (1975:11) estimated that there were more than 200,000 coffee growers in the country. Despite the decision to discontinue active

coffee extension, the number of hectares under smallholder cultivation had grown by 1972/3 to five times the 1960/1 total. Similarly, coffee smallholders production in 1970/1 was 25 times what it had been in 1960/1. Currently 70 percent of the coffee is produced by small holders.

TABLE 10: THE GROWTH OF SMALLHOLDER COFFEE PRODUCTION IN PAPUA NEW GUINEA, 1950/1 - 1972/3.

	Area Under Cultivation (Hectares)	Quantity Produced (Tons)
1950/1	25	18
1960/1	4,965	746
1970/1		19,027
1972/3	22,901	

Source: Munnall and Densley (n.d.: 28).

Townsend (1977:419) reports that the national stock of coffee trees has more than doubled in the last decade, and is now around 50 million. Coffee is also vitally important for Papua New Guinea in terms of the overseas exchange it earns. Coffee exports stood at 48 tons (equivalent of about 800 sixty kilo bags) in 1946/7 and had reached 2,294 tons (the equivalent of about 38,800 sixty kilo bags) in 1960/1. By 1976 coffee exports stood at 799,220 sixty kilo bags, more than 20 times the 1960/1 figure (Munnall and Densley n.d.: 26). By the latter sixties coffee was the leading export in the Territory, and it stayed the main export earner until the Bougainville mine came into operation in 1972. Coffee still plays a major role in P N G's exports and has saved valuable overseas exchange by reducing the imports of roast coffee, from 10,746 kilograms (\$26,795) in 1968/9 to 2,501 kilograms (2,501) in 1973/4<sup>6</sup> (Munnall and Densley n.d.:37). In 1976, due to an unprecedented rise in the price for coffee on the world market, coffee exports earned Papua New Guinea K132.6 million, 25.6 percent of the

country's export earnings. The importance of smallholder coffee production was clearly recognised by the government in 1973 when it decided to rejuvenate coffee extension and to add another 8,000 hectares to the area under cultivation by smallholders. Two thousand hectares were to be established in the Southern Highlands and another 2,000 hectares were to be shared among the Highlands provinces (Munnul and Densley n.d.:5).

Important as coffee is for the national economy, it is absolutely crucial to the Highlands regional economy. Of all the coffee produced in Papua New Guinea in 1975/6, 86 per cent was produced in the Eastern Highlands, Chimbu, Western Highlands and Enga provinces. The importance of coffee in the Highlands regional economy can be seen from table 11 below, which indicates that for 1975/6 coffee receipts represented 90 percent of all receipts from sales of the principal rural commodities produced in the Highlands area.

TABLE 11: ESTIMATED VALUE OF COMMODITIES PRODUCED FOR SALE IN THE HIGHLANDS 1975/6.

	Estimated Value of Production (K'000)	Percentage of Total
Coffee	67,200	90.8
Tea	5,500	7.4
Pyrethrum Extract	200	0.3
Passionfruit Pulp	75	0.1
Fruit and Vegetables	600	0.8
Cattle	400	0.5
Total	73,975	99.9

Source: Munnul and Densley (n.d.:7).

The importance of coffee for the Highlands Region was clearly evidenced during the 1976 coffee boom when in the Chimbu,

Eastern and Western Highlands about K28 million was returned as disposable income filtering through to smallholders and plantation workers (Townsend 1977:421).

The Eastern Highlands is today the second largest coffee producing province in Papua New Guinea after the Western Highlands. In 1973 there were 53,700 growers in the province, 26 percent of the national total, cultivating 7,992 hectares, 23 percent of the national area (Wilson and Evans 1975:11-13). In 1975/6 the province produced 26 percent (13,291 bags of green bean) of the smallholder national crop, and 43 percent (94,520 bags of green bean) of the plantation coffee (Munnall and Densley n.d.:27). The Department of Primary Industry discusses all non-plantation coffee growing under the rubric "smallholder" production. Evidence produced in the early part of the chapter shows that quite soon after coffee's introduction into the province, significant differences emerged among non-plantation growers. Today there is firm evidence to suggest that the average "smallholding" is becoming smaller while at the same time there has emerged a small and significant group of wealthy and very powerful large "smallholders".

Presently some eighty percent of the adults in the Province are engaged in coffee growing. Wilson and Evans (1975:14) estimated that in 1973, eighty percent of growers cultivated less than 0.2 hectares, or less than 500 trees. From 1972-73 to 1975-76 the number of growers in the province increased by 115 percent but the hectarage under cultivation increased by only 47 percent (personal interview, J.J. Nitsche, DPI Goroka, 1977; and Wilson and Evans, 1975:11-12). In addition the percentage of growers in 1973 under 25 years old was 3.3 percent in the Eastern Highlands, compared with 34.6 percent in the Northern Province (Wilson and Evans, 1975:11-13).

