

THE UNIVERSITY OF HULL

MODERNIZATION IN TWO BIDAYUH VILLAGES

being a Thesis submitted for the Degree of Doctor of Philosophy

in the University of Hull

by

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B.Soc. Sc. (Hons.), M.Sc.

February, 1993.



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Summary of Thesis submitted for Ph.D. degree

by

Abdul Rashid Abdullah

on

Modernization in Two Bidayuh Villages

This is a study of agricultural modernization and socio-cultural change in two Bidayuh villages of Serian District, Sarawak, East Malaysia. Traditionally the people of Engkaroh and Tian were shifting cultivators producing mainly to meet their subsistence needs. Shifting cultivation is a traditional farming system and in Sarawak it has been associated with backwardness and poverty, especially by the policy makers and planners. Thus the national agricultural policy's goal of promoting agricultural commercialization is also targeted at this group of farmers. This study sought to understand how communities which practise such a system respond to change.

This study demonstrates that Bidayuh agriculture in Engkaroh and Tian had evolved into a semi-commercial system and that the Bidayuh farmers were not constrained by tradition in accepting change. However, they changed in accordance to their perception of the local economic, socio-cultural, and political realities. In the field of economics, change was significantly influenced by the local pattern of change - an adaptive strategy which minimized the risks to the farming households. In the socio-cultural and political aspects, change occurred in a manner which did not jeopardise the integrity of the community.

A comparative study of the two villages also shows that there were significant differences between them in their resources and relevant socio-cultural and economic environments, although they were situated in the same district and belonged to the same ethnic group. This had contributed to the difference in the responses to change of the farmers in the two villages. This finding also has important implications for the validity of centrally planned change in Malaysian government development strategies.

BIOGRAPHICAL SKETCH

The author was born in Kekan, a riverine Melanau village in Dalat District, Sarawak, on December 15th, 1950. He had his primary and secondary education in Dalat, Mukah and Miri. The author went for further education in 1974 and graduated with a B.Soc.Sc. (Hons) in rural sociology from Universiti Sains Malaysia in 1977. In 1981 he obtained a M.Sc. in rural sociology from Cornell University, New York. At present he is a lecturer at Universiti Pertanian Malaysia.

ACKNOWLEDGEMENTS

I would like to thank my supervisor, Professor V.T. King, for his constant support and encouragement throughout my postgraduate studies at Hull. His confidence in my ability to work towards the successful completion of this study was a vital source of inspiration. For all these and the friendship which have developed out of the scholastic association, I am forever grateful.

I am also most grateful to Dr. Michael Parnwell for his invaluable advice and for reading and commenting on an earlier draft.

In Sarawak, Dr.Ibrahim Mohd. Yusof, Dr.Sulaiman Hanapi, Dr.Ramli Ibrahim, Encik Kamalul Aripin Musa, Puan Eileen Yen, and Encik Rahim Abdullah provided much needed moral support at the final stages of writing the thesis.

Finally, I would like to thank my family, my wife Zahrah, and Children - Khairil, Rizal, Ayu, and Azlan, for being very supportive and tolerant of my frequent absences.

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NOTES

The dollar sign (\$) used in this thesis refers to the Malaysian ringgit. One Malaysian ringgit was equal to approximately 0.21 British pound (21 pence) in 1986. The Malaysian Cents is sometimes referred to as 'sen', which is the official term.

CHAPTER ONE

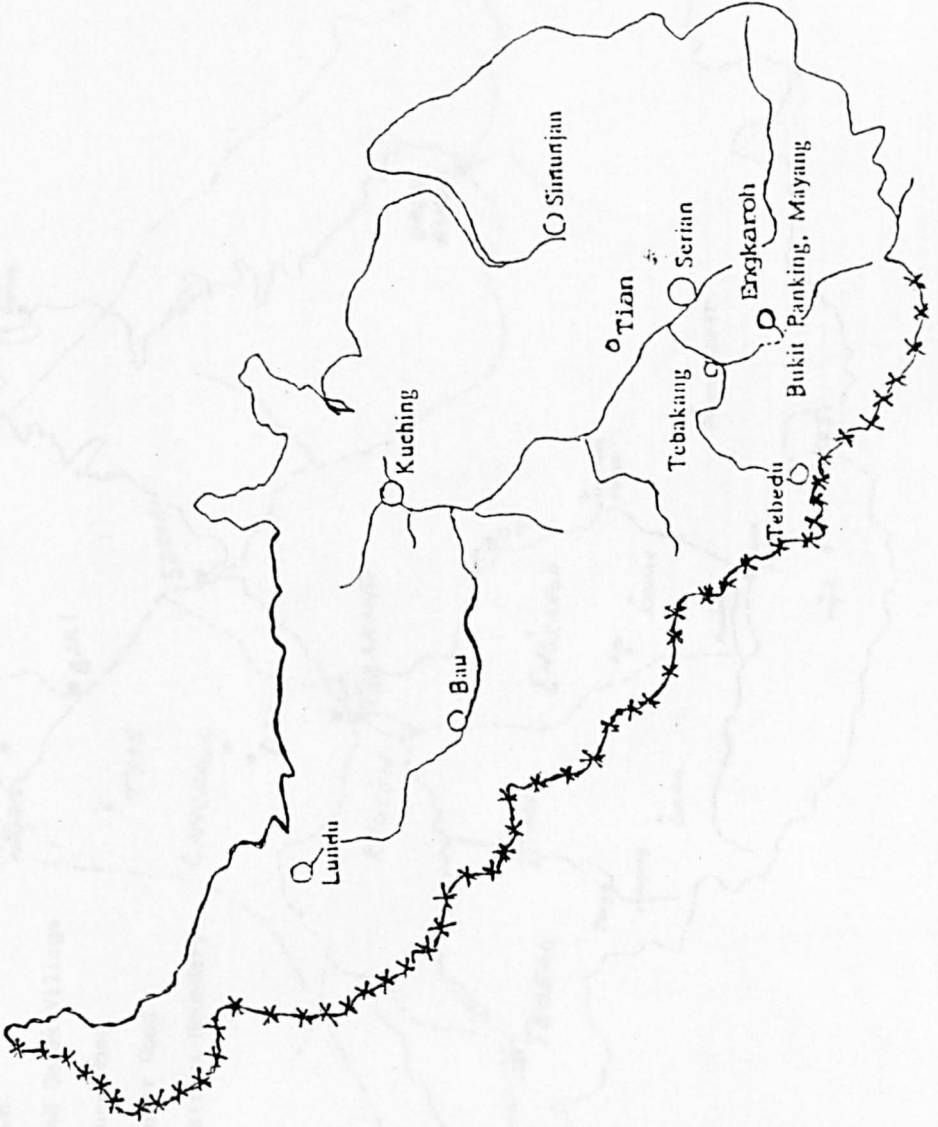
INTRODUCTION

This is a study of the transformation of agriculture in communities which traditionally practised shifting cultivation and whose production was geared towards subsistence, to a system which increasingly incorporates elements of commercial farming. The term 'traditional' as used in this study refers to the situation prior to the commercialization of agriculture; it does not denote a closed economy or unchanging conditions. The study also looks at the influence of a new factor of change in the 'environment' of these communities, that is planned agricultural modernization. The study is based on fieldwork among the Bidayuh of Kampong Tian and Kampong Engkaroh in Kuching Division, Sarawak, East Malaysia (refer Map). This is not an ethnographic study but attempts will be made to update some extant ethnographic information on the Bukar-Sadong Bidayuh which until today is still largely based on the writings of W.R. Geddes (1954a, 1954b, 1957) and B.G. Grijpstra (1976, 1978).

1.01 The Prevailing Understanding of the Transformation of Swidden Agriculture in Sarawak.

The currently dominant notion on the subject of modernization among swidden cultivators can be loosely classified as 'rationalist'.

FIGURE 1 SKETCH MAP TO SHOW THE LOCALITY OF TIAN AND ENGGAROH



KEY

- Town
- Land Dayak Village
- Trunk Road
- - - Feeder Road
- · - · District Boundary

FIGURE 2 SKETCH MAP OF SERIAN DISTRICT

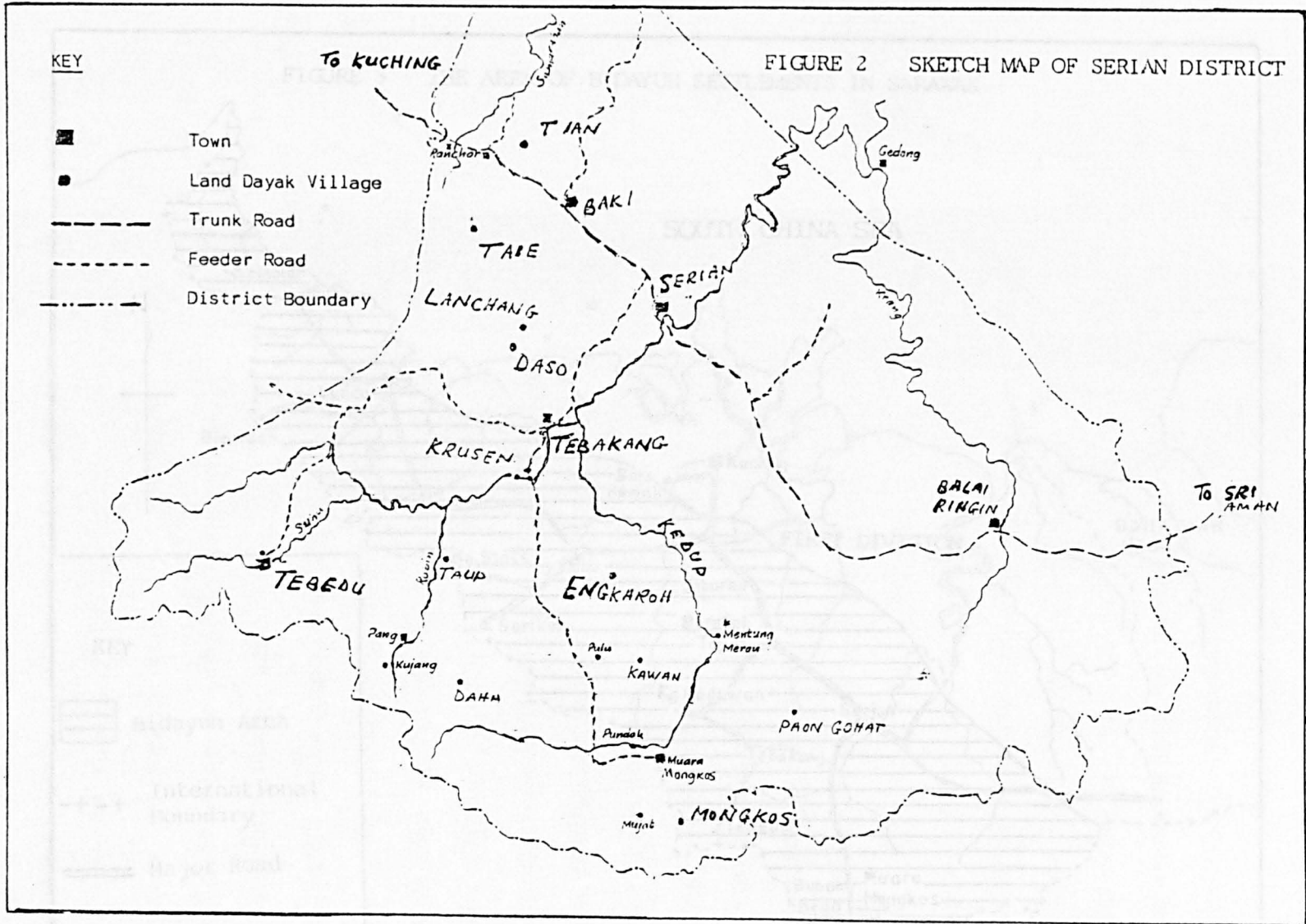
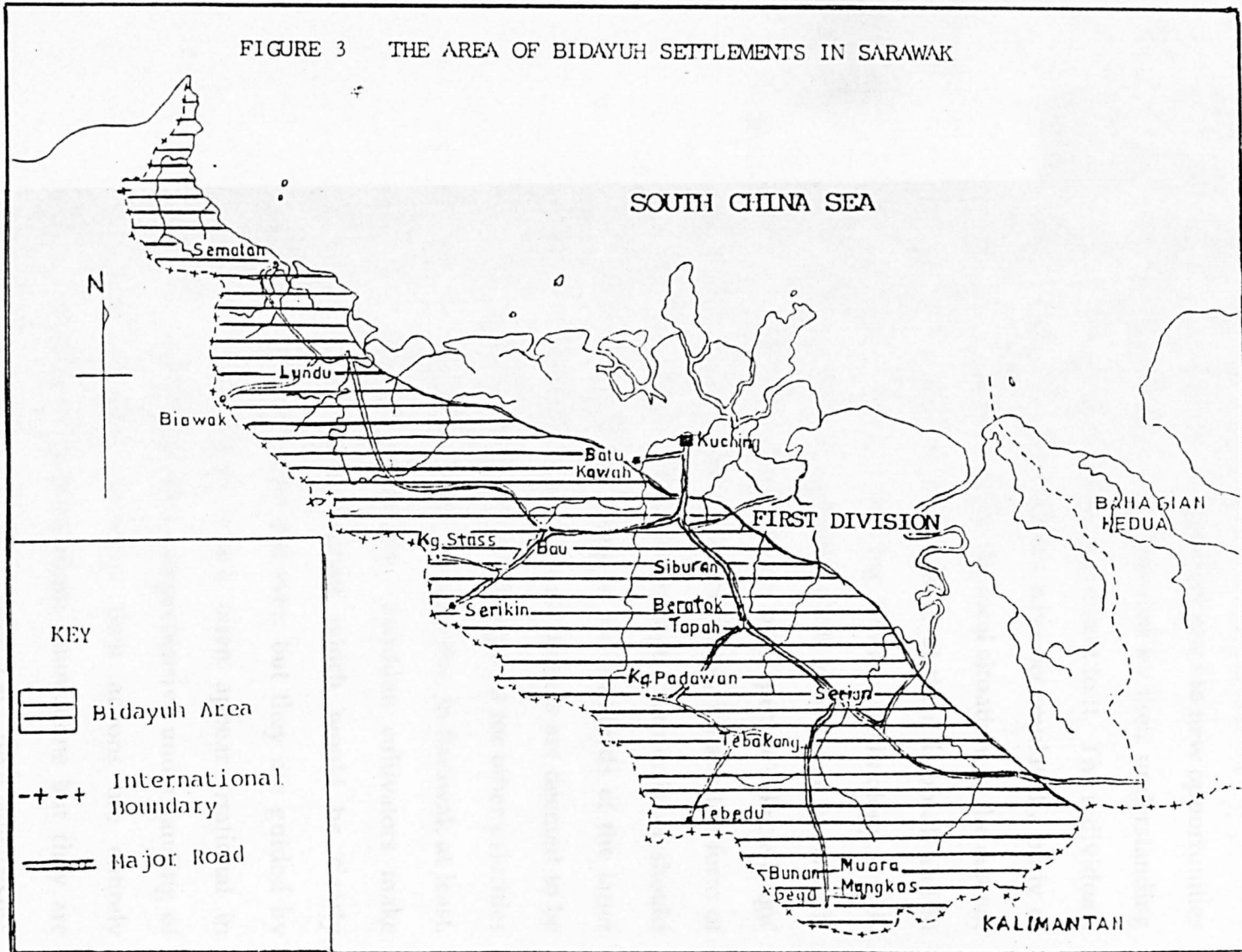


FIGURE 3 THE AREA OF BIDAYUH SETTLEMENTS IN SARAWAK



I use the term 'rationalist' because the explanations which I consider to fall under this category share a common underlying assumption. This is that the way individuals in these communities react to new opportunities or challenges in their environment is influenced by their understanding of the situation and the prevailing values relevant to it. The individuals in these 'traditional' swidden communities have accumulated a body of knowledge from their experience within the local situation, in the context of the nature and limited amount of resources at their disposal, and in terms of the limitations of the prevailing level of technology. This rationality which is premised on this local, or folk knowledge fits what is referred to in developmental literature as 'rural people's knowledge' (Chambers, 1983). This form of rationality contrasts with another form of rationality which is based on the assumption that a farmer is/or should be a profit-maximiser. Judged according to the standards of the latter form of rationality, many subsistence-oriented farmers are deemed to be irrational or conservative because they sacrifice profit for other priorities (Hutton & Cohen, 1979; Lipton, 1984). In my view, in Sarawak at least, the distinction is not as sharp as this. Swidden cultivators make decisions according to economic motives which would be clearly recognised as such by any Western observer; but they are guided by social and cultural considerations which often appear irrational in economic terms. I argue that given a comprehensive understanding of Bidayuh society, culture, and economy, their actions are entirely understandable. Swidden cultivators adopt innovations but they are always aware of the implications of their actions for their subsistence economy, social relations and cultural integrity.

My view accords with the perception of swidden farmers in Sarawak as responsive to change and, within the context of their local economic, social, cultural and political environment, as acting rationally in response to opportunities and crises. This positive perspective of swidden cultivators in the context of socio-economic change is supported by a well-established notion of the adaptive and ecologically sound swidden agricultural system in its pristine state, when land is not utilized beyond the limits of its carrying capacity (Padoch, 1978, 1982; Chin, 1984; Strickland, 1986; Lian, 1987).

Cramb's (1978, 1988) historical description of the process of agricultural commercialization among the Iban of Layar and Skrang valley in the Sri Aman Division, Sarawak, suggests that the Iban there had willingly participated in production for the market since about 1861. Around 1861 there was a growing European demand for tropical raw materials, including forest products. The most important item in this trade was wild rubber or guttas (Cramb, 1988: 109) The Ibans in the Saribas District were swiftly drawn into production for the international market through the collection and sale of gutta.

Accounts of the Iban of Skrang of those days highlight the fact that they exhibited the characteristics of the 'economic man'. Baring-Gould and Bampfylde observed: 'Many Dayaks place the money they have saved with the Chinese on interest; some have erected shops which they let for rent; but with most the prevailing idea of riches is an accumulation of old jars and brassware. There is no man keener on the dollar than the

Dayak, or keener upon retaining it when gained.' (Baring-Gould and Bamfylde, 1909: 376 - 377).

The other relevant environmental change at that time, besides the emergence of the economic opportunities generated by the European demand for jungle products, was the peace which the Brooke government brought to the area through its pacification of local warfare. At the turn of the century, by about 1907, the demand for jungle products, particularly gutta, had declined. The Iban of Saribas district meanwhile had already attempted alternative commercial activities. Their first major attempt to cultivate a cash crop was the growing of coffee from 1889 (Cramb, 1988: 110). However, coffee cultivation was shortlived; prices dropped drastically towards the end of the 1890s.

The spread of plantation rubber (Hevea brasiliensis) to Sarawak in 1902 signalled a large scale participation of the Skrang Iban in commercial agriculture. The period of very active planting of rubber started in 1912 - 1913 and by the time of the Great Depression in 1930 - 1932, 6000 gardens had been established in the Kalaka and Saribas districts (ibid: 112, 114). The Iban there started adopting pepper (Piper nigrum) as one of the cash crops in about 1952 - 1953, at the time when pepper prices experienced an unprecedented boom. The early planters however missed the boom period but were in time to sell their pepper during the period when the boom was trailing off before the slump in the price of pepper in 1956-1958. During the time of the slump many of the pepper gardens were abandoned.

It is obvious from this brief historical account of the expansion of cash crops and commercial activities among the Iban of the Saribas and Kalaka districts that these swidden farmers, who were then engaged in their traditional pursuits to meet subsistence needs, were responsive to the economic opportunities in their environment. They responded to external factors - the availability of new innovations (trade in jungle produce, rubber, pepper, and coffee growing) and the incentives for their adoption (prices). Their response contradicts the notion of the conservative traditional swidden cultivator. But, at that time they were also engaged in the growing of hill padi within the traditional swidden system. Throughout this early period of expanding cash crop cultivation up to the end of the Japanese Occupation, rice growing never ceased (ibid: 115, 122). Therefore, one significant aspect of Iban agriculture throughout this period of 'active innovation' was the continuation of subsistence production. This feature of the evolving swidden agricultural system, as I shall discuss in detail in this thesis, is one of the components of the 'pattern of adaptation' which is the basis of agricultural commercialization in swidden communities in Sarawak. In other words, farmers respond to economic opportunities but within certain limitations and in ways appropriate to meeting subsistence needs and other social and cultural priorities .

Besides the Iban of Saribas and Kalaka districts, other case studies also show similar responsiveness to economic opportunities among swidden communities in Sarawak. Lian's (1987) study of the Kenyah communities of the Tinjar valley in Miri Division demonstrates the readiness of the Kenyah to exploit such externally induced opportunities

as the collection and sale of jungle produce (during the Brooke and Colonial eras), the growing of cash crops (coffee and rubber) and employment in the timber camps. Lian (ibid: 12) argues that the Kenyah are not insensitive to external impetus and their restrained and measured acceptance of change is an expression of their desire to change according to their own pace and objectives. For example, it is important to the Kenyah that social and economic changes do not undermine their independence and cultural integrity and subordinate them to superior social and economic groups within and outside their society.

Nicolaisen (1983, 1986) similarly refutes the colonial administrative perception that the Kajang of Belaga District lacked rational economic behaviour. Far from being irrational, Kajang involvement in the market since 1884 has been significant. When peace was brought to the area in the early 1880s and the Brooke regime established Belaga bazaar in 1884, the Kajang came into contact with the market. Because there was still a demand for jungle produce, the Kajang were quickly involved in the collection and sale of gutta-percha, damar, and rattan (Nicolaisen, 1986: 78). When timber extraction was carried out by the timber companies in their area in the 1920s, 1930s, 1950s, and even today, the Kajang redirected their labour towards employment in the industry. So extensive was their involvement in wage-labouring in the timber industry that, at one point in the late 1930s, it was estimated that no less than one third of the entire Sekapan population (one of the subgroups under the generic term Kajang) had given up farming to engage exclusively in timber work (ibid: 78 - 79). The involvement of the Kajang in these cash-oriented activities, particularly wage labour, was not

a progressive shift away from subsistence farming but rather 'a constant shift of households between a subsistence based on farming in some years and one relying on wage labour in others' (ibid: 79).

This responsiveness to external economic factors is not unique to a particular ethnic group as the history of the spread of smallholding rubber and pepper among swidden cultivators in Sarawak generally shows. It is an accepted fact that smallholders are the foundation of the rubber industry in the state unlike the situation in Peninsular Malaysia where the large plantations, especially during the pre-independence years, played a dominant role. As will be shown in the next chapter, swidden farmers constitute a significant part of the cash crop smallholders in the state.

If the swidden farmers are responsive or potentially responsive to new opportunities, why is it that the furthest progress the majority of them has made away from a full subsistence economy today is only to the stage of 'semi-commercial agriculture'? This question raises one of the most important issues which I examine in this thesis. In the following section I shall discuss some explanations offered by scholars on the nature of the response of traditional swidden farmers in Sarawak and beyond to new opportunities in their environment.

1.02 Change Through Constant Adaptation

In the post-colonial period scholarly work on the traditional swidden communities in Sarawak has built on, and strengthened the perception that swiddeners are rational farmers but that they also adopt innovations as and when these are deemed appropriate in local terms. They utilize and manage their resources intelligently, ensuring a sustainable system of production, albeit at a low level, and minimising the natural risks to agriculture which are prevalent in their environment. Those studies which deal specifically with socio-economic change in these communities have also extended the notion of 'swidden farmer rationality' to describe the farmers' 'rational' behaviour in the context of change.

Studies of socio-economic change in Sarawak share three general observations, they are: that change is gradual, that it involves an adaptation of the existing system, and that it is multi-directional. Some of these studies also stress the internal dynamism of a particular ethnic group; how factors such as the social and cultural goals of a society or its social structure, including the division of labour between the sexes and social stratification, influence the response of individuals to opportunities in their environment (Nicolaison, 1986; Lian, 1987; Padoch, 1982). Others highlight economic factors, attributing the response to considerations of managing limited resources in the context of the household economy (Cramb, 1978; Dixon, 1972).

That change is gradual and adaptive is evident in that elements of the traditional subsistence system and new innovations coexist in the emerging system of production in societies which have responded to new opportunities. In Sarawak, the system of agriculture which emerged out of this adaptation has been referred to as 'semi-commercial agriculture' (Cramb, 1988: 106). It is a system of agriculture in which resources are allocated between the production of cash crops and subsistence crops. The subsistence components retain much of this traditional form but a gradual modification is discernible in the technology and methods of farming. For example, fertilizers, weedicides, and powered chainsaws are increasingly coming into use in swidden farming. On the other hand cash crops are often not planted according to proper agronomic practices. In the early years of rubber growing, swidden farmers established their rubber gardens on land which had been used as swidden fields for one or two seasons. Rubber trees were allowed to grow into mature 'secondary forest' as it were. According to Cramb, this 'silvicultural' approach to crop establishment was used in the planting of indigenous tree crops too (ibid: 112).

Seen in rather simple terms as a transformation process or as complete commercialization of subsistence swidden farming in the longer term, it is inevitable that the evolution to a semi-commercial form is sometimes regarded as merely a stage in the progression towards a total market-orientation (Cramb, 1978). Implicit in this assumption is a lineal and unidirectional change. But change appears to be multidirectional as community studies show. Nicolaison observed that among the Kajang, agricultural production has never entirely dominated

the economy. The importance of agriculture in Kajang household economy 'oscillated, set in swing by changing ecological and economic conditions' (Nicolaison, 1986: 100). In other words, those Kajang that are at one point largely reliant on cash income from their employment in the timber industry revive their subsistence activities when the job market in the timber industry shrinks. The economy of the Kajang in such an eventuality is then characterized by a more dominant subsistence component and supplementary cash-oriented activities. Indeed, it is the need to ensure the household's ability to expand the subsistence component when cash-based activities fail, that is one of the main reasons why the Bidayuh farmers in Engkaroh insisted on planting rice each season, if only on a very small scale. This is a way of maintaining the supply of rice seeds for future use. A similar pattern of change is also suggested by Lian's (1987) study of the Kenyah communities in the Tinjar which have also been recently drawn deeply into wage labour employment.

All of these studies describe the response or adaptation to economic opportunities as involving the maintenance of a diversity of productive activities, which is itself a characteristic of the traditional subsistence economy. The difference between the diversity of the traditional economy and that of one which is responding to external opportunities is that in the latter case the spectrum of important economic activities includes both subsistence and cash-generating activities. The term 'semi-commercial' as used by Cramb, adequately describes the system which 'evolves' through this process of adaptation.

The term will be used in this study to refer to a similar pattern of economic activity among the Bidayuh.

Wharton, Jr. (1970) suggests usefully that the concepts of subsistence and commercial agriculture can be understood better by applying the idea of a continuum; that the evolving agricultural system can be located at varying points along the continuum according to the relative degree of involvement in production for subsistence and for cash. Pure- subsistence is at one extreme of this continuum, pure-commercial agriculture at the other, and a semi-commercial economy falls in between these two extremes. Therefore, the economies of the households in Tian and Engkaroh at a given point of time span a large middle range; some were more inclined towards pure-subsistence and others towards the pure-commercial end of the continuum.

The diversity of the semi-commercial economies of the households is to a large extent determined by the availability of a reliable and sufficiently rewarding activity, the reliability of external opportunities, and the flexibility of the resources at the disposal of particular households in accommodating these opportunities. For example, if a household has one economic activity which can produce a highly reliable and sufficient income, it could reduce the range of its economic diversity. In the heyday of plantation rubber, the swidden farmers who took up rubber growing, could rely mainly on its proceeds not only to meet the costs of those items of consumption which they had in any case to buy, but also to buy in rice and other basic food items which were traditionally supplied by their subsistence activities. When the rubber

boom tailed off and prices became erratic from the end of the 1950s, the semi-commercial households had to increase their diversification. Very few households depended on rubber alone as a source of cash income; activities such as pepper- and cocoa- growing and both short- and long-term employment off-farm became important components of the adaptation. The reliability of the external opportunities is not only determined by the prices of the commodities, in the case of cash crops, but also the accessibility to the market for outputs and inputs. It will be shown later that in the case of Tian and Engkaroh, this is one of the conditions offered by the programme of in situ land development to make adoption of new cash crops more attractive.

1.03 Diversity as a Strategy of Risk Minimisation.

The rationality of crop diversification of the traditional swidden agricultural system (including non-farming subsistence activities such as fishing, hunting, and gathering) has been well explained by scholars who have studied the system (Freeman, 1955; Spencer, 1966; Conklin, 1957; Chin, 1984; Dove, 1985). One of the main rationales of diversity in such a system is the minimisation of the natural, environmental risks to agriculture. The wide-ranging activities of the swidden farmers are aimed at producing a return which at least should meet the subsistence needs of the household. This strategy of minimising the risk to subsistence through diversity has been increasingly applied to the situation where the risk elements have increased due to the inclusion of external factors (i.e production for the market).

The nature of this diversity, as mentioned previously, is determined by the potential of the local environmental conditions (e.g soil and terrain) and the kinds of opportunities which exist in the local social, economic and political context. In Tian, for example, the range of the main economic activities comprised swamp padi cultivation, pepper and cocoa-growing, and wage-labour employment. In Engkaroh on the other hand this comprised hill padi growing, pepper cultivation, and short-term migration to the town for wage-labour employment (this was before the implementation of the in situ land schemes in both communities). Most of the villagers in Tian had switched from hill padi to swamp padi cultivation because of the presence of suitable swamp land in the area. More villagers in Tian were engaged in off-farm jobs than in Engkaroh because of the proximity of Tian to the towns. However, in cash crop cultivation the farmers in both villages maintained small pepper gardens and a few cocoa trees, and some still kept up their old rubber gardens. A similar diversity of crops was also observed by Grijpstra among other Bidayuh villages in the Upper-Sadong district in the early 1970s (1976: 101).

Diversity of crops and off-farm activities is not only a feature of the adaptation of swidden communities in Sarawak to new opportunities. Swidden communities in other parts of South-East Asia have also diversified their economic activities in a similar way. Lopez-Gonzaga's (1982, 1983) study of Buhid swidden farmers of upland Mindoro in the Philippines shows that the Buhid diversified into several cash crops following contact with the lowland people who provided them with a stable market for maize and to a lesser degree cocoa, coffee, coconut, and

bananas. Because maize was such a profitable crop and had a ready market among the 'Loktanon' or lowland migrants who had established a trading link with the Buhid, it replaced subsistence crops such as taro, yams, cassava, and hill padi as their main crop.

One unique aspect of Buhid cash crop production was that it concentrated on food crops. Maize was one of the supplementary food items in the diet of the Buhid and was consumed mainly during lean months before the harvest when the Buhid system of agriculture was still largely subsistence-oriented. Although rice had become the preferred staple food of the Buhid since they had been earning cash income from the sale of maize with which they bought rice, maize production continued to provide subsistence insurance against its failure as a cash crop. The extensive involvement of the Buhid in the cultivation of maize can therefore be partly attributed to the subsistence insurance inherent in it as a cash crop.

In Napsaan, another traditional swidden community on Palawan Island in the Southern Philippines, Connelly (1983) observed a slightly different pattern of adaptation, involving a greater degree of diversity than in the case of the Buhid. This variation on a similar theme was due to a different set of local environmental conditions. The absence of any single activity which supports a substantial portion of the needs of the farmers necessitated the exploitation of a wider range of economic niches. The most successful Napsaan farming families were therefore 'those that exploit at least three of the four environmental zones found in the area' (ibid: 354). The four environmental zones were the ocean (for fishing), the

swidden land, the forest, and the area for permanent cultivation (for irrigated padi and tree crops). Because of the limited land, permanent cultivation of both subsistence and cash crops could not become the foundation of the household economy. Neither could the forest provide an adequate source of livelihood because of official restrictions on its exploitation. Fishing provided the best opportunities for earning cash income. Compared to the collection of forest produce it did not require a long absence of individuals and therefore was less disruptive to swidden work. The farmers of Napsaan have no cash crop equivalent of the Buhid maize. They produced tree crops such as coconuts, cashews, and bananas, which were prone to price instability, and therefore made it more risky to rely heavily on them for cash as the Buhid did with maize.

In yet another case, Scholz (1983) describes the switch to permanent semi-commercial farming by the swidden farmers of the peneplains and sub-montane zones of Sumatra; this was a spontaneous adaptation at the beginning of the twentieth century to the spread of rubber cultivation to the east coast of Sumatra and subsequently to the interior plain. Initially the adoption of rubber as a cash crop gave rise to a semi-commercial agriculture in which the swidden cultivation of hill padi coexisted with rubber. Two important factors in inducing what Scholz (ibid:33) regarded as 'a really classic example of spontaneous adoption of innovation' are rubber's hardy nature and the fact that swidden farmers did not have to abandon traditional swidden methods and learn new ones when they took up rubber planting.

The farming system of the Sumatran semi-commercial farmers then went through a further phase of adaptation, that of a switch from the growing of hill padi as a subsistence activity by swiddening to the cultivation of wet rice in permanent fields. This was a necessary adaptation because as the cultivation of rubber expanded there was a scarcity of land for swiddens. This shortage of land was aggravated by the tendency of farmers to establish their holdings near to the main transportation routes, resulting in the concentration of population in certain areas. It is interesting to note that where the local environment provided the opportunity to switch from the growing of hill to swamp padi, swidden farmers who face limitations to their traditional agriculture such as land shortage undertake the change readily. This point will be raised when I discuss changes in the agricultural system of the farmers in Tian. The case of the Sumatran swidden farmers again underlines the persistence of diversity in the pattern of adaptation.

Theoretical explanations which have a bearing on this phenomenon of economic diversity focus on two factors, risk and subsistence security. A farmer's decisions with regard to the allocation of his limited resources are predicated upon the priority of ensuring his household's subsistence and the risks to the attainment of this goal which his decisions pose. His traditional system of production is a proven strategy of managing the uncertainties of his environment and the precariousness of his existence (Scott, 1976; Migdal, 1977). A subsistence farmer, who chooses to pay a variable rent on the basis of a percentage of the harvest rather than a fixed rent which is inflexible, seems irrational. So is a farmer who plants a wide variety of crops on small scattered plots

rather than specialising on the crop which grows best in the area and focusing his attention on a bigger single field. The rationality of these situations is better understood 'once we allow for security in our explanation of peasant behaviour' (Lipton, 1984: 264). Scott (1976) calls this rationality a 'safety-first principle', a precept which treats the attainment of an adequate subsistence as a guide for actions and choices. The amount of risk which any change entails and the ability of the peasant to bear and assess the risk are important factors in peasant decision-making. Scott (ibid: 7) suggests that peasants who are able to meet their subsistence requirements are more easily predisposed to accept change, while those who live a precarious existence would only accept change when the traditional subsistence strategy fails totally.

The subsistence cultivator is faced with many risks in his environment. A swidden farmer has to time the burning of his fields properly so that the felled trees and other vegetative materials get a thorough burning. Untimely rains impede a good burn and this leads to a less fertile field and a fast regrowth of weeds. His crops are under constant threat from attacks by pests and diseases. These risks in the traditional setting or the 'endemic risks' as Guillet (1981) calls them, are compounded by the farmers' lack of knowledge, limited labour, technology, and sometimes land.

One of the strategies of risk management commonly observed among subsistence cultivators is to diversify activities. Guillet (ibid: 12) suggests three mechanisms of diversification, they are mixed subsistence strategies, mixed staple production, and polyvalency. While the first two

strategies involve agricultural production, the third strategy encompasses several activities across sectors of the economy. It requires a combination in one household of different forms of productive activity.

The range of diversification and the scale of each activity of the farmer is constrained by the smallness of production factors, particularly household land and labour. Guillet (*ibid*: 5) proposed that, within these constraints, peasants (in his case Central Andean peasants) allocate their production inputs in two stages. The first stage stresses production to meet household subsistence needs, and when that is fulfilled the subsequent stage is to allocate inputs to production for exchange.

This model (Guillet's) however, does not seem to apply fully to the subsistence farmers in Sarawak. This two stage model can be applied to the Iban of the Kalaka and Saribas districts in the first half of this century as described earlier. As pointed out by Cramb (1988) the Iban of the two districts were already self-sufficient when they took up rubber planting. It is significant that the Iban farmers at that point in time did not face land shortage. Therefore, the question of having to decide on the priority over the use of land was not crucial. However, farmers were constrained by the supply of household labour. In this regard the choice of rubber as a cash crop (not pepper) in the early part of the century, reflected the first priority given to the attainment of subsistence in the allocation of labour. Rubber is a crop which still allows the farmer to use household labour for the more rigid labour demands of swidden farming. Household labour is allocated to the rubber garden only after swidden labour requirements are met.

However, among farmers in Sarawak it is difficult to determine if more priority is given to subsistence production than production for cash. Guillet's model presumes that peasant farming can always produce enough to meet all subsistence needs or have the potential to do so. For many of the swidden farmers in Sarawak subsistence farming often fails to meet their needs because of many factors including land shortage, the quality of land, pests and diseases, inclement weather, and labour shortage. For such farmers their cash income contributes significantly to their subsistence. This was apparent in communities such as Engkaroh and Tian where self-sufficiency in rice was quite rare. In such a situation I contend that the sequence of input allocation as suggested by Guillet's model does not apply.

Yet another category of farmers (former swidden cultivators) has been shown to place a higher priority on the production for cash over the production for subsistence. Cramb (1978) observed that among the downriver Iban of the Layar river in the Sri Aman Division, the establishment of pepper gardens was accompanied by a reduction in the size of the hill padi plots. This was especially so in respect of the farmers with bigger pepper gardens which demanded more land and labour. Therefore, a decision to expand pepper must have necessarily involved giving higher priority to pepper over hill padi. However, as it happened, the smaller padi plots achieved higher productivity as a consequence of the longer fallow practised (made possible because smaller plots of land were used each season) and a better maintenance of the smaller plots. This could have partly prompted the farmers to allocate more resources

to the production of pepper. But the increased productivity of the smaller plots could still not provide self-sufficiency in rice.

One major source of risk for semi-commercial farmers is the fluctuation in the prices of commodities. The risk is outside the control of the farmer. The farmers in Tian and Engkaroh had very little knowledge about the movements of prices for their cash crops (pepper, cocoa, and rubber). Most farmers attributed price fluctuations to an immediate cause - a common local notion of 'the deceitful Chinese middlemen who were always trying to exploit the Bidayuh farmers'. This opinion may be unfounded, but its implications for the Bidayuh was the same as if they understood the intricacies of the international commodity market, that is that they felt totally at the mercy of the market. This situation is worse in isolated communities where the middlemen tend to be both monopolistic and monopsonistic. Even discounting the possibility of greed influencing the prices of the crops and of the purchased farming inputs and consumer goods, the middlemen in isolated communities have to make allowances for the transportation and handling of the goods. Therefore, the price of black pepper at the village retail store in Engkaroh was lower than the price offered by buyers in Tebakang, the nearest town, and much lower than the price in Serian, the district capital.

The experience of these farmers with the uncertainties of the market for their cash crops is an important source of 'knowledge' or an experiential base upon which their decisions with regard to the production of cash crops are made. The villagers in Engkaroh, for example, were not convinced that the tea project in their area would be

able to provide them with jobs continuously. Like rubber, they said, tea would also suffer a drop in its price, and the tea plantation would not be able to pay their wages. They had very little knowledge and experience with the crop and did not know the prevailing price of tea. Yet they have developed some negative opinions about the crop based on their experience with rubber and pepper.

1.04 The Research Problem.

One of the main objectives of rural development in Malaysia is the modernization of its traditional agricultural sector. One main feature of the programme is the promotion of a wider involvement in market-oriented agricultural activities by the subsistence cultivators; in other words, a promotion of the process of agricultural commercialization.

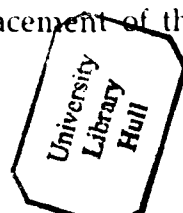
This objective has been given increasing commitment, both politically and financially, in the successive five-year development plans since independence. At present there is one critical political reason which strengthens and justifies the commitment to commercializing the subsistence sector. The commercialization of agriculture, especially as it applies to the indigenous farmers, is one of the tools used to achieve the restructuring objectives of the New Economic Policy (NEP). The NEP, introduced in 1970, in the wake of the racial violence in the nation's capital, Kuala Lumpur, has the objectives of eliminating poverty and balancing the participation of the indigenous and non-indigenous races in all sectors of the economy (Malaysia, 1973). In the rural sector, the

policy objective of restructuring is seen as a transformation of the indigenous farmers who dominate the sector into modern, commercially-minded cultivators concentrating on cash crops and adopting modern agricultural practices. The attainment of these objectives has become an important criterion in determining the credibility of the government.

Malaysian planners have attributed the lack of dynamic growth in the agricultural sector to the problem of dualism - a modern rural sector existing side-by-side with the traditional rural sector. It is the presence of the subsistence farmers, identified by the plan as the unorganized and inefficient category of cultivators, which has dampened the economic performance of the sector as a whole (Malaysia, 1986: 296).

Given the adaptive pattern of change among the traditional subsistence and semi-commercial farmers of Sarawak, the agricultural modernization policy of expanding the commercial orientation of these farmers so that eventually they become totally market-oriented, naturally meets some resistance and less than full acceptance by the farmers. One of the main propositions of this thesis is that development projects which attempt to displace rapidly more aspects of the locally adapted system of farming would elicit more resistance from the local farmers. Conversely, projects which fit the local patterns of adaptation face less resistance.

Based on the case studies of Tian and Engkaroh, it is argued that the in situ land development approach adopted by the Sarawak Land Consolidation and Rehabilitation Authority (SALCRA), has characteristics which minimise the displacement of the local system of



production. However, like the other approaches to agricultural development it still does not incorporate the existing system into the projects.

This study also attempts to analyse micro-level variations in relevant factors of development within the rural sector. A comparative study of these two communities will highlight the factors which make the two communities different in spite of them both being in the same geographical area and comprising the same ethnic group - that is the Bidayuh or more specifically the Bukar-Sadong Bidayuh. These differences have implications for the applicability of projects which are seen as a 'blue print' and intended to be replicated, such as the Federal Land Development Authority (FELDA) model, the dominant model of rural development in Peninsular Malaysia.

1.5 Fieldwork and Methods of Data Collection.

Two Bidayuh communities of Tian and Engkaroh in Kuching Division, Sarawak were chosen as the location of the fieldwork. Due to a redrawing of the administrative boundaries following the creation of an additional administrative division in December, 1986, Tian is now part of the new Semarahan Division. This however, does not affect my treatment of the general area as 'Bidayuh country'. For the sake of simplification, I shall treat the communities studied still as part of Kuching Division and Serian District.

Tian and Engkaroh were chosen because they had just become involved in in situ land development programmes. There were similar programmes in other communities, particularly in the Sri Aman Division where the Ibans were involved in the growing of oil palm and cocoa, but a study of these two communities offers an opportunity to look at two quite different local level approaches in terms of the crops introduced and the organization of the projects. In Tian the villagers were introduced to cocoa growing. Although the initial organization of the project resembled that of a plantation, it was essentially a smallholder project involving individual ownership of a part of the 'plantation'. In Engkaroh on the other hand, the project introduced tea cultivation on a plantation basis with the villagers participating through becoming wage labourers on the estate and in the factory.

The Kuching Division has the second largest land area devoted to shifting cultivation, 47.6 percent of the total area was under this form of agriculture in the early 1980s (Hatch, 1982: 65). Most of the shifting cultivation is carried out by the Bidayuh. This was also the most densely populated Division in Sarawak, with a density of 539 persons per square kilometre according to the population census of 1980. The rest of the state has a density ranging from 17 to 177 persons per square kilometre (ibid: 72). There were indications that shifting cultivation among the Bidayuh of this region had reached the limits of its viability. Bidayuh, who were mostly concentrated in this part of the state, were among the poorest rural groups in the whole of Malaysia. This was therefore an area where the traditional subsistence base of the communities was under pressure.

The Bukar-Sadong Bidayuh have already been studied in detail by two social scientists, W.R. Geddes (1954a) and B.G. Grijpstra (1976). Geddes's fieldwork was done mainly at the village of Mentu Tapuh not far from Engkaroh. Therefore, Geddes's data are largely applicable to the Bidayuh of Engkaroh. Indeed Geddes claims that his observations are applicable generally to the Bukar-Sadong Bidayuh. Grijpstra conducted a district-wide survey of the same Bidayuh group. His data provide useful background information on the communities in the area. There are other briefer reports on village studies and short articles on custom and cultural practices of the Bidayuh of the area, supplementing the work of Geddes and Grijpstra. The village study report by J.R.V. Daane (1974) and the Malaysian Centre for Development Studies (1975) are relevant for the area including Engkaroh. Several articles by G. Roberts(1949) and R. Nyandoh(1954, 1966) also add to the ethnographic data on the Bidayuh of the Upper-Sadong area. There are several similar short research reports and articles on the other Bidayuh sub-groups (of Bau and Kuching Districts) which provide useful information for an understanding of the Bidayuh as an ethnic group.

The Bidayuh as a whole were regarded by colonial administrators as lacking the ability to adapt themselves to changes occurring as a result of their incorporation into the wider society (Leach, 1950). Of the shifting cultivation communities in Sarawak, they were arguably the first to be drawn into relationships with the state, immigrant communities, and the market economy. Bidayuh villages are located in the vicinity of Kuching, the state capital, and Serian and Bau, two major administrative and market towns in the region. In spite of their early contact with the

outside, Bidayuh cultivators still largely retain their shifting cultivation practices, albeit at a much reduced scale and with some modifications. My case studies of Tian and Engkaroh will hopefully provide some insights into the general problems of Bidayuh agriculture.

The fieldwork was carried out over a ten-month period - from August, 1986 to May, 1987. The duration of the fieldwork was constrained by the time made available to me. The three years' study leave and grant which enabled the study to be carried out was awarded for the purpose of 'studying in England'. The ten months spent in Sarawak out of the three years was a very generous compromise of the administrative rules. I was, however, already familiar with the research area through involvement in the supervision of students taking 'extension education' courses at the Sarawak branch campus of Universiti Pertanian Malaysia (Malaysian Agricultural University). The University uses Bidayuh villages as locations for the practical exercises. Prior to this fieldwork I was also involved in two research projects on Bidayuh vegetable growers and pepper smallholders (Ngidang et al, 1986; Uli et al, 1988).

The study employed the survey and participant observation methods of data collection. These two methods were supplemented by in-depth interviews of village elders, headmen, and members of the village committee. Similar interviews were held with some of the staff of the Sarawak Land Consolidation and Rehabilitation Authority (SALCRA), particularly the management of the projects in the two villages.

Two surveys were conducted; the main one in October/November, 1986 and the supplementary survey towards the end of January, 1987. Initially only one survey was intended in view of the limited time and funds. However, after the first had been conducted, it was realized that vital information on the harvest (based, in fact on the previous season's harvest) was highly unreliable because of the 'don't know' and 'don't remember' responses. The problem also applied to the question of the size of the previous season's padi plots. The survey was conducted about seven to eight months after the last harvest, almost a full season in the cultivation cycle. Obviously the memory of most villagers was already vague.

It was quite probable that there was reluctance among some of the villagers to respond to questions which probed into the rather intimate aspects of their lives. The survey was administered with the help of six students from the Sarawak Branch of the Malaysian Agricultural University. The six students were Sarawakian and three of them were Bidayuh (each from different villages outside the study area). The students were all familiar with the Bidayuh community because, being agricultural students, they had spent about three months doing practical work in Bidayuh villages for their extension education course. In spite of this they found it quite difficult to make the respondents 'open up' especially regarding details such as the amount of harvest and the size of their land. The interview sessions were in practice like meetings between strangers, because, although many of the respondents knew me quite well by then, the student interviewers were complete strangers. Ideally

some time should have been spent on familiarising the students with the villagers, but there was not sufficient time available.

The interview schedule consisted of structured and unstructured questionnaires. Each interview session was intended to last about 45 minutes but in fact generally it took about one hour to go through the schedule. Necessary pleasantries and digressions stretched each session longer than expected. It was important that an easy atmosphere be created before the interviews began. There were also many questions which the respondents wanted to ask about the purpose of the interview, which was of course their right.

The interviews could only be carried out in the evening between nine and ten o'clock. Almost all of the heads of households were unavailable between six o'clock in the morning and six in the evening, this was especially the case in Engkaroh. The adult villagers, heads of households included, went for the early morning 'muster' on the tea plantation at about six o'clock and completed the day's work around 2.30 in the afternoon. After a short rest in the village they would then attend to their hill padi farms, pepper and cocoa gardens, or undertake odd jobs around the house. In both villages attempts to conduct the interviews before nine o'clock in the evening resulted in either failure to catch the respondents at home or an intrusion upon busy people. On the other hand interviews could not go beyond ten o'clock because by that time most villagers, except for the youths, were already preparing to retire. It would have been too much of an imposition to conduct an interview at

that time of the night. As a result each interviewer could only interview one or two respondents per day.

Due to limited time and funds, the survey was based on a random sample. The sample size was 60 percent of the total number of households in the village. In Engkaroh and Tian respectively 60 heads of households out of 101, and 34 out of 57 were interviewed.

As mentioned earlier, a second survey had to be carried out in January, 1987 to cover the shortcomings of the first one. The same respondents were interviewed, but the interview schedule was relatively short because it was confined to questions on the previous season's harvest and padi cultivation. The timing of the second survey was significant. By January most of the 1986/87 season's padi in both villages had just been harvested and the farmers' knowledge of their harvest and previous season's padi cultivation was still fresh.

For the second survey I employed four local school leavers as enumerators. Unfortunately this could not be done in Tian because no school leavers took up the offer. These village boys were briefly trained to conduct the interview. There were obvious advantages in using the local boys, but there were also disadvantages. Because they were familiar faces in the village, frequently there was very little seriousness in the exercise. Some of the boys felt rather intimidated when they interviewed elders whom they knew very well. The situation of being ill-at-ease was then experienced by the interviewer not the interviewees. In order to ameliorate the situation, I personally met every respondent before they

were interviewed to explain what the survey was about and ask for their cooperation in making the exercise a success. The survey in Tian was administered with the assistance of two of the previous group of students from the university. In all, it took one month to complete the surveys.

The quality of the information gathered through the surveys depended on many factors. As to the accuracy of the information, the respondents' proper understanding of the intention of the survey is an important factor. This was one of the major problems of the surveys. In Engkaroh the survey team was at first thought to be a 'fact-finding mission' from SALCRA, the agency responsible for the implementation of the tea project in the area. The villagers were suspicious and were very guarded in their conversation about the project. It was noticed that opinions of individuals on the subject changed remarkably as the research progressed. For example, at the beginning of the fieldwork there seemed to be complete satisfaction among the adult villagers regarding work on the tea plantation. Later the same individuals expressed reservations and a great deal of dissatisfaction, especially about labour management on the plantation. What this implies for the methods of data gathering is that opinion expressed in a formal atmosphere such as the interview between relative strangers, should be verified over time and that prior understanding of the subtle patterns of conflict in the community helps the researcher to decide on the appropriate approach on certain issues. This I managed to do through participant observation and some prior knowledge of the Bidayuh.

1.06 The Locations of Fieldwork.

The two villages of Tian and Engkaroh lie within an administrative area better known as Serian District, one of the rural districts in the state of Sarawak. Sarawak is one of the thirteen states in the Malaysian Federation. Sarawak and Sabah constitute East Malaysia. Although part of the Federation, Sarawak has many characteristics which distinguish it from Peninsular Malaysia. The different characteristics are significantly a consequence of her historical experience and her geography as part of the Island of Borneo. King (1988) suggests that these differences had been significant enough to render development policies, which are formulated according to the experiences of Peninsular Malaysia, unsuited for Sarawak.

Sarawak is the largest of the thirteen states territorially, it constitutes about 38 percent of the total area of Malaysia but it is sparsely populated. Its population density was estimated at twelve persons per square kilometre in 1986 (Walton, 1990: 130). In most parts of the state the land is not suitable for agriculture, it has a large area of swamp in the coastal region, and an area of very steep hills in the interior. Therefore, as long as a large section of the population depend on agriculture, the low population density, in a way, is a reflection of the carrying capacity of the land.

The poor quality of the soil in general and the interaction of a host of other natural factors (terrain, rainfall, temperature etc.) which further degrade the soil, does not provide a conducive environment for the

expansion of intensive agriculture. Thus shifting cultivation is still an important form of agriculture in the state. In the 1985/86 season 84,000 hectares of land was farmed with this system (ibid: 134). Most of the farmers engaged in this system of farming are indigenous non-Malays, the Iban and the Bidayuh being the most numerous. This is one of the reasons why the incidence of poverty is highest among these two groups (King, 1986: 53).

The Serian District is one of the two rural districts where the Bidayuh comprise the majority of the population; the other is Bau. Most of the Bidayuh are still practising the shifting cultivation of hill padi as one of their economic activities. Mainly this activity cannot provide them with a self-sufficiency in food as I shall show in Chapter Four. The land for extensive farming in the district is already tightly circumscribed by the relatively high population density in the area and the competition from other forms of land use such as the expansion of settlements, urban centres, roads, and market gardening by the Chinese farmers. One of the challenges of rural development in the district is therefore to promote a more intensive form of agriculture among the Bidayuh farmers.

One of the development strategies applied by the authorities for the attainment of the above-mentioned goal, is in situ land development. In situ land development is a form of land settlement scheme but differs from it in the sense that it does not involve settlement per se but rather the development of an established farming area. Under in situ land development new crops and methods of cultivation and management of the farms are introduced to the farmers in a chosen area. This is

accompanied by measures to improve basic social facilities in the community and the provision of supporting agricultural infrastructures such as a processing factory, and marketing outlets and mechanisms. The most important feature of in situ land development is the fact that it does not involve the displacement of people. A major drawback of the application of the conventional land development approach in Sarawak is the unwillingness of the people, especially traditional subsistence farmers, to relocate. The Sarawak Land Development Board (SLDB), the state agency responsible for implementing resettlement schemes, since its inception in 1972, has not established a single viable resettled farming community.

The Sarawak Land Consolidation and Rehabilitation Authority (SALCRA) was formed in 1976 to implement in situ land development. As its name suggests, SALCRA's basic functions are to consolidate and rehabilitate land in order to improve agriculture in the area chosen. In most rural farming communities, land is still under the native customary tenure system. Individual land holdings are scattered, and some land is planted to crops which today do not have any economic value, such as old rubber gardens and abandoned orchards.

To enable it legally to develop native land under customary tenure, SALCRA is given the status of a 'native'. It is given exclusive rights to develop and manage the land after land owners have agreed to participate in its development projects. However, the land owners are assured that they will not lose ownership of their land. In fact SALCRA ensures that their rights are clarified by the issuance of written titles

(under the customary tenure system, rights are established through recognition by the community which is subject to counter claims from other members of the land owning group). SALCRA records the amount of land contributed by each individual to the project; if the land is scattered it is eventually consolidated into a contiguous piece and surrendered to the owner upon completion of the loan repayment to SALCRA.

SALCRA finances the development of the land. It can manage the project itself or enter into a partnership with any public or private bodies as managing agents. SALCRA's funds come from state government's grant and loans, and loans from the federal government and private financial bodies. The cost of establishing crops on the land developed is charged to the participants of the project as a loan to be repaid in instalments deductible from the proceeds of the sales of the crop. Other costs, such as administrative costs and the costs of building infrastructure, are borne by SALCRA.

SALCRA started its first land development scheme in 1978 with the establishment of the Lemanak Oil Palm Scheme in Lubok Antu District. By 1984 it had already established 8 schemes planted to three major crops, namely oil palm, cocoa, and tea (SALCRA, 1984). All of the schemes involve communities which are facing difficulties in sustaining shifting cultivation.

SALCRA's introduction of its scheme to the Kampong Tae area in 1984 was the first project of its kind among the Bidayuh farmers. This

project introduced cocoa planting to a number of villages in the area. For most villagers, cocoa replaced rubber, as much of the land surrendered for the projects comprised former rubber gardens.

Kampong Tian, one of the two communities studied, falls under the Kampong Tae development area. When studied by me it was within phase two of the physical development of the project. The planting of cocoa trees in phase two started in early 1985.

Kampong Engkaroh, the other community chosen for this study, is one of the two villages in the Mayang development area. In this area tea growing was introduced. Unlike the project in Tian, which is basically a conglomeration of smallholdings with potential individual ownership, the Mayang project operates like a cooperative plantation. I shall elaborate on these two communities in Chapter Four.

1.07 Organization of the Thesis.

This thesis comprises seven chapters. The present chapter has attempted to define the problem to be studied and discusses relevant literature and studies related to the issue of agricultural innovation and economic change in traditional farming communities. In the later part of the chapter, I have described the methods of data collection and provided an introductory description of the area chosen for the fieldwork.

Chapter Two discusses the importance of rural development, and agricultural commercialization as one of its components, in Malaysian public policy and its implication for traditional farmers in Sarawak. The Chapter attempts to highlight the fact that Malaysian public policy intends to commercialize smallholding agriculture and that this would be achieved, in the main, through policies which are based on West Malaysian experiences.

Chapter Three, I describe Bidayuh traditional economy and its adaptation to the changing internal and external economic and socio-cultural environments. The Chapter shows that the traditional economy is not a static one. It has its own internal dynamism and the ability to adapt to external forces of change impinging upon it. It is because of this dynamism and the ability to adapt that the traditional economy has been able to evolve "semi-commercial agriculture", which, I argue, is a viable and rational form of adaptation.

Although Chapter Three suggests a common form of adaptive strategy for the Bidayuh farmers in the area in general, at local- or village-level there are variations in the nature of this adaptation. Then, in Chapter Four, I describe and explain the variations in the pattern of adaptation found in Engkaroh and Tian. The chapter argues that the variations in the pattern of adaptation have influenced the nature of the responses of the two communities to the *in-situ* land development projects.

Chapter Five discusses the responses of the people in Tian and Engkaroh to the cocoa and tea projects respectively. It shows that Tian faces fewer problems than Engkaroh in accepting the project and offers some explanations for these responses.

Chapter Six focuses the discussion on the changes the non-agricultural facets of the communities. It shows that the political and socio-cultural changes which have taken place in the two communities have enabled the communities to exploit the wider society as an important resource in their attempts to find solutions to problems of their village economy. Chapter Seven concludes the study and offers some recommendations as to how development policy with regard to village-level development can be reformulated to improve its effectiveness and relevance to the local people.

CHAPTER TWO

RURAL DEVELOPMENT AND THE TRANSFORMATION OF THE TRADITIONAL SUBSISTENCE SECTOR

2.01 Introduction

Inherent in Malaysia's rural development policy is the goal of transforming traditional subsistence farmers into commercial agriculturalists. In Sarawak, because a majority of the subsistence farmers are shifting cultivators, a major goal of rural development is to encourage a move away from shifting cultivation - a form of agriculture which is considered wasteful and backward (King, 1986: 53). Although large numbers of traditional farmers have long been engaged in some form of commercial agriculture, it is only in the post-Independence period that public policy and resources have been directed substantially towards the enhancement of the process.

Rural development usually refers to the broad process which embodies, among other aspects, agricultural development and the modernization of the traditional sector. This chapter attempts to describe briefly the agricultural aspect of rural development in Sarawak in particular and Malaysia in general, highlighting its evolution, and attempting to explain its increasing importance, and the significance of subsistence agriculturalists and the goal of transforming traditional subsistence farmers into commercial farmers in Malaysian development planning. This chapter also attempts to show that although agricultural

development is the state government's prerogative, and that historically smallholders' agricultural activities were largely independent of government interference, increasingly to-day government policy, formulated at the federal level, is being imposed on Sarawak smallholders.

2.02 The Place of Traditional Subsistence Farmers in Malaysian Public Policy.

Rural development is one of the most important spheres of government activity in Malaysia. There is a large body of literature on the subject written by local bureaucrats, foreign planning experts, and both local and foreign scholars. The government itself contributes to this wealth of material in the form of the five-year development plan documents, beginning with the First Malaya Plan 1950 - 1955.

The real importance of the issue, at least to the government, can be gauged from public expenditure on rural development. Since the beginning of the First Malaya Plan in 1950, rural development has always been generously funded. During the period 1950 to 1955, public expenditure on rural development was \$282.50 million out of a total of \$964 million spent on development, or 29.3 percent (Peacock, 1979: 382). During the periods of the more recent five-year plans, however, the share of rural development in the total public expenditure has decreased considerably. Between 1976 and 1980, the Third Malaysia Plan period, expenditure on rural development was 18.7 percent of total expenditure,

and its share fell further to 10.8 percent during the period of the Fourth Malaysia Plan 1981 - 1985 (Malaysia, 1981: 240 - 243; Malaysia, 1986: 226 - 227). However, the absolute amount spent on this item has increased dramatically since 1955. The estimated expenditure over the period 1981 - 1985 was \$8,714.43 million, an increase of \$4042.02 million or 86.5 percent over the estimated expenditure during the Third Malaysia Plan period of \$4,672.41 million (Malaysia, 1986: 227).

The present trend in public expenditure is a product of the post-Independence Malaysian government's expansion of its direct role in the economy and its assumption of a greater responsibility in social welfare. Between 1981 and 1985, 27.29 per cent of the total public expenditure on development accrued to commerce and industry, an area which was left as strictly laissezfaire before Independence (Ness, 1967: 87-90). But the relative decrease in the share of rural development in public expenditure does not imply any decrease in its importance. In fact, the figures quoted above mainly constitute expenditure on agricultural development only. If expenditure on such items as rural transportation, communication, energy and utilities, in other words rural development in its broadest sense, is included, then the absolute figure and the percentage would be much higher.

More importantly, since the introduction of the New Economic Policy (NEP) in 1971, public investment in the various sectors is supposed to be interrelated and complementary. For example, substantial government expenditure in commerce and industry is in line with the employment restructuring objectives; the expanding modern

sector will, according to this policy perspective, soak up manpower released by the modernising, increasingly more capital-intensive, agricultural sector. The importance of rural development is therefore not confined simply to its earlier goal of increasing the welfare and income of the rural people. In the context of the NEP, rural development has become more important than previously.

Ness (1967) observed more than two decades ago, that in Malaysia or Malaya as it was prior to 1963, there was a high level of consistency between the public goals and the operative goals of the government. The public goals are the policy statements of the government, which are publicized mainly through the five-year plan documents and through public pronouncements of ministers. These goals represent the intentions and the worldview of the leadership with regard to the problems of the nation and the approaches they advocate as solutions. There need not be any fit between these intended aims and the actual operative goals. Governments, especially in the less developed countries, are known to have advocated public and operative goals which are conflicting, either intentionally or by default, due to political and economic inertia. In Malaysian public policy, one goal which enjoys such a happy convergence of the 'intended' and the 'actual' is rural development.

What is the nature of rural development in Malaysia that makes it such a persistent concern of public policy? With the independence in 1957, government policy shifted from what Ness (*ibid*: 89) termed 'custody' towards 'development'. The Colonial government emphasized

order, both social and economic. This policy emphasis was translated into such practices as the balancing of budgets, bureaucratic rigidity, and the promotion of economic specialization by race. The orientation of the independent government towards development was antithetical to established Colonial practice and conformed to the emerging liberal international outlook on the roles of the government of ex-Colonial nations.

The 'development' goals of independent Malaya were also an expression of Malayan nationalistic fervour and growing Malay political consciousness. Among other things, the independent government advocated the expansion of the economy; as opposed to the proclivity of the Colonial government to balancing the budget, it emphasised rural development, which inevitably meant the socio-economic improvement of the Malays to remedy the effect of the Colonial concentration on urban development, and it accorded high priority to social services, which the Colonial government treated as items of consumption.

The indigenous government had to respond to internal political forces. Indeed its legitimacy rested on its ability to represent these interests. Communalism, generated especially by the emerging Malay political consciousness, was one of the most salient features of post-independent Malay(sian) national politics. A consideration of Malay interests, particularly Malay fears about perpetual economic domination by the non-Malays, was a central factor in the evolution of independent Malay(sia). It was the key issue in the formulation of the country's

constitution which was in essence a compromise between the Malays and non-Malays (Means, 1970).

With the introduction of competitive politics based on communalism in independent Malay(si)a, public issues were articulated and defined as problems of inter-ethnic relationships. Esman (1972: 37) has argued that the Malays and non-Malays tended to perceive problems and the solution to those problems as a 'zero-sum-game'. This means that any positive action on the part of the government towards one community is seen as necessarily involving a negative action towards the other. Therefore, public policy evoked political tensions between these two groups.

Rural development as a public policy does not escape this political quandary. Because of the nature of population settlement and the economic structure of Malay(si)a, rural development is inevitably targeted at one communal group - the Malays. The Malays are spatially concentrated in the rural areas, usually involved in economic pursuits which generate a low level of income, and live in communities which lack basic amenities because investment in social overheads had, in the past, been concentrated in the urban areas. The non-Malays on the other hand are concentrated in the urban areas with generally better income levels and a higher quality of life. Because of these demographic and structural characteristics the problems of the rural sector - the high incidence of poverty among traditional farmers, rubber smallholders, and fishermen, and the limited access of rural communities to social amenities can be seen both as a rural and a Malay problem.

The importance of rural development can be attributed mainly to the political power of the Malays and the implications of relative Malay economic deprivation for the political survival of the Federation. The political leverage of the Malays is evident in the dominance of the Malay-based United Malays National Organization (UMNO) in the Alliance and National Front government which have been ruling Malay(sia) since independence in 1957. The political strength of UMNO lies in the dominance of the rural Malay constituencies in the electoral system. Since 1959, however, UMNO has not been able to draw on the full support from rural Malays because of the challenge posed by the Pan-Malay(sian) Islamic Party (PMIP). The PMIP advocates a more extreme stance on the question of the political position of the Malays vis-a-vis the non-Malays. This in turn, has provided the additional impetus for the UMNO to adopt a more pro-Malay stance.

After the 1969 racial violence, the pro-Malay policy was intensified but redirected towards a different objective, that is, the attainment of a proportionate level of participation by the Malays in the modern sector. This does not mean that rural development was relegated to a position of less importance. Rather, under the NEP, rural development has ceased to be an end in itself, its purpose now is to prepare the rural Malays for inter-sectoral mobility (Snodgrass, 1980: 169). The fact that the NEP has the ultimate objective of promoting national unity and has provided the basis for Malaysian development planning since 1970, underscores the continuing importance of the pro-Malay policy and rural development.

If the 'compromise of 1957' had provided the political basis for the pro-Malay policies of the 1950s and 1960s and therefore the justification for an emphasis on rural development, in the post-1970 period, similar policies, albeit with different objectives, are 'justified' by the New Economic Policy which is supposed to achieve its objectives by 1990. This time-frame and the nature of the redistributive strategies adopted by the NEP referred to earlier, are assurances to the non-Malays that the pro-Malay policies are not indefinite and discriminatory against the non-Malays.

The NEP, which exhibits a strong functionalist interpretation of social change, endeavours to attain its objectives through the manipulation of two structural factors - poverty and the communal distribution of economic functions. The post-1970 policy is based on the interpretation that communal tensions, which erupted in the post-election violence in May, 1969 in Kuala Lumpur, were due to the economic dissatisfaction of the Malays. Thus, the NEP is based on the premise 'that unemployment and poverty, especially in a relatively affluent society like Malaysia, is an affront to human dignity and that racial imbalances in the opportunities to participate in the economic life of the country have seeds for social and political tensions' (Malaysia, 1973: 61).

The NEP embodies one vital issue of development in the 1970s, that is, the concern for 'redistribution with growth'. Partly because of this, it received a great deal of support from the international development agencies (Robertson, 1984). Such support is vital to a

country like Malaysia not only because of its dependence on external linkages but also because of the need to justify the government's actions internally.

The inter-and intra-communal competition and conflict have given the Malay community, the rural Malays in particular, a strong leverage in Malaysian public policy. It is under this Malay or 'Bumiputera' identity that a majority of the traditional subsistence farmers fall. Besides the political power which they wield, their claim for a greater share of the public good is also based on their objective condition, that is, the general economic deprivation. This is a vital factor in the formulation of public policy in a polity which is characterized by opposing communal interests with the tendency to see public policy as a 'zero-sum-game'. It gives the policy-makers at least a semblance of rationality and impartiality, which a policy based on the pure notion of a preference for the 'Bumiputera', the indigenous people, would not have given.

2.03 Rural Development and Rural Political Leverage in Sarawak.

In Sarawak, is rural development accorded the same degree of importance and do the rural communities have similar political leverage as their counterparts in Peninsular Malaysia? At the level of public policy the answer to the first part of this question is in the affirmative. Development planning in Sarawak is influenced strongly by the Peninsular Malaysian experience (Lim, 1986). Indeed, it is not conceivable that the policy in Sarawak could be different because a major

goal of the national development policy is to integrate Sarawak (and Sabah - the other East Malaysian state) into the Malaysian economy (Kasim, 1988; Puthuchery, 1990). Therefore the prominence of rural development and the goals of such a policy are extended to Sarawak. This is clearly discernible in the nature of rural development programmes implemented in the state since its inclusion in the Malaysian federation, as discussed in a later subsection of this Chapter.

As to whether the rural indigenous people of Sarawak have the same strong political leverage as those in the Peninsula, several factors suggest that the political leverage may not be that strong, at least in the early years of Sarawak's participation in the Malaysian Federation. This is indicated by an urban bias in Sarawak's economic development especially in the 1970's (Leigh, 1979; Cramb & Dixon, 1988). The pattern of development then indicated that the commitment to the rural sector may not be as strong as it was in Peninsular Malaysia. In the 1970s it was observed that there was a decrease in the official emphasis on agriculture and rural development (Leigh, 1979). This took place during a period when the agricultural sector in Sarawak, the major source of employment, was experiencing a low growth rate. In 1973, the rate of growth of agricultural output at 2.1 percent per annum was lower than the rate of population increase which was 3 percent per annum (ibid: 339). At the same time the expansion of the state's economy was based on a single extractive primary industry - petroleum. The other industries such as forestry and manufacturing were either declining or stagnant. But because the petroleum industry is capital-intensive, it employed directly only 158 persons in 1970 (ibid: 341). Population increase was

therefore soaked up in other sectors such as agriculture and this would have meant the deterioration in the welfare of the already poor people.

During that period public investment was mainly directed at the urban sector, in the provision of infrastructure for the relatively developed areas (ibid: 343). In fact, government expenditure was concentrated in Kuching, the state capital, and the expansion of the bureaucracy. Reflecting this bias, the difference between urban and rural incomes, even in the Kuching region, was substantial. The data from the Kuching Urban and Regional study of 1970, show the average monthly urban household income as slightly more than three times its rural counterpart - M\$526 for the urban, M\$168 for the rural household (ibid: 344). Given the number of rural households which are still dependent on subsistence farming, particularly the shifting cultivators, a country-wide comparison would have yielded a worse picture.

Admittedly there are a host of formidable environmental and historical factors in Sarawak which make development in general and agricultural development in particular more difficult to attain than in Peninsular Malaysia (King, 1988). This may have contributed to the government's choice of concentrating on the more developed areas.

It is also possible that the choice was politically expedient, or at least made possible by the nature of Sarawak's politics. The strength of government commitment to rural development in Peninsular Malaysia, as shown earlier, is largely a consequence of the political leverage of the Malays, who make up most of the rural population. They provide

UMNO with the power base which has sustained its dominance in Malay(si)an politics since 1957. In Sarawak, the rural people lack this political leverage. In fact since 1970, the Dayaks, the predominantly rural non-Muslim indigenous people of Sarawak, have been 'in a political wilderness' (ibid: 17). They are in this position in spite of the fact that they constitute a majority in almost 50 percent of the 56 political constituencies from which representatives to the Dewan Undangan Negeri, the state legislature, are elected.

In terms of the rural-urban balance of political power, the rural people elect at least three-quarters of the 56 state assemblymen, and in this sense there is a parallel in Sarawak with the rural 'Bumiputera' political dominance of Peninsular Malaysian politics. But there is a lack of political unity in the 'Bumiputera' group in Sarawak. On the other hand, the urban political groups, such as the Chinese and to a certain extent the Sarawak Malays and Melanaus exhibit a great deal of unity in their support for the political parties which purport to represent them. The predominantly Malay-Muslim Parti Pesaka Bumiputera Bersatu (PBB) and the mainly Chinese Sarawak United Peoples' Party (SUPP) have been able to dominate the state government since the early 1970s, partly because of their ability to attract the support of their respective communities - the Malays and Muslim Melanaus in the case of the PBB and the Chinese for the SUPP.

This chapter does not intend to discuss the factors which contributed to the relative political disunity of the Dayaks. Suffice it to say that the categories 'Dayak' and 'rural indigenous people' refer to a

diversity of ethnic groups, each with its own cultural attributes and, with the exception of the Iban, generally concentrated in particular geographical regions of the state. Ethnic consciousness, which has unified the Malays in the Peninsula, has instead weakened the political position of the rural indigenous people, in particular the non-Muslim indigenes in Sarawak. The various ethnic groups in the state have become more conscious of their identity and separateness.

One possible explanation for the failure of 'Dayakism', the unification of the non-Muslim indigenous people of Sarawak, is the fact that it goes against the forces of ethnic consciousness. The Parti Bansa Dayak Sarawak (PBDS), which strives to achieve this unification, has only been able to attract support mainly from the Iban. Unlike the Malays, Melanaus, and Kedayans, who have been largely unified by their religion, Islam, there is no strong common factor which could form the basis for a similar unification of the non-Muslim indigenes, except the fact that they are frequently being defined in contrast and in opposition to the Muslim indigenes.

This lack of political unity among the various indigenous ethnic groups is aggravated by intra-group disunity. The Iban, the largest ethnic group in Sarawak, have been particularly prone to intra-group political rivalry. This is evident in their support of all of the political parties in Sarawak. There is a significant Iban component in the non-Iban PBB, and SUPP, as well as in the PBDS and the Sarawak National Party (SNAP) which are both Iban-based parties.

However, I contend that, especially since 1987, the rural indigenous people have gained a significant political leverage. This leverage was gained as a consequence of the emergence of the Parti Bansa Dayak Sarawak (PBDS) as the champion of the rural people, especially the non-Muslim indigenous groups. The increasing popularity of the PBDS among the rural people was evident in the overwhelming gain they made in the March 1987 general election. They secured 15 of the 48 seats in the state assembly, the most number of seats secured singly by any party.

The PBDS is not only rural-based by virtue of the support it gets from the Dayak communities (which are predominantly rural) but it is also projecting itself as a party concerned with rural issues, such as land ownership, smallholding agriculture, and the impact of development on rural environment.

As an opposition party at the state level, the PBDS provides the ruling National Front with a formidable competitor for the rural votes. Since the Dayaks - the non-Malay indigenous people, form the majority of the rural population, indeed a majority of Sarawak's population, it is politically necessary that any party which wants to stay in power should get the support of a substantial part of the rural population. This situation is almost akin to the competition between the Pan Malaysian Islamic Party (PMIP) and UMNO in Peninsular Malaysia for Malay votes, which has given the rural people such an important place in politics there.

After the 1987 general election, there was a keen competition between the ruling state National Front (a coalition of three parties, namely the Party Pesaka Bumiputera Bersatu [PBB], Sarawak United Peoples' Party [SUPP], and the Sarawak National Party [SNAP]) and the PBDS to woo the rural voters, especially the Dayak voters. In this competition the ruling party obviously has an advantage over the opposition, it has access to more resources to enable it to prove that it can deliver the goods and make good its promises. Rural development activities were stepped up in the years following 1987. When the government decided to call for a fresh mandate in November, 1991, it was not surprising that it won more than half of the seats previously held by the PBDS. In that November 1991 election, PBDS managed only to secure 5 seats of the 56 state assembly seats (the assembly was expanded from 48 to 56 representatives).

2.04 Agricultural Development: Commercialization in the Traditional Sector.

In Malaysia, the most prominent component of rural development is agricultural development. Indeed many agricultural development programmes play the role as initiators of rural development. For example the Federal Land Development Authority (FELDA) promotes social, and non-agricultural economic development as it establishes its settler communities as owners of rubber or oil palm plantations.

The national agricultural policy stresses the goal of commercializing the traditional agricultural sector. As quoted in Chapter One the policy makers attribute the low rate of growth of the agricultural sector to the coexistence of a modern plantation subsector and the smallholder subsector. In order to develop the agricultural sector it is therefore recommended that traditional farmers change the form of their production towards one which is characterized by specialization, greater market orientation, the utilization of modern inputs, and the application of proper farm management. The most visible example of such a farmer is the settler on the Federal Land Development Authority project - he specializes in the production of one cash crop, relies on a high level of management input (in this case provided by FELDA), and earns an income significantly above the poverty-line. Such farmers in the eyes of the policy makers, constitute the modern agricultural subsector.

Inherent to this objective of promoting commercialization in traditional farming is the emphasis on monocropping (Lim, 1986). Single crop farming is the essence of modern farming, it is the application of the idea of specialization in agricultural production. A modern and therefore rational farmer is supposed to specialize in a crop in which he has the best comparative advantage. Almost all of the major agricultural development programmes take the form of single crop farming, for example, FELDA introduces oil palm or rubber, the Rubber Industry Smallholders Development Authority (RISDA) replants rubber, and the various irrigation and drainage projects promote and intensify rice cultivation.

Another dimension to this process of agricultural commercialization is the shift from smallholding to plantation agriculture. Policy-makers believe that to achieve agricultural development the system of production must change to large scale farming (Bugo, 1988: 53). Large scale farming implies a centralization of decision-making, a contrast to the highly independent smallholders.

Agricultural development as a sphere of government concern has been prominent only in the post-1963 period in Sarawak. This is not to deny that interest in the field had already existed before this time. Indeed, as far back as the turn of the nineteenth century the Brooke government was already substantially dependent upon agriculture as the generator of the state's revenue (Reece, 1988). This was especially so after the decline of the gold mining area of Bau in the late 1850's and the increasing problem of rice shortage and the consequent heavy dependence on imports.

The basic difference between agricultural development then and that of the post-1963 period lies in its objectives and the authority's seriousness of purpose. The Brooke administration and to a large extent the Colonial government, instituted agricultural development with the objective of expanding the revenue base of the state and the reduction of the state's dependence on imported rice (ibid, Morrison, 1988, Solhee, 1988). Especially during the period of colonial administration, the authority's commitment was more rhetorical and actual (Hatta, 1988: 72). On the other hand, post-1963 agricultural development is an aspect of the

national development policy which has, among other things, the eradication of poverty as its main objective.

The pre-1963 objective was to be achieved through the introduction of commercial farming and wet rice cultivation involving immigrant Chinese settlers. This policy was most vigorously pursued under Charles Brooke, the second rajah (Sutlive, 1972; Moy-Thomas, 1961). Chinese settlers were encouraged to come to Sarawak from Singapore in the late nineteenth century to open up pepper and gambier gardens in Bau and Serian. The promotion of the immigration of Chinese settlers directly from China on a large scale took place in the early part of the twentieth century. This later immigration was initially to provide labour for the expansion of rice production in the Rajang delta area (Leigh, 1988:180). The difficulties faced by these Chinese immigrants in an environment which was totally different from the rice farming areas of Southern China, led to the failure of the project (ibid: 181). This original intention was abandoned with the increasing importance of rubber as a cash crop. The growing importance of rubber in Sarawak attracted more immigrants to the state and they contributed mainly to the earlier phase of the expansion of its cultivation. This influx of Chinese immigrants was part-and parcel of the government's strategy to develop commercial agriculture in Sarawak. These peasants from Southern China became the backbone of the Brooke economy.

Because the indigenous people were not affected by this process of agricultural commercialization, in fact it was the intention of the Brooke government to insulate the indigenous people from such influence,

agricultural development then can be said to have benefitted the immigrants and the small urban sector only (Reece, 1988: 21). The economic and social patterns which emerged out of the process are akin to those in the neighbouring state of Sabah at about the same period. There emerged 'enclaves' of foreign-based modern sectors in the midst of the traditional economy. There were very few linkages between the two (Mustapha, 1988).

However this did not mean that the indigenous ethnic groups in Sarawak were totally shielded from the influence of the market. For centuries before the arrival of Brooke, the natives of the interior (Kayan, Kenyah, Bidayuh, and Iban) had participated in the trade in jungle produce whereby items such as rattan, rhinoceros horn, resin, bezoar stones, camphor, birds' nests, and gutta percha were traded with the Chinese and Malay traders for such items as iron, salt, beads, and brassware. Under James Brooke's rule this aspect of the economy was expanded. In fact, according to Hong (1977: 44). Brooke's paternalistic relationship with the people of the interior was designed to ensure the smooth flow of this trade. According to the trade report for 1871, natural rubber (gutta percha and India rubber) made up most of the \$122,842 trade value for that year (Sutlive, 1972: 26). The export of jungle produce was to remain the most important source of revenue up to 1910. In this activity, the native people of the interior were almost exclusively the suppliers of the produce. The only exception was the extraction of belian, the Borneo ironwood, in the 1870s in the Upper Rejang area, which was carried out by Cantonese loggers (ibid: 48).

The Brooke government therefore was not really protecting the natives from 'foreign influence' or from the negative impact of 'modernization'. Where the natives proved to be an asset in realising the much-needed revenue for the state, they were incorporated into the 'modern economy', and the natives were the best producers of jungle commodities. Brooke policy in this regard was more successful in commercializing the 'hunting and gathering' aspect of the economy of the indigenous people rather than the agricultural side.

With the decline in the trade in jungle produce by the turn of the nineteenth century, agriculture became an important sector of the Sarawak economy. The Brooke government's short-term objective of developing agriculture as a revenue base largely excluded the (rural) indigenous people. To include them in agricultural development would have entailed considerable effort and the time required to teach local farmers the methods of cash crop cultivation and induce them to abandon their traditional systems of farming. This pattern of development was a natural consequence of a policy which was not oriented towards the development of the whole of the agricultural or rural sector, just as with the importation of Indian labour on the rubber estates during colonial rule in Peninsular Malaysia.

The Brookes were impressed by the energy and vitality of the immigrant Chinese and to some extent the Javanese. They believed that the prosperity of Sarawak was more likely to depend on immigrants than the existing population. James Brooke was reputed to have envisaged the

transformation of Sarawak into a 'second Java' through the encouragement of Chinese and Javanese immigration (Sutlive, 1972: 99).

The development of the agricultural sector under the Brookes was circumscribed by their distrust of modern economic organization, including plantation agriculture and large firms, particularly those owned by Europeans (Reece, 1988). This aversion to large scale capitalistic involvement in the economy was reflected in the absence of plantations and firms of significant size in Sarawak up to the time of independence. In 1941 (the effective end of the Brooke rule) there were only five rubber estates in Sarawak aggregating approximately 10,580 acres or around 4.5 per cent of the total acreage under rubber (Jackson, 1968: 91). Except for the Borneo Company, which was closely associated with the Brookes, there were no other firms of similar size. As a consequence of this policy, agriculture in Sarawak was basically a smallholding activity. The essence of this policy, in particular, its relevance to the indigenous people, is clearly expressed in a 'Sarawak Gazette' editorial of 1910, in which the Second Rajah wrote:-

(t)he objective of the Sarawak government is to develop the cultivation of the land for the good of the inhabitants in order that they may have the profits and benefit in the possession of such gardens as an inheritance or 'pesaka' to their descendants - and this object would not be achieved or realized unless the plantations were protected and strictly prohibited from falling into the hands of the richer and more speculative class of the White race (quoted in Sutlive, 1972: 33).

The Brooke policy of limited interference with the natives' way of life had also contributed to the preservation of the traditional land tenure system, which is still largely applied today. The traditional land tenure

based on `adat' or custom, complicates agricultural development especially large scale agricultural projects. In the context of modern Sarawak, with its substantial number of non-native citizens, it limits the access of many landless people to land (Lee, 1970: 148).

The native system of land tenure is basically tailored for communities which practise shifting cultivation and whose production and consumption are organized on the basis of a family unit. There are two basic patterns of traditional land tenure practised by the various indigenous groups in Sarawak, the system of permanent tenure and that of tenure of limited duration. The second type however is rather rare; in Sarawak it is practised only among some Kayan groups (Weinstock, 1979: 26).

There are wide variations in the details of the working of the system in use by the various ethnic groups but essentially it is a system which provides access to land for every member of the community. Under the permanent tenure system, the use right is established by the clearing of primary forest. Every member of the family (the household) of the person who cleared the land has use rights to the piece of land. The rights are inheritable.

The individual's rights to the land are lost when he leaves the village or longhouse to live elsewhere. Rights may also lapse if the land is not cultivated for a long period of time, especially beyond the fallow cycle. Such land would revert to the community.

Under the tenure system of limited duration, no permanent right is established, but every member of the community is given rights to a piece of the community's land for the duration of a planting season or until all the cultivated crops are harvested. The land then becomes the community's land again subject to the seasonal redistribution after a certain period of fallow.

Another common aspect of the traditional system of tenure is the notion of a village territory. The village territory generally consists of the village proper, the land under cultivation, the land under fallow, a tract of virgin jungle from which the needs for jungle produce are met, and the burial ground. Only members of the community have right of access to these resources. The fact that members of the household (even under the permanent tenure system) who left the village to reside somewhere else, could lose their rights, indicates the sense of territoriality. Inter-village disputes concerning land often flare up due to conflicting claims on land along the often vague village boundaries.

James Brooke recognized the importance of native customary tenure and rights among the indigenous people. Consequently, the code of law, which he introduced in 1842, permitted immigrants to settle only on land not already occupied by the natives. Brooke however did not fully understand the working of the system and its relevance to the system of agriculture. With the passing of the Land Order of 1863, the government became the owner of 'all unoccupied and waste land' and had the right to lease out the land to individuals or companies (Hong, 1987: 39, 40). After the passing of this Land Order the indigenous people

were no longer free to clear the primary forest; government permission had to be sought for such purpose. Several Land Orders were introduced subsequently, all with the effect of restricting the expansion of land under native customary rights (Hong, 1987, Wienstock, 1979). Brooke's notion (adopted by subsequent governments) of preserving native customary tenure by confining and limiting its expansion means that the tenure and the shifting cultivation system of agriculture which it supports are destined to reach a point where they are incompatible (Weinstock, 1979: 130 - 131).

As mentioned earlier, commercial agriculture became the foundation of Sarawak's economy after the exhaustion of the gold mines in Bau. The expansion was most dramatic under the reign of the second Rajah. His encouragement of Chinese immigration from Singapore, specifically to establish pepper gardens in Sarawak, resulted in the creation of pepper-growing areas around Bau and in the upriver areas of the Sarawak river. With the arrival of the Foochow settlers in Sibul, Serikei, and Bintangor in the early 1900s, pepper cultivation quickly became a major crop in these areas, significantly increasing the area under pepper in Sarawak. In 1906, the Bau and Kuching districts alone produced 5,000 tons of pepper and by 1935 Sarawak ranked as the Second World producer after Indonesia (Jackson, 1968: 99).

The Brookes were also responsible for introducing rubber to Sarawak. As mentioned earlier, they were against allowing large scale private investment in the rubber industry. As a consequence, the industry in Sarawak, unlike its counterpart in Peninsular Malaysia, is

dominated by smallholdings. The absence of large scale private investment also meant that Sarawak lacked the infrastructure associated with a developed rubber industry which has, in the case of the Peninsula, made the development of agriculture easier.

Like pepper, the expansion of the rubber industry relied heavily on the energy of Chinese immigrants. However, inspite of the absence of any encouragement from the government, increasingly the indigenous people adopted rubber as a cash crop in their farming system. Rubber proved to be the most acceptable crop to the traditional farmers. It is easily adapted to the agricultural practices and work patterns of the traditional farmers, particularly the shifting cultivators.

By the 1940s, rubber had become the most important export of Sarawak by value. In 1947, in spite of the neglect and damage suffered by the rubber gardens during the war, rubber accounted for \$26,084,589 of the total export value of \$103,138,575. In 1948, the export value of rubber increased to \$34,598,924 (Sarawak, 1950: 21).

During about a century of Brooke rule, commercial agriculture was firmly established in Sarawak. From a situation of practically no agricultural production for the market in 1840, in 1947 the export of rubber, sago, and pepper accounted for most of Sarawak's foreign exchange earnings. In 1947, the export value of the three agricultural products - rubber, sago, and pepper was \$26,084,589, \$10,598,863, and \$3,213,497 respectively (Sarawak, 1949: 96). The only significant non-agricultural export was jungle produce, which was the third most

important by value at \$4,512,160. The other consequence of Brooke agricultural policy was the dominance of smallholdings. Because the Brookes relied mainly on immigrants in the development of commercial agriculture, smallholding commercial agriculture was uncharacteristically dominated by the non-indigenous people. The expansion of non-indigenous agriculture however was limited by the unavailability of land, and ironically this was partly due to the government's decision to preserve the native customary tenure system. Thus by 1941, of the 228,977 acres under smallholding rubber, 51 per cent was owned by the indigenous farmers (Jackson, 1968: 91). Therefore, a significant level of agricultural commercialization had taken place in native agriculture in the 1940s.

The period of the British Colonial government saw a significant change in the role of the government with regard to development. Undoubtedly the goal of maintaining a financially sound government was still a major concern but a commitment towards improving the social and economic conditions of the citizens was already evident. In no small way this commitment was induced and made possible by the availability of resources under the Colonial Development and Welfare Fund. This external injection of resources lessened the financial limitations of the government, a problem which had forced the Brookes to concentrate instead on the expansion of the revenue base. After the war it was also realized that in the light of the declining production of the oil field in Miri and the limited prospect of further discoveries of mineral resources, agriculture provided the only promising avenue for economic development. It was also realized that if the country was to depend

largely on agriculture, the people in the traditional agricultural sector would have to be involved in agricultural development since they constituted one half of the population (Leigh, 1964).

One of the main objectives of the Colonial government when it took over the control of Sarawak from the Brookes after the Second World War was to diversify the economy (Morrison, 1988). The Brooke government had experienced several financial crises due to its heavy dependence on a few exports. This concern was expressed in the Development Plan 1955 - 1960 which had as one of its five objectives the goal of ensuring 'as early as possible against recession of trade which might be caused by the collapse or serious deterioration in the market value of natural rubber. There must therefore be a reduction in the import of commodities which can be produced in Sarawak and simultaneously a development of alternative export crops' (Grijpstra, 1976: 41).

It was in the context of this policy objective that government attention to the rural population was to develop. In spite of its aim to diversify the economy the government was forced to intensify the cultivation of rubber. It was clear by then that a substitute for rubber could not be found easily. Furthermore, innovations in the rubber industry to produce high yielding varieties had improved the prospects of natural rubber in its competition with the synthetic products.

A planting subsidy programme was introduced in 1956, to encourage the planting of high-yielding trees. Because the rubber

industry in Sarawak was dominated by smallholders, the programme was mainly directed at them. The programme had a special significance to the traditional farmers - it was intended to diversify their economy, stabilise their agriculture, which was still largely based on the shifting cultivation of hill padi, and draw them into the money economy as a means of improving their standard of living (Jackson, 1968: 92).

To ensure that the subsidy programme would reach even the remote communities in the interior of Sarawak, a special Assisted Rubber Planting Scheme was introduced in 1960. The programme involved the provision of a subsidy, both in cash and in kind, totalling \$200 per acre for new-planting and \$450 for replanting (ibid: 93). After the imposition of a cess on export of rubber in 1959, the grant for new planting was raised to \$250, and in 1964 it was further increased to \$400. The programme was highly successful in spreading cash crop cultivation to the indigenous farmers of Sarawak. This was the first government programme which consciously attempted to promote the commercialization of traditional agriculture in Sarawak. As a result of this programme, by 1965 over 100,000 acres had been planted with high-yielding rubber (ibid: 94).

The other area which the government attempted to develop was rice production. Sarawak had relied heavily on rice imports from Thailand and China. As evident from the objectives of the first development plan (1955 -1960), the reduction in the import of commodities which could be produced locally, was one of the goals of the Colonial government. Mounting rice imports had claimed the

attention of the government since the Brooke period but had never actually been dealt with effectively. Although almost 58 per cent of the economically active population was engaged in rice cultivation in 1960, production was insufficient for local consumption. Indeed among the padi cultivators themselves, self-sufficiency was rare. According to the agricultural census of 1960, only 35.9 per cent of the farmers interviewed were able to produce sufficient rice for family requirements (Jackson, 1968: 79).

A majority of the rice producers comprised the interior indigenous people practising the shifting cultivation of hill rice. This was the very activity which the government wanted to limit. Therefore, agricultural programmes had to focus on the coastal regions, where wet rice was mainly grown. Unlike the wet padi sector in Peninsular Malaysia, in Sarawak, even as recently as the 1950's, irrigated rice was almost unknown and the method of cultivation was rather primitive (Solhee, 1988). In the cultivation of wet rice, fallowing, a practice very similar to that employed in the cultivation of hill padi, was used. The use of water buffalo to draw farm implements was rare. Commenting on the prospect of the development of wet rice agriculture in the late 1940's, Leach suggested that its expansion must involve a fundamental change in the technique from what he described as 'the traditional burn and 'changkol' (hoe) system' (Leach, 1950: 22).

The Colonial government introduced a subsidy scheme, the Assistance to Padi Planters Scheme (APPS), in 1959, to encourage and help the farmers in the construction of drainage and irrigation facilities.

The scheme was meant for small scale projects not exceeding 300 acres. The scheme provided the farmers with technical advice and material assistance such as tools, materials for the construction of dams and water-gates, and seed. Through this scheme, 90 projects were already under way in 1962, covering an area of about 5,150 acres (Lee, 1970: 139). The other subsidy scheme introduced by the Colonial government was the Coconut Planting Scheme. It was designed to enable the smallholders, especially the coastal rice farmers, to diversify their economic base. Under the coconut scheme, the farmers were given assistance in cash and in the form of planting materials to enable them to establish either coconut groves around their dwelling to cater for domestic needs, or gardens in blocks of up to 10 acres, as a cash crop.

These were the most important programmes introduced by the Colonial government. They were the first direct attempts to promote the development of indigenous smallholding agriculture, although it was by no means confined to indigenous farmers. Under the Brookes, government assistance and encouragement were directed only to the immigrant smallholders. There was no direct programme to assist the development of smallholding rubber and pepper cultivation.

One important aspect of Colonial agricultural policy as it applied to smallholders, particularly the indigenes, was its modest goal of improving the economic security of the farmers. This was probably a reflection of the state's policy of avoiding the negative consequences of price instability and mounting import bills. The government's policy in agriculture was to encourage the development of the country's

agriculture by the native farmers working a mixed system of farming rather than development by the large specialized plantation' (Colonial Reports, 1950: 34). This policy was expressed in the promotion of a small scale and limited market involvement which the various subsidy programmes attempted. The Rubber Planting Scheme was intended to bring the interior people partly into the market economy and at the same time minimise their dependence on the shifting cultivation of hill rice. Similarly, the Coconut Planting Scheme and the Assistance to Padi Planters Scheme aimed at improving the farmers' productivity and expanding their economic base so that they could become self-sufficient and at the same time produce for the market.

Colonial rule ended in August 1963 when Sarawak gained its independence and became part of the Federation of Malaysia. This political change signalled the beginning of a more active phase in rural development. One of the strongest attractions for the people of Sarawak in joining the Federation was the prospect of benefiting from the Federal government's strong commitment to development (Ongkili, 1972: 83). Prior to the official inclusion of Sarawak in the Federation, the Federal government had sponsored visits by community leaders in Sarawak to the various development projects in Peninsular Malaysia to see for themselves what the Federal government could do.

True to its word, the Federal government allocated \$463.7 million as development expenditure for Sarawak for the five year period under the First Malaysia Plan 1966 - 1970. This was 80 per cent greater than the estimated expenditure over the previous five years (Jackson, 1968: 205).

The inclusion of Sarawak in the Federation also meant the incorporation of the state into the development planning of Malaysia. This has meant generally the application at the local level of the policies and programmes conceived upon the experience of Peninsular Malaysia (King, 1988). Although the state government has some control over certain sectors such as agriculture and land, the policies and models of the central governments are generally applied.

2.05 Agricultural Development Programmes : The Application of Peninsular Malaysian Models in Sarawak

Elsewhere it has been pointed out that development policies which have been designed for Peninsular Malaysia, are being extended to Sarawak (Lim, 1986; King, 1988; Puthuchery, 1990). The merits and disadvantages of this situation have also been argued, with a majority of the writers appearing to support King's (1988) contention that policies designed for Peninsular Malaysia are not entirely suitable for Sarawak because of the geographical, historical, and socio-cultural differences between the two regions. However, because of the basically centripetal structure of Malaysian policy-making processes and a perception that there is a need for a uniformity in policy, a single general agricultural policy is applied throughout the nation. In recent years, because of the stronger political leverage of the rural people as I argued above, rural development activities in Sarawak have intensified. This inevitably involves the increasing replication of Peninsular Malaysian development programmes. What then are these development programmes?

The main agricultural development programmes in Sarawak can be categorised under two broad headings, namely, in-situ agricultural development and land development. In-situ agricultural development is a planned effort of the government, carried out by the Department of Agriculture (DOA) to modernise smallholding agriculture. This approach involves the provision and supervision of planting grants or subsidy schemes and the promotion of associated research and extension activities namely the Intensive Extension Programmes (IEP).

The in-situ agricultural development approach had already been used to a limited degree during the period of colonial rule. It was applied mainly in the promotion of rubber-growing and rice cultivation as mentioned earlier. In the post-1963 period, in-situ development programmes have been diversified and expanded to include more crops and cover a wider area.

The main in-situ programmes are the crop subsidy schemes which are intended to assist and motivate the farmers to improve, diversify, and expand their economic base (Jackson, 1968: 92). As in Peninsular Malaysia, the objective is to encourage the farmers to widen their participation in the market economy as a means of improving their income.

From the point of view of policy-makers, the goal of intensifying production is most relevant in the case of Sarawak because a great number of the farming households are still practising the cultivation of hill padi on a bush-fallow system. Although most of these farmers are

subsistence-oriented, they have increasingly depended on cash crops and other non-farm income to meet any shortfall in food production and to cover the expanding needs of the household (DOA, 1986). With the shrinking opportunities to earn non-farm income, cash crop-growing and other cash-oriented agricultural activities have become important sources of income (ibid). However, many of these farmers do not have the capital and necessary knowledge to set up proper cash-oriented agricultural activities. It is to overcome these bottle necks that the subsidy schemes, the mainstay of the 'in situ' agricultural development programmes, are introduced. This is evident in the objectives of agricultural subsidy schemes in Sarawak which are as follows:

- i) to assist smallholder farmers, who have limited capital, in the establishment of their agricultural enterprises;
- ii) to provide incentives to the smallholder farmers to adopt new farming techniques involving crop, animal and fish husbandry practices in order to improve their farm productivity;
- iii) to serve as extension tool in the teaching, and demonstration of appropriate farming techniques to the farmers;
- iv) to supplement other Departmental supporting services such as credit and marketing facilities and farm mechanisation services; and
- v) to provide initial capital to start agriculture enterprise leading to the acquisition of loans from credit institutions such as the Agricultural Bank (DOA, 1986: 3).

The subsidies are made available to the farmers through the DOA, which screens the farmers' applications. Most of the subsidy is given in the form of materials such as fertilizers, planting materials, and pesticides. Cash subsidy is also given in addition to materials particularly in the case of the rubber planting and new planting subsidies. Other schemes involve the sale of inputs, planting materials, and stock animals at subsidised prices to the farmers. For example, under the Ruminant Stock Improvement Scheme cattle and buffalo are sold at \$1,000.00 for a bull and \$600.00 for a heifer (DOA,1986: 68). The major subsidy schemes include:

1. Crop Subsidy Schemes:

- a. Rubber Planting Schemes (RPS);
- b. Coconut Planting Scheme (CPS);
- c. Pepper Subsidy Scheme (PSS);
- d. Assistance to Padi Planters Scheme (APPS);
- e. Cocoa Subsidy Scheme (CSS);
- f. Sago Planting Scheme (SPS) and
- g. Agricultural Diversification Scheme (ADS).

2. Fish Pond Subsidy Schemes:

- a. New Pond Subsidy Scheme (NPSS) and
- b. Pond Rehabilitation Subsidy Scheme (PRSS).

3. Livestock Development Subsidy Schemes:

- a. Distribution of Improved Ruminant Stock Scheme;
- b. Animal Husbandary Improvement Scheme;

- c. Poultry Husbandry Improvement Scheme and
- d. Assistance to Pig Improvement Scheme (DOA, 1986).

An important component of the in situ agricultural development approach is the extension programme, it complements the subsidy programme. The extension programme essentially attempts to prepare the individual to accept the changes promoted by the DOA by creating awareness, imparting the necessary skills, and building his motivation to succeed in the undertaking. Up to the early part of the 1980s, the approach used by the extension programme was that of 'persuasion' whereby farmers were urged to accept the changes formulated by the DOA. Very often these innovations were inconsistent with the goals, needs, and problems of the smallholders (DOA, 1982). The extension programme was reviewed in 1982 resulting in a new approach which stresses 'problem solving' and the participation of the farmers in the formulation of projects.

It is suggested that the DOA's in situ agricultural development programmes, particularly its subsidy schemes, have contributed significantly to the process of commercialization and modernization in the smallholding agricultural sector in Sarawak (King, 1986, Cramb, 1990). Indeed, in the context of Sarawak's agricultural sector where private financial institutions to support small scale farming are very rudimentary, the DOA's subsidy programme is almost the only source of financing for many farmers. It has enabled many farmers to diversify their farming activities, reducing their dependence on a single crop.

The other programmes of agricultural development comprise land development, and there are two variants - land settlement and in-situ land development. Land development has been the most important component of Malaysia's agricultural development policy. This is evident in the importance accorded to the Federal Land Development Authority (FELDA), the oldest and most established land development agency, in Malaysia's development planning. According to the Majids (1983: 66), rural development in Malaysia is often thought of as synonymous with FELDA. Its importance is also underscored by the scale of public expenditure directed to it. At least up to the middle of the 1980s, FELDA has consistently received about half of the allocation for the agricultural and rural development budget (Mehmet, 1986: 62). That the programme is so vigorously implemented in spite of the fact that it is very expensive, also indicates its importance. In 1985, it cost FELDA on average, \$53,000.00 to resettle one family (Malaysia, 1986: 306).

The land settlement approach of land development involves the resettlement of selected families, with farms of uneconomic size and other related criteria, onto pre-developed pioneer land. FELDA is the main land settlement agency while the Rubber Industry Smallholders Development Authority (RISDA) and the Federal Land Consolidation and Rehabilitation Authority (FELCRA) have also, on a limited scale, implemented such programmes recently. Indeed, FELDA's concept of land settlement has become a model for other agencies which implement such programmes, including those in Sarawak and Sabah.

The FELDA concept of land settlement involves the provision of a complete development 'package', with the combination of subsidies and loans given on very easy terms. Participants in the scheme are provided with an economic sized holding, planted to one of the main cash crops, as well as a house and social amenities.

A typical FELDA project is about 4,500 acres in size and accommodates about 400 settlers. This is considered to be the optimum size to enable economies of scale to apply, especially in the provision of infrastructure (Mehmet, 1986). The size of the project and the number of settlers are also designed to ensure proper management.

All the tasks required in the establishment of the scheme are contracted out to private contractors. This includes jungle clearing, field crop establishment, the construction of settlers' houses, and the maintenance of the crop before the settlers enter the scheme. The settlers only enter the scheme at or about the time the crop nears maturity.

The costs of developing the plantation proper and constructing the settler's house are charged to the settler as a loan repayable through the deduction on the sale of the crop. Because the main objective of FELDA is to ensure that the settlers earn income above the poverty line, such deduction would take into consideration the net income accruing to the settlers. The importance of this net income and FELDA's sense of obligation towards ensuring a certain level of income are evident in the measures it took when a fall in the price of the crop threatened the settlers' income. Starting in March, 1986, FELDA provided loans to

settlers under its guaranteed minimum income scheme, to the tune of \$7 million per month. This loan was given to ensure that, given a fall in rubber and oil palm prices, settlers would not get an income below \$250.00 per month for the rubber schemes and \$350.00 per month for the oil palm schemes (New Straits Times, August, 24th, 1987).

The FELDA model of land development has been extended to Sarawak since it became part of Malaysia. Initially it was implemented in the form of the Rubber Planting Scheme, known as the RPS 'B', to differentiate it from the RPS 'A' scheme which comprised assistance given to individual farmers. The RPS 'B' was initially managed by the DOA, but because of the need to expand the implementation of the FELDA model, it was placed under the Sarawak Development and Finance Corporation (SDFC), one of the earliest statutory bodies to be set up in Sarawak. Because the SDFC had too many functions, it was abolished in 1972 and three specialized agencies were created. One of these was the Sarawak Land Development Board (SLDB), fashioned after FELDA and entrusted with the task of implementing the land settlement programme.

By 1972, seven rubber schemes (plantations) had been established under the RPS 'B' and these were taken over by the SLDB. These schemes, covering an area of 14,000 acres, benefitted 1,175 settlers. The rubber schemes were a failure in financial, economic, and social terms from the beginning (Cramb, 1989). Because of the low rubber prices and low yield the settlers had inadequate returns and could not repay their loans. By 1981, only 233 settlers (20 per cent) had fully paid their loans

and some settlers had sold their lots to outsiders (ibid: 12). So deep-seated were the problems of these rubber schemes that in 1981 the SLDB withdrew from them, leaving the settlers on their own as independent semi-commercial farmers.

The SLDB had also established oil palm estates in the northern and central parts of the state; by 1987 it had opened up about 30,000 acres for oil palm plantations (ibid: 14). Unlike the rubber plantations, most of the oil palm estates utilized unencumbered state land (except for the Ulu Mukah area). Two oil palm mills were set up, one each at Suai (for the northern region) and Mukah (for the central region).

The oil palm estates had great difficulties in attracting settlers. Although initially SLDB had intended to set up FELDA type settlement in its oil palm areas, by 1980 it was obvious that it had to abandon the idea. By then it had started to rely heavily on labourers, many of whom were foreigners (Indonesian), to do the jobs which would have been done by the settlers on the FELDA schemes. Effectively then, SLDB schemes were commercial estates.

Even as commercial estates, the oil palm schemes were having problems. They ran into financial difficulties, accumulating losses of the order of \$20 million per year (ibid: 15). It is suggested that one of the main causes of these difficulties was poor management as a result of a severe shortage of capable managers and technical personnel (King, 1986). Since 1987 until very recently, the management of the estates has been taken over by a commercial plantation company.

In-situ land development, the other variant of land development, differs from the FELDA model mainly in that it utilizes long farmed land and involves established communities. Its main objectives are to rehabilitate and consolidate land and therefore it does not require the resettlement of people. In Peninsular Malaysia, the Federal Land Consolidation and Rehabilitation Authority (FELCRA) is one of the main agencies implementing this type of land development. Others such as the Rubber Industry Smallholders Development Authority (RISDA) and the various Integrated Agricultural Development Projects (IADP) also implements land development along similar lines.

FELCRA's initial task was to rehabilitate the Fringe Alienation Schemes (FAS) opened up by the state governments in the early 1960s. The FAS was a programme of small scale land development in the vicinity of existing communities. The ideal scheme size was about 2000 acres which was subdivided and sold to farmers with uneconomic holdings. Since the schemes were near to established villages, the projects did not involve the provision of infrastructure.

In spite of the initial enthusiasm for the FAS projects, by the middle of the 1960s, the interest in them had waned seriously, so much so that a working party was formed to look into the problem; it recommended the formation of FELCRA to carry out the task of rehabilitating the schemes. FELCRA undertook the rehabilitation of them by applying FELDA's model of land development. It engaged private contractors to carry out such work as clearing, planting, and bud-grafting. The beneficiaries were the same people who had been selected

by the state governments for the FAS. FELCRA surrendered the gardens to individuals once the work had been completed and it continued to provide extension services to the participants. FELCRA's link with the participants continues until the loan repayments (the cost of developing the land) are completed.

The in-situ land development approach was extended to Sarawak in 1976 with the formation of the Sarawak Land Consolidation and Rehabilitation Authority (SALCRA). I have discussed SALCRA's basic functions in Chapter One.

Although, like the SLDB, SALCRA also faces the problem of a shortage of managerial and other skilled manpower to implement and run its schemes, its problems are less formidable (King, 1988: 286). Its approach is more acceptable to the people involved, as it does not severely disrupt existing institutions and patterns of land use (Cramb, 1989: 16). The farmers who are involved in the scheme could still continue with their established economic activities and yet undertake new ones without having to feel that they are giving up something which they know very well for something rather uncertain. As I shall show in a later chapter, it is the radical change which the farmers resist, not change *per se*.

Another form of land development was introduced in Sarawak in 1981 with the formation of the Land Custody and Development Authority (LCDA). The LCDA's programme is a new concept, which involves private capital in the development of local land. Essentially the

LCDA has the task of promoting partnership between owners of capital, land (including native customary land), and labour in land development ventures. In such a venture, the owners of land would be given shares in the company. The programme covers both the urban and rural aspects of land development. It has been more successful, however, with urban land development. It is doubtful that the farmers will be attracted by the idea of exchanging their rights to land for shares in a company, and as yet it has made very little headway in rural land development.

2.06 Conclusion

Agriculture in Sarawak has undergone significant changes since the time of the Brookes. In smallholding agriculture, one of the main sources of change is government policy. Although smallholders have made innovations on their own, on balance, it is the government which has contributed most to the changes. All of the agricultural development programmes involve the promotion of commercialization, some advocate almost total commercialization while others tolerate semi-commercial agriculture.

Under the present Sixth Malaysia Plan (1991 - 1995), more emphasis is given to an approach which advocates a more gradual change. The in-situ agricultural development programme is the thrust of the present agricultural development policy (Malaysia, 1991: 115). This is also the first five year development plan in which the role of the new land development approach (the FELDA model) is reduced.

CHAPTER THREE

THE BIDAYUH VILLAGE ECONOMY : THE TRADITIONAL FORM AND ITS ADAPTATION.

3.01 Introduction

This Chapter describes briefly the characteristics of the traditional village economy of the Bukar-Sadong Bidayuh and discusses the changes which have taken place as a result of the increasing involvement with the wider economy and society. It is hoped that this will provide a macro-level picture of the recent past against which the micro-level case studies of Tian and Engkaroh are to be understood.

It is suggested that, although the traditional economy of the Bidayuh was self-sufficient in the sense that it did not depend to any extent on exchanges with the wider society, it was a self-sufficiency characterized by a precarious level of existence (Geddes, 1954a). Consequently, when new opportunities emerged in their environment, the Bidayuh were quick to adapt their economic system to the changes. The response of the Bidayuh to new opportunities has followed the pattern of adaptation discussed in similar traditional swidden communities in Chapter One.

3.02 The Bukar-Sadong Traditional Economy

The Bukar-Sadong Bidayuh traditional economy differs little in its basic form from that of the other interior indigenous groups in Sarawak. Except for the nomadic groups, all of the indigenous groups practised, and many still practise, the swidden cultivation of hill padi as the main activity and were engaged in hunting, fishing, and gathering as supplementary activities. These activities were oriented towards subsistence, while surpluses, if any, were converted into prestige goods and reciprocal social exchange. The differences in the agricultural practices of the various groups were essentially variations on the same theme rather than differences in the basic form. Detailed descriptions of the traditional agricultural practices of the various groups have been provided by, among others, Freeman (1955) and Padoch (1978) for the Iban, Deegan (1973) for the Lun Bawang, Rousseau (1977) for the Kayan, and Chin (1984) for the Kenyah.

The foundation of the traditional Bidayuh economy was the swidden cultivation of padi, the food par excellence of the people of Borneo. Two varieties of padi were grown, hill and swamp padi. Other crops were also grown (intercropped) along with padi. These catch crops were frequently seen as subsidiary crops, but they were in fact important components in the total food supply of the cultivators.

The Bidayuh system of agriculture falls within the category of 'traditional shifting cultivation' a term formulated by Watters (1971). Watters described these shifting cultivators as:

" a community whose members are linked by habit and custom dating from time immemorial. These tribes have always practised shifting cultivation, using methods and techniques peculiar to them and inextricably woven into the very fabric of their family and tribal institutions, frequently also into their beliefs and religious practices" (as quoted in Hatch, 1982:5).

The Bidayuh religion, described rather misleadingly by Grijpstra (1976: 72), as an 'inconsistent conglomerate of beliefs and rituals', is closely linked to hill padi cultivation. It prescribes rituals for the various phases of cultivation, from the beginning of the cycle to the time of the storing of the harvested padi. I shall discuss the significance of these rituals and religious prohibitions later. Other social institutions such as the land tenure system, the system of labour organization - labour exchange or pengirih, and the longhouse residential arrangement are also intimately linked to the system of agriculture.

The importance of hill padi in this system is an established fact, but this does not mean that the Bidayuh only grew hill padi. At the time of Geddes's fieldwork, between late 1949 and 1951, the Bidayuh were already engaged, on a significant scale, in wet padi cultivation. Geddes observed that wet padi planted in a season was usually one-quarter of the total amount of rice planted (1954a: 64). However, in some years as much as three-quarters of the padi planted was of the wet variety (ibid: 64). Wet padi cultivation among the Bidayuh, however, did not generally involve the creation of separate wet padi fields, and this suggests that it was a logical extension of hill rice agriculture. The wet padi fields were mainly in the swampy parts of the season's padi field, normally at the valley-bottoms. Therefore, the hill and wet padi crops often occupied a

contiguous field so that 'any classification into wet and dry must often be a matter of degree' (ibid: 68). The willingness of the Bidayuh to grow wet padi raises the question of the persistence of hill padi cultivation in spite of the government's encouragement to switch to wet padi, which is supposed to be more productive and ecologically sound. I shall return to this issue in a later part of this chapter.

The other crop component of this system of agriculture comprised the catch crops. These were interplanted with padi, and their cultivation and maintenance were done simultaneously with padi, thus obviating the need for a separate labour allocation. This was a very practical arrangement because it enabled the farmer to focus his labour on a single field. The high level of attention and labour input required by padi, and the limited labour endowment of a household, made such an arrangement a necessary feature of the swidden cultivator's farm management. Cramb (1985) suggests that the practice of intercropping the catch crops with padi is agronomically sound; it utilizes the various micro-environments within the rice field, thus maximising its use.

The catch crops, which included among others cucumber, pumpkins, maize, cassava, beans, sugar-cane, and job's tears (inyok), provided the household with the necessary supplementary and complementary food to rice. The diet of the Bidayuh farmer would have been monotonous without such additional items. Although these vegetables were normally simply boiled and seasoned with such condiments as salt and prawn paste, they were highly relished. Maize was particularly useful during the months before the harvest when the

household wanted to conserve rice to stretch the supply over a longer period. Sugar-cane was either eaten raw by sucking out the juice or used in the making of delicacies and sweetening sugar. Another plant, which the farmers never failed to grow, was job's tears or inyok as the Bidayuh call it. The grains of inyok were used in the making of wine. This wine, which was very much like the Iban tuak or rice wine, was an essential item in religious offerings.

Therefore, before the introduction of commercial crops like rubber, we can assume that the Bidayuh cultivated two kinds of rice, and catch crops as well, as part of a single farm operation to meet their subsistence needs. These various crops utilized different soil and terrain properties, providing diversity of food intake and helping to spread risks. However, it is likely that wet padi, where feasible, became increasingly more important when pressure on land made hill rice agriculture more precarious.

Methods of Cultivation

Bidayuh swidden farming, like that of the other indigenous groups in Sarawak, was carried out with simple technology - the absence of the use of non-human sources of power, a minimal manipulation of the soil, and the use of simple tools. As a subsistence-oriented enterprise, which relied purely on human labour, the sizes of the farms were determined by the needs of the household and the labour supply available to it.

Swidden fields could be established on land covered by primary forest or secondary forest. When utilizing the secondary forest, the Bidayuh considered a ten to twelve year fallow period as most ideal (Geddes, 1954a: 68). Generally in practice, secondary forest was considered suitable to be reused when certain trees in the secondary growth had grown more than a circle of two arms in girth at arm level.

The planting season began with the selection of the site for the new padi fields. A meeting of all the heads of household would be held around March at which time the location of the main planting area would be decided upon. On this occasion, the heads of household would state their preferences, but as individual preferences were not likely to always coincide with each other, subsequent adjustments had to be made, which usually resulted in the opening of several planting areas. However, as long as farms were established in clusters of several households the communal aim of concentrating the farms in one area was not totally ignored. Therefore, farms were established in clusters, with one major cluster, a few minor ones, and very rarely one or two individual fields sited by themselves.

The first phase in padi planting comprised several kinds of clearing tasks. Firstly, the undergrowth between the trees and clumps of large bamboo had to be cleared. This was done by slashing; a bush knife was commonly used. Care was taken to ensure that the slashed undergrowth was spread evenly on the ground to facilitate an even drying and burning. This task was done by all able-bodied male and female members of the household.

The subsequent task was the felling of trees and bamboo. This task was done mainly by men because of the more onerous nature of the work involved. The trees were felled with axes and the branches cut and spread around so that a thorough drying could be attained. The felled undergrowth and trees were then left to dry. Effective drying was a critical factor in this farming system. The fertility of the soil and the destruction of the weeds and pests depended on a successful burn, which in turn depended on a good drying period. It was vital that the farmer should time the performance of these tasks in such a way that the felled vegetation received the maximum drying possible, and the burning be done before the rainy season. In this regard the farmer faced considerable uncertainty because the beginning of the rainy season might come much earlier than expected. These clearing tasks were ideally carried out between late June and early September.

Planting of the seeds was done immediately after the burn. It was important that padi should have a head start over the weeds. In this task the objective of the farmer was to complete the task in one day so that there would be an even growth of the padi. This was a gay occasion in which a large group of workers, male and female, organized through the labour exchange system, took turns working on each others' farms. A more distinct division of labour, though not at all a rigid one, was observed in the performance of this task. The men would punch holes in the ground with the dibble sticks as they walked from one end of the field to the other, while the women followed behind dropping seeds in the holes. The seeds of the catch crops, particularly cucumber and pumpkin, were mixed with the padi seeds and planted along with them,

thus spreading these crops in a random manner in the field. Most of the fields would have been planted by the middle of September.

After the planting of seeds was completed, the most onerous task in hill padi cultivation, grass cutting or weeding, had to be done. The success of the season's padi depended to a large extent on the thoroughness with which this task was accomplished. Removing weeds, which competed with padi for the soil nutrients and could choke the young padi plants if they were not suppressed, was one of the few factors which the farmers attempted to control in order to improve the chance of a reasonable harvest. This was the main task between the end of September and into January. Two cycles of the main grass cutting were normally done, with an interval of about two months between them. The second cycle would usually be completed in January. After that the weeds posed less danger as the padi crops were already overshadowing the ground making it difficult for the weeds to grow. Weeding was done mainly by women and children. According to Geddes, it required the highest input of labour among all the tasks (ibid: 80 - 81).

During planting time and up to around the end of September, the men would also be engaged in the construction of farm huts and fences. The hut provided a resting place during the day time and frequently a shelter for an overnight stay, especially at the seed-bearing stage when the padi had to be guarded more closely against predators. The hut also acted as a store for the tools and utensils for cooking while on the farm and for the harvested padi before it was taken to the village. Fences had to be erected around the field or on the sides which fronted the forest to

prevent predators such as deer and wild pigs from destroying the padi. The fence, made of bamboo and wood from the surrounding forest, was a simple affair.

Harvesting normally fell in late February and was spread over several weeks because not all the padi ripened at the same time. Harvesting was done by cutting the ears of the padi. The harvested grain was normally threshed on the farm and stored in the farm hut until all the crop was harvested and threshed, after which the threshed padi was taken to the village. Threshing was done by trampling the cut ears to detach the grains from the stalks. The grain was then dried before being stored. There were special stores for padi, once a prominent feature of all Bidayuh villages. It was a separate squarish structure of about ten square feet with sawn wall-boards, thatched roof, and raised about ten feet from the ground on four posts. The posts were equipped with rat guards. Harvesting was done by both men and women with the men undertaking most of the carrying of the grain to the village.

In the case of wet or swamp padi, the operations were basically the same. The cultivation of swamp padi was also done on a shifting cultivation basis. The enterprise shared more characteristics in common with hill padi cultivation than wet padi agriculture in other parts of Asia. For example, terracing and ploughing were unknown and the system of water control was rudimentary. Hence it was very much a simple extension of dry field agriculture in wetter environments.

The cultivation cycle started in August when most of the field preparation for hill padi had been completed, and ended around April when most of the padi would have been harvested. The clearing of the swamp, which mainly involved the cutting of grass and shrub, was relatively easy and the drying of this cut vegetation could be done in a short time because of its less woody and dense nature.

One important difference between swamp padi and hill padi cultivation was in the planting. Seeds were first sown in a nursery established on the higher ground in the field. In contrast to hill padi sowing, the transplanting of seedlings was more demanding of labour. Another set of tasks which was unique to swamp padi was the digging of irrigation ditches and the construction of dams. Simple irrigation ditches were dug through the field as conduits for the water from the stream nearby. A dam had to be constructed to divert the water from the stream into the irrigation ditches and into the field. These dams were made of wood, bamboo, and frequently grass. Because the work on wet padi fields did not involve any heavy task, female labour was more prominent. The construction of dams and irrigation ditches was however mainly done by men.

Organization of Labour

The critical role of an ample labour supply in the traditional agricultural system of the Bidayuh was expressed in the importance of pengirih, the labour exchange system. Not only was it a set of

procedures for the procurement of labour, but also a social context in which interactions beyond those for the immediate purpose of exchange were promoted among members of the society. The importance of the labour exchange system also underscores the fact that the limited supply of a household's labour was a major constraint in the traditional system, a fact which later influenced the households' decisions with regard to the adoption of cash crops.

In many major tasks, the labour exchange system was a traditionally prescribed way of undertaking the work. Every member of the community was dependent upon it. Indeed the practical value of such a system was so obvious in relation to the requirement of hill padi cultivation. The need to make steady and timely progress in the work so that the various phases of the cultivation cycle were attained at the right time made the pooling of labour necessary. It was in respect of the heavier tasks and those which had to be completed quickly such as felling, clearing of undergrowth, planting, and harvesting, that labour exchange was most widely applied.

Participation in the exchange was open to every working member of the community - male, female, and children of working age. The system treated the labour of males, females, and children as equal, in other words, as each constituting one unit of labour. This meant that the system enabled most households to participate, regardless of the structure of the household. For example a family with only a husband and wife working, could still engage in the exchange with the wife

contributing to the exchange while the husband worked on the home farm.

The exchange was not restricted to any particular kinship pattern nor other forms of regular grouping. Persons likely to be selected to join a work group might be kinsmen, but only because they were once members of the same household or were members of the same land-owning group; thus they had farms in the same neighbourhood. But members could just as well have been drawn from any households in the community. Therefore, it can be said that the labour exchange was organized between a household and other members of the community in an extensive system of work exchange according to individual contract.

Labour exchange involved the repayment of previously incurred labour debts and the creation of a 'labour credit'. Therefore, a work group could consist of persons who were paying off their debt or creating 'labour credit', which could be used for their own work group later. The person who wanted to form a work group would ask his kinsmen, friends, or neighbours, in the village or longhouse, the previous evening, or he may have been promised assistance a few days beforehand. It was also common for the recruitment to be done in a more impromptu manner. The formation of the work group in such a case was done just after dawn on the day when work was to be undertaken. This was possible because many people were available either to offer their labour in order to create credit or pay off debt. Such persons would gather at a point on the outskirts of the village just after dawn and the work groups were formed. As the season progressed, each individual would have

established a network of exchange relationships with several others and the pattern of obligation became more complex.

The size of the work groups varied according to the task to be undertaken. Geddes observed that the group could vary between one and twenty-four workers (excluding the host) (ibid: 71). Although the exchange resulted in a complex pattern of obligations, the question of labour accounting was a relatively simple matter. Individuals kept their records mentally and because the whole household had great interest in the affairs of the farm, the accuracy of the record was also ensured collectively by the members of the household. Because labour exchange was the traditionally accepted way of organising labour and the people were dependent on it, there was little motivation to renege on the payment of labour debt. Furthermore, individuals who were known to have erred in their obligation could possibly face difficulties in securing future assistance, a severe punishment in an economy where labour was a very critical factor of production.

As indicated earlier, the Bidayuh system of labour exchange was not purely an economic arrangement. It helped to fulfil certain social needs defined by cultural values. These included the pleasure of company, security, and the feeling of solidarity with the rest of the village. According to Geddes (ibid: 70), the Bidayuh disliked working alone, it 'makes the sun grow hot upon their backs, meaning that the work seems much harder when not done in company'. As the case of the villagers in Engkaroh shows later, it appears that the absence of a 'leisurely and social' dimension in plantation work, was partly

responsible for the difficulty the villagers had while working there. Geddes (*ibid*: 72) said that as a method of organising labour to produce the greatest amount of padi, the labour exchange system had certain defects. It gave rise to a situation where fields were being worked for comparatively fewer days; it did not provide any incentive for increased pace of work; it opened the possibility of mistakes due to the lack of foresight such as an over-extended labour obligation; and it sometimes involved groups which were too large so that out-put per man was low. Having considered the economic defects and the social functions of the system, it is difficult to judge whether on balance, it was more rewarding than it was deleterious. It is certain, however, that the system contributed to the economic viability of the farms in so far as it met the type of labour demand at various stages of hill padi cultivation in particular, and it promoted social relationships valued by the Bidayuh. In other words, it made both a direct contribution to the economy, and indirectly it ensured economic vitality by reinforcing the social solidarity of the community: the very existence of the village depended on cooperation, and without cooperation the ability to sustain shifting agriculture would have been severely impaired.

Land Tenure

The Bidayuh traditional system of land tenure shared many of the characteristics of the land tenure systems of most swidden cultivating groups in Sarawak and it was still very much in practice then (at the time of my fieldwork). It was of the permanent tenure type, that is, once rights

to the use of land were established, they existed in perpetuity. In addition, and like the tenure system of the other groups, it had the concept of a village territory with recognized, though often disputed, boundaries between the village and the territory of neighbouring villages. There were, however, many features which were unique to the Bidayuh system, and in the following discussion these will be highlighted.

The Bidayuh land tenure system in general did not provide for individual ownership of land except among some Bukar communities such as those of Kampong Tae and Tian. Under the system practised by most of the communities, the only circumstance of individual ownership was when a given person first cleared land for farming in primary forest. Under a variation of the system, as practised in Tae and Tian, individual ownership was further established when the first generation owner (the person who cleared the primary forest) divided his land among his siblings (and these among their children and so on through succeeding generations) passing on the exclusive ownership rights only on his/her share of the land. However, under the system practised by the wider Bukar-Sadong society, the rights to land established by clearing primary forest were inherited undivided by the descendants, equally among males and females as members of a turun; the turun can be defined as a bilateral descent grouping. An individual was a member of several descent groupings because these were bilaterally organized. One could belong to both the descent groupings on the mother's and the father's side. It was the rights to use the land and to enjoy the produce of any

crop grown on it which was inherited by individuals from their ancestors, not the ownership of land per se.

Rights were exercised through the household because the household was the basic unit of production and consumption. An individual who left a household to reside elsewhere, for example with the spouse's household after marriage, would have temporarily lost the rights to his original household's land. Married couples with no children could choose to join the wife's or husband's household in farming because they did not have direct rights to the land of either households' descent groupings. Their rights to both descent groupings' land would be established once they had a child.

Because a descent group was normally extensive in that many individuals/households might belong to it as long as they could trace and demonstrate their links, a given piece of land was potentially subject to claims of use rights by more than one person/household. Such a tenure system certainly gave rise to a situation in which there was conflicting claims for the use of land for a particular season. To overcome this complication, two rules were adhered to:

- i. The rule of least use provided that the claim of a person who had used the land less recently was stronger. If none of the claimants had used the land before, then the respective time since their ancestors last used the land would be taken into account.

- ii. The rule of the superior right of an elder was applied when the claimants were descended equally from the person who last used the land in which case rule (i) became irrelevant. According to the second rule, the oldest of the claimants had the strongest right. The rationale behind this rule was that the older person was considered to have less opportunity to farm the land (Geddes, 1954b).

The system was also rendered less complicated indirectly by the tendency to forget the precise genealogical connections upon which individuals' rights were established. The bilineal system produced too many connections for an individual to remember and there was an absence of any feature in the social organization, such as social ranks, which could motivate individuals to place greater importance on genealogy (Geddes, 1954a; King, 1978; 1985). As a result, the descent groupings were usually based on the more recent connections and were, in practice, more limited in extent than they should be in theory.

The system theoretically guaranteed access to the use of the land to every individual through the household. As long as the descent grouping had sufficient land its members were assured of access to it. Indeed the individual was not constrained by the land available to one descent grouping, he/she had rights to the land of several descent groupings of which he/she was a member. As long as the crops planted were annuals and, assuming that the population did not grow beyond the size where the man-land ratio was optimal, the system should be able to continue fulfilling the needs of the community to ensure access to land

for everybody. The system, therefore, complemented the traditional swidden agriculture, in which the crops grown were annuals and the land was used rotationally. However, as practised by the majority of the Bukar-Sadong Bidayuh, the system was not in accord with an increasing involvement in commercial agriculture in which perennial crops were grown and the concept of 'individual gain' was gradually being accepted as a desirable goal. When the descent grouping's land was used for the planting of rubber trees, it was effectively withdrawn from the turun's pool of land for at least twenty years or for as long as there were rubber trees on the land. The consolidation of this situation was supported by the rule which allowed individuals to claim ownership to fruit trees and other useful trees on any land in the village territory. The rule did not contradict the other rules in the system as long as people planted few fruit trees, which was the practice traditionally. But when rubber gardens of several acres were established, the rule began to come into conflict with the main objective of the system.

Other Components of the Subsistence System.

Although padi planting was the main activity of the traditional Bidayuh farmers, it was not a sufficient basis of subsistence. The food and non-food requirements of the household also had to be met through engagement in other activities, many of which were non-agricultural in nature. I mentioned earlier the significance of catch crops in providing 'complementary' food to rice, and supplementary food when a rice shortage was experienced. Being secondary to padi planting, these

activities were fitted into the subsistence system in a way which gave padi planting the priority in the allocation of labour and in scheduling. Since generally, labour was in short supply, the scale of these other activities, therefore, was limited.

The forest surrounding the Bidayuh village contained many kinds of fruit trees. Although individual orchards were rare, the growing of a few stands of fruit trees by individuals, along with the trees which grew through natural propagation, gave the impression that the Bidayuh grew their fruit trees in proper orchards. The trees were generally grown in a 'silvicultural' fashion with no regard to the owners of the land on which they were grown because the property system also provided for rights to the ownership of trees. Because the fruit trees were grown 'naturally' in the surrounding forest, they were not very productive. The trees did not bear fruit regularly. Hugh Low (1848: 284), who visited the Bidayuh area during the mid-nineteenth century, observed that "the trees bear three, and sometimes four crops, in immediate succession and in the greatest profusion, and then are barren for two or three years,...". However, because some of the trees bore fruit during a certain season when others did not, Bidayuh orchards as a whole were usually able to yield fruits every year. The fruits were a most welcome addition to the food supply. Today fruits, especially durian, one of the most popular local fruits, is a source of substantial cash income.

The Bidayuh also reared animals, particularly chickens and pigs, mainly to provide them with eggs, and pork for religious offerings in ceremonies such as the yearly harvest festivals. These animals were

allowed to roam about the village compound and under the longhouses so that they could feed on human refuse. The domesticated pigs played a very important role in the 'disposal of the refuse'. The contribution of animal husbandry to the subsistence of the Bidayuh was minimal because of its small scale and the low quality of livestock. The rearing of these animals, however, enabled Bidayuh households to meet their socio-cultural obligations.

Meat was also obtained through the hunting of game in the surrounding forest. Hunting was either done in groups with the aid of hunting dogs or by individuals. According to the elders interviewed in Tian and Engkaroh, around the time of the Japanese Occupation (1941 - 1945) and even up to the early 1960s, game such as barking deer, mouse-deer, and wild pig were quite plentiful in their areas. Since the domesticated animals provided only occasional meat, hunting provided a welcome additional source of protein.

The rivers and streams in the Bidayuh area used to be good fishing grounds but the Bidayuh lacked the effective means of catching the fish (Geddes, 1954a). They mainly used fishing lines, spears, and tuba (Derris alleptica), a type of poison extracted from the root of a local plant of the same name. The first two kinds of equipment were inefficient, while the last was destructive to the fish population in the rivers. Like hunting and the rearing of livestock, the contribution of fishing to the food supply was limited.

The gathering of jungle produce was another activity in which all of the households were engaged. This involved the gathering of comestibles and non-comestibles. Besides the farms, the Bidayuh also relied on the forest to supply them with vegetables. In fact many of their favourite items grew wild, these included ferns, bamboo shoots, and wild mushrooms. The gathering of these was done regularly by women. Another wild produce highly sought after by the Bidayuh was honey. It was obtained from honeycombs which abounded in the surrounding forest, tall trees and in caves. In the forest, sago palms were also found from which the Bidayuh obtained sago flour for the making of a 'starchy porridge', which supplemented and even replaced rice as the main dish in times of rice shortage. The forest was also a source of all of the construction materials for houses. These included bamboo, the leaves of the sago palm, hardwood, and rattan. Before the advent of purchased building materials, the gathering of these items from the forest was a major task.

It is difficult to determine the relative importance of these non-agricultural components of the economic system. But these activities were certainly critical in the Bidayuh quest for an adequate subsistence. Hill padi on its own was obviously inadequate as a basis for subsistence.

New Opportunities and the Continuing Validity of Tradition.

It is said that the traditional method of doing things is a time-tested way. It need not be the most efficient but it does, through the

experience of the members of the society passed down through the generations, provide a measure of predictability and order. Adherence to tradition is stronger if subsistence is precarious, that is, when there is very little margin for experimentation (Scott, 1976: 2-3). Scott suggests that individuals in such a situation would only innovate if the long-established methods were failing them, and if continuing adherence to tradition would only lead to a further deterioration in their welfare. This is what Scott calls the 'last gasp' innovation (ibid: 26).

Bidayuh traditional subsistence was precarious. They were continually threatened by the possibility of a rice shortage. Geddes estimated that even with an average harvest, 25 per cent of the households in Mentu Tapuh would have experienced a shortage of 10 per cent of the annual rice requirement (Geddes, 1954a: 94). Of course, this refers to the recent past, not to the distant past. But on evidence from other societies, for example the Iban, shifting agriculture was generally not an economy of plenty. This situation applied to most communities in the Kedup river area. The communities of the Kayan river would have suffered more severe shortages because of the widespread practice of selling rice to obtain cash for the purchase of goods such as sugar, matches, kerosene, and clothing (ibid: 94). One indication of a frequent general shortage was the high rate of interest on rice loans. Before the Japanese Occupation, the prevailing rate of interest was already 50 per cent per year/season. After the war, understandably the rate increased to 75 per cent due to the rise in the price of rice as a consequence of rice shortage throughout Sarawak (ibid: 93).

Bidayuh traditional farmers appeared not to have stubbornly clung to their traditional system of production. Their subsistence margin may have been narrow, but it did not appear to have prevented them from adopting new innovations. The nature of their subsistence, however, did influence the manner in which they adopted the innovations. This local adaptation, seldom recognized as a positive change by outsiders especially planners and policy-makers, gave rise to the stereotyped image of a conservative traditional society and to the frustration with the communities of these outsiders who wanted to change them according to their own image of modernity.

In Bidayuh society, like other traditional societies in Sarawak, the system of production intertwined with culture in such a way that it is difficult to talk about one without referring to the other. It is in this respect that I suggested earlier that the Bidayuh swidden system fits Watters' category of 'traditional shifting cultivation'. For example, Bidayuh mythology abounds with stories about the spiritual origin of padi cultivation, the most important element in their subsistence system. One version of the origin of the traditional practice of padi planting has it that the adat or customary practices, which includes the various ceremonies and rituals, was presented by Sekama, a female spirit from the top of Penrissen Mountain, to Sikaya, a grandson of Tenabi, the first Bidayuh (Hewitt, 1961). Prior to this event, the Bidayuh had just learned how to plant seeds with the use of the dibble stick, but there were no rituals or ceremonies. These claims of a mythical origin and the actual practices of padi planting which involved many rituals, elevated the traditional hill padi agriculture to the realm of the sacred. The cultural

importance of padi cultivation is still evident today when Bidayuh elders speak nostalgically of it as 'a way of life'.

Scott's (1976) subsistence-oriented peasant producers are inhibited by the fear of a subsistence failure because change implies a conflict between the method of production which is proven and the new one which is unknown and therefore full of uncertainty. The conflict between traditional and modern elements would be more acute if change resulted in the total or almost total replacement of the production of food crops with that of cash crops. However, the Bidayuh farmers did not allow the adoption of cash crops and other market-oriented activities to undermine the continuation of padi production, and they were therefore not forced to abandon immediately any aspects of their culture. Indeed the most easily adopted innovations were those which did not conflict with padi cultivation. Change in the Bidayuh traditional economy therefore can be seen as involving the persistence of subsistence production based largely on the traditional methods and an adoption of compatible innovations. In this way, the farmers' fear of a total subsistence failure is allayed and a radical socio-cultural change avoided.

Inherent Weakness of the Traditional Subsistence System.

The frequent failure of Bidayuh traditional agriculture to produce sufficient returns was recognized by the authorities nearly forty years ago. In 1950, the government proposed a scheme for the resettlement of the Bidayuh of the Sadong area to the fertile wet padi lands in Limbang,

in the northernmost part of the country (ibid: 112). A District Chief of the Upper Kayan and some other community leaders of the area were taken on a tour of the area of possible resettlement in Limbang. It was hoped that these leaders would see the virtues of migrating to the new lands and convince the people in their communities to agree to the government's proposal. Although the scheme did not materialize, the proposal does indicate that the problem of Bidayuh agriculture was serious enough to have caused the government to contemplate a rather radical solution even at that time.

Certain features of the agricultural system were clearly linked to the low productivity of padi farming not only among the Bidayuh but also among traditional swidden cultivators in general. One of the factors was the high level of uncertainty to which the farmers were exposed. Swidden cultivation was critically dependent on the natural elements - the amount and timing of rain, the timing of the dry spell, and the occurrence of diseases and attack by pests. Emphasising the importance of this feature of the system, Freeman suggested, in the case of Iban agriculture that 'if [it] is to be properly understood it is vitally important to appreciate the fact that growing padi by shifting cultivation, in regions with a rainfall of 150 inches and more per annum, is a highly uncertain undertaking' (1970: 255). The more skilful farmers would be able to minimise the risk of making mistakes in such a highly uncertain situation. But even a skilful farmer would not be able to overcome a serious disruption in the weather pattern such as a prolonged dry or wet season or an extensive attack of pests and diseases. Although Freeman was referring to Iban agriculture, this is equally true of that of the

Bidayuh. Like the Iban, the Bidayuh come to terms with the uncertainties by attributing them to supernatural and magical forces. The Bidayuh religious calendar mainly comprised a sequence of padi planting rituals and ceremonies. These were attempts to propitiate the malevolent forces and beseech the help of the neutral and good ones.

Earlier it was mentioned that certain aspects of the Bidayuh system of labour exchange could influence the efficiency of padi farming. One such was the limited number of days spent on one field and the consequent intervals between the performance of work on a particular field. Of course, labour exchange enabled individuals to organise work parties which took turns to work on each participant's field. Such work groups would have worked on one field for one or two days before moving to another. As a result of this pattern of work, the padi fields, especially those belonging to households with limited workers, tended to lack continuous attention. Frequently the work parties were large groups. It was difficult to maximise the effort of a large group of workers. First, there was no motivation to work harder because there was no guarantee that such effort would be equally repaid and the profit motive, if one is working on another person's field, was absent. Secondly, when a work group was large, there were opportunities for diversions. The work group was also fulfilling the Bidayuh need for companionship and social interaction. Strict work discipline would destroy the social elements of the group and reduce it to mere economic association. There was, therefore, an inbuilt element of economic inefficiency in its organization. The labour exchange system also required that the individual possess good foresight with regard to the

scale of work he wished to undertake and the amount of labour he could muster. An individual might commit an error of judgement in this regard. He might start ambitiously at the beginning of the season, establishing a large farm and engaging a large work group only to find at a later stage that he could not tend to his field adequately because he had to repay his huge labour debt.

Bidayuh traditional agriculture was also constrained by the amount of labour available to the household. In a system which used no other form of motive power, labour was a critical factor. Since the household was the unit of production, the scale of production was influenced by its labour resources. This limitation was greater for households whose needs for rice exceeded their labour capacity, for example those with many non-working children and elderly members. In swidden cultivation, the low productivity of the soil was often compensated for by expanding the area of the farm. This entailed more work and therefore, more labour. Where a household had a limited labour resource, this option was closed to it and such a household would have suffered the full impact of poor soil.

The swidden system is a fragile one which requires careful attention to the balance between the quantity and quality of land on the one hand, and the density of the population subsisting upon it on the other. As long as the carrying capacity of the land is not exceeded, the swidden system could theoretically work forever. One critical aspect of the system is the 'fallow period', the time given for the land to regenerate its fertility. The duration varies between areas but traditional

swiddeners, through experience, usually 'know' the duration which is 'suitable' for the particular area. In Sarawak, expert opinion on the subject varies. Andriese, as quoted by Best (1982) suggests that a period of twenty years after a single crop of hill padi is sufficient to allow a regeneration of the plant nutrients for another crop. Hatch (1982: 83) however thinks that a shorter period is required depending on the soil type and slope, but that ten years should be the minimum. The Bidayuh traditionally practised a fallow period of twelve years.

With the trend of increasing population in the Bidayuh areas, it is inevitable that the traditional system would reach a point where the delicate ecological balance would be disturbed. Available population data show that Serian and Bau, the districts where the Bidayuh are concentrated, are the two most densely populated districts in Sarawak. Serian District, which covers the Bidayuh group referred to in this study, had a density of 85 persons per square mile in 1980 and was the second most densely populated district after Bau (Ko, 1986: 30). If Freeman's (1955) estimate of 46 persons per square mile as the carrying capacity of the Iban swidden cultivation system in the Balleh area of Sarawak is applicable to the Serian District, then the limit of the system would have been exceeded by almost 100 per cent. Among the Bidayuh, the increase in population is a post-Second World War phenomenon. The Bidayuh recorded the highest rate of population increase between 1939 and 1960. Between 1947 and 1960, the rate of increase was 36.7 per cent and between 1939 and 1960 population expanded by 55 per cent (Lee, 1970: 89). The population pressure on land is aggravated by the lack of mobility of the Bidayuh. In the early 1950s Geddes (1954a) had observed

that the Bidayuh had very little tendency to migrate; when they migrated it was only for a short distance, far enough to bring them into an area where there was new land to be farmed. This characteristic of the Bidayuh may have accounted for their small numbers in other Divisions besides Kuching, in spite of their relatively large total number. The tendency to remain in their original territory, Serian and Bau districts, is clearly manifested by the fact that there were very few Bidayuh in Simunjan district adjoining Serian. In 1970, there were only 97 Bidayuh there (Lee, 1970: 91). Both districts were drained by the Sadong river and there was no topographical barrier which could have discouraged the movement of the Bidayuh into Simunjan. This low propensity to migrate is very much a feature of the Bidayuh today. According to Ko (1985), the Bidayuh recorded the smallest number of migrants in 1980. This is very surprising considering their proximity to Kuching, the major urban centre, and the relatively good system of transportation in the area.

There are several indicators which showed that the Bidayuh swidden system had reached its limit. The most obvious was the observation that the practice of a less than 12 year-fallow was widespread among the Bidayuh swidden cultivators. Grijpstra's (1976) district-wide study of the Bukar-Sadong Bidayuh showed that a fallow period of between five to twelve years was being practised. My own survey of Tian and Engkaroh showed an average fallow period of 6 years.

Less obvious and a rather indirect symptom of shortage was the situation of hill padi farming in recent years as a source of subsistence. Although there were no time series data on the level of food self-

sufficiency which could be used to show a trend of decreasing productivity of Bidayuh hill padi, rice shortage in recent years seemed to be more serious than it was during the time of Geddes's fieldwork in 1949. Anderson's state-wide nutritional survey of swidden cultivators in the early 1980s revealed that the most serious case of rice shortage was that of a Bidayuh community; it produced rice only enough to last for 2.8 months (Hatch, 1982: 98-100). Grijpstra's (1976: 102) survey of 400 Bidayuh households in Serian district in 1971, shows that 23 per cent could only meet between 10 to 30 per cent of their yearly requirements. Given this situation it is not surprising that the padi farmers in Serian district rely heavily on purchased rice. According to a survey conducted by Cramb and Dian (1979), the padi farmers in Serian had to purchase 50 per cent or more of their total yearly rice requirements.

3.03 Bidayuh Adaptation: The Interplay of the Traditional and the Modern.

When rubber was introduced to the Bidayuh in the early twentieth century, an opportunity opened up for them to adopt an innovation which could improve their subsistence options. It has been pointed out that the traditional subsistence activities were not reliable and could not produce some of the basic requirements of the Bidayuh. They needed to obtain such basic subsistence goods as dried fish, salt, refined sugar, and matches from outside. Referring to the dependence of the Bidayuh on the wider economy then (that is in 1949), Geddes said that the needs of the Sadong Bidayuh required that they have some money and that to raise their standard of living more money would have been required

(1954a: 95). As pointed out in the preceding section, Bidayuh swidden farming was frequently unable to meet fully the rice requirements of the farmers, forcing them to fall back on such emergency food as sago and maize.

The most striking aspect of the Bidayuh adoption of rubber as a cash crop, indeed it applies to almost all of the swidden cultivators in Sarawak, was the ease and speed with which it took place. It has been argued that relatively rapid adoption of such cash crops as rubber could be attributed to the fact that there was no basic conflict with the traditional system of production, neither did it require much learning of new practices and ideas. In other words the process, to use Migdal's term, took the 'path of lesser resistance' (Migdal, 1977: 115).

As pointed out in the discussion of the commercialization of Iban agriculture in the Saribas areas in Chapter One, rubber is the ideal cash crop for the swidden farmers of Sarawak. Its adoption, at the scale common to the smallholders in Sarawak, does not require farmers to reallocate their meagre resources, especially labour, in such a way that their established livelihood is put at further risk. On the contrary, the adoption of rubber offered them the opportunity to lessen the risk they normally face with the traditional system. Therefore, rubber is not grown as a replacement for hill padi, neither is there generally a need to reduce the scale of hill padi cultivation in order to accommodate rubber. In terms of the strategy of maximising subsistence security - the diversity referred to in Chapter One - rubber fits easily into the spectrum of subsistence activities of the traditional hill padi farmer, allowing him to

spread his risks further. It was this diversity, comprising subsistence crops, cash crops, and wage labour employment, upon which Grijpstra remarked that 'the most striking aspect of the agricultural system of the Bidayuh is the great variety of crops cultivated and activities engaged in' (1976: 90).

Best (1982: 83) suggests that the planting of rubber and later pepper by the swidden cultivators should be seen as a response to the need to intensify rather than as a response to the desire for cash income to meet increasing consumption. This explanation follows Boserup's (1965) thesis that ecological crisis (population pressure on land) is the main motivator in the adoption of new techniques. It is argued here however that, while ecological factors played a part in the change, the swidden farmers' subsistence strategy - the diversity of activities and the associated pattern of adaptation in the system of production - mainly determined the response of the farmers to new opportunities such as the planting of cash crops. The adoption of rubber as a cash crop by the Bidayuh was initially motivated by the desire to earn cash for the purchase of basic needs which they did not produce and special items such as shotguns and pressure lamps, and rice to make up for the frequent insufficiency of their harvests. These were all attempts at improving the quality and security of their subsistence. Rubber was seldom planted beyond the scale at which the subsistence activities coexisted incompatibly with it. If the Bidayuh had been motivated by the desire to intensify their agriculture, then a reduction in the range of activities and a concentration on rubber growing should have logically taken place.

The Bidayuh first adopted rubber rather than pepper, which was introduced earlier as a cash crop in the area surrounding the Bidayuh country. The cultivation of rubber among the Bidayuh expanded rapidly in spite of the discouragement and direct prohibition by the authorities. Geddes (1954a: 97) related how some Bidayuh in Mentu Tapuh were fined for opening up rubber gardens but continued to do so after paying the fine.

The main reason for the ready acceptance of rubber as a cash crop by the Bidayuh was its compatibility with the pattern of adaptation which was the basis of the Bidayuh household's subsistence strategy - a strategy shared by many other groups of swidden cultivators. Rubber has the quality of being 'technologically flexible' and it is resilient to a substantial degree of neglect. These are important preconditions for the acceptance of new cash crops by these swidden cultivators. 'Technological flexibility', was necessary because of the low level of technological sophistication in the traditional system; hill padi cultivation relied mainly on natural factors for its success, for example, a good burn, a timely rain, the absence of pests, and land with suitable slope. Although it is necessary to adopt proper techniques in order to maximise the productivity of rubber, a certain degree of neglect in this regard would not result in a complete failure of the garden. Indeed the Bidayuh rubber gardens were often in a serious state of neglect. Undergrowth was cleared only when the price of rubber was attractive enough for it to be tapped and even then only the area around the tree trunks was cleared, mainly to provide space for ease of movement when tapping. The older rubber gardens often became very crowded as the seedlings

from natural propagation grew into mature trees. In the production of latex, the farmers made do with such substitutes as empty tin cans and coconut shells as receptacles for the latex. The final products were sold in the form of partially dried sheets which received a low grading from buyers.

The tolerance of rubber to 'sub-standard' cultivation practices means that the farmers need not invest too much labour and capital in establishing and maintaining the gardens and in production; there was also no absolute need to learn the proper techniques. Because the frequency of tapping was determined by the need for cash and the prevailing price of rubber, a rubber garden was bound to be neglected sometimes. When the price of rubber was too low, rubber production was suspended and during such times the rubber garden was neglected and farmers would reassign their labour to other activities. The withdrawal and resumption of rubber production (and the maintenance of the garden) does not destroy the trees. This ensured that the farmer would not suffer a loss while hill padi cultivation continued unencumbered. This compatibility between the traditional system and the new crops would not have been easily achieved if the farmers had adopted pepper initially. Pepper demands more labour and its demand for labour, proper agronomic practices, and production inputs are more rigid. It was these qualities of pepper which delayed its adoption by Bidayuh farmers. Pepper was only adopted extensively after rubber had lost its importance as a cash crop due to the slump in its price since the early 1970s. I shall discuss the adoption of pepper by Bidayuh farmers below.

After the Japanese Occupation, with the boom in rubber prices, the government embarked on a policy of expanding the acreage under rubber and other crops and much of this was to involve the planting of these crops by native smallholders. The increase in the acreage under rubber which ensued was mainly attributed to the increase in the number of people planting rubber, including many swidden cultivators who became rubber growers with the government's assistance under the rubber planting scheme (refer Chapter Two). The period up to about 1970, saw the extensive adoption of rubber growing by the Bidayuh swidden farmers. It can be said that 'semi-commercial' agriculture became a dominant form of agriculture among the Bidayuh farmers during this time.

Congruent with the partial involvement in commercial agriculture, the Bidayuh rubber gardens were small; very few households owned gardens of more than five acres (Grijpstra, 1976: 94). As mentioned above, the government's planting subsidy scheme, the Rubber Planting Scheme 'A', was partly responsible for the spread of rubber cultivation among the Bidayuh. Grijpstra's (1976: 94, 184) survey of 400 Bidayuh households in Serian District in 1972, indicated that 91 per cent had some rubber plantings and of these 61 per cent had received some form of assistance from the Department of Agriculture.

By the early 1970s, however, the price of rubber had dropped to a level where the return from its production was too low and most farmers suspended tapping. The price of rubber has never recovered to the height of the Korean War boom in the early 1950s. In 1971/72, the price

of a kati (roughly 0.6 kilogram) of rubber was 25 sen, giving a return of \$1.25 per day (ibid: 95). Almost all of the households with rubber gardens, interviewed by Grijpstra in the survey quoted above, stopped tapping rubber during that period. In Tian and Engkaroh most owners of rubber gardens had not tapped their rubber since the mid-1970s and nobody had tapped rubber during the two years previous to my survey in October 1986. Today among the Bidayuh farmers rubber has ceased to be a source of reliable cash. It is regarded as a crop whose usefulness has now ended substantially.

The end of the economic importance of rubber meant that the semi-commercial system of agriculture which the Bidayuh have adapted has lost its main commercial component. In the early 1970s, the Bidayuh farming households' economies suffered a drop in their standard of living due to the absence of the contribution from cash crop production. The farmers of Serian district interviewed by Grijpstra (1976:185) in 1972 overwhelmingly considered the lack of cash income and food to be their main 'life difficulties'. Not only had the cash income contributed a critical portion to the overall food needs of the households, it had also enabled households to meet such acquired needs as biscuits, condensed milk, chocolate drinks (milo), coffee, instant noodles, and many other kinds of manufactured food and drinks. My interviews of some selected households in Tian and Engkaroh shows that on average, a monthly cash outlay of about \$40.00 was required to enable the households to buy what were considered as the basic household needs. These items include cooking oil, refined sugar, coffee, tea, canned food, dried fish, rice, biscuits, kerosene, and matches. According to the four shopkeepers in

Engkaroh, canned sardines are the best-selling food item. This indicates the extent to which the 'needs' of the Bidayuh farmers have included those items which have to be purchased and consequently of their dependence on cash income.

With the decline of rubber, the Bidayuh were forced to take up pepper-growing to make up for the loss of cash income from rubber. Pepper, as mentioned earlier, does not fit easily into the adaptive strategy of the Bidayuh farmers. It is a crop which requires a high standard of husbandry not only to ensure higher productivity but also to prevent the occurrence of diseases, some of which have no known cure. In this regard the strategy of withdrawing production when the price is low is not practical because temporarily abandoned pepper vines would quickly succumb to disease and the attack of pests and weeds. Indeed many Bidayuh gardens were lost in this manner, especially during the period of prolonged low pepper price.

Pepper is also highly demanding of capital and labour, two factors which were in short supply among Bidayuh farmers. It is estimated that to establish a one acre garden with roughly 680 vines, a farmer would require a total investment of \$5,048 in the first two years (FAO, 1980: 63). One of the most expensive items used in pepper growing is the hardwood post. Furthermore, the price of the post is tied to the price of the crop. In Serian district, towards the end of 1986, the average price per post was \$3.80 following the rise in the price of pepper. This meant that in a village like Tian where an average pepper grower had 265 vines, the cost of the posts alone would have been \$1,007. A considerable financial

outlay is also required for the purchase of fertilizer, which is required at all stages of the vines' growth. At the fruit-bearing stage alone, a vine requires about 4.5 pounds of fertilizer. In Pichin, in 1972 where pepper gardens were on the average larger than those of the other villages in the district and farmers' involvement in the crop more extensive, the total value of fertilizer used by 143 growers was \$12,100. This gives an average grower's expenditure of \$84.70 on fertilizer (Grijpstra, 1978: 130-131). This is a huge financial outlay, equivalent to more than two months' cash requirement of a household.

The labour requirement of pepper cultivation is high relative to the other activities of the subsistence farmer. In the first two years of cultivation, ideally it requires more labour input per acre than hill padi. Geddes noted that the labour requirement of hill padi in two Bidayuh cases was 47 and 102 days respectively of which, according to Grijpstra (1976: 92) the latter seems to be more representative. This compares with the 374 days required by pepper in the first two years (ibid: 95). Pepper also competes directly with hill padi for labour in terms of the timing of its peak demand. The highest demand for labour falls in June, July, and August, coinciding with the peak demand of hill padi.

Because of the high capital and labour demand of pepper-growing, Bidayuh gardens were mostly of less than 300 vines (ibid: 183). Even this was initially mainly supported by the Pepper Planting Subsidy introduced by the government in 1971 to assist the smallholders in establishing their pepper gardens. Grijpstra suggests that the rapid expansion of pepper cultivation by the Bidayuh was often counteracted

by diseases (ibid: 100). This limited size is confounded by the fact that there is a general trend among the Bidayuh farmers to grow pepper when the price is high. Since it takes about three years for the pepper to reach maturity such farmers often miss the period of good prices; by the time the vines produce berries the price has fallen. Following their usual reaction to a fall in the price of cash crops, the vines would be neglected or sold to the Chinese pepper gardeners (the plots were leased). Therefore, although pepper offers an alternative source of cash, it is an unstable alternative and one which the Bidayuh cannot exploit to the full. The villagers who possess relatively large gardens tend to be the better off, those with sufficient rice and having at least one of the members of the household earning a steady cash income from wage employment (ibid: 97, 101). These characteristics of the relatively successful Bidayuh pepper growers underscore the fact that the availability of capital and the ability to take risks are two important factors in the adoption of pepper, and for many farmers these factors are scarce.

In spite of the widespread adoption of rubber and pepper by the Bidayuh farmers, the level of their cash income is low. In the early 1950s when the need for cash in the economy was considerably less than it is today, Geddes estimates that the average cash income was around \$80 per capita per annum. In 1972, according to Grijpstra, it was 'at best a few hundred dollars' per annum (1976: 103). In the 1980s the situation was the same. In Tian and Engkaroh the average cash income which households earned from cash-oriented activities (excluding the wages earned on SALCRA's schemes) including occasional employment was

about \$31 per month, well below the \$40 estimated as the average amount of cash required to meet monthly basic needs.

As a response to this situation, the Bidayuh continue to diversify their activities. Many Bidayuh farmers have taken up cocoa as an additional cash crop. Like rubber and pepper, cocoa was quickly adopted by the farmers when it fetched a high price in the early 1980s. Throughout Serian district cocoa trees were gradually replacing the rubber trees, although it is not yet likely that it would replace pepper, because like pepper it is also prone to price instability. Today a typical Bidayuh household economy is supported by a simultaneous involvement by its members in padi planting (hill and/or wet padi), pepper cultivation (of less than 600 vines), cocoa growing (of 100 to 200 trees), and occasional outside employment for wages. The semi-commercial economy of the Bidayuh today is as diversified as the traditional economy. This diversity persists because it is the basis of the Bidayuh strategy of ensuring subsistence security and of adapting to changing environments.

3.04 Traditional Social Institutions: Are They Obstructive to Change?

In the preceding discussion, changes in Bidayuh subsistence agriculture have been described as though they are devoid of any socio-cultural dimension. In this section, I shall relate the changes in the traditional agricultural system to those institutions which are most relevant to it. As an answer to the question posed in the title of this

subsection, it is argued that the most relevant social institutions to Bidayuh swidden agriculture, namely, the traditional religion, land tenure system, and the household as a social unit, were not barriers to adaptation towards a semi-commercial system. Indeed certain features of these institutions were 'compatible' with the kinds of changes taking place. Lian (1987) raised doubts about the prevailing claim that shifting cultivation is an integral part of the culture of the indigenous ethnic groups in Sarawak. He maintained that 'shifting cultivation is not an integral component of Kenyah culture, or the culture of other ethnic groups in the inland regions of Sarawak. It is, however, the cheapest and most efficient method available for the production of rice, other food stuffs and local non-food products' (ibid: 89). However, I argue that swidden cultivation of hill padi is integral to the traditional culture of the Bidayuh but its relation to the other components of the culture (religion, land tenure system, the household as a social unit) and vice-versa is not 'mechanical' in the sense that a change in it would inevitably lead to changes in the other cultural components. Likewise changes in the other components need not necessarily lead to an immediate end to swidden cultivation of hill padi. The 'loose' nature of the relation between swidden cultivation and other cultural components made it possible for the Bidayuh to adopt changes with ease while retaining their traditional agricultural practices. As will be shown subsequently, certain aspects of the relevant institutions also provide a 'conducive socio-cultural' situation for the adoption of commercial agriculture.

There are variations in the beliefs and rituals which comprise Bidayuh religion between villages and over time. The features described

here are basic to the Bidayuh system of belief. There is a strong utilitarian element in the way the Bidayuh regard their religion; their faith in it is based predominantly on their satisfaction with the belief system as a way of dealing with the unknown and inexplicable. It also provides them with a framework within which their personal lives and that of their communities can be organized. They do not hold to the idea of a single religion being the absolute truth in contrast to the major organized religions. They choose a particular cult because, as Geddes puts it, 'they believe that it is the best for them - the most successful way they know for dealing with the unseen world and for ordering their personal lives and their community - and not because it is the highest truth or of any absolute value in itself' (1954a: 33). This pragmatism is conveyed succinctly by one adherent of the traditional religion to a missionary, on his refusal to embrace Christianity, he explained:

I have not become a Christian because I can't. You see for yourself that our adat is bound up with our work. Our worship goes with our work. We don't worship unless it has something to do with our work. We don't work unless it has something to do with our worship (Howes, 1960: 493).

The pragmatic nature of Bidayuh religious beliefs makes it appear as being devoid of ideology and replete with rituals and observances which are related to the mundane aspects of life. In fact Bidayuh religion recognizes the existence of a 'creator'. The supreme deity known as Tampa Raiyuh is the creator of all things. But Tampa Raiyuh is not a manipulator; he does not intervene in the lives of human beings. Therefore, in their worship the Bidayuh tend to overlook the creator and concentrate instead on the lesser spirits - the spirits of their ancestors, the

spirits of certain objects and places, and the spirits of someone outstanding. These are the spirits which can positively intervene in the temporal affairs of the individuals. In particular, the spirits of ancestors and famous persons are often called upon for assistance.

It is believed that when a person dies, his soul travels to siruga or heaven. But before he reaches heaven he would spend sometime at sebayan, the first stage of the hereafter. It is while he is in sebayan that the soul, which is by then known as tampa, may be called upon. When he reaches heaven, the soul would be freed from any earthly dealings. The ancestral cult is organized around this belief. The ancestral spirits are invited to ceremonies where they are given offerings of food. This could be done on a household or a whole village basis. In the case of the household ceremony, only the spirits of the ancestors of that particular household are invited, while the village-wide ceremony involves the spirits of all the ancestors of the villagers and that of the famous persons known. There are priests in the village who preside over these ceremonies. By invoking the names of the spirits, the priest invites them to the ceremony. Such ceremonies are often held on the occasion of a sickness in the household, and in the blessing of new padi fields.

The most organized in terms of the sequence of their observances are the rituals associated with padi cultivation. It is in this regard that the religious practices of the Bidayuh are most obvious. There are specific rituals for all the major phases of cultivation and they are performed in as matter-of-fact a manner as the execution of the physical tasks. These religious practices have their roots in Bidayuh beliefs about the nature of

their universe, which is populated by benevolent and malevolent spirits. The benevolent ones have to be called upon for help while the malevolent must be appeased in order to avert their wrath. Padi, like many other forms of inanimate object, possesses a soul, which, like the human soul, has to be spiritually nourished to ensure its prosperity. The nature of the rituals during each phase of the cultivation cycle reflects the nature of the spirits involved.

The first phase in padi cultivation, selecting the sites for the fields, is preceded by the ritual of omen-taking. Omens are manifested by the behaviour of certain birds and animals, such as the direction of flight and the side of the path from which the sound of particular birds is heard, the sighting of a wild pig, barking deer, and mouse-deer. These omen animals are messengers of the spirits. Heeding the omens ensures that the site chosen is suitable, while a failure to do so would invite misfortune. Omen-taking rituals therefore are acts of conforming to the dictates of the spirits.

The festival for the new land is a ritual in which the malevolent and the injured spirits are placated. This ritual is held after the undergrowth has been cleared and before the trees are felled. The spirits to be placated are the demons, the souls of the grass, vines, shrubs, trees and other plants which are destroyed during the clearing of the land. At this ceremony offerings of food are made. The demons, having been given the offering, must leave the district because they have been honoured. The ceremony frees the villagers from many restrictions which are imposed when the demons still inhabit the area. At this

ceremony the injured souls of the plants (that is because of the destruction of their physical being), are pacified before they become malignant. The ceremony also nullifies the influence of the future omen birds which may disrupt the farmers' working schedule. This ceremony is an example of the rituals which deal with the malevolent forces or those which have the potential to be so.

The ceremonies associated with the planting of seeds and the cutting of grass are mainly held in honour of the benevolent spirits - those of the dead ancestors and the padi. Their help is requested to ensure the successful growing of their padi. These ceremonies are held on a household basis. The effectiveness of the rituals, it is believed, varies depending on the skill of those who perform the ceremony in calling the spirits. This accounts for the different levels of success attained by the households in the village. The successful individuals are believed to possess a potent incantation which they keep as a secret.

Besides these ceremonies and offerings, villagers and members of households have to observe certain restrictions on certain occasions and at certain stages of padi cultivation. Between the end of the previous harvest until the clearing of the undergrowth is completed, the villagers are prohibited from collecting bamboo shoots (a favourite vegetable), catching animals from the new planting area and the fish from the streams running through it, and eating pulit rice (glutinous rice cooked in bamboo) in the area. These prohibitions are lifted after the festivals for the new land are held. Two other restrictions, the prohibitions against the making of roofing sections from sago leaves and the making of rattan

mats are applicable over a longer period, that is, between the time when the first work is done on the new field until the final grass-cutting is completed.

One can see practical values in these rituals and prohibitions although it is not because of practical considerations that the individuals observed them. Geddes maintains that, although the question of the practical roles of the rituals in the lives of the people is debatable, their practical functions are obvious (ibid: 79). The various community-wide prohibitions at the beginning of the planting season serve as a social injunction to induce the villagers to work according to an appropriate schedule. The prohibition against carrying out other tasks such as the making of roofing materials, mats, collecting bamboo shoots, hunting, and fishing, prevent individuals from being distracted from the main task of padi planting. This helps to ensure that everyone completes the important early stages of the work in time. These prohibitions also ensure that labour is concentrated on padi planting, which is critical for the functioning of the labour exchange system on which many of the tasks in the earlier stages depend. There are also psychological values in these rituals. They build up the farmers' optimism, aiding his concentration in performing the tasks and cultivating carefulness in his farming operations.

The 'loose' integration of Bidayuh traditional religion with their traditional swidden agricultural system is evident in the swift replacement of the traditional religion by Christianity beginning in the second half of the nineteenth century. Active proselytization by three

missions, namely, the Anglicans, Roman Catholics, and the Seventh Day Adventists started after the Second World War. By then there was already a clear division of the district among the three missions - the Anglicans controlled the Bukar area in the north, around Serian town, the Roman Catholics covered the area south of the Sadong river with Tebakang as the centre, and the Seventh Day Adventists (SDA) concentrated on the less accessible communities untouched by the two earlier arrivals. In 1972, two-thirds of the Bidayuh had been converted to Christianity - over 40 per cent Roman Catholic and more than 10 per cent each to the Anglican and the SDA (Grijpstra, 1976: 74).

In spite of the conversion to Christianity, the Bidayuh persisted with the swidden cultivation of hill padi. In most converted villages Christian rites have replaced traditional padi planting rites, and in others, padi cultivation is simply stripped of its rituals, in other words, it is secularized. One feature of the Bidayuh religious belief which seems to have made the conversion a relatively easy process and which mainly contributed to the 'loose' nature of its integration with the agricultural system, is the 'pragmatism' mentioned earlier. Christianity brought not only religion but also the material aspects of the modern and urban society - medicine, education, and technology. Christianity was introduced to the Bidayuh by European missionaries who belonged to the same race as the rulers and administrators, therefore a formidable people with whom to associate. The Europeans had protected the Bidayuh from the depredations of the Malays and the Ibans. The religious activities of the missions were accompanied by an active involvement in the setting up of schools, the provision of medical

services, and the encouragement and teaching of modern agricultural methods. In fact the missions rather than the government were responsible for introducing these basic services up to the Second World War.

It was the pragmatic conception of a belief system which seems to have greatly weakened the hold of the traditional religion and encouraged the Bidayuh to embrace the new religion. This pragmatism is summed up in their accommodating attitude towards the encroachment of Christianity. The Bidayuh elders who knew no other way of life but padi farming adhere to the traditional religion while the young who could adapt to new ways became Christians (Howes, 1960: 494). As the traditional agricultural system became increasingly less viable and the modern cash-oriented activities became more important in their economies, the 'new' religions also became more attractive. It is no coincidence that generally the more commercially oriented Bidayuh farmers are young and are followers of the Christian religion while those who are strictly hill padi farmers tend to be older and adhere to the traditional beliefs.

There is also an 'openness' in Bidayuh religious outlook. They perceived the various systems of belief as possible ways of fulfilling the human spiritual and material needs. These open religious attitudes have important implications for their attitudes towards change. In societies where religion is treated with dogmatism, changes are usually being constrained by religion. Had the Bidayuh attitude towards their traditional belief been dogmatic, for changes to have taken place in their

agricultural system there would have had to be a great deal of cultural trauma, given the links between religion and the swidden cultivation of hill padi.

It is generally accepted that traditional land tenure in Sarawak poses a problem for the implementation of the government's agricultural modernization programmes. This, however, does not mean that it is an obstacle to all kinds of agricultural change. The Bidayuh case shows that the traditional land tenure system is 'flexible' enough to allow the adaptation of Bidayuh agriculture, which involved the incorporation of some modern elements. This 'flexibility' lies in what can be considered as an 'individualistic' element in the system.

The Bidayuh land tenure system, as pointed out earlier, recognizes the permanent rights of a descent grouping over the land which belongs to it. Members of the turun have equal rights to use that land according to certain procedures, which are designed to ensure equitable access to every member. Individual exclusive right to the produce of crops grown on the land is also recognized. This individual right is effective for as long as the crops are considered productive. In spite of the importance of hill padi cultivation in traditional agriculture and that land tenure is clearly designed for swidden cultivation, the system does not prohibit other forms of land use. The land tenure system therefore allows the individual/household to use the land beyond the period required by a single padi season and for whatever crop the farmer chooses to grow. When rubber planting started to spread among the Bidayuh in the early part of this century, there was no known opposition to it based on what

the Bidayuh thought as the proper use of land. Rather, the opposition was made on the basis of a belief that rubber destroyed the 'soul' of padi thus undermining its productivity (Geddes, 1954a: 97). Furthermore, in some parts of Serian District, especially among the communities north of Serian Town, including Tae and Tian but not Engkaroh, individual ownership rather than descent grouping ownership is recognized. In such communities, as is the case in Tian, the land tenure system does not pose any problem to perennial cash cropping.

Finally, another institutional aspect of the Bidayuh society, which in a way complements the individualism inherent in the process of commercialization, is the household. It is the basic and most important unit in Bidayuh society. An individual is highly dependent on the household not only because it controls access to productive resources but also because of the absence of any effective organization beyond the household. Households in their turn are highly independent of each other. Because of this stress on the household, traditional Bidayuh society does not provide much economic security to the individual household. Geddes (*ibid*: 32) suggests that the longhouse residential arrangement is a compromise between 'household-centred' individualism and the need for an effective basis of cooperation beyond the household.

Household and individual-focused cash-oriented activities fit the prevailing social organization of Bidayuh society well. Indeed the importance of the household was enhanced by the switch from the

longhouse residential arrangement to separate houses, which started to spread parallel to the increasing adoption of cash crops.

3.05 Conclusion

The Bidayuh are as dynamic and adaptable to change as any other rural communities in Malaysia. To appreciate this fact it is necessary to understand the realities of their economic, physical, socio-cultural, and political environments. Their narrow margin of subsistence does not prevent the Bidayuh from exploiting new opportunities in their environment. Like other swidden farmers living near the margin of subsistence, their response to the opportunities in the environment must take into account the need for subsistence. The Bidayuh farmers' adaptation, has both enabled them to adopt innovations in their agriculture and to reduce the risks of a total subsistence failure. This 'local pattern of change' as it were, deserves better recognition from planners and policy-makers. The semi-commercial system of agriculture, which the Bidayuh farmers have evolved, has enabled them to reduce the impact of a deterioration in the productivity of their hill padi cultivation while the persistence of the subsistence activities (hill and swamp padi) both supplement cash-oriented activities and provided insurance against the failure of cash crops. As long as there are uncertainties in the various economic niches exploited by the Bidayuh, semi-commercial agriculture will remain the dominant system.

CHAPTER FOUR

TIAN AND ENKGAROH: VARIATION IN ADAPTATION AT THE LOCAL LEVEL.

4.01 Introduction

In the previous chapter I have outlined the general pattern of adaptation of Bidayuh economies to changes in their environment. In this chapter it is argued that between some communities there is significant variation in the way in which the farmers respond to these changes and that the variation is strongly influenced by the resource (mainly land) potential and accessibility to the market of a particular community.

A comparative study of Tian and Engkaroh suggests that the persistence of the swidden cultivation of hill padi among some Bidayuh communities could be partly explained by the absence of alternative ways of producing subsistence crops and the uncertainties of cash crop production and other cash-producing activities.

4.02 The Geographical Setting

Tian and Engkaroh were situated in an area which was characterized by isolated hills, generally with heights ranging between 50 feet to 150 feet, and valleys. Occasionally this country of low hills and

valleys was interrupted by peaks of between 350 and 500 feet. Tian lay in an area which was relatively less hilly, where the hills were lower and of gentler slopes and the valleys were wider. Engkaroh on the other hand, was in an area which was dissected; the valleys were narrower and the slopes of the hills steeper.

According to a soil and land potential study, Tian fell in an area which in general had better agricultural prospects than Engkaroh (Andriess, 1972). The soil in Engkaroh would only support scattered farm-holdings, that is, the carrying capacity of the land was limited, and topographically the area had a low suitability for agriculture. In Tian the land had a moderate potential to support smallholdings and small development schemes, and the topography was not as prohibitive as that of Engkaroh. However, as a whole the region in which the two communities were located had poor soil. The high rainfall (between 130 to 140 inches per annum) and the all year round wetness leads to a soil formation which was characterized by 'a continuous leaching process through which soluble parts of rocks and soil are removed from the solum' (ibid: 12). The soil therefore generally lacked plant nutrients, a factor which underscores the importance of a proper burning of the vegetative materials in the traditional agricultural system.

Tian effectively was a 'suburb' of Serian, one of the major towns in the Kuching Division. It was linked to Serian by about 10 kilometres of sealed road, the Kuching-Serian road, and was served by one of the best road transportation systems in the state. Tian lay along the main road linking the state capital with the other major towns in Sarawak. The

dependence of Tian on the surrounding towns was particularly evident in the absence of any substantial village retail store, typical of the more isolated Bidayuh villages. This meant that the villagers depended on the stores in the surrounding towns such as Baki and the 32nd Mile Bazaar for supplies. Furthermore, several villagers employed as wage labourers in Serian commuted to work daily and those who worked in Kuching tended to return to the village on weekends. This made Tian economically very much a part of the surrounding towns, particularly Serian.

Tian was increasingly becoming part of the 'urban society' through its accessibility to public services, which until then (the time of the fieldwork) had catered exclusively for the population in the major towns. The village was connected to the system which began to supply electricity to Kuching Division in 1985. The villagers were also actively trying to get the government to provide them with piped water supply by linking them to the main supply system. This demand was likely to be granted because a shortage of clean water supply was one of the most pressing problems in Tian; during the drier months even the small stream which normally supplied them with all the water they needed often runs dry.

Another significant geographical factor was Tian's location in an area considered to be the most intensively cultivated and where agriculture was the most commercialized in Sarawak, along the Kuching-Serian road (Andriess, 1972). In this area much of the land had been classified as 'mixed zone'. The ownership of mixed zone land was

opened to the non-indigenous people, thus this area was mainly occupied by Chinese farmers. Many Bidayuh farmers in the neighbouring villages learned new farming methods from the Chinese farmers. Indeed, the Chinese have introduced agricultural innovations, including sources of rural credit and marketing outlets, to the Bidayuh farmers. It was through this contact that many Bidayuh in the area have become market gardeners (Dimbab et al, 1986). The villagers in Tian were in frequent contact with the Chinese farmers. Several early adopters of cocoa in Tian obtained the seedlings and the idea of converting their former rubber gardens into cocoa gardens from their Chinese neighbours. In this area therefore the Bidayuh farmers, including the villagers in Tian, were more 'exposed' to commercial farming than most native farmers in Sarawak.

Engkaroh was relatively isolated. It lay about 100 kilometres from the state capital and about 55 kilometres from Serian. The nearest town was Tebakang which, until recently, before the upgrading of the Serian-Tebakang and the Tebakang-Mongkos roads, was the main market town for the area. The Tebakang-Mongkos road was unsealed but was passable to vehicles during the rainy season. Engkaroh was linked to the Tebakang-Mongkos road by what was essentially a footpath. The path, about 3 kilometres long, had been widened by the villagers to enable vehicles to pass through, especially for the transportation of retail goods to the village shops. The 'road' however was not passable to all kinds of vehicles on rainy days as it was unsurfaced and at one point traversed a stream. Engkaroh was also connected to the main road by the plantation road, a longer road and in a similar state to the main village road. Before the advent of roads in this area, from the 1960s, the Kedup and Sadong

rivers (the former was a tributary of the Sadong) served as the main transportation routes. It took several days to reach the village from Kuching, depending on the level of the water in the rivers.

Unlike Tian, Engkaroh was more self-sufficient in the sense that it relied less on the 'wider society' for the normal functioning of the community. It had four village shops which supplied the villagers with their basic needs. The village was visited by a mobile rural clinic once every fortnight. It had a primary school and a church which, because of the isolation of the village, were patronized by the people of Engkaroh only.

In a sense, although geographically the two communities were situated in the same region and located quite close to each other, their relationship with the 'wider society' and the resources at their disposal were qualitatively different. This, as this Chapter shows, has significant implications for their responses to change. Their social, cultural, and political experiences were also quite different and the implication of this for their response to change will be discussed in Chapter Five.

4.03 Tian: More Alternatives to Traditional Agriculture

In comparison to Engkaroh and other more remote Bidayuh communities, Tian enjoyed an environment which offered a wider range of alternatives to the traditional swidden cultivation of hill padi. It was, as pointed out earlier, situated in an area which was less hilly and where

there was more swamp land to accommodate swamp padi cultivation. Its proximity to Serian and Kuching meant that it had better links with the market than most Bidayuh communities. This proximity to the market did not only imply stronger incentives and pressure on the villagers to adopt commercial agriculture but also to engage in non-agricultural urban occupations. As a result, the general pattern of household economic activities in Tian differed more from the traditional economy than that of Engkaroh. The 'economic adaptation' of the households in Tian involved the replacement of hill padi by swamp padi as the main subsistence crop, the growing of pepper and cocoa as cash crops, and an engagement in long and short term employment in the labour market. Although some households still had rubber gardens, these were considered to be of no economic value.

4.04 From Hill to Swamp Padi.

The almost total abandonment of hill padi by farmers of Tian supports my earlier contention that the Bidayuh farmers were responsive to change as long as it did not undermine their subsistence strategy. Tian was one of the few Bidayuh communities which had almost totally switched to the cultivation of swamp padi as the main subsistence crop. Like the Bidayuh of other communities, the villagers of Tian were traditionally engaged in the swidden cultivation of hill padi as their main economic activity. Indeed according to the elders interviewed during my fieldwork, until as recently as the period of 'confrontation' with Indonesia (between 1963 and 1965), most of the villagers were still

planting hill padi. The switch to swamp padi was a gradual process. In fact, the villagers could not tell when swamp padi cultivation started replacing hill padi as the main subsistence activity.

During the 1986/87 padi season, out of the 31 households covered by the survey, 22 grew swamp padi only, 6 planted hill padi only and 3 did not plant padi at all. This situation however, was not static. During some other seasons more farmers might grow hill padi whether as a supplementary crop to swamp padi or as the only padi crop. During the 1986/87 padi season, not a single household planted both crops simultaneously.

The situation of padi cultivation in Tian was a reflection of the trend among Bidayuh farmers in areas where suitable swamp land was available - a gradual ascendancy of swamp padi cultivation. Grijpstra's (1976) study shows that during the 1971/72 season, of the 400 households surveyed, three-quarters were engaged in the cultivation of swamp padi. Although the study did not indicate whether the data refer to the growing of swamp padi only or of swamp and hill padi simultaneously, observation of the Bidayuh villagers in the District in 1986/87 suggests that it was very likely that in 1971 most households would have planted both types of padi simultaneously. A more common situation was for the farmers to plant both types of padi, with swamp padi becoming increasingly more important where the soil permitted it. The farmers of Tian had moved closer to a total replacement of hill padi by swamp padi cultivation.

The switch to the cultivation of swamp padi did not necessarily involve the adoption of modern farming methods. As pointed out earlier, the cultivation of swamp padi among traditional swidden cultivators was carried out with techniques which were very similar to hill padi cultivation. Swamp or wet padi, however, had received a great deal of attention from the authorities, therefore with government assistance, it had a greater potential for improvement than hill rice (Solhee, 1988). Indeed, in Tian some elements of modern methods of rice farming, many of which could be attributed to the programmes of the Agricultural Department, had been incorporated by the farmers into local practice.

The average size of a swamp padi plot in Tian in 1986/87 was 0.72 hectares (1.97 acres), this corresponded to the norm for the area in the early 1970s which, according to Grijpstra's survey, seldom exceeded 0.81 hectares (about 2 acres) per household (Grijpstra, 1976: 93). The average size of the padi fields at 0.404 hectare (1 acre) was lower than the average for Serian District, which was about 0.8 hectares. The size of the swamp padi fields ranged from as little as 0.2 hectares to 0.52 hectares. The hill padi plots appeared to be generally smaller than those of swamp padi.

Before proceeding to a discussion of padi yields, I should explain how the data on the size of the padi plots were obtained. Researchers on shifting cultivators had faced difficulties in obtaining such data (Geddes, 1954a; Freeman, 1955). Although most Bidayuh farmers today may not object to an attempt to survey their padi plots, in a study involving several households such as this one, it was quite beyond the resources of

a single researcher with a time constraint, to measure the plots. Asking the villagers about the sizes of their plots generally did not yield definite answers; they were mainly guesses. This was because most villagers had a very vague notion of the size of their fields. The lands which villagers utilized were mostly untitled and unsurveyed. There was a reluctance among villagers in Tian and Engkaroh to divulge information pertaining to land. I suspect that because much interest in land matters had been shown by the authorities around the time of the fieldwork (land issues were one of the most important issues in the implementation of SALCRA projects in the area), the villagers must have thought it prudent to be careful.

In view of these difficulties, I obtained the data on field sizes by indirect means. The sizes of the padi plots were determined by looking at the amount of seeds used for the particular season. Given the limitations which I had, this was the best way of obtaining reasonably accurate data. I realized that the accuracy of the data depended on the accuracy of the information on the amount of seeds used. One of the measures taken to ensure that the farmers gave accurate information was to cross-check it with other members of the family who were involved in the farming of that particular plot.

In determining the sizes of the padi plots the rates of 6 gallons or 6 gantang (about 27 litres) of seeds per acre for hill padi and 5 gallons (22.5 litres) for swamp padi were used. These rates of seed use per acre were confirmed by the more numerate villagers to be about the norm for the two villages, and Grijpstra (1976) also found them to be used generally by

Bidayuh farmers in Kuching Division. The summary of the data for Tian is presented in Tables 4.1 and 4.2.

Table 4.1 : The Distribution of the Plot Size of Swamp and Hill Padi at Tian for the 1986/87 Season.

Size (acre)	SWAMP PADI		HILL PADI	
	Frequency	%	Frequency	%
less than 1	2	9.0	3	50.0
1.1 - 2	14	63.6	3	50.0
2.1 - 3	3	13.6	-	-
3.1 - 4	2	9.0	-	-
4.1 & above	1	4.5	-	-
	n = 22	100.0	n = 6	100.0

Table 4.2 : The Distribution of Yield Per Acre of Swamp and Hill Padi in Tian for the 1986/87 Season.

Yield/ Acre (gallon)	SWAMP PADI		HILL PADI	
	Frequency	%	Frequency	%
Less than 100	1	4.5	1	17.0
101 - 200	10	45.5	5	83.0
201 - 300	9	41.0	-	-
301 - 400	2	9.0	-	-
	n = 22	100.0	n = 6	100.0

The figures on the total harvest of each household were obtained by means of a survey of the households held just after the completion of the harvest and the storing of the padi grains. Here again the question of the accuracy of the data depended on the truthfulness and the knowledge of the farmers on the precise amount of padi harvested. For this reason, a second survey was conducted immediately after all the padi was harvested and stored. A time lapse would have increased the element of memory fallibility.

As seen earlier, there was a considerable variation in the size of the padi plots. In general the hill padi plots were smaller than the swamp plots. Therefore, the harvest, which each household obtained, also varied considerably. Thus, when discussing the level of self-sufficiency in rice which padi cultivation could support in Tian, it was necessary to bear in mind this variation. What is presented later as the level of rice self-sufficiency in Tian refers at best to a general situation.

The average harvest of swamp padi for the 1986/87 season was 431 gallons per household while for hill padi it was 112 gallons per household. The lowest harvest recorded for swamp padi was 80 gallons and the highest, 1300 gallons. Among the hill padi growers, the lowest and highest harvests achieved were 72 and 192 gallons respectively.

The yield of padi in Tian was close to the 1972 norm (the most recent comprehensive data) for the District which was between 200 to 300 gallons per acre for swamp padi and about 150 gallons per acre for hill padi (Grijpstra, 1976: 92). Geddes's (1954a) analysis of a limited number

of Bidayuh padi fields in Mentu Tapuh, Upper Sadong District in 1950, suggested that the yield of hill padi was 110.3 gallons per acre and that of wet padi 250 gallons per acre. During the 1986/87 season, the average yield of padi in Tian was 218.3 gallons per acre for swamp padi and 132 gallons for hill padi. The variation in the yield of swamp padi ranged between 88 and 325 gallons and that of hill padi between 56 and 192 gallons per acre.

As shown in Table 4.2, about 50 per cent of the swamp padi cultivators in Tian attained a yield of 200 gallons or less and the other 50 per cent achieved above 200 gallons. In general, comparing the situation of swamp and hill padi described by Geddes (1954a) and Grijpstra (1976) with that of Tian in 1986/87, it appeared that they were quite similar in terms of yield. Because of the dearth of data, it was not possible to know for sure whether the productivity of padi in the District was improving or deteriorating. In Tian all heads of household interviewed felt that there had been no deterioration in the productivity of both swamp and hill padi. This could be explained partly by the fact that most of the farmers had switched to swamp padi, the productivity of which they appeared to have been able to maintain, albeit at a low level in comparison with wet or swamp padi in the more developed padi land in the country, by the application of some modern methods such as the use of fertilizer, the practice of some form of soil preparation prior to sowing, and the adoption of rudimentary water control.

Hill padi was a minor crop in Tian but in general its yield was better than that of Engkaroh where it was the main subsistence crop. The

average yield was 132 gallons per acre in 1986/87 while in Engkaroh it was 87.7 gallons. Certain socio-economic factors operating in Tian might have partly accounted for the better situation of the hill padi enterprise. Field observation and the survey indicated that the farmers in Tian tended to use more fertilizers on their hill padi than those of Engkaroh. In general, the application of modern production inputs was more widespread in Tian. In this regard the Tian farmers were strongly influenced by the Chinese farmers in the surrounding area and their access to these inputs was enhanced by the credit links which the villagers had established with the middlemen in the surrounding towns.

The most important aspect of the padi planting enterprise to the villagers was the degree to which it was able to meet the yearly rice needs of the household. It had been accepted that part of the year's requirements (frequently a good part of it) had to be met with purchased rice. However, self-sufficiency was still desirable; individuals who were fortunate to produce a surplus were still highly regarded. Of more importance was the implication of rice self-sufficiency for the cash income of the household and its subsistence security. The higher the level of self-sufficiency attained, the less was the need to purchase rice. This meant that cash could be used to cover other commodities, most of which the farmers did not produce themselves.

Obtaining data on household self-sufficiency in rice was difficult because the subject touched the more intimate and private lives of the households. It had negative implications for the prestige of those households which lacked both rice and cash with which to buy it. Many

villagers showed reluctance to divulge information on the subject during the pretesting of the questionnaire. The question on 'how much rice was consumed by the household per day' and 'the degree of rice shortage' was omitted from the final questionnaire.

To overcome this difficulty an indirect approach was taken to determine the level of self-sufficiency of each household involved in the survey. This was done by comparing the rice harvest of a household with the yearly rice requirements of an average household in the village. Two anthropologists, Geddes (1954a) and Freeman (1955) carried out analyses of rice consumption among the Bidayuh and Iban respectively in the early 1950s. The figures they obtained varied slightly; Geddes's figure on the Bidayuh being the higher of the two. According to Geddes, a household of 7 members with three adults and four children required 639 gallons of padi a year (1954a: 93). Geddes did not take into consideration other uses of rice such as the making of wine, for use in rituals, and for animal feed. The figure therefore only refers to the personal consumption of members of the household. This means that the average consumption of an individual is about 91.2 gallons (discounting age and sex differences) per annum. Freeman's study of Iban families produced a slightly lower figure, that is, 88.4 gallons of padi or 47 gallons of hulled rice per person per annum. This variation is not very significant and it is to be expected that there are variations in the rate of consumption depending on many factors such as age, sex, and other personal characteristics. For the purpose of this discussion, Geddes's figure for the Bidayuh is used as the average rate of consumption per person. Based on the consumption rate of 91.2 gallons per annum the

following levels of self-sufficiency for the 28 families (the padi growing households) were obtained.

Table 4.3 : The Distribution of Households in Tian According to the Levels of Self-sufficiency in Rice for the Season 1986/87.

Level of self-sufficiency (% of yearly requirement)	Frequency	%
Less than 25	6	21.0
25 - 49	5	18.0
50 - 74	7	25.0
75 - 99	5	18.0
100 & above	5	18.0
	n = 28	100.0

The average annual household requirement of padi for Tian was 547.2 gallons. This was calculated on the basis of the average household size for Tian of 6 persons. Based on the 1986/87 harvest, 11 households or 39 per cent of those which were interviewed obtained less than 50 per cent of the year's requirement. Of the 11 households, 6 could meet only 25 per cent, that is, the padi harvested could only cover their consumption for three months. About the same number of households (12) managed to produce padi to meet between 50 to 99 per cent of the yearly requirement. Five households were either fully self-sufficient or had some surplus.

New eating habits acquired since Geddes's fieldwork must have altered the 'rate of rice consumption' to some degree. The consumption

of 'instant noodles' as a substitute for rice during the main meals or as snacks was widespread in both Tian and Engkaroh. It was particularly relished by children and younger people. The consumption of biscuits and cakes at breakfast and between the main meals had also become a common feature of Bidayuh eating habits. The inclusion of these commercial food items in the Bidayuh diet must have reduced the reliance on rice.

From this general analysis it appears that the situation of rice self-sufficiency in Tian was above the average for the Bidayuh area. According to the survey conducted by Cramb and Dian (1979), the average level of self-sufficiency attained in Serian was less than 50 per cent. In Tian, more than half of the 28 padi growers interviewed obtained more than 50 per cent of their yearly requirement. A harvest which did not produce self-sufficiency did not necessarily mean that less rice was consumed or that the household was facing starvation. In all cases in Tian and Engkaroh it meant simply that there was greater reliance on cash income for the purchase of food. None of the heads of household interviewed suggested that they had ever relied on 'emergency food' such as sago and cassava (as a substitute for rice), even when the harvest was bad. The 6 hill padi farmers in Tian who suffered the greatest rice deficit during the 1986/87 season for example, relied mainly on purchased rice and other foodstuffs. Short-term and long-term employment and cash crops were more important than rice cultivation for these households. Indeed, in the case of four of the hill padi growing households, hill padi was treated mainly as a supplement to their cash

income in the sense that priority was given to other activities in labour allocation.

Padi cultivation in Tian was not only regarded by the farmers as an important component of their economic system but also able to meet the subsistence needs (for rice) of the households more satisfactorily than its counterpart in Engkaroh. There was potential for swamp padi cultivation in Tian to be improved, especially with regard to land preparation, water control, and the use of fertilizers. Many farmers had already introduced improvements in these aspects of padi cultivation. For example, they increasingly relied on weedicide to clear their farms, and all of the swamp padi farmers interviewed considered the application of fertilizer to be a necessity. Unlike the Bidayuh farmers observed by Geddes (1954a) four decades ago, the swamp padi farmers in Tian did not practice the fallowing of their swamp padi fields.

Because the main subsistence crop was swamp padi and not hill padi, there was no danger of a conflict between the demands of padi and cash crops for land. The cultivation of hill padi had almost ceased because most of the 'dry land' had been planted to cash crops. Had there been no swamp land the farmers in Tian would have been left with little alternative; to maintain a deteriorating hill padi farming along with the production of cash crops or to switch completely to the cultivation of cash crops. The availability of swamp land enabled a switch to swamp padi. The experience of the farmers in Tian in this regard shows that it was not the stubborn conservatism of the Bidayuh farmers which had

caused them to persist with hill padi cultivation, even when it was clearly not rewarding, but rather the lack of opportunities.

4.05 Other Subsistence Activities.

Many of the activities described under this heading, practised under the traditional economy (refer to Chapter Three), were still carried out by the villagers in Tian in 1986/87. However, such activities as hunting, fishing, and the collection of honey in the village territory were very rare simply because game was scarce in the surrounding jungle and streams. All of the villagers who were interviewed had kebun or gardens which supplied the households with vegetables, condiments, and favourite snacks such as cassava, yams, and maize. The collection of wild produce was confined to the gathering of edible plants such as ferns, bamboo shoots, and the tender leaves of various kinds of plants, which were eaten as salad. Most households had a few fruit trees in their compounds. Some of the most common fruits grown included the jack fruit, mangoes, bananas, and guava. A few villagers had considerable orchards, which produced once a year, or often once every two years, such fruits as durian, and langsat, two highly-sought after fruits in the local market.

Most households kept a few chickens and four households had between two to six pigs. The contribution of livestock to the income and food supply of the households was limited because of the small number of animals and their poor maintenance. Furthermore, the livestock was

meant mainly to provide meat to be consumed on special occasions such as Christmas Day and the Harvest Festival. This element of the household economy still made an important contribution to the welfare of its members. It acted as one of the buffers against the steady increase in the dependence on purchased food and consequently reduced the necessary cash outlay for the maintenance of the household. For some villagers this activity could even produce cash. Some of the wild produce (as described in Chapter Six) found good markets in Kuching and Serian. Indeed, in recent years many villagers, particularly the women, have taken up weekend vending of wild vegetables, fruits, and other produce along with the produce from their gardens. This activity did not yield much cash income; I estimate the average net return to be around \$15 per household per week at the most.

Cash-oriented Activities

It has been stressed that cash-oriented activities constitute the other most important section of a Bidayuh household economy. As pointed out earlier, some households had a more extensive cash-oriented economic involvement than others. These farmers can be considered to be nearer to the 'total commercial' point on the hypothetical 'subsistence-commercial' continuum discussed in Chapter One. In Tian, although the involvement in cash-oriented activities was extensive, most households were involved in many activities in relation to their labour availability. As a result, each activity was carried out on a very small scale. The main reason for this was the instability of the market. The villagers in Tian

showed a willingness to specialize and expand their enterprise in one activity when their confidence in it was shored up, as with cocoa. The in situ land development project which has introduced cocoa to the participants, provided a sense of security to the cocoa growers, although as we shall see in Chapter Five, there were other ways in which the project prompted the villagers' enthusiastic participation.

The cash crop grown as a result of the villagers' own initiative was pepper. It started to replace rubber as the main cash crop in the early 1970s, when it became clear to the villagers that the price of rubber was not going to recover from the Depression. Having earlier adopted rubber as a cash crop, by the time they were taking up pepper as their main cash crop, most villagers were already conditioned to the idea of growing the inedible commercial crops.

Pepper cultivation in Tian started in the early 1960s, after the villagers had given up their longhouse dwellings to assume life in individual detached houses on the present village site. It is not suggested that the adoption of pepper as a cash crop was directly related to the breakdown in the traditional dwelling arrangements, although it is possible that the weakening of tradition, of which the switch to detached houses was one of the main elements, may have contributed to the process of agricultural change. The main reason why pepper was adopted as a cash crop in the early 1960s and became more extensive in the early 1970s, was the prolonged fall in the price of rubber. According to most of the heads of household interviewed, the fall in the price of rubber in the 1970s, caused them great economic hardship. Having

developed a certain degree of dependence on money, even to meet some of the basic subsistence needs, the loss of cash income as a result of the fall in the price of rubber, their main source of cash then, resulted in a deterioration in the welfare of the households. As one elder recalled 'it was a time of little food and no money'.

The adoption of pepper is not a simple process. Not only is the crop demanding in terms of the proper agronomic practices required but also in terms of the investment in inputs and the expenditure on labour. These characteristics of the crop have been responsible for the delay in its adoption by the Bidayuh farmers, although the crop was already known in the area earlier than rubber.

The pepper growers in Tian initially were strongly influenced by the Chinese farmers in the area. The villagers learned the methods of pepper cultivation in a process very much like that of the Bidayuh of Kampong Pichin described by Grijpstra (1978). Unlike the farmers of Kampong Pichin, the farmers of Tian did not obtain much financial assistance from the Chinese pepper farmers or shopkeepers. There was no network of patron-client relationships, which fortunately existed in Kampong Pichin. The villagers of Tian did have some form of patron-client link with shopkeepers in the surrounding towns but these were weak until recently when the villagers improved their 'credit worthiness' by virtue of their participation in the cocoa project. If the Chinese farmers were significantly responsible for creating the initial 'awareness' among the villagers about pepper-growing, the Department of Agriculture (DOA), besides imparting the techniques, was mainly

responsible for making it materially possible for many farmers to adopt the crop. The DOA introduced the Pepper Planting Subsidy in 1972 to assist smallholders (not exceeding 300 vines) in establishing their pepper gardens.

As shown in Table 4.4, the pepper gardens in Tian were mostly of 400 vines or less. The average size of gardens owned by the 23 respondents was 265 vines. In terms of land size this covered roughly 0.44 of an acre (one acre takes about 600 vines). Many of the gardens were a mixture of mature and young vines. Among those who were interviewed, two had gardens which were only a month old. Most of the gardens were less than two years old and were therefore not yet yielding any return. The size of the average gardens in Tian fell within what appears to be the 'normal' size for Bidayuh pepper gardens in the District (Grijpstra, 1976). Therefore, pepper cultivation in Tian was just one of the activities engaged in as a source of cash income.

Table 4.4 : The Distribution of Pepper Gardens by Size (no. of vines) in Tian, October/November, 1986.

No. of Vines	Frequency	%
100 - 200	11	48.0
201 - 300	7	30.0
301 - 400	4	17.0
401 & above	1	4.0
	n = 23	100.0

Another feature of pepper gardens in Tian was the large number of immature vines compared to the mature ones. This gave the impression that the crop was very new to the community. The large number of immature vines was a result of the upsurge in pepper cultivation due to the favourable prevailing price then. Unlike the more commercial Chinese pepper growers, the Bidayuh farmers of Tian were not speculative in their pepper-growing. They responded relatively directly to price movements; they opened up pepper gardens and/or added new stands of vines when the price was favourable, and neglected the gardens when the price fell. This simple direct response to price movements, as opposed to the more speculative behaviour of the bigger pepper growers, often caused the small scale growers to 'miss' the period of good prices. Because of the 'short term' approach to pepper cultivation and the fact that the price of pepper was very erratic, Bidayuh pepper-gardening is rarely rewarding. Most pepper growers in Tian then were certain to miss the good pepper price in 1986 because most of their vines were still less than a year old.

As pointed out in Chapter Three, pepper is labour intensive and requires a substantial investment in production inputs. Among the pepper growers of Tian the most frequently mentioned problem was the high cost of establishing a garden. The cost of one hardwood post in Serian in November 1986 was \$3.80. This means that a farmer with an average size garden of 265 vines, would have to spend \$1,007 on the posts alone. This was a huge sum of money for the farmers and for many it was more than a year's total cash income. Because of the high cost the

gardens were small, and many of these gardens were expanded gradually by adding a few vines whenever the farmer had the resources.

The high labour demand of pepper-growing and the fact that its demand for labour competes directly with that of padi, was another obstacle to the improvement of pepper-growing in Tian. The shortage of labour among many households in Tian was aggravated by the participation of the villagers in the cocoa scheme. A villager who worked on the plantation was engaged at least 7 hours a day. Since the work on the plantation normally stopped at 4.00 p.m, the worker could only help with padi planting or attend to his pepper garden for an hour or two after working on the project. Because pepper-growing was mainly a man's preserve, it was possible for the men (if their households were also engaged in padi planting) to spend more time on pepper-gardening during the slack period of padi- growing. However, as pointed out earlier, the peak labour requirement of pepper gardening falls around June and August; the period when the men's share of padi-growing tasks took place. Therefore, households which depended on the labour of a husband and the wife, were stretching their labour resources to the full when they were engaged simultaneously in padi- growing, pepper gardening, and working on the cocoa plantation.

Although pepper was one of the most important cash crops for the villagers of Tian, their involvement in it, in terms of capital and labour allocation, was limited. They lacked the capital and labour necessary for the establishment of substantial gardens. Even when households had some capital and extra labour, the decision to make further investment in

their pepper gardens had to be weighed against the possible loss if the price of pepper should fall to unprofitable levels, which in their experience was a common occurrence. Such households often struck a compromise; they would add a few new vines to their existing gardens when the price of pepper was good. The rationale for this strategy was that it minimized loss, which to these households was more important than the maximization of profit.

Rubber

Like most native farmers in Sarawak, the farmers in Tian had their first experience in the cultivation of cash crops by growing rubber in the late 1940s. During these early years, only the most 'innovative' villagers dared plant this alien crop, and it was carried out against the prohibition of the government then. By about 1965, most of the villagers had rubber gardens; many had only two to three hundred trees and a few had gardens of about four to five acres. The early gardens were mainly planted to ordinary, non-high-yielding rubber. From about 1957, motivated by the rubber planting scheme (refer to Chapter Three) which was in operation then, the rubber acreage in Tian expanded.

The price of rubber declined steadily after reaching a peak around about 1950. Since then, although the price of rubber has been fluctuating, it has generally been at a low level. So bad was the price at one point that in 1972 the rubber planting scheme was suspended so as not to encourage further expansion of smallholding rubber. Because the

villagers in Tian only began planting rubber on a more substantial scale in the early 1960s, it was not until the late 1960s and early 1970s that most of their gardens came into production. By that time, the price of rubber had fallen far below the levels of the early 1950s. As a result most of the rubber growers in Tian had never enjoyed a 'good return' from rubber-tapping (the villagers considered a cash income from a crop as 'good' when with that income they were not compelled to undertake other activities to meet their normal needs). All of the heads of household which owned rubber gardens lamented that they could not rely on rubber alone as a source of cash because the return from it was never sufficient and consistent.

As shown in Table 4.5, 11 of the 31 households involved in the study still had rubber gardens in 1986. This small number of rubber gardens reflects the trend at that time - that of a steady replacement of rubber by other cash crops. In Tian the process was accelerated by the promotion of cocoa growing by SALCRA in the area.

About 63 per cent of the gardens were between 1 to 3 acres in size and most of these remaining gardens were planted to high yielding rubber. The average age of the trees was 12 years while the oldest and the most recently planted gardens were 20 and 8 years old respectively. According to all the heads of the rubber-owning households who were interviewed, none of them had tapped their rubber gardens in the three years previous to November, 1986. To these households, the rubber gardens had lost their economic importance. Judging from this situation, it is highly likely that within a few years the rubber gardens in Tian will

be completely replaced by cocoa and pepper plantations or any other viable cash crops.

Table 4.5 : The Distribution of Rubber Gardens by Size in Tian.

Size (acre)	Frequency	%
1.0 - 2	5	46.0
2.1 - 3	2	18.0
3.1 - 4	2	18.0
4.1 & above	2	18.0
	n = 11	100.0

While the rubber smallholders (dependent almost entirely on the income gained from rubber) in Peninsular Malaysia still depend mainly on rubber as a source of income, the semi-commercial farmers of Tian have almost abandoned the crop. In Tian, because of the increasing demand for land from other crops, particularly cocoa in the late 1980s, many villagers had been forced to cut down the rubber trees and replant to cocoa and pepper. This was partly as a result of the shortage of land and partly due to the increasingly more pressing need for cash income. In the past (about 15 years ago), a rubber garden was left to 'thrive on its own' as it were, unattended and unproductive, when the price of rubber was too low. During such time the farmer would focus his resources on subsistence activities. In contrast, in 1986/87 abandoned lands, such as those taken up by the neglected rubber gardens, were seen as a waste of a

precious resource. The villagers were also more dependent on cash income as more of their 'basic needs' had to be fulfilled through cash. This makes cash-earning activities a necessary component in the villagers' economy. For example, since the villagers were supplied with electricity by the authority in 1985, each household has had to spend at least \$8 per month on the payment of the electricity bill.

The timing of the villagers' involvement in rubber growing was significant; it immediately exposed them to a period of low and highly erratic rubber prices. The low rubber price and highly erratic market made a lasting impression on the farmers of Tian - it caused them to be wary of cash crops in general. One villager commented that cocoa growing was not bad because, even if it did become unprofitable, his children could still eat the mushy coating of the seeds and a cocoa garden made a good uma or hill padi plot when cleared of the cocoa trees. This cynicism was typical of the villagers in Tian who, (at the time of the fieldwork) were already switching to cocoa as a major cash crop. It reflected the dilemma of these farmers - on the one hand there was a fear, justifiable in this case, of a fall in the price of the crop, and on the other, a need to have a source of cash income.

Cocoa

Cocoa is a relatively new crop for the Bidayuh farmers. In fact its cultivation is a recent innovation among the native communities in Sarawak. However, when the farmers of Tian took up cocoa growing

through SALCRA's cocoa project in 1985, the crop was not alien to them. They had by then known the crop through contacts with the Chinese commercial farmers along the Kuching-Serian road. Familiarity with the crop was also developed through visits to the cocoa projects at Taie, about two kilometres away. Up to 1985, although most villagers were already aware of the commercial value of the crop, none of them ventured into growing cocoa on a substantial scale. Many villagers planted a few trees in their house compound or established 'experimental' gardens of 20 to 30 trees.

The growing of cocoa by individuals as a cash crop started only after SALCRA introduced the cocoa project in Tian in 1985. The project was an extension of a similar project which had been established nearby, at Taie in 1982. With the introduction of the project, most of the villagers took up cocoa growing on a scale larger than any they had previously undertaken. As pointed out in Chapter One, SALCRA plays the role of a developer of the villagers' land, providing capital, infrastructure, and know-how to the participants. The involvement of SALCRA as a factor in the adoption of cocoa as a cash crop by the people of Tian reduced the element of uncertainty with regard to the investment in the crop. SALCRA in a way acted as the cushion for any possible negative development in the villagers' cocoa enterprise and the market for cocoa. Although this is not one of SALCRA's objectives, the villagers believed that SALCRA would play such a paternalistic role when the occasion arose. I shall discuss this issue further in a later chapter. The villagers were very enthusiastic about the project and readily consented to deliver the land. This was contrary to the reaction of most native landowners in

SALCRA's projects (Kedit, 1978). Of the 31 heads of household interviewed, only four persons did not participate in the project and this was due to the unfortunate fact that their lands were located outside of the project area. Even the villagers whose lands were located outside had, on their own initiative, established their own cocoa gardens, encouraged by the presence of SALCRA's project. These non-participants in the SALCRA cocoa project had gardens of between 200 and 300 trees.

It was not possible to obtain data on the size of cocoa gardens owned by the villagers in the project. Most of the villagers did not know how much land they had committed to cocoa. At the time of the fieldwork, the problem of determining the land size, the boundaries, and the consolidation of the plots had not yet been dealt with. These are some of the critical issues in the development of native land in Sarawak. The experience of SALCRA in this area should provide a useful guide to the formulation of suitable approaches to overcoming the problem. However, a few heads of households, especially those who were appointed as work supervisors on the cocoa project, claimed to know the size of their land and the location of each villager's land in the project area. Based on this limited information, there appeared to be a wide range of variation in the size of each villager's share of land. One individual claimed to own about 30 acres of land while others had between one to five acres only. Although it was not yet possible to determine the exact share of land of each participant, it is certain that a disparity in the ownership of cocoa gardens existed.

Employment in the External Labour Market

Employment as casual labourers in the surrounding towns was an important economic activity for many households in Tian. Wage labour employment in the town had become one of the village's major economic pursuits because of the proximity to the towns. For the people of Tian, urban employment did not involve any serious social dislocation because their main places of work were either in Kuching or Serian; both within commuting distance from the village. Only two households involved in the survey had one member each who worked in other parts of the country and both were with the public service. Many of those who were employed in Serian and Kuching stayed in rented accommodation in the towns during weekdays and returned to the village on weekends or on holidays. Being close to the towns also enabled the villagers who wished to seek urban wage employment to 'hunt' for jobs from their home-base. The problem of sustaining a period of 'job-hunting' had been an obstacle to many job-seekers from the more distant villages such as Engkaroh.

A majority of the 'external' wage-earners were male, but the village females were not totally excluded from this area of economic activity. The most common form of employment for the males was working as casual labourers on construction sites. The wage rate for this type of job ranged between \$12 and \$15 per day. The workers could be employed for the full duration of the construction period which, in the case of most of the villagers interviewed, was between three months to a year. There were, however, others whose involvement in this kind of work appeared to be more permanent. Two villagers had been working

with their employers for about two years prior to the fieldwork. These were individuals who had less commitment to farming; one had no swamp land for padi and the other declared himself to be less inclined to do farm work of any kind. He was educated up to form two or the second year of secondary school. These two individuals provided a very interesting case of how villagers could become non-farmers without leaving the village. This may very well be an indication of the future trend of social and economic change in Bidayuh villages in the vicinity of large towns. Several females have had the experience of earning wages as factory workers, waitresses in coffee shops, and as domestic helpers for urban households. Generally the female workers were poorly paid. The average wages of female workers was \$120 per month.

Several households had members who were employed on the lower rungs of the civil service (including the armed forces) and local authorities. These jobs were more permanent in nature and, although generally not much more remunerative than casual labour, they were more reliable. Households with residents who were 'permanently' employed were clearly economically better off than others in the village. Such households had assured sources of income; being physically and socially part of the household it was difficult for such members to neglect their financial commitments. For those who had to migrate temporarily to their place of work, failure to remit part of their earnings home was frequent.

The establishment of the cocoa project in Tian had provided the villagers with the opportunity to be employed locally. Two types of jobs

were created - work supervisors and plantation labourers. The work supervisors were appointed largely from among the village elders and those with land in the project. It was necessary for this task to be given to individuals who commanded the respect of the villagers since the labourers were from the village itself. The main duty of the supervisor was to ensure that the labourers performed their daily work tasks according to the requirements of the project management. The tasks to be carried out however, were determined by the project field officers. There were 12 supervisors at the time of the fieldwork. They were paid \$12 a day and they worked on all official working days.

Working as plantation labourers was the main type of employment made available by the scheme. The number of job openings varied with the progress of the plantation. During the initial stages when clearing, road-building, and planting had to be done, the number of workers required was considerable. In fact, it was necessary to employ workers from elsewhere. At the maintenance stage before fruiting, the amount of labour required was considerably less than the initial stage. All of the four phases of Tian's cocoa scheme were at the maintenance stage at the time of fieldwork in 1986/87. The demand for labour was expected to increase when the plantation started producing cocoa pods. Phases One, Two, and part of Phase Three were already bearing fruit.

4.06 Padi Cultivation in Engkaroh: A Threatened Tradition

Unlike the farmers of Tian, all the farmers of Engkaroh planted hill padi, with many cultivating swamp padi as a supplementary crop. Because of the shortage of labour (see Chapter Five), many of the farmers continued planting padi only with the objective of maintaining a supply of seeds in anticipation of future reversal to more serious padi growing. Table 4.6 below compares the distribution of households involved in the two types of padi as major activities in Tian and Engkaroh.

Table 4.6 : The Distribution of Households by Major Activities in Tian and Engkaroh for the 1986/87 Padi Season.

Activities	Engkaroh	%	Tian	%
Hill Padi	60	100.0	6	17.6
Swamp Padi	-	-	22	64.7
Other Activities	-	-	3	8.7
	n = 60	100.0	n = 31	100.0

The table records what the individuals felt to be their major economic activity. It is significant that none of these heads of household considered working on the tea plantation as a major activity when in fact all of them spent a substantial amount of their labour there. This can be attributed to their ambivalence towards working on the plantation, which I shall consider in more detail in Chapter Five. There were 16 farmers

growing swamp padi along with hill padi during the 1986/87 season but none considered it to be their main activity.

The average size of padi plots at 1.41 acres (0.56 ha) was below the norm of 2 acres (0.8 ha) for Serian District as estimated by Grijpstra in 1975 (Grijpstra, 1976: 93). The size of the plots ranged between 0.33 acre to 4 acres (see Table 4.7). The average was also lower than the previous season's average for Engkaroh which was 1.88 acres (DOA, Village Profile Report, 1986). There was therefore an indication of a possible decrease in the size of hill padi plots. This observation is supported by the claim of the villagers that many households were facing difficulties in maintaining their padi farms as a result of the competing demand of the tea plantation for labour.

Table 4.7 : The Size of Hill Padi Farms in Engkaroh During the 1986/87 Season.

Size (Acres)	Frequency	%
less than 1	22	36.6
1.0 - 2	25	41.7
2.1 - 3	9	15.0
3.1 - 4	4	6.7
	n = 60	n = 100

Generally the farmers of Engkaroh experienced a serious shortage of land for padi. The Bidayuh, as noted by Geddes in 1950, preferred a

fallow period of about 12 years. The farmers of Engkaroh were generally still in agreement with Geddes' figure, but none of them practised a 12 year fallowing. The average fallow for the 60 villagers interviewed was 7.5 years. Of the 60 farmers, 18 practised a fallow cycle of between 4 to 6 years and 28 kept to a 7 to 9 year fallow cycle. Table 4.8 shows the variation in fallow cycles practised by the villagers and, of those, only one observed a 13 year cycle.

Table 4.8 : Fallow Cycle as Practised by the Hill Padi Farmers of Engkaroh.

Duration (years)	Frequency	%
4 - 6	18	30.0
7 - 9	28	46.7
10 - 12	13	21.7
13 - 15	1	1.6
n = 60		100.0

The padi fields of Engkaroh tended to be located close to the village, a practice which has placed a further limit on the amount of ideal land for farming. In-depth interviews indicated that in the past one or two years, the distance of padi plots from the village had become an important consideration in the choice of land for farming. The importance of this factor was related to the involvement of the villagers in the tea plantation. A farm which was located a considerable distance from the village had become difficult to tend because the farmer

concerned had to divide his time between working on the plantation and attending to his farm and garden(s). Because the work on the plantation had to be done according to a fixed schedule, a farmer's time was not only considerably limited but had also become more inflexible. On days when a farmer was working on the plantation he was only free to work on his farm after three o'clock in the afternoon. After work on the plantation a farmer usually returned to the village to rest and then proceeded to the farm. This meant that the farmer had at the most about three hours of daylight remaining for that day. If the journey to the farm was a long one, he had very little of the precious time left to attend to his crops. Having a farm close to the village or close to the plantation (the plantation is near to the village) was, therefore, desirable.

As shown in Table 4.7, 22 villagers (respondents) had farms which were less than one acre in size. This small plot size does not seem to square with their claim that hill padi planting was their main economic activity. Furthermore, as pointed out earlier, there is an indication that the farms were actually declining in size. This disparity between what the villagers' claim to be their main economic activity and their actual allocation of resources, which seems to favour working on the plantation, can be explained by their 'indecision' at this point in time about the distribution of resources (particularly labour) between padi farming and working on the plantation. There was an undercurrent of apprehension about working on the plantation and, as I pointed out in Chapter One, factors such as the labour constraint of single-worker households and the mistrust of cash crops, especially an alien one like tea, made the villagers vary cautious in accepting work on the plantation as a livelihood.

However, this cautious attitude was counterbalanced by the desire and the need for a source of cash income and the fear of losing out to the villagers in neighbouring Mayang and to fellow-villagers who were more willing to take the risk of reallocating more of their labour to plantation work. This indecision resulted in the farmers carrying out both activities, and this meant that they had less time for farming than they had prior to the introduction of the tea plantation.

The wet padi farms in Engkaroh were very small too, but this was not surprising because these farms were mere extensions of hill padi in areas where there were swampy patches of land. The average size of the 16 plots was 0.6 acres, ranging from 0.16 to 1.5 acres. All of the 16 households which grew wet padi had bigger hill padi plots.

The accessibility to swamp land in Engkaroh was limited because it was only found in small isolated patches, as a result of the hilly terrain. The acreage of wet padi in any year fluctuated according to the occurrence of swampy patches in the general area where the villagers had decided to locate their hill padi farms during a particular season.

For the immediate future, padi farming in Engkaroh is likely to remain as it was in 1986/87 in terms of acreage. Based on the seeds which the farmers said they had put aside for the next season's planting (1987/88), there would be no increase in 1987/88. Table 4.9 shows the projected acreage of padi farms for the 1987/88 season calculated on the basis of the amount of seeds reserved for planting.

The average size of these projected farms was 1.2 acres, slightly smaller than the average size of the 1986/87 season's farms. According to the projection there would be an increase by 9 persons in the number of farmers planting swamp padi. This increase, however, depended on the availability of swamp land in the following season's farming area. The figure reflects the wishes of the people interviewed rather than their actual plans, although they, no doubt, had put aside seeds for such a purpose.

Table 4.9 : Projected Size of Hill and Wet Padi Farms in Engkaroh for 1987/88 Season.

Size of Farms (acre)	Hill Padi	%	Wet Padi	%
Less than 1	16	27.0	15	60.0
1 - 2	37	62.0	10	40.0
2.1 - 3	6	10.0	-	-
3.1 - 4	1	1.0	-	-
	n = 60	100.0	25	100.0

The smallness of the plots was compounded by the problem of low yields. In some areas of Sarawak it has been observed that the decrease in the size of padi plots (hill padi) may be accompanied by increasing yields as labour and other resources were concentrated in smaller farms (Cramb, 1978). In Engkaroh, however, this appeared not to be the case. The average yield of hill padi per acre was 87.7 gallons. This was almost half of the yield in Tian where hill padi was a marginal activity. The average yield of swamp padi, although higher than that of hill padi, at 216 gallons per acre, was also very low.

There were indications that hill padi in Engkaroh was suffering from a deterioration in the quality of land and a disruption in many aspects of management mainly due to the shortage of labour. The practice of short fallowing was one indication of the shortage of land and this was compounded by the need to have farms close to the village and the tea plantation. Many households, particularly those with a single worker, had to reduce their working hours on the farms and as a consequence critical tasks such as weeding and the guarding of farms from predators were not performed well.

As a result of the characteristics highlighted above, hill padi in Engkaroh had failed to provide most households with self-sufficiency in rice. Based on the 1986/87 season's harvest, the level of self-sufficiency was as it appears in Table 4.10.

Table 4.10 : Self-sufficiency in Rice in Engkaroh.

As a % of Yearly Requirement	Frequency	%
Less than 10	7	12.0
10 - 20	20	33.0
21 - 30	12	20.0
31 - 40	5	8.0
41 - 50	5	8.0
51 - 60	1	2.0
61 - 70	1	2.0
71 - 80	5	8.0
81 - 100	2	3.0
101 and above	2	3.0
n = 60		100.0

The average household size in Engkaroh was 7 persons. Based on this average household size and an average rate of individual padi (rice) consumption of 91.2 gallons per annum, the average household yearly requirement was 638.4 gallons. The average harvest per household in Engkaroh for the 1986/87 season was 202 gallons. This meant that the average level of self-sufficiency for the average household was only about 34 per cent. In other words, an average household could only produce enough rice to cover its consumption for about four months. This average was only slightly better than that observed by Anderson (1980) in his statewide nutritional survey which recorded a self-sufficiency level of only 2.8 months for a Bidayuh area (the most deficient case). An examination of the harvest of individual households showed that there were those in Engkaroh which suffered from levels of self-sufficiency much lower than Anderson's lowest. Of the 60 households, 7 could only meet their rice requirements for less than one month and 39 were able to meet up to 3.6 months requirement.

This gloomy situation of the hill padi enterprise had not weakened the villagers' commitment to it. All of the villagers who were interviewed expressed unhesitatingly that they would not abandon the activity. The main reason for this apparent stubborn attachment to an unrewarding enterprise was not the traditional commitment to what was once claimed as 'a way of life', although there were a few who still had such an attitude. The importance of retaining padi cultivation lay in the villagers' calculation of the risk involved in a total abandonment of this subsistence activity at that point in time. To a people whose staple food is rice and whose conception of 'having something to eat' is having rice, it

is only natural that being able to produce the commodity gives a sense of security. As mentioned with regard to the farmers of Tian, a high ability to produce rice for own consumption reduces the need for cash to buy food. The instability of the income derived from cash crops, which most villagers had experienced and suffered from as a consequence, caused them to assign a high risk to a total switch to cash crop production. The range of activities in the farmers' strategy of economic diversification, based on this premise (the inherent unreliability of income from cash crops), must necessarily involve subsistence components. A reduction or substitution of the subsistence components by cash-oriented activities might take place - the farmers might gradually increase their involvement in the tea plantation. This might happen, as I shall show in Chapter Five, when the villagers perceive such involvement to pose less risk to their subsistence.

Cash Crops in Engkaroh

Besides tea, which I do not consider to be the villagers' own crop (it is owned and managed by the Mayang Tea Plantation), the most important cash crops in Engkaroh were pepper, cocoa, and rubber. Rubber was the first cash crop to be adopted by the Bidayuh on a significant scale, although pepper had existed in the Bidayuh area long before the introduction of rubber. At present, of the three crops, pepper was the most important in terms of acreage, followed by cocoa and rubber.

Pepper

The history and problems of pepper-growing in Engkaroh are similar to those of Tian described earlier. Comparatively pepper cultivation in Engkaroh appeared to be in a much poorer state than that in Tian. The average size of pepper gardens, at 173 vines, was smaller than that of Tian. As shown in Table 4.11, 29 of the 46 pepper gardeners interviewed had gardens of less than 200 vines or roughly less than 0.33 acre. The size of the individual gardens ranged between 10 to 600 vines.

Table 4.11 : Size of Pepper Gardens in Engkaroh.

Size (no. of vines)	Frequency	%
Less than 100	7	15.0
100 - 199	22	48.0
200 - 299	11	24.0
300 - 399	-	-
400 - 499	2	4.0
500 - 599	3	7.0
600 - 699	1	2.0
	n = 60	100.0

Like Tian, many of the gardens were of immature vines. Of the 46 gardens in Engkaroh, 20 were two years old or less and of these 14 were less than one year old. All of the immature gardens had been established in the early 1980s - in response to the relatively high price of pepper.

One unique feature of pepper cultivation in Engkaroh, perhaps indicating the resourcefulness of the people in the context of limited capital, was the use of a 'growing' softwood known locally as buan, as the support post for the vines. Buan grows abundantly in the surrounding countryside.

The use of buan pepper posts was so widespread that the villagers considered it a natural alternative to hardwood. Such practice was unthinkable to the more sophisticated Chinese farmers in the area. The post does not provide a strong support for a healthy vine and has to be allowed to grow to ensure that it does not rot. It is necessary however, to control its growth so that it does not become a full grown shrub, in which case it would compete with pepper for space and the soil nutrients. There were mixed local opinions about the effect of the use of buan as a support-post for pepper. Some said that it deprived the pepper of fertilizer, making fertilizer application ineffective, while others said that it had no negative effect. The villagers realized, however, that when using buan posts they also had to control the growth of the vines lest they 'killed' the posts. Therefore, pepper-growing among the buan-users was necessarily less than ideal from an agronomic point of view. However, by resorting to the use of this softwood, the villagers could quite easily expand their pepper gardens when the price of pepper rose. The high cost of hardwood had been a major obstacle in the setting up of pepper gardens for the people of Engkaroh, aggravated by the absence of hardwood in the area.

A majority of the villagers who grew pepper claimed that they regularly applied inorganic fertilizer to their vines but none could recall the amount used nor did they know if the amount applied was sufficient. The purchase of fertilizer was made with cash earned through working on the tea plantation. It is significant that these villagers were willing to invest part of their cash income on their farms. Indeed, this willingness to invest, provided that they could understand how it profited them, was a characteristic which was quite widespread among the villagers. They generally knew that pepper required fertilizer more than any other crops with which they were familiar and they had seen that the successful Chinese pepper growers in the area used fertilizer.

Like the pepper growers in Tian, the farmers of Engkaroh were not 'speculators'. During the period of high pepper prices one saw more activities in the village's pepper gardens which were usually the best kept part of the farmer's farm. The period of 'good price', however, generally did not last very long; rarely did it last for two years - the time needed for the vines to reach maturity. This meant that most farmers missed the period of good prices. For example, 20 of the 46 growers interviewed were likely to miss the then current good price. Many of these villagers had just reopened their pepper gardens having abandoned them during the previous slump in price. It is highly likely that by the time these new vines reached the productive stage, the price of pepper would have fallen again, as the supply of pepper in the international market adjusts to the demand.

As in Tian, pepper-growing in Engkaroh was also one of the elements in the highly diversified economic system of the households. I could not determine its importance in terms of its contribution to the total income of the households because very few villagers had productive vines in 1986/87. The very few who did, reported sales of only between 5 to 10 kilograms over the three month period prior to the fieldwork. At the then price of about \$3 per kilogram (black pepper) offered by the village middleman, the return from such sales was between \$19 to \$38. According to a few villagers who were the more persistent growers, at the most an average pepper grower in Engkaroh would have obtained about \$800 a year from the sales of pepper when the price was reasonably good. The significance of pepper in the household economy, however, lay more in its role as one of the sources of cash income in a diversity which comprised no adequate single activity. A greater range of diversity meant that the farmer was better protected from the effect of the instability of the market for cash crops and the failures of their subsistence activities.

Cocoa

Like the situation in Tian, the addition of cocoa to the villagers' range of economic activities was a fairly recent innovation. The earliest adopter of the cash crop, among the 26 cocoa growers interviewed, started planting in 1980. For him it was purely a personal initiative - without any persuasion or assistance from field officers of the Department of Agriculture (DOA). The process of adoption of the crop

was typical of most villagers in the vicinity of Engkaroh. The farmers experimented with a few trees around their house compound and sometimes on abandoned pepper gardens. Gradually more cocoa trees were added to these initial trees or the farmer opened up a new garden of about 50 to 100 trees. Most of the seedlings were bought from the more established cocoa growers in the surrounding area.

The size of the cocoa gardens in Engkaroh ranged between 50 to 800 trees. There was a great deal of enthusiasm among the villagers at the time of the fieldwork about the crop. They considered it to be relatively easy to grow and manage, although there was very little knowledge about the proper method of cultivation or the diseases that might attack the crop. Because cocoa is relatively easy to grow and less demanding in terms of capital and labour inputs compared to pepper, it had the potential of becoming an important element in the villagers' system of economic diversification, even surpassing pepper in this regard.

Rubber

Rubber had ceased to be an important cash crop. The rubber gardens in 1986/87 were in fact remnants of the period when rubber fetched good prices and was the most important cash-earning component of the household system of economic diversification. A few villagers continued to open rubber plantations in the late 1970s, and, in 1986/87 one villager was in the process of replanting his old rubber plot. Much of

the late planting - carried out in the late 1970s - was motivated by the goal of obtaining the rubber planting subsidy from the DOA. The villagers recalled that it was quite an attractive source of income - the subsidy being given in cash and kind.

There were 23 owners of rubber gardens among the 60 villagers interviewed. None of these knew the size of their rubber plots. All of the 23 owners said that they considered their rubber gardens to be abandoned and that in the two previous years none of them had ever tapped their trees.

These villagers were aware that rubber was not a profitable crop and most believed that the price of rubber would never improve from the then low level. The increasing popularity of cocoa was then likely to result in the disappearance of rubber in the area. Several villagers were already cutting down old rubber trees to make room for cocoa.

Internal Wage-labour Employment

Engkaroh was one of the very few Bidayuh villages with a large local labour market created by the introduction of the tea plantation in the area in 1982. The plantation had the capacity to absorb about 300 workers in 1986/87, with a potential for more as it expanded. The demand for labour by the plantation was not then met fully by the villagers. In fact the plantation was plagued by the problem of labour shortage. I shall discuss this in greater detail in the next chapter.

Employment on the tea plantation had become the most important source of income for the village households. Indeed, it was the most important component in their diversity of economic activities. In spite of the widespread expression of dissatisfaction with working on the plantation among the villagers, there was a consensus among those interviewed, that the wages they earned from the plantation had improved the economic well-being of their households. It is significant that their complaints against the tea plantation project were not so much about its implementation in the area (they were not opposed to its existence - taking up their land) but about the organization and nature of work on the plantation, particularly the wage rate.

Employment on the plantation was open to every able-bodied villager of employable age. The daily wage rate for most kinds of work was between \$6.50 to \$8.00. There were also certain tasks which were paid on a piece-rate basis. A villager could earn about \$176 per month (22 working days) from working on the plantation. Compared to the other components of the household system of economic diversification, this was the most lucrative.

External Employment

Although many of those who were interviewed had experienced working for wages in the towns, the degree of involvement of the people of Engkaroh in the external job market was not as extensive as that of Tian. The main reason for this difference was the distance of Engkaroh

from the towns. Urban employment for the people of Engkaroh involved short-term migration, something which the sedentary Bidayuh were loathe to do. The people of Engkaroh could not easily job-hunt from their local base or commute to work daily.

In Engkaroh, those who were employed in the town, tended to be young (between 17 to 25 years old) and single. The main form of employment was as unskilled labourers on the construction sites and in factories. Many of the villagers came from families which lacked a village-based source of income. Increasingly however, the younger generation - the school leavers - were seeking employment in the towns because of their preference for such jobs over farming. Several farming families experienced shortages of farm hands as a result of such job-related migration. For such families, the return of these young members of the family to the village to work on the plantation was a much appreciated boon brought by the tea project. The opening of job opportunities on the plantation had reduced the importance of the towns as the job market for the unskilled labour. This does not mean that the people of Engkaroh had ceased seeking employment outside the village. Indeed, the more educated villagers, like their rural counterparts elsewhere, aspired to be employed in an urban setting. There were already several households which had one or more members employed in the Civil Services, the Police and Armed Forces.

4.07 Tian and Engkaroh : Their Differences and Implications for the Pattern of Adaptation to Change.

In the foregoing pages a comparison of the two communities has shown that, although there appear to be more similarities than differences in their socio-economic patterns, the differences are significant enough to provide a basis for the emergence of different patterns of adaptation to change.

One major difference is the status of padi cultivation, an activity which the villagers claimed to be their main economic activity. Both communities grew padi, but they differed in the type of padi cultivated. In Engkaroh, hill padi was the main crop while in Tian it was swamp padi. Swamp padi cultivation in Tian seemed to be relatively more viable than hill padi in Engkaroh. There might even have been more room for its improvement, particularly through better methods of water control and the use of fertilizer. Because of its status, padi cultivation in Tian was more entrenched - the villagers' commitment to it seemed to be stronger. In-depth interviews of the farmers in Tian indicated that there was generally a high level of confidence in the padi enterprise. In Engkaroh, on the other hand, villagers expressed a great deal of pessimism about the future of padi farming. Faced with the reality of padi cultivation in 1986/87, the people of Engkaroh were under pressure to accept the changes introduced by the tea project. The villagers' attachment to padi cultivation was tenuous and would weaken further if the alternative offered by the project proved to be more rewarding and reliable.

Associated with the differences in the type of padi cultivation, which implied different types of land use, was the competition for the use of land between cash and food crops. All of the cash crops grown by the villagers in both communities, such as pepper, cocoa and rubber (and the tea in Engkaroh) competed for the use of land with hill padi. In Tian this competition had been partly responsible for the switch to swamp padi and the demise of hill padi. In Engkaroh however, a head-on collision between the demand of hill padi and cash crops for land was inevitable. The outcome of this competition was already showing signs of favouring the cash crops. It seemed probable then that hill padi cultivation in Engkaroh was on the decline.

Another important difference in the socio-economic patterns of the communities lay in the nature of the emerging farming system as a consequence of the introduction of land development projects in both communities. In Tian because of the more flexible nature of the cocoa project, especially its demand for labour and type of land, the villagers were still able to maintain the old system of mixed farming - the simultaneous involvement in pepper-, cocoa-, and padi- farming. In Engkaroh the characteristic mixed farming pattern seemed to be severely undermined. The absorption of labour into the tea plantation project and the demand for land by cash crop cultivation (the same land used for padi farming) had affected padi cultivation. The farming system in Engkaroh had become less flexible and the emerging pattern of economic diversity was increasingly dominated by cash-oriented activities.

CHAPTER FIVE

VARIATION IN RESPONSES TO PLANNED CHANGE.

This chapter discusses the responses of the villagers in Engkaroh and Tian to the introduction of tea and cocoa under the in situ land development projects. It will be shown that the nature of the villagers' response was related to a complex of factors. Most of these pertain to the 'subsistence security' and 'economic rationality' of the villagers. A comparison of the responses of the people of these two communities highlights important differences which were related to the nature of their linkage with the wider economy, the continuing viability of their traditional subsistence activities, and the nature of the land development project. It is argued that in both villages the factor of 'traditionalism' - the stubborn clinging to traditional ways - is not a significant variable in determining the communities' responses to change. Change in respect of the economic activities in Tian and Engkaroh had followed a certain pattern; innovation, be it a new cash crop or other forms of productive undertaking, was incorporated into a mix or combination of activities (see Chapter 4). Indeed, this pattern of change was observable generally among all Bidayuh communities in the District. In Tian, the nature of the development project being introduced did not significantly undermine this established pattern of change, while in Engkaroh it did because the project required a high degree of economic specialization and working practices which differed significantly from the then existing ones.

5.01 The Initial Enthusiasm in Engkaroh

When the idea of opening a tea plantation under the land development scheme was put forward to the villagers of Engkaroh in 1982, it was received with a great deal of enthusiasm. SALCRA did not experience much difficulty in getting the villagers to agree to 'free' their land for the intended project, a problem which had caused considerable delay in the implementation of some of SALCRA's projects in the Sri Aman Division. Taking into consideration the shortage of land, in particular for the cultivation of hill padi, which farmers in this area were facing, and the complicated nature of the tenure system, one would have expected the problem of land alienation for the proposed project to dampen the enthusiasm of the villagers and complicate its implementation.

According to the village leaders, an element of competition with the people of the neighbouring kampung Mayang was an important motivation in their initial readiness to participate in the development project. A sense of wanting to be better than their neighbours was often expressed by the leaders when referring to the question of village welfare. In Engkaroh, one of the community's achievements, which the villagers liked to point out to visitors, was their attainment of a first place in the inter-village competition in cleanliness organized as part of the activities of the nutrition programme in the early 1980s. There was very little cooperation of any form with the neighbouring villages. In fact among many villagers in Engkaroh, there was a reluctance, even unwillingness to work with the people of Mayang (this attitude was

mutual). For example, when workers from Engkaroh were needed to do work on the Mayang side of the plantation very few individuals were willing. Although the distance of the place of work from Engkaroh was often given as the reason for refusing, it was apparent that the unwillingness to work with the people from Mayang was the major factor. The plantation, occupying a contiguous area comprising land belonging to the people of Engkaroh and Mayang, was divided into sections each 'belonging' to the respective villages. From the management's point of view the division was insignificant, but to the people of the two villages it was important enough to keep them from working together.

There were several factors which can be said to have contributed directly to this sense of inter-village rivalry. Most significant were the frequent inter-village land disputes in the not-too-distant past, and religious differences. The religious difference between the villagers of Mayang and Engkaroh was a very distinct one. Because of the uncompromising nature of the Seventh Day Adventists, its followers in Engkaroh faced difficulties in associating with the other Bidayuh (refer Chapter 6). They had, for example, to discard completely their traditional beliefs. This meant discarding many of the social practices which were related to the beliefs - the consumption of rice wine at traditional feasting, the consumption of pork, which was a delicacy loved by all Bidayuh, the observance of a sabbath day on Saturday and the negative evaluation of many other indulgences such as smoking, drinking coffee, and all kinds of alcohol, and the consumption of certain kinds of food.

Like most of the Bidayuh communities which have been converted to the other Christian denominations, the villagers in Mayang still maintained some of their traditional practices. Because most Bidayuh in the Serian District belonged to the Catholic denomination they were in a way part of the wider religious community. The people of Engkaroh on the other hand were a religious minority and in the immediate vicinity there was no SDA community. There was a sense of isolationism among the people, the villagers perceived themselves to be different from the surrounding Christian communities. It may be that they were only imagining themselves to be thus because of the self-consciousness which their minority status had produced. However, there were also conscious efforts among some members to define their community as somewhat distinct and different from the other non-SDA communities. For example, many parents and elders expressed their opposition to a religiously mixed marriage. Where mixed marriages between locals and outsiders had taken place and the outsiders had chosen to reside in the village, the outsiders had converted to the SDA. In the case of less compromising individuals and when marriage was unavoidable, the couples would normally leave the village and reside elsewhere. One example of this arrangement was the daughter of one of the village leaders. She married a Muslim from a Malay village in Tebakang. Her parents were not against the marriage but they had hoped that their son-in-law would convert to the SDA; conversion of course is a very difficult decision for a Muslim. The parents had wished that the couple could live with them in the village; they were among the better-off villagers having a substantial landholding; moreover their small household also badly needed the extra labour and they were very fond of their daughter and

grandchildren. But they admitted that it was better for the image of their family that their daughter should live elsewhere.

The consciousness of village identity, the sense of pride which their 'uniqueness' gave them and the subtle rivalry with the neighbouring communities which these generated, had provided a spur in the case of the introduction of the tea planting project for the villagers to participate lest they were left behind by the people of Mayang in the context of socio-economic development. In the words of one of the village leaders 'it is always prudent to grab any opportunity coming our way rather than regretting later that one has missed an opportunity upon seeing the benefit it gave others'. This rivalry was regularly manifested in the attitude and opinions of the villagers regarding the running of the plantation. It was felt that the official naming of the project as "Mayang Tea Project" was unfair since the project belonged as much to the people of Engkaroh. It was claimed that because it was so named, only the people of Mayang could take pride in the project; outsiders would not know that the people of Engkaroh had contributed equally or even more to its implementation. It occurred to many though, that to call the product "Engkaroh Tea" would not be suitable for marketing purposes because of the meaning of the word "karoh" and its sound resemblance to the Malay word (understood by the wider society) "Keroh", which also means turbid or muddy.

Another arrangement which had caused much dissatisfaction among the people of Engkaroh was the appointment of the headman of Mayang to the Company's Board of Directors. This they said confirmed

their junior partnership in the enterprise. The leaders in Engkaroh generally felt that they too had capable individuals to sit on the Board and the omission had merely further expressed what to them was the management's frequent unfair dealings with the people of Engkaroh. They claimed that disciplinary requirements on their side of the plantation were more stringent and that the Company had maintained the road which ran through Mayang and did nothing about the access road to Engkaroh (many however, understood that the maintenance of the road which ran through Mayang was necessary to enable an efficient transportation of the tea leaves to the factory and that the access road to Engkaroh was not a Company road).

Their main grievance was against the inclusion of Saturday as a working day. The significance of this arrangement in the context of their rivalry with the people of Mayang was that it opened the opportunity for the people of Mayang to have more working days in a month, thus making it possible for them to qualify for a higher wage rate. The wage rate on the plantation, as will be discussed in greater detail later, was structured according to the total number of days clocked in a month. Because Saturday was observed as a sabbath day by the people of Engkaroh - when work of any kind was suspended, the number of days they could turn out for work was consequently limited. Since Sunday was an official non-working day on the plantation, the workers from Engkaroh were deprived of at least eight days in a month. This meant that even if a worker from Engkaroh turned out everyday besides the Saturdays and Sundays, he would only get a total of twenty-two days or, at the most during some months (of thirty-one days when the extra day

was not a Saturday or Sunday) twenty-three days. The minimum number of working days clocked in order to qualify for the highest daily wage rate of \$8 was twenty-three days. This situation was seen by many villagers in Engkaroh as another example of the management's lack of evenhandedness in dealing with them and an extra benefit which the people of Mayang enjoyed. The fact that the situation was beneficial to the people of Mayang incited much of the sense of deprivation and of injustice being perpetrated. The preceding discussion points out the importance of community pride in inducing the people to innovate. In this case, what I have called the 'subtle rivalry' between the people of Engkaroh and Mayang, had provided the impetus for the people of Engkaroh to change. The rivalry had, in other words, galvanized the villagers of Engkaroh into accepting the project when it was introduced.

Grijpstra's (1976) study of the Bidayuh communities in Serian District points out that enthusiasm for or a high level of positive response to a project was related to the type of 'integration' prevailing in the community. His study refers mainly to the cooperative projects and his conceptions of the community structure and how the structure of the village community influences cooperation. To some extent the same situation applies to my discussion, because cooperation is a significant element in the implementation of a land development project. In particular, the cooperation among the villagers in agreeing on the use of their land for the project was crucial.

This study does not address the subject of 'types of village integration', therefore the available data cannot provide information on

the nature of 'integration' prevailing in the two villages. Grijpstra (1976: 140 - 142) suggests that when a community, which formerly had no linkage with the wider society, develops the linkages - through its involvement with the market, the adoption of the religions and culture of the 'great tradition' and the like - it starts to change its structure from what he calls a 'habitual integration' towards an 'amorphous structure', a state of social disintegration. A community in the state of 'habitual integration' is characterized by a low level of inequality; highly independent households (because the equality and sameness precluded the need to depend on each other); intimate social relations based on the simple 'goodness' of community living; and the maintenance of a closed society. Cooperation among the members of such a society could easily take place but based on the principle of a balanced reciprocity; this presumably is ensured by the uniformity of the socio-economic position of the members.

Grijpstra (ibid: 140) cited the labour organization of the Bidayuh as an example of cooperation based on balanced reciprocity. He concludes from his study of the Bidayuh villages that habitual integration is incompatible with external relations. The structure (habitual integration) inevitably gives way to one which is amorphous, by which Grijpstra meant a society which is highly differentiated and thus has a low level of consensus. Cooperation in the latter situation is therefore difficult because of the increasing ineffectiveness of the moral community as it becomes irrelevant to some members. There is, however, an intermediate stage in the change towards an 'amorphous structure' whereby a community may exhibit a high level of cooperation and enthusiasm in

communal activities. Grijpstra suggests that this occurs when members of the community or a section of it dare not accept change individually and therefore seek a form of consensus. An example of this situation is the acceptance of a new religion. Another situation in which this intermediate stage may take place is when an effective activator such as the government galvanizes the people into action by introducing development projects. In all of these situations the enthusiasm generated is deemed to be shortlived; it is only a temporary phenomenon which wanes with the emergence of inequalities as some individuals profit more than others from the project and also as the project loses its novelty. This form of integration, labelled 'action-oriented integration' by Grijpstra (ibid: 141), seems to best explain the enthusiasm of the people of Engkaroh in the early phase of implementation of the land development project. There was, as pointed out earlier, a fear that only the people of Mayang might benefit from the project, thus placing the Engkaroh community in the position of a loser in the rivalry. A consensus emerged in the community, providing a basis for the enthusiasm and willing participation in the project. After five years of the project's implementation there were already signs of a certain section of the villagers withholding some support for the project. As mentioned earlier, the data for this study do not provide a firm basis for the study of village integration, but assuming that Grijpstra's observation of the process which was taking place in the Bidayuh communities then is still valid today, his conception seems to explain the situation in Engkaroh. The initial enthusiasm for the project was already showing signs of waning. The plantation management recognized that of the two communities, Engkaroh seemed to pose more 'problems' in the running of the

plantation. There were several attempts by the villagers to stage a strike. Undoubtedly these organized forms of withdrawal of cooperation were instigated by a few leaders, but the support for it was based on a widespread dissatisfaction among the villagers. There will be more detailed discussion of this issue later; for the moment suffice it to say that a significant number of the disgruntled villagers were those who could least profit from the scheme; these were people from single worker families and those with a greater stake in their own farming.

The enthusiasm for the project was also a reflection of the need of the people in Engkaroh for a source of cash income. In spite of the varieties of cash crops planted, the villagers in Engkaroh still earned insufficient income. Many villagers had worked as casual labourers in the towns but they could not stay for an extended period because of the difficulties of accommodation, the fact that they had to leave their families in the village and the uncertainties of the casual job market. When the project was proposed there was already a 'pool of labourers' in the village so that the situation was not that of weaning away a purely farming people from a tradition of earning their living through farming. Many villagers who had gone on short-term migration to the towns for employment in the casual labour market returned home to work on the plantation when the project started. A villager recalled that the project brought extra life to the community; more families had their young sons staying at home like they used to in the old days. Many form five school leavers were found working on the tea plantation, a situation which was exceptional during a time when the trend was for school leavers, even in the village, to aspire to work in a non-farming related job, preferably in

the towns. The seven village youths who assisted me in the administering of the questionnaires for the study were from five school leavers; three of them had sat for their Malaysian Certificate of Education in 1984 and since then had been working on the plantation. It seems to be a contradiction to say that there was a felt need for wage employment and then later to point out that the plantation was facing a problem of poor worker turn-out especially on the Engkaroh side of the plantation. The reason for this apparent contradiction will be explained in the following section.

5.02 Resource Constraints and the Dilemma of Engkaroh Farmers.

As pointed out in the previous chapter, the people of Engkaroh were still essentially subsistence farmers in the sense that their main productive objective was the attainment of an income level to cover their basic consumption requirements. An important element of their village-based activities was the direct production of subsistence goods such as padi, tapioca, vegetables, chickens, ducks, fish, and occasionally meat from wild animals. The fieldwork data are insufficient to form a clear and detailed opinion on the relative importance of the various components of the villagers' system of production. However, as discussed in the preceding chapter, the multiple activities, which characterized the villagers' economic system, formed an important strategy in the context of the precariousness of their subsistence and the uncertainties of both their food and cash-producing activities. The proper balance in the utilization of the resources (particularly land and

labour) between cash crops and food production was an essential aspect of the villagers' system of production. Dixon (1972) suggests that change (by which he means the adoption of cash crops) in the traditional farming system has to follow a pattern whereby the inclusion of the new element does not jeopardise the continuation of the traditional element. In other words, the new elements have to coexist with the traditional elements, in this case cash crops and food production. This was the pattern of change in Engkaroh.

Involvement with the tea project entailed the reduction or even abandonment of the other economic activities, tea being highly labour intensive. It is estimated that an acre of tea requires around 1.25 workers. This means that the Engkaroh side of the plantation, which had an area of approximately 278.18 acres in July 1986, would have required around 348 workers. The number of workers registered on the Engkaroh side in July 1986 was 270 or about 78 per cent of the number required. When the work of establishing the plantation - such as clearing the land, constructing plantation roads, surveying, making nurseries, and planting the tea - began there were more workers available than were required. But when the plantation started producing leaves in 1985, the problem of labour shortage, especially on the Engkaroh, side started to emerge. The problem of labour shortage was aggravated by an intermittent worker turn-out and a seasonal fluctuation in the supply; that is, the fluctuation was determined by the labour requirements of the various phases of padi cultivation. The fluctuation in labour turn-out and its relationship to the cultivation cycle of hill padi is shown by the following chart:

Table 5.1: Labour Turn-out for Engkaroh Tea Plantation : September, 1985 to September, 1986 (as a percentage of the total requirement).

Month	%	Approximate Padi Cycle
September 1985	75	
October 1985	60	Weeding
November 1985	46	
December 1985	41	
January 1986	39	
February 1986	30	Harvesting
March 1986	39	
April 1986	72	Slashing
May 1986	72	Felling
June 1986	68	Levelling
July 1986	70	Burning; Planting
August 1986	70	
September 1986	63	Weeding

Source : Mayang Tea Sdn. Bhd., Progress Report: Jan. to Sept., 1986; Visiting Agent's Report, Jan., 1986.

According to the plantation management, for the project to be viable a minimum labour turn-out of 75 per cent was necessary. As shown by the chart above, over a twelve-months period between September, 1985 and September, 1986, the labour turn-out reached this minimum level only in one month. The pattern of this seasonal fluctuation shows that the most serious shortage fell during the harvesting months. The harvesting of swamp and hill padi in Engkaroh took place between late December and the end of March. Harvesting was the busiest phase in padi cultivation as farmers were anxious to ensure that the ripening padi was harvested as fast and in as much quantity as possible to avoid any potential destruction by heavy rain and flooding and the predation by birds and rats. There was also a keen anticipation for the 'pleasure' of eating the fresh rice from the hill padi, something

which had become a rare treat as a result of the meagre harvest. This was one activity in which both men and women had substantial involvement. As the padi was ripening, the men spent more time on the fields guarding the crop, and when the actual harvesting took place they took part in the harvesting and undertook most of the carrying of the harvested grain to the village for threshing (if it was not threshed on the farm) and storage. The women provided the bulk of the labour for cutting the ears of the stalks, threshing, drying, and winnowing.

Around the harvesting period there was a noticeable air of complacency among some of the villagers regarding work in general. Particularly among those who had obtained a reasonable harvest and even among those who had managed only to obtain a few months' supply of rice, the urgency of work was less. One individual who had obtained about five months' supply of rice during the 1986/87 season's harvest, nonchalantly flouted the plantation regulation of a minimum turn-out of 10 days in a month. He ignored the warning from the management and was suspended for three months from the payroll. However, later, with the uncertainty of his reinstatement as a registered worker, and possibly because the rice bins were getting empty, he talked about 'making it up with the manager' and confessed to the author that the months ahead were going to be very difficult indeed if the plantation continued to suspend him.

Interestingly, the turn-out was highest during the months when some of the heaviest tasks in the padi cycle took place. Traditionally such tasks as slashing, felling, levelling, and weeding were highly demanding

of the time and effort of the farmers. The fact that more labour could be released to work on the plantation at these stages of padi cultivation was partly attributable to the nature of padi cultivation in Engkaroh. As described in the previous chapter, hill padi cultivation with the slash and burn method was carried out on land with an immature secondary forest cover. It was pointed out that the average fallow period practised was about six years and often two successive years of farming were undertaken on such land. This meant that farmers took less time and effort to clear the land. Unlike the traditional practice of assigning most of the tasks at these phases to the men, then, frequently they were left to the women because of the relative lightness of the tasks; this released the men to work on the tea plantation.

Improved methods of clearing were also increasingly being employed; powered chain-saws were used to fell trees, which saved the farmers much time, and, in the case of swamp land, the grasses were cleared with the application of chemical herbicides. Since weeding, the most onerous and time-consuming tasks in padi cultivation, especially on 'bush land' was done mainly by the women; most men were able to work on the plantation at this stage. Increasingly even weeding had been made less time consuming by the use of weedicide. Although this is a dangerous practice, as chemical can scorch the padi, the farmers had devised a device - a modified pack-sprayer to prevent this from happening. The nozzle of the pack-sprayer was fixed with a tin can to prevent the spray and fumes from spreading to the unintended areas. According to the villagers, with extra care the use of this device was very safe.

Evidently these 'innovations' in padi cultivation were made possible mainly by the availability of cash income from employment on the plantation. If cash was not available when it was needed, the villagers were able to purchase the chemicals on credit from one of the village shops, because with the availability of jobs on the plantation, the villagers had improved their 'credit worthiness'. Certainly the purchase of chemicals and other inputs for padi cultivation could not have come from the sale of padi, because most farmers did not have surplus padi to sell and, of the farmers interviewed, none sold their padi. When probed for the motivation for these 'innovations' the farmers' reaction did not seem to indicate a direct causal relationship between the adoption of the 'innovations' and the pressure on their labour resources from the tea plantation. The general explanation was that because cash was available they could then purchase these inputs. This may imply that if the extra cash had come from their padi crop they would have also spent some of it on these inputs. In this case, it is clear that the improved cash income of the villagers, as a result of the availability of employment on the plantation, had enabled them to adopt these inputs and consequently saved their labour for the work on the plantation. In a sense this was a form of adaptation to the new element in their economic system. Following the established pattern of change in which the farmers attempted to strike a balance in the distribution of resources among their multifarious activities, by saving the labour-use on the padi field the farmers could incorporate working on the plantation into the system without having to abandon any of their activities totally. But, as will be pointed out later, because of the high labour demand of the plantation, the general shortage of labour in Engkaroh, and the tendency of the

management to employ some compulsion in getting the villagers to devote most of their labour to the plantation, this balance was likely to be upset and the reduction in padi farming imminent.

Finally the high labour turn-out between April and September, traditionally the period when most labour-consuming tasks were done, also reflects the 'complacency' referred to earlier and the periodic needs for extra cash. Around August and September, households which obtained enough padi to last them for three to four months (in Engkaroh a substantial number of the households were in this position) would have to earn cash income for the purchase of rice. A family of two workers with five non-working members to feed related how when the rice supply was exhausted, both husband and wife had to concentrate on working on the plantation. They lamented that, if such a practice persisted for more seasons, their hill padi farms could be totally ignored. What they needed, they said, was another worker in the family who could concentrate on padi cultivation. They were looking forward to the time when their eldest daughter, who was only eleven years old then, would become strong enough to work on the plantation so that the mother could look after the farm.

In early June the Bidayuh celebrate their annual festival as part of the officially declared festival for the Dayaks in Sarawak. This is the time when the households need extra cash outlay to enable them to make preparations for the occasion. During the celebration each household holds an 'open house', when neighbours and friends in the village and even from other villages visit. Food and drinks are served to all visitors.

Because the occasion is celebrated by everybody there is a social pressure on a household to observe this practice, even if it means committing the individuals to an extra expenditure which they can ill afford. The opportunities offered by the plantation to earn cash had enabled more villagers to celebrate more lavishly. The wages earned in the weeks preceding the celebration were spent on items related to the occasion - curtains, furniture, and paints to brighten the living room, ingredients for making cakes and biscuits, bottled drinks and new clothes.

Why was there a need to maintain all of these activities when a villager could concentrate on working on the plantation and earn cash income? An income level sufficient to meet the basic requirements of the villagers was not a sufficient condition to induce them to switch completely to working for wages on the plantation. A very important factor in this decision was the past experiences of the people with a wide range of external relations. One such experience, according to the perception of the villagers, was the possibility of the project failing either due to the government's loss of interest or the impracticality of the project. As the villagers saw it, the government had failed to sustain its interest in many village projects. To them, the lack of continued government support, particularly as it was visible to the villagers, for such programmes as the rubber and pepper subsidies, was a pointer to them to be cautious about all government development programmes.

The people of Engkaroh had received much assistance from external sources, mainly government. They had an electricity generator donated by one of the ministers in 1977, but for more than five years it

had remained idle because nobody cared to repair it. Many villagers thought that the government should have taken an interest in it, although there were others who blamed the lack of initiative on the part of the village leadership to organise a cooperative village effort to repair the generator. Similarly, the village fresh water fish pond project, introduced by the DOA, suffered from years of neglect because without government interest, especially the absence of supervision by the field staff, the villagers themselves had failed to sustain their interest in the project. Being cautious does not mean that the villagers were not keen to accept government projects. On the contrary, many had received some form of assistance, particularly agricultural subsidies. These subsidies were most sought after because they represent something of direct and immediate benefit to the individuals, and do not involve any apparent risk. The villagers were also constantly reminded of the benefit which the piped water supply system, which the Medical Department installed in the village, gave them. Engkaroh is one of the few villages where water supply facilities to the individual houses is available. This saved the people the laborious task of collecting water from the shallow stream running behind the village and provided them with cleaner water. What the villagers perceived of most of these projects was that they were shortlived. The DOA's field staff visited them only at the time of administering the allocation of subsidies and not much interest was shown in ensuring that they used the subsidies properly. Some villagers received more than one type of subsidy and failed to utilize any to their benefit. Not surprisingly, these programmes were looked upon as one-off gifts by a large section of the villagers. This understanding of a government project had led the people to be cautious, when the

government introduced a project which called for substantial material risks on their part. The less than full commitment to working on the plantation and the villagers' persistence with their other subsistence pursuits was a reflection of this cautiousness. Most of the villagers interviewed expressed such caution when asked why they persisted with hill padi cultivation when the plantation offered them the opportunities to earn better income. They reasoned that it was necessary to keep planting padi if only to maintain the supply of seeds to be used when they have to go back to farming again.

The villagers' cautious attitude was also conditioned by their experience of the unreliability of the prices of cash crops. Indeed as mentioned in the previous chapter, the farmers have developed a strategy of their own with regard to their pepper and rubber gardens. They expanded and reduced the scale of the former and tapped and 'abandoned' the latter when the prices rose and fell respectively. This may not be the right strategy in the case of pepper, but when the main concern was to reduce the loss and reallocate the limited resources towards other activities, it was rational. Tea to the villagers was no different from these other cash crops. In fact they regarded tea with greater apprehension than they did the other established cash crops. For most of the villagers the tea planted on the Mayang Plantation was the first they had ever seen and they knew of no other people planting tea in the country. Asked if they would plant tea on their own, all of the respondents answered 'no' to the question. The Bidayuh farmers liked to experiment with planting new plants, and the people of Engkaroh were no exception. Their house compounds and kebun or gardens were

dotted with a stand or two of cocoa, improved varieties of fruit trees, and vegetables. But in spite of the ease of obtaining the tea seedlings, not a single villager had experimented with planting tea. Given their relatively short acquaintance with the crop and the idea of working on the plantation, coupled with their established notion of the unreliability of the price of cash crops in general, this cautiousness and apparent half-heartedness in fully accepting this change in their economic system is to be expected. One factor which in the end may contribute to a change in this attitude and encourage the villagers to be more willing to work on the plantation is the continued operation of the plantation. That is, the plantation should continue to be able to employ the villagers and not be forced to reduce let alone abandon its operations.

5.03 The Perception of the 'Reward and Sacrifice' of Working on the Plantation.

The issue of wage rates was at the centre of most of the villagers' disputes with the plantation management. As pointed out earlier, the villagers felt most bitter about the fact that they were deprived of at least eight working days in a month, which disqualified them from receiving the \$8 per day wage rate. According to most of the villagers who were interviewed, this low wage rate and the limited working days and the consequent low income made it necessary for them to retain their food-growing activities, especially the cultivation of padi.

The wage rate on the plantation was structured in such a way that the workers who turned up on more days would get a higher daily wage rate. The system was designed to motivate the people to turn up for work more regularly. The daily rates (at the time of the fieldwork) were: \$6.50 per day for a monthly total turn-out of between one to fifteen days, \$7 for a turn-out of between sixteen to twenty-two days, and \$8 per day for twenty-three days and above. A minimum turn-out of ten days was also imposed. Workers who failed to make this minimum number of days turn-out without valid reasons, certified by the proper authority such as a doctor, village headman, the mandors or supervisors, and the plantation staff, were liable to be suspended for three months or even dismissed if the poor turn-out persisted. In November, 1986, twenty-five workers were suspended because they could not make this minimum. It was the first time that the regulation was imposed and it further strained the relations between them and the management because they saw it as a form of compulsion. Under the wage rates mentioned above, the income of the workers in Engkaroh generally ranged between \$65 and \$176 per month per worker. This was assuming that the workers put in between a minimum of 10 days and 22 days in a month. In actual fact, before the imposition of the 10 days minimum, the income was considerably less. In November, 1986, the lowest earning for the month was \$16.92 and the highest \$263.18. Earnings of more than \$176 were attributed to the piece rate - payments on the extra work done and the earnings of the 'mandors' or supervisors who were appointed by the management from among the village leaders. This group of workers were paid a flat rate of \$9 per day.

To ensure that the workers performed at a certain level of productivity, the determination of a 'day's work' was further made conditional upon the attainment of a minimum production target. The task to which this piece rate was mainly applied was the picking of tea leaves. Each worker was required to pick a minimum of twenty-one kilograms or forty-five pounds of leaves to qualify for a day's wage. Workers who failed to meet this target were paid according to a piece rate of twelve Malaysian cents per pound. The piece rate was lower than even the lowest daily rate. For example a worker who could only manage to pick 44 pounds of leaves, one pound short of the target weight, would be paid M\$5.28 for that day's work, while if he had attained the target weight he would have qualified at least for the minimum daily rate of M\$6.50. Furthermore, a day for which a worker failed to achieve the target was not counted as contributing to the monthly total turn-out on which his daily rate was determined, but he was not considered as being absent from work. A worker who picked more than the daily target was paid according to the piece rate on the excess weight which he obtained on top of the daily wage which he had qualified for.

Another common task which employed a similar system was the digging of holes in which the tea seedlings were planted. A worker assigned to this task had to dig 125 holes to qualify for the daily wage. The attainment of less or more holes was paid according to a piece rate of four Malaysian cents per hole. According to the workers it was not easy to attain these targets. This was especially tough for the leaf pickers. The leaves to be picked were the three leaves at the shoots. The management

paid particular attention to the pickings of each worker because any deviation from the norms would affect the quality of the tea produced. The plantation field staff would inspect the leaves picked by each worker and discard all the leaves which were considered to be unsuitable and a weight deduction was also made on the wetness of the harvested leaves. According to some workers, when the plantation block to which they were assigned had many poor shrubs it was very difficult to attain the target. The slopes in some parts of the plantation were rather steep and in such a situation the picking became more difficult especially when a worker was lugging a basket of several pounds of tea leaves. Because it was felt generally that the picking norm of 45 pounds was too high and that it did not take into consideration the difficult terrain and the varying intensity of leaves grown in different parts of the plantation, the workers constantly appealed to the management to reduce the norm. There was a widespread staging of 'Italian strikes', the unscrupulous picking of mature leaves and even part of the branches and ripping the leaves instead of plucking them. The piece rate however was gladly accepted by those who had to do the hole digging task. A worker who always sought such work claimed that most of his co-workers including himself could achieve the daily target of 125 holes by 10 o'clock in the morning thus freeing them to work on their farms the rest of the day. It is interesting that these workers were not motivated to dig more holes and earn more for the day, instead they were motivated to work fast because of the extra time an early completion of the task gave them.

To see whether the income which the villagers derived from working on the plantation was sufficient to cover the basic needs it was

necessary to look at the income and expenditure of a household. It is recognized that 'basic need' is difficult to establish. In this discussion 'basic needs' refer to those needs which the villagers felt were necessary in their daily existence. It excludes occasional expenditure on such items as house construction and repair, cost of transportation, medical expenses all of which are basic needs, but because they are not required regularly, for the present purpose they are excluded.

In the case of the people of Engkaroh and indeed most Bidayuh communities, the household income determines the socio-economic status of the individual. This was because the household was still very much a unit of consumption although less of a unit of production (as observed by Geddes in Mentu Tapuh in the early 1950s). The members of the households who worked on the plantation contributed their earnings for the household's upkeep, although for some members, particularly the unmarried sons and daughters, the contribution might be only part of their earnings. There was a tendency for the unmarried members of the household to keep part of their earnings for themselves and generally among the parents this was an acceptable practice. One parent rationalized that a married person was motivated to work because he must feed his family but a youth with no such responsibility needed a different form of motivation and that was the prospect of buying new clothes, cassette tapes, and visiting the town.

The following table shows the income earned from working on the plantation and the monthly expenditure on the basic daily needs of five households for the month of November, 1986:

Table 5.2 : Cash Income and Expenditure on Basic Daily Needs, Nov., 1986.

H/hold	Expenditure				Total	Income**
	Rice	Other Food	Kerosene	Clothing		
A(1,4)*	57.00	14.00	3.50	-	74.50	91.00
B(2,7)	82.00	45.00	6.00	15.00	148.00	209.80
C(2,5)	40.00	15.00	4.00	-	59.00	179.47
D(3,9)	70.00	20.00	5.00	12.00	107.00	379.54
E(2,4)	70.00	30.00	4.00	15.00	119.00	252.62

* The first number in the bracket indicates the number of working members and the second indicates the size of the household.

** The income figure is a total of the wages of all working households members.

The households selected for this analysis were by no means representative of the households in Engkaroh. But they represented the most common forms of households in terms of the size and the number of workers. Even then two households of the same form, for example of four members and one worker, need not necessarily have the same need and earn the same amount of income. Variation may arise out of the circumstances and structure of the household - the age of the children, the diligence of the working members, and the health of its members.

The income figures presented in the Table refer to the income earned from working on the tea plantation; they do not include those that the villagers may have obtained from the sale of their cash crops, neither do they take into account the values of those products which the villagers produced and consumed themselves. As noted earlier it is beyond the scope of this study to establish what the 'basic needs' of the villagers were. But the interviews of the working members of these households

suggest that at least for the month of November they did not experience difficulties in meeting their basic needs, defined as those which they considered as necessary in their daily life. Considering that November has normally been the month when the villagers would work less on the plantation because of the need to guard the ripening padi, the situation depicted by the study of the five households may more represent the leaner months. Indeed this was also the time when most households would have exhausted the previous season's stock of rice.

According to the heads of the five households interviewed, the income they earned from working on the plantation was sufficient to cover their basic daily needs for that month. It was more than sufficient for households B, D, and E. In the case of household C, although the income was relatively high but because it was at that time committed to renovating its house, a significant part of the earnings of its two working members was put aside for paying the carpenters whom they employed. The household therefore was forced to reduce its expenditure on food for the month. According to the members of household C, without such commitments their income from the tea plantation was sufficient to cover their basic needs for food and the occasional purchase of clothing.

Household A was the 'least satisfied' with its income. Because the household had only one worker its options were very limited. In the case of this particular household the situation was aggravated by the composition of the household. It was composed of a young couple with three very young children. The family had just moved into a separate house three years previously. Because of the very young children, the

wife had to stay at home full-time to look after them. This meant that she was not able even to help the husband with padi farming. Although it was possible for them to have their relations in their original households to look after their children if both of them worked, such arrangements could not be done regularly because even their original households suffered the shortage of labour as a result of the demand of both the traditional activities and the plantation. For the month of November, 1986 the head of household A earned a total of M\$91 for thirteen days work on the plantation. The rest of the month was spent on his padi farm and a small pepper garden. His household had run out of the previous season's rice stock and had been relying totally on purchased rice for the previous five months. According to the head of household A, his income from working on the plantation was barely enough to meet their everyday needs, and described his household's situation as susah or difficult. From Table 5.2 it appears that his income exceeded his expenditure. In actual fact the extra money was put aside for the payments of his debts with the village shop. The credit facility offered by the shop provided him with a useful fall-back when his income fell seriously short of what he needed. Yet the head of household A realized that without the employment opportunities on the scheme, households such as his would have been worse off.

Households B, C, D, E are examples of households which enjoyed a greater flexibility in the use of their labour resources. Household D had more members and consequently a higher expenditure, but because its workers could be divided among the various activities without seriously upsetting the balance, they had accommodated the new activities well.

All three of household D's workers were engaged on the plantation, but in November, 1986, the woman, the wife of the head of household spent more time on the padi field than the two men. The men - the head of household and his son - worked for a total of 18 and 20 days respectively while the woman for 15 days. The men, however, had to take several days off from working on the plantation to tend to their pepper garden because at that time the price of pepper was quite high. Household D had more than half of an acre of pepper, which was quite large by the standards of the village and their previous season's padi was sufficient to meet their rice requirements for three months. At other times in the past when they could concentrate more on working on the plantation, especially before the rise in pepper prices, household D's total monthly income was often more than M\$500 per month, an amount which the head of household considered as cukup, which means enough, but in this case with a connotation of being comfortable. This household maintained padi cultivation mainly to ensure a fresh supply of padi seeds as an insurance against the future possibility of going back full-time to the cultivation of padi. Households B, C, and E all had two workers but with a varying composition.

The degree of flexibility in the use of labour for these households depended on their composition. Household E had one non-working elderly person, the father-in-law of the head of household, as a member of the household. Although he was too old to work on the farm or plantation, he was still very active around the house. He could do some minor repair work on the house, tended the ducks and chicken, and most importantly looked after the child. Household E had had a rather

successful padi harvest during the previous season, their rice stocks lasted more than five months. The wife of the head of household spent most of her time working on the farm while the head of household concentrated working on the plantation and spending some days tending his young pepper garden. The man turned out for work on the plantation for a total of twenty days while his wife worked for seventeen days. Of the five households, household E lived a relatively more comfortable life. The head of household admitted that his household's income had improved considerably since the opening of the plantation.

It was obvious from the in-depth interviews of these five households, that for those households which had more than one worker, the work on the plantation was a welcome opportunity to earn much-needed cash income. Among these households there was already a readiness to divert more and more of their labour resources towards working on the plantation. This however was necessarily a gradual process as the members of these households were building up their confidence in the project. Already, the villagers were trying to minimise the labour requirements of their padi farming by applying labour-saving devices and methods. For the single worker household, the decision as to how the labour resources were to be used was a more complicated one to make. For these households there was very little flexibility in their choice - it was either concentrating on the plantation work or subsistence farming. It was very difficult for them to engage in both with a sufficient intensity. After the imposition of the ten days turn-out minimum by the plantation management the single worker household's option was further

restricted; it was then compelled to direct at least ten days of its labour towards working on the plantation.

It was among the households with a single worker and with a structure which resulted in a high level of dependence on the limited resources of the household, that the reluctance to be committed fully to working on the plantation was strongest. This reluctance, which sometimes assumed the form of an opposition to the existence of the plantation, was generally attributable to two conceptions of their (the single worker households') economic and social circumstances as a result of the existence of the project. Firstly, there was the difficulty of accommodating the new economic activities into their whole economic system. Essentially, the core of this problem was the households' conception of the risks which this new element posed to their subsistence. Because of their more precarious subsistence, the 'risk averse' attitude was stronger than those whose resources were not so limited. The 'mix of economic' activities referred to earlier had provided a semblance of subsistence security. But because the established subsistence and cash-producing activities were generally unable to cover their needs, they were willing to adopt the new element into their system, but only as far as their labour resources could still be utilized for their other economic activities. The intermittent and low labour turn-out, which was more common among such workers, was attributable to this conception of the risk of the new economic situation. This calculation of the risk was implied in the workers' expression of their willingness to turn up for work on the plantation more frequently if the wages were raised to a much higher level, and that they be allowed to work on Sundays to

increase the number of working days in a month so that there would be more days to be divided between their various economic activities.

The second dimension of these single worker households' conceptions of their situation was their relative economic disadvantages vis-a-vis those households which were better endowed with labour resources. They saw the injustice in the system because it benefited them less than the other households. One head of a single worker household opined that the plantation and the tea factory were established with the money borrowed in the names of all the villagers and they were jointly responsible for the debt, but people like himself benefitted less than the households with more than one worker. Furthermore, he said that the use of the land in which they had the traditional rights had affected their access to land for farming and this in spite of the fact that poor villagers like himself were the very people who needed the land. This opinion was expressed with some bitterness against the more fortunate villagers and the management of the plantation.

At this stage of the socio-economic changes generated by the introduction of the tea project there was yet no distinct division between the poor and the better-off households. But there were already signs that the lines which distinguished the two categories of villagers were emerging. The most obvious of these was the pattern of consumption. The more fortunate households (mainly those with more workers), tended to invest their earnings from the plantation on improving their house. Since the opening of the plantation, Engkaroh had experienced a 'boom' in house renovation and construction. Increasingly houses were

built of bricks, purchased wooden materials, cement, and asbestos roofing. Bigger houses built after the fashion of town houses were the trend. According to the villagers who were interviewed, there had never been so much house renovation and construction before this time, not even when the price of pepper was high. The effect of this development on the poorer households was subtle but nevertheless important in determining their relationship with the better-off villagers and their attitude towards the tea project. This 'conspicuous consumption' on the part of the better-off households not only incited a feeling of envy among the poorer households but also pressurised them to conform to this emerging standard of consumption. Poor households had to construct or renovate their houses incrementally, that is, they had to buy the materials in small amounts and build their houses in irregular phases. The fact that this form of consumption had become 'socially desirable' was a strain on these poorer households and, as pointed out in the previous chapter, aggravated their economic problem. The other most common items of 'conspicuous consumption' were television sets, radios, cassette players, portable generators, and motorcycles. At dawn it was possible to gauge roughly the socio-economic status of the households by the quality of the sound of the radios and cassette players which emanated from the houses. It was the general practice that radios and cassettes were played at a rather high volume about the time when the villagers were preparing to go to work.

The economic differences which emerged from the differential labour resources of the households, and particularly between the single worker households and those with more workers, had caused the former

to be less cooperative with regard to the work on the plantation but it was not yet obvious whether it had given rise to factions within the community. When a few village leaders, who did not depend much on earning their living from the plantation, incited the villagers to press for higher wages and other kinds of working conditions, it was mainly these poorer households that supported the call.

5.04 The New Working Regime : The Problems of Adjusting to a Regimented System.

Although, as mentioned earlier, many of the villagers had had experience working as wage labourers in the towns, they still faced difficulties in adjusting to the exacting demands of the work on the tea plantation. Most workers complained that plantation work was very tough. One elderly worker described the work as being akin to working under the Japanese during the time of the Japanese occupation of the country.' What he actually meant was that the 'employer-employee' relationship was very formal and the field staff of the plantation were very strict in ensuring that the jobs were performed well. Tea is a highly competitive product and it is crucial that the tea produced should be of a high quality. The plantation is oriented towards making profit. Therefore it is essential from the management's point of view that the labour is utilized productively. In the course of ensuring the high standard of the product and productivity of labour, the field staff often appeared to the workers to be harsh. Very often this was inadvertently done because at this stage many workers were still not familiar with the

work on the plantation. This was obvious when some workers complained that the managers were 'very fussy', when in fact the managers were ensuring that the work was carried out in the right way. Part of the reason for the workers' dislike for the work on the plantation was the close supervision from the field staff. A very frequent remark made by the workers was that they had been reduced to the position of kuli or the lowest kind of casual labourer. This they said should not have happened because they were also part-owners of the plantation.

The most abhorrent aspect of working on the plantation to most workers was the work regime. The day for the workers started at around 6.00 a.m when they would go to a certain location on the plantation for mustering. After being assigned the various tasks for the day, the workers would begin working around 7.00 a.m. There was an hour lunch break around 11.00 a.m, after which work would continue until 3.00 p.m. The intensity of work put in by each worker was necessarily high not only because of the close supervision by the field staff but also because of the piece-rate system of output accounting. To make sure that they got paid the daily rate, the workers had to work at a sufficiently fast pace, especially if they were picking leaves in a block where the leaves were not dense enough. It was necessary to make sure that the leaves picked were in the right stage to avoid any weight deduction. These requirements called for greater care and consistent effort, which left the workers with very little opportunity to 'steal' a short break or even to slow down the pace, even in the absence of supervision. Such a work practice was particularly hard for the villagers to follow; they were used

to the more leisurely and varied pace of work in their traditional practices.

- The performance of work in the padi field, rubber, and pepper gardens was dictated by the farmer himself. He rested when he felt that he needed to and may even have diverted his attention to other work such as harvesting wild vegetables and tending to his fruit trees to break the monotony of his main task. In the traditional setting the Bidayuh farmer combined work with leisure - inherent in work was the opportunity to socialize with fellow villagers. As pointed out in the previous chapter, the Bidayuh liked to work in informal groups organized on the basis of the labour exchange system. The work party thus formed was not only a functional group with specific purposes but also a social setting which provided members with the basis for associating with each other. The Bidayuh work groups comprising young unmarried men and women were especially gay and often provided an arena for courtship.

The actual tasks on the plantation, according to the workers, were physically hard in contrast to the work on the padi field or pepper garden. It may not have been any harder in the sense of the physical exertion required by the tasks but because of the consistency, the monotony, and the general environment of the plantation. The workers disliked the monotony of picking the tea leaves some seven hours a day, every day. The only variations in the routine occurred when a worker was given other tasks for the day such as pruning, spraying weedicide,

tending the nurseries, and making holes for planting of seedlings. But even these tasks were done in the environment of the plantation.

To appreciate this dislike of the new work and the working environment it is necessary to recall the traditional pattern and environment of work described earlier. The cultivation of hill padi was done in phases, each phase with a different form of task, which in turn required a different kind of work organization. A look at this 'padi cultivation cycle', shows that broadly there were at least seven different kinds of task performed successively according to an 'agricultural calendar'. Some of the tasks required the cooperation of the other members of the community, others were confined to the households, and yet others were generally done by either the male or female only. What this variation means was that there were periods of a rise and fall in the demand for labour of all categories of worker. During the clearing phase the tasks required mainly the labour of the man, giving the female members of the household an opportunity to do other work; and at the weeding phase it was mainly the turn of the women, while the man would engage in other pursuits such as hunting and fishing, which was a form of work but with an element of adventure. It was this quality of traditional work which the workers generally pointed out as the factor they missed most in their new working situation. When they said that the work on the plantation was hard they meant it in contrast to the traditional working pattern.

If one considers the long hours of padi planting, when the farmers were also required to work from dawn to dusk and sometimes even stay

overnight at the farm, it is difficult to understand why many of the farmers still thought that the work was lighter. But looking at it from the point of view of the farmers, there is rationality in this perception. For a people who had no clear cut notion of the separation of 'work' from 'leisure' (their low level of subsistence may have precluded the development of such a concept) it is advantageous to have a work culture which incorporates leisure. Life need not then necessarily be all work.

The other factor which made the work on the plantation seem harder was the physical environment. The plantation was almost five hundred acres of waist high tea bushes with very few trees to provide the shade which could cool the surroundings. Workers complained of being 'baked' in the sun. The tea pickers wore wide-brim hats and some used towels as shawls to cover their faces from the heat. It was not that the workers were unaccustomed to the heat - the same sun was beating upon them when they worked in the padi field. What made the heat more severe was the continuous work for long hours. In the padi field they would frequently take breaks under the shade of their farm huts or trees when the sun was at its hottest. Most farmers would stop working when the sun was at its hottest, around mid-day and resume when it was cooler around 3.00 p.m. For this reason the farmers liked to work very early in the morning and until quite late in the evening. But on the plantation, working according to this flexible time was not possible.

The heat on the plantation was aggravated by the nature of the land surface. The land on which the tea was grown was a bare and stony earth. The sun heated the exposed earth and stones and these in turn

heated up the atmosphere. As a result even the area shaded by the shrubs was also hot. The heat problem was compounded by the occurrence of steep slopes, which characterized a substantial part of the plantation. In some area where the slopes were very steep and the hills very high, many tea shrubs were left unpruned and the leaves unharvested because the workers were very reluctant to work in the area. Many shrubs in such areas have been allowed to grow tall and bear fruits from which the seeds for the nursery were taken. This combination of the more exacting work regime and the difficult environment have made the work on the plantation seem hard to the villagers. If they had to work on the plantation they believed that they should be paid more. Even those who had the experience of working on the construction sites in the towns and as casual labourers in factories and shops complained that the work on the plantation was harder.

The preceding discussion has attempted to highlight the major forms of response of the villagers of Engkaroh to the introduction of the tea plantation project into their local economy. Although the project had been accepted gradually, its acceptance was accompanied by an undercurrent of resistance. The resistance was strongest among those who became 'economically deprived' because of their limited ability to benefit from the opportunities created by the plantation. The established pattern of change, that of incorporating the new economic elements into an economic system which was characterized by a wide range of activities, had provided the villagers with some form of subsistence security. The tea project had undermined the continued adoption of this strategy; it demanded work specialization. Households with more than

one worker were generally more ready to accept the change because their labour resources were less restrictive, allowing them to turn out for work on the plantation more frequently without jeopardising the existing activities. In other words, the established strategy of ensuring subsistence security by engaging in many activities was still operative for these households. But for the households which suffered from labour shortage, some acceptance of the change involved a reduction of the other activities. Because the risk involved was higher, the resistance to change consequently was strongest among this category of households. The resistance of a more general kind, that involved the whole community, could be linked to the conflict between the traditional and the new 'work norms' - the differences in the social relationships in the working environment and the meaning and nature of work to them.

5.05 Kampong Tian: The Happy Participants in Change.

In contrast to the people of Engkaroh, the villagers of Tian accepted SALCRA's land development project more readily. The Tian cocoa planting scheme did not suffer from the incessant withdrawal of cooperation by a section of the village community. In fact many villagers complained that there was not enough work on the cocoa scheme. There were two direct ways in which the villagers could benefit from the scheme. Firstly, the land owners who had land within the boundary of the scheme in effect had their land developed for them by SALCRA. Although as explained in the previous chapter, the cost of developing the land was charged to the owner of the land as loans, as it was a

government loan (as opposed to the private financial institutions), it was seen as a form of 'soft loan' with flexibility of repayment. All of the participants in the scheme who were interviewed believed that the loan would not be a burden to them and that unlike the private money-lenders, the government would not press them to pay back the loan should they face any financial difficulties. If one considers the problems faced by the villagers in getting the capital for investment in farming, SALCRA's scheme can be seen as a boon for the farmers.

The second way in which the villagers could profit was through the employment which it generated. One of the main objectives of the scheme was to provide employment in the local economy. Although in contrast to the villagers in Engkaroh, the people of Tian had a better access to the job market in the towns, village-based jobs, and if possible, of a more permanent nature, were much preferred by the villagers. Tian is in the vicinity of such towns as Serian and Baki and the capital city, Kuching. Partly because of its location vis-a-vis these job markets, many villagers who were employed in the towns lived in the village. Youth migration to the towns was low because they could still search for town jobs from their village homes. Therefore, at the time of the fieldwork, many unemployed secondary school educated youths were found staying at home in the village. Many of these youths were employed as labourers on the cocoa scheme.

5.06 The Incorporation of Cocoa-Growing into the Extant Pattern of Economic Activities.

As explained in the previous chapter, the pattern of economic activities in Tian was basically similar to that of Engkaroh but with a relatively more viable padi farming sector. In this sense it would have been more difficult to induce the people to abandon padi cultivation and concentrate on other forms of activity. Unlike the padi farmers in Engkaroh, the farmers of Tian clung to the padi growing activity because of its significant contribution to their income. In Engkaroh on the other hand the persistence with padi cultivation was mainly attributable to the lack of alternatives, so that even an activity which contributed minimally to the total income was critical to the welfare of the households.

In Tian, however, SALCRA's cocoa-growing scheme could be easily assimilated into the established pattern without the necessity of specifically adjusting the division of labour resources between the various activities on the part of the participants in the scheme. The cocoa-growing scheme was accepted by the villagers in much the same way as they accepted pepper-growing. The cocoa-growing scheme in Tian was essentially a scheme which benefitted individual landowners directly. It enabled the landowners to own cocoa plantations and provided them with access to processing facilities and advisory services. The individuals were therefore directly motivated to participate. The enthusiasm of such landowners for the project was understandable - the larger landowners were particularly anxious to ensure the success of the scheme. The village headman, who owned about 30 acres of land within

the scheme area, for example, was particularly active. He was even involved in the surveying of the plots to determine their individual ownership, knowing that his share was one of the largest.

The land owners who had a large plot of land in the scheme indirectly became 'employers' of scheme labourers, a status which gave them some say in determining the labour requirement and the supervision of work on their area of the scheme. At the time of the fieldwork a rationalization of land ownership in the scheme was not yet completed, but based on the information gathered from the villagers who were involved in the surveying and those who knew roughly how much land each household had, 12 of the 37 households surveyed owned between 10 to 30 acres of land. The lands were fragmented into separate holdings of about three to five acres, but with rationalization these would be consolidated into contiguous holdings, an arrangement which would simplify the problem of managing the cocoa plantation for the owners.

As mentioned briefly above, the villagers in Tian were able to incorporate cocoa-growing easily into their existing pattern of economic activities. This was a crucial factor in the adoption of new innovations as was seen in the case of Engkaroh. This is not to say that the labour requirements did not compete with the demands of the other activities, particularly padi cultivation; in fact they did. During the clearing and harvesting phases of swamp padi cultivation, the plantation faced the problem of labour shortage, especially at the stage of plantation establishment. Because the cocoa plantation was to be established according to a schedule set by SALCRA, the demand for labour at the

early stage of the scheme implementation was high. The available workers in the village were insufficient so SALCRA had to employ labourers from the neighbouring villages. The availability of external supply of labour and the management's willingness to use them masked the actual labour shortage for the project in Tian itself. This use of external labour supply meant that the villagers were not forced to divert their labour to the project.

This flexibility was particularly beneficial to the households with very limited labour resources. In Engkaroh, every worker had to spend at least 10 working days on the plantation to ensure that they continued to be employed. In Tian, the participants in the scheme need not have worked on the plantation at all but would still benefit through their ownership of the land in the cocoa plantation. The only factor which compelled the participants to work on the cocoa plantation was the consideration that the wages paid for work on the plantation were ultimately charged to them as loans for developing their land, and, if other people worked for them, the owners would not get the money. If they worked on the plantation themselves they would benefit from the loans in two ways - through the wages they earned and their land being developed for them. That the participants in the project wanted to benefit from the loan as much as possible was evident in the unofficial practice of 'allowing' the non-owners of land to work in the place of the owners with a payment of a certain percentage of the wage to the owners. The arrangement was made between the participants in the scheme and those who did not have land under the scheme. Such an arrangement

was quite widespread in the latter stages of the scheme's establishment when the number of jobs available on the scheme was limited.

A single worker household could therefore devote its labour totally to padi cultivation, especially during the phase when his cocoa trees were not yet bearing fruit. The case of three single worker households, those which belonged to Jopi, Silus, and Kayeng (not their real names) were examples of how such households could easily participate in the project and yet maintain their usual scale of padi cultivation. Jopi had three acres of land in the scheme but because he was the only worker in the household he could not work regularly on the plantation. Instead he concentrated on the cultivation of swamp padi. During the 1986/87 season his harvest was sufficient to cover his rice needs for about five months. On top of that he earned an average of about \$80 per month from his irregular turn-out for work on the cocoa plantation over a period of six months between October 1986 and March 1987. The cash income which he earned from the plantation was, according to Jopi, like an 'increase in wage' for him. Before the opening of the cocoa plantation his idle time (when the work on the padi field required less of his labour) was underutilized. His position as the single worker in the household prevented him from seeking temporary jobs in the town. The work on the plantation therefore provided him with the opportunity to use his labour fully and the flexibility in the procedure of engaging workers made it possible for him to suit the work to his 'free time'. Silus and Kayang were both working as casual labourers in Serian receiving daily wage rates of \$7.00 and \$8.50 respectively. Because their jobs were quite 'permanent' in nature - Silus worked at a whole-sale shop

as a handy-man and Kayang at a furniture shop - they decided to keep them. Silus had about 1.5 acres of land under the cocoa scheme while Kayang had around 3 acres. While both households did not earn any income from the plantation at the time of the fieldwork, an increase in their future income was assured when the cocoa trees bore fruit.

The plantation's demand for labour was not constant. As mentioned earlier, during the early stage of the implementation of the project there was a great demand for labour for the clearing, surveying, road construction, and planting tasks. After the cocoa trees had been planted the amount of labour required to carry out the maintenance work decreased. At the time of the fieldwork each worker was required to work only for three days in a week. The management organized the workers into work groups and arranged the working schedule of each group in such a way that every group would have the opportunity to work for three days in a week. There was no definite official explanation for this working arrangement. But it was clear that the management felt that there was no need for a full utilization of the available labour. The three days limit on the number of working days per worker per week could have been introduced to ensure that as many people as possible got the chance to work. This situation had become a source of considerable dissatisfaction among some villagers particularly those who had hoped to find a more stable form of employment on the cocoa plantation.

One such villager was particularly unhappy about the situation. The limited number of working days had affected his ability to meet his financial commitments. In the previous year when there was plenty of

work available he had bought some furniture and a television set through hire-purchase. The news of the opening of the cocoa plantation and the accompanying creation of many jobs reached the shopkeepers in Serian and caused them to be confident of the financial standing of the villagers from Tian. When jobs became scarce after the initial phase of plantation establishment was completed, the income of the workers on the plantation decreased as a result of the three-day week. There were several cases such as the example given above. Many of these individuals were villagers who had no land within the scheme area and therefore could only benefit from the project through the employment it generated.

For those who preferred to divide their time between the plantation and their other activities, the reduced number of working days was welcomed. For the owners of land in the plantation there was another reason why fewer working days were acceptable. The fewer number of working days meant that less money would be spent by SALCRA on wages which ultimately would become their loan. Particularly for those land owners who could not afford to divert much of their labour to working on the plantation this was considered as an advantageous situation. One such land owner remarked that 'at least it prevents other people from profiting too much from what would one day becomes my burden'.

The compatibility between the new economic activity and the established ones was evident in the absence of any strain in the process of labour reallocation within even the single worker households. One

significant indication of this compatibility was the generally amicable relationship between the participants and the project management. The majority of the participants perceived the scheme management and SALCRA as paternalistic - that they were in Tian to help the villagers improve their income. This was a sharp contrast to the attitude of the people of Engkaroh towards the plantation management, which was perceived particularly by the poorer households as harsh and uncompassionate.

The cocoa project was not only compatible with the established activities in terms of its labour requirement but also in terms of the land which it utilized. In Tian as pointed out in the previous chapter, the major agricultural activity was the cultivation of swamp padi. Swamp padi utilized the land which was not suitable for most of the other crops. Therefore cocoa did not compete for land with the crops. It did not even compete with pepper for land in spite of the fact that the pepper price was high at the time of the implementation of the project. This was mainly due to the limited size of the villagers' pepper gardens - a situation which was a consequence of the lack of capital and the high uncertainties of the price of pepper.

The cocoa project in a way made it possible for the people of Tian to reutilize their land which had been taken up by rubber since the early 1960s. Most of the land for the project was formerly under rubber. Since the drop in the price of rubber in the 1970s, the rubber gardens were rarely tapped. The rubber gardens became a problem for the owners because the land which they occupied was unavailable for other

purposes. Furthermore, there were no other crops which they could plant on as large a scale as their rubber.

Because hill padi was a very marginal activity in Tian, its role in the competition for land was insignificant. However, with the spread of the private planting of cocoa on land outside the project land, many farmers had planted hill padi on the cleared land before cocoa was planted. In this case the use of the land for the planting of hill padi was only as a prelude to establishing cocoa gardens on the land. There were many instances of land being 'leased out' for hill padi growing for a season. This was normally practised by land owners who were constrained to clear their own land due to a shortage of labour and capital. Such land was cleared free in return for permission to grow padi on the land for a season. If the land was too large for one season's crop of padi, the clearing was done in a seasonal progression. When the previous season's padi field was planted to cocoa by the owner the padi farmer would clear the adjoining part of the land. Most of the area cleared in this way was old rubber garden.

The nature of the land tenure system in Tian, and indeed in the general area of Kampong Tae (one of the largest communities in the area), was rather different from that which was practised by the Bidayuh in Kayan and Kedup area as described in an earlier chapter. It was unclear whether the system existing then was the product of an innovation of recent origin. The system of land tenure in Tian was highly individualistic. Land was passed on to the succeeding generation by the parents by dividing the land among the children equally. The youngest

child who normally stayed in the parents' house even after marriage to look after them, was given a larger share. This role could be given to any child who was willing to look after the parents. The distribution of land among the siblings rarely involved the fragmentation of the plots. This had led to some differentials in the ownership of land because some individuals would get the larger plots and others the smaller ones.

This individualistic system of land tenure reinforced by a widespread adoption of cash crops, had made an individual oriented land development project highly attractive to those who had land in the project area. In contrast, the cooperative nature of the project in Engkaroh had problems in attracting the full support of a large section of the villagers. The land used for the tea plantation was owned by several 'descent groups'. In such a less individualistic system it would be less clear to an individual whether he would benefit fully from the project. The tenure system in Tian pre-empted this problem for the individual. Although many villagers did not know the exact size of their holdings, individuals knew roughly where their lands were and the approximate boundaries. Most of the land was untitled, but the individual ownership of the land was clear. The size of the individuals' land on the scheme had been determined by a survey made before the plantation was established. This had clarified the amount of land which the participant contributed and the size of the cocoa plantation which he would own when the time came for the plantation to be surrendered to the individual owners.

When such a time comes, however, the problem of rationalising the land boundaries may prove to be a source of disagreement among the

villagers, and between the villagers and the management. Plots belonging to an individual were scattered over a wide area. In consolidating these plots into a contiguous cocoa plantation, exchanges of plots between individuals would be inevitable. As some of the plots had a better location (nearer to the village and plantation road) and quality (no swamp patches) any exchange is bound to cause some dissatisfaction. But at the earlier stage of the implementation of the project, the clear-cut individual interest which the project was catering for fitted well the individualistic values prevailing in the community.

There was a quality of 'gradualism' in the changes which had taken place in Tian as a consequence of the land development project in contrast to that of Engkaroh. In one sense the introduction of cocoa planting on a large scale and with modern agricultural practices and management was not a drastic transformation of the prevailing agricultural and economic practices. Many aspects of the 'work culture' of cocoa-growing were familiar to the villagers. The clearing of the land for the cocoa plantation required the same basic skills which were required by the clearing task in hill padi farming. The villagers were familiar with the purposeful planting of trees in an organized manner, something of which they had substantial experience in the planting of rubber.

The villagers claimed that cocoa-growing was not difficult and under the project it was made easier by the constant supervision of the field supervisors and field assistants from SALCRA. Indeed in 1984 when the project was first started many villagers in Tian had already

planted a few stands of cocoa in their gardens and around their houses. At that time the cocoa plantation at Tae, a few miles away, had been established and most villagers had seen the plantation. Through visits to Tae and contact with the participants in the project, many villagers in Tian understood the nature of the project and how they would profit from it. One earliest source of exposure to cocoa-growing was the Chinese cocoa-growers in the vicinity of Tian. The Chinese farmers along the Kuching-Serian road had, in the early 1980s, converted most of their pepper and rubber gardens to cocoa plantations. This is one of the most intensively farmed areas in the State, and it is also where farming is most commercialized. The role of the Chinese farmers and middlemen in influencing the Bidayuh farmers to adopt cash crops such as pepper and commercial vegetables has been highlighted elsewhere (Grijpstra, 1976; Dimbab et al, 1986). In Tian all of the eight early adopters interviewed attributed their knowledge of cocoa-growing and the credit facilities which enabled them to open their small cocoa gardens to two Chinese farmers-cum-shop keepers in Baki and the Twenty-ninth Mile Bazaar, two market towns near the village.

Cocoa-growing was just another form of agricultural activity and one which the people of Tian were not only aware of but also had had experience in, though on a much smaller scale than that introduced under the project. Therefore, the introduction of cocoa-growing through the project was following a trend which was already in motion - the adoption of cocoa as one of the cash crops by the villagers. In contrast, the people of Engkaroh were faced with a drastic change - from a mainly agricultural occupation to one which was in every sense based on estate

wage labour. There was a less direct link between the work which a worker performed on the plantation and the final product. As mentioned earlier, the workers often referred to themselves as kuli - workers who were assigned to do the most menial tasks. It was also pointed out earlier that many workers faced difficulties in conforming to the demands of the work on the plantation. This was also a manifestation of the suddenness and drastic nature of the change.

There was already a relatively distinct economic differentiation in Tian when the project was first implemented. As discussed in an earlier chapter, Tian had a relatively more developed linkage with the market than Engkaroh. There was some diversity in the economy of the village. As pointed out in the next chapter, about 30 per cent of the working members of those households covered by the survey worked on jobs which were non-agricultural. These included such work as casual labouring in the town, office work in the SALCRA scheme office, and work in the Civil Service. Those households, which have members working in more permanent jobs such as in the Civil Service and the scheme office, were the established 'better-off' households in the community. Their economic status was generally reflected in their better living conditions - bigger houses, the possession of furniture and electrical appliances such as fans, television sets and radio-cassette players. Those who worked with the Civil Service generally owned motorcycles. The bulk of the households which depended solely on farming lived a life in which the consumption of consumer goods was minimal. As in the discussion on the 'better-off' villagers in Engkaroh, the consumption of consumer goods was here used as an indicator of the

households' economic status. This was because in the Bidayuh community where the household was still the unit of consumption, a member of the household was not free to indulge himself unless the basic needs of the household had been met. Of course there were exceptions to this but members could not remain irresponsible for long and expect to remain in peace in the household.

Economic differences between households were therefore already obvious before the project was implemented in Tian. The basis of these differences was the involvement of some individuals with the external labour market. The cocoa project had not yet resulted in any exacerbation of household income differentials because it had not reached the income-generating stage. Recalling the situation in Engkaroh: when the plantation was opened the villagers immediately felt the impact of the new source of income. The households with a better labour endowment were suddenly able to earn a better income, when in the past they faced economic limitations similar to the single worker household. The tea plantation had generated some income difference between households. The impact of this change in the economic status of the households was made more obvious because of the relative economic uniformity in Engkaroh prior to the introduction of the tea plantation. In Tian, on the other hand, not only was there already a considerable degree of difference but also the cocoa project had no immediately tangible economic influence on the existing village structure. Therefore, things were seen as 'normal'. Another factor which might have reduced the impact of the project on the socio-economic structure of the community, was the fact that many of those households which would benefit most

from the plantation were the same 'better-off' households because of their considerable land ownership in the cocoa plantation. Many of these individuals who worked outside the village were able to become 'absentee owners' of the cocoa plots. A possible consequence of the extra wealth generated by the project was the reinforcement of the existing social structure.

5.07 Conclusion.

The above discussion has attempted to highlight the differences in the responses of the villagers in Engkaroh and Tian towards the implementation of land development projects in their respective areas. It has also attempted to explain these responses. It was pointed out that one of the main factors influencing the nature of the response was the effect of the change on the allocation of the crucial resource - labour. A maintenance of a wide range of economic activities was an established strategy of ensuring subsistence security. The strategy in turn requires a proper allocation of the limited labour resources of the household; the more limited the labour resource of the household, the more inflexible the allocation. It was in this regard that the tea plantation project in Engkaroh was resisted by a section of the community - the single worker households and those who had a greater stake in other activities. In Tian, on the other hand, the cocoa project did not impose an inflexible demand on both the labour and land resources of the community. Instead the flexibility of the work requirements enabled the villagers to utilize their

labour fully. They were able to regulate their work on the cocoa plantation according to the slack demands in their other activities.

The difficulties in fully accepting the change in Engkaroh was also attributable to the differences in the 'work culture' of the plantation and that of the Bidayuh traditional economy (including the cultivation of the established cash crops). This gave the change in Engkaroh the quality of being drastic and abrupt and in Tian more gradual. Because there was relatively less economic inequality in Engkaroh prior to the introduction of the plantation, the impact of the 'wealth' generated by the plantation was more pronounced as a class of the 'better-off' emerged. There was considerable envy and a sense of deprivation among the poorer households as a result. In Tian, the inequalities were already formed and also the cocoa scheme had no significant impact on the existing economic position of the villagers.

CHAPTER SIX

EXTERNAL LINKAGES : THE INCORPORATION OF TIAN AND ENKGAROH INTO THE WIDER SOCIETY.

In the preceding chapters I have confined my discussion to the responses of the villagers in Tian and Engkaroh to economic changes in their environment. Change of course occurs in all aspects of a society. Some changes are interrelated, that is a change in one aspect would be accompanied by changes in others, yet there are changes which take place quite independently and in isolation, so to speak. I have no data to support a contention that the economic changes which I have discussed in the preceding chapters were related to changes in the other aspects of the two communities.

This chapter attempts to show that both Tian and Engkaroh have also experienced significant changes in important non-agricultural aspects of the communities. These changes in the socio-cultural and political facets of the communities have enabled the villagers to reduce the limitations of their village economy. As a consequence of these changes, the farmers of Tian and Engkaroh were able to draw upon resources beyond the boundaries of their villages in dealing with the challenges posed by their local economy.

6.01 Participation in the Local Market Economy.

Like other subsistence-oriented farmers in Malaysia, the Bidayuh's initial participation in the market was via the production for the international market, thus mainly they produced cash crops for export. Like their counterparts in Peninsular Malaysia, the farmers in these two communities transformed their traditional subsistence economy to a mixed subsistence-commercial one, through their contact with the external economy (Lim, 1977: 235). Lim (ibid: 231) suggested that there are several forms of mixed economy which can emerge out of this contact. One variation is the commercial production of padi or rather a change in the patterns of 'distribution' of a staple food crop. This means allocating some of the food crop, usually the surplus, for sale. Another form of mixed economy is the sale of vegetables, fruits, meat and other produce by farmers close to non-farming population centres. Like the previous type, this also involves the sale of surplus, although it is more likely that surplus production (above the subsistence requirement) for sale is the main objective rather than the sales being attendant upon surplus production. The most common form of mixed economy is the cultivation of non-food crops together with subsistence crops. This was the form found in Tian and Engkaroh.

The weak linkage between Engkaroh and the local market had prevented the emergence there of the other forms of mixed subsistence-commercial agriculture, or what is referred to as semi-commercial agriculture in this study. This weak linkage with the local market had precluded a better exploitation of their agricultural resources. For

example the growing of vegetables and fruits, and the rearing of animals for sale in the local market was not developed. In Tian on the other hand, the linkage with the local market was relatively firm and agricultural production geared towards the local market was more evident.

The main reason for Engkaroh's weak linkage with the local market was its relative isolation until quite recently. Before the Second World War, rivers provided almost the only means of transportation in Sarawak. To reach the villages in the Upper Sadong District then, from Kuching (the state capital), one had to travel some stretch of the journey by sea and up the Sadong river to its source. This journey took several days. The Upper Sadong District was connected by a road with Kuching in 1930 with the completion of the 80 kilometre Kuching-Serian road. A feeder road was constructed in 1934, linking Serian with Tebakang. This meant that a journey from Kuching to Tebakang (near Engkaroh), in the heart of the Upper Sadong District, could be made in a much shorter time than by sea and river. The Serian-Tebakang road was extended to Mongkos in the 1960s. Engkaroh is situated about 5 kilometres off this road and was linked to it by a feeder road in the late 1960s.

Tian was relatively more accessible than Engkaroh. Because of its proximity to Serian and Kuching (two major urban centres in Kuching Division/First Division), Tian has always been less isolated than many other Bidayuh villages. When the Kuching-Serian road was completed in 1930 it became one of a few rural communities in Sarawak to have a direct road link with a major urban centre. Furthermore, Tian is situated

in an area where extensive commercial farming by Chinese farmers first started in Sarawak.

This isolation had gradually been reduced as a result mainly of the development of road transportation in the District since the 1960s. Since the middle of the 1960s, road development in Sarawak has been stepped up for security reasons and as part of the wider policy of rural development. The Kuching-Serian road was upgraded in 1969, making it one of the best stretches of metalled road in the state, and since then the Serian-Mongkos road has been upgraded. Today both Tian and Engkaroh can be reached by car in less than two hours from Kuching.

Although both communities were highly accessible at the time of the fieldwork, Tian was relatively more accessible than Engkaroh. Tian was located in an area served by a relatively developed system of public transportation. There was a regular bus service to Kuching and Serian. Indeed some of the villagers in Tian were able to commute daily to work in the towns. Several villagers owned motorcycles and cars, and these villagers were people who had to make regular trips to the towns because of their work. Because of their accessibility to the towns, the villagers were highly dependent on the services available in the towns. Almost all of their purchases of consumer goods were made in the towns rather than the village shops. More of the villagers in Tian made use of the post office and commercial banks for savings than the people of Engkaroh. When Tian received its electricity supply in 1985, the villagers had to make trips to the towns at least once a month to pay their electricity bills.

In this sense, Tian had become part of Serian, the main town in the District.

Engkaroh was not as accessible as Tian but by the standards of many rural communities in Sarawak, it was very accessible in 1986/87. The public road transportation serving this area was not as good as that serving Tian. The bus service between Mongkos and Serian made only three trips a day. The villagers had to wait early in the morning to catch the first bus to Tebakang, Serian, and Kuching.

The problem of transportation in Engkaroh was reflected in the cost of goods in the village. An item of canned food generally was sold at 10 to 20 per cent above the price in Serian. The cost of a building brick in Engkaroh was 70 sen which was 30 sen more than the price in Serian. The belian wood post (Borneo hardwood) which was used in house building, cost \$80 per post in Serian, but the people of Engkaroh paid \$100 to \$120 for a post delivered to the village.

There was only one four-wheel-drive vehicle in the village and an ancient Toyota belonging to one of the villagers. The vehicle belonged to one of the shopkeepers. The villagers could hire the vehicle in time of emergency and the charge was \$60 for a return trip to Tebakang, a distance of about 18 kilometres. Because of the difficulties of transportation, the villagers did not visit the towns as frequently as those of Tian. The villagers, however, were less dependent on the towns for their needs. There were four village shops in Engkaroh supplying most of the everyday needs of the villagers.

With an increase in the accessibility of these two villages, nascent participation in the local market economy was evident. In Tian some villagers were already involved in the vending