This suggests that it is becoming increasingly difficult for young men to become coffee growers. Among the 20 percent of the growers who own more than 500 trees, there is an even smaller proportion with more than 1,000 trees cultivating more than 0.5 hectare. This group we have characterised elsewhere (Donaldson and Good 1978b) as a rich peasantry. But it is not only ownership of trees and control of land that characterises a rich peasantry; access to the necessary means of production is also determining. For coffee growers, the essential piece of equipment is the coffee pulper. In the 1972-3 season the price of a small coffee pulper was about equal to the average grower's income, and presently stands at about K60. Accordingly, collective ownership of coffee pulpers, often with more than five other growers, is the norm. Anderson (1977:5-6) found that 93 percent of his sample did not own their own pulpers, but either owned them joint or paid for their use. The rich peasant who owns one or two (and sometimes three or four) is able to use them as a valuable additional source of income by charging non-owners a flat rate per season or a flat rate per bag for their use.

As well as ownership of productive resources, employment of wage labour is a primary determinant of class position. As mentioned above the process of the linking of pre-capitalist and capitalist production systems is slow and complex. The use of "free" or clan labour is still a feature of rich peasant production, but is decreasingly so with the accelerating reconstruction of social relations. The employment of wage labour which characterises a rural capitalist class is both a cause and a consequence of the size of their coffee holdings.

Like the rich peasants, the rural capitalists are generally based in coffee production, but they are also active in various combinations of the following: tradestores, shops, taverns, real estate, coffee buying, commercial vegetable growing, livestock raising, taxis, passenger motor vehicles, and trucks.

The effect of this unequal control over productive resources on incomes is dramatic. In the 1960's Finney's (1973:55) ten selected leading businessmen obtained a gross average income of more than \$4,500 per annum with several enjoying more than \$10,000. Today there are several whose net income is in excess of K20,000. The per capita income in Goroka in the late sixties was about \$25 per annum (Finney, 1973:68). Over a wider area in 1973 the average return from coffee after expenses was only \$10.15. Due to world shortages of coffee and consequent price rises, however, the average peasant's income in 1976 was briefly perhaps much longer (Townsend 1977:421).

Perhaps the most striking development in the Eastern Highlands has been the taking over of the plantations by Papua New Guinean business groups. This has generally occurred with assistance from the independent state, notably under the Plantation Acquisition Scheme established by the Department of Lands in 1974. Twenty-three of the 107 coffee plantations in Papua New Guinea have been taken over by nationals (Munnall and Densley n.d.:10). In the Eastern Highlands the recently acquired plantations form the basis of a new and uniquely Papua New Guinean institution, the Development Corporation. The Development Corporations are run with European hired-help, they control significant assets, and have a mass base. There are today three main ones, the Bena Corporation, Gouna Corporation, and the Asaro-Watabung Rural Development Corporation. Those

who run the Development Corporations form the leading element of the rich rural classes. Notable also is the connection of this stratum with the National Parliament: Bena with Akepa Miakwe, and Asaro-Watabung with Sailas Atpare and Gai Duwabane. In the 1977 general elections rural capitalists and rich peasants made up 20 of a sample of 45 candidates, received on average more votes than candidates with other class backgrounds, and provided all of the winners within the sample (Donaldson and Good, 1978a:24-25). Also of importance is the control by the rich rural classes of the Eastern Highlands Interim Provincial Government (Donaldson and Good 1978b:4-5). The political control of the province's political institutions, the Local Government Councils (see Donaldson and Good 1978a:9) and the Interim Provincial Government, is vital for the continued economic dominance of the rural capitalists and the rich peasants.

We have argued thus far that the present ruling class within the Eastern Highlands grew out of a long and complex interaction of pre-capitalist and capitalist forces and social relations of production. Mostly notably in the Highlands, it was big-man control over land and labour which enabled him to "seize the time", to take advantage of the (limited) opportunities presented to him by colonialism. The struggle to obtain and, retain capital and productive resources from that time to the present, we have outlined in the previous pages. But the security of many members of the present ruling class is still rooted within the ancillary "traditional" mode of production. This is particularly the case with regards land and labour. The national House of Assembly, in those euphoric pre-independence years which produced the Eight Point Plan and the Constitutional Planning Committee debate, also threw out the

proposed land legislation which was to introduce the mechanisms whereby freehold title could be acquired more easily. Since that time and particularly in the last two or three years, business leaders in the country have been pushing for individualisation of land tenure. In the fore front of these have been the leading businessmen and Interim Provincial Government members in the Eastern Highlands. Some of the more wealthy people in the province are able to buy or lease land from traditional owners in what is a developing informal and unformalised market in "traditional real estate". The Gouna Corporation, for example, acquired the land for one of its enterprises in this fashion (see Ward, this volume).

Although there is no concrete evidence to support the assertion, suggestions exist, that there is an increasing reluctance on the part of villagers to continue supplying their labour free to the big growers. Many of the large growers in the province pay substantially less than the legal rural minimum wage, and there seems every likelihood, given the present "hand off" attitude of the national government toward national businessmen, that they will continue to escape prosecution. Ways of escaping the rural minimum wage provisions are many and ingenious. One provincial government member uses his position as chairman of a school board to good effect, by asking children to work for him on his coffee farm in return for which he pays their school fees. The most recent attempt to cheapen the cost of labour power was the suggestion that children of 11 and older should be eligible for wage employment (Post Courier February 15, 1978).

The present struggle by the rich rural classes in the Eastern Highlands to gain better access to and more control over land, plus their concern with the rising cost of labour power, must be seen in relation to mass phenomena such as the conditions of infant malnutrition and declining food consumption in the province. Studies undertaken in Lufa indicate that the general diet is extremely low in protein (Hornabrook 1972:42). Another study in the Kainantu area (Clark et al 1975:14) found that in the 1-5 age group "34 percent of the boys and 38 percent of the girls were under 80 percent weight for age....and so may be considered malnourished. It was also noted that malnutrition was a problem with the elderly, particularly among the women over 50 where 26 percent were malnourished". The 1978 National Nutrition Survey provides data on provincial malnutrition averages. In 1975, 26 percent of the children under 5 attending Maternal and Child Health Clinics were suffering malnutrition. This had risen to 32 percent in 1978. (The figures for the Kainantu District were 30 and 45 percent respectively.) The Eastern Highlands was one of the few provinces in the country that showed increasing rates of malnutrition. Nationally, the report concluded, there had been "a significant improvement" (Lambert 1978). With regard to land, anthropologists at least in the Western Highlands have begun to comment on the incidence of landlessness and incipient landlordism (Strathern, personal, communication, 1977). Examples exist of land renting under traditional tenure.

The history of agriculture in the Eastern Highlands is the story of the struggle to capture and hold control over productive resources and capital. The thrust of agricultural development within the province, building as it did on sympathetic tendencies within pre-colonial institutions, and fostered by planters and agents of the colonial state, was toward the concentration of economic and political power in the hands of a few. Despite their worsening material conditions, the mass of the peasantry have no real alternative at present but to continue to support their "traditional" and successful bisnis leaders, who are as intent as their previous colonial masters on fostering a dynamic agricultural and trading capitalism in the province.

Notes

1. For example, a relatively recent pre-colonial change in the forces of production which probably had an immense impact on Highlands social structures, was the introduction of the sweet potato about 350 years ago. Jack Golson's work in the Kuk area is also important in this respect. Golson has discovered a large and sophisticated network of drainage ditches of considerable antiquity similar to those among the Dani in the Baliem Valley of West Irian. The existence of these extensive earthworks raises many questions concerning pre-historical social change.
2. The Administration presence reached absurdly low levels in Papua. Ryan (1969:386) reports that in 1933 there were only three patrol officers active in the colony, with five on leave.
3. Both this regulation and the German regulations were enacted during the 1883-1901 slump in copra prices.
4. The following table illustrates similar rates of growth over a longer period of time and with a smaller group of people. The Numuyargobo Confederacy comprised almost 2,000 people from three tribes in the Bena Bena census division. The people of the area participated in one of the pilot cattle projects.

TABLE 12: THE GROWTH OF THE CATTLE INDUSTRY IN NUMUYARGOBO, 1960-70

	1960	1962	1966	1967	1970
Number of Projects	2	3	6	6	18
Number of Cattle	9	26	92	121	383
Area Fenced (acres)	10	15	146	176	3569
Average Number Acres per Project	5	5	24.3	29.3	198

SOURCE: McKillop (1973:3).

5. For further discussion of the role of the Development Bank, particularly its lending to foreigners, see Donaldson and Turner (1978).
6. But imports of instant coffee rose from 68,484 kilograms (\$327,628) in 1968/9 to 150,938 kilograms (K1,638,613) in 1975/6 (Munnill & Densley, n.d. 37).

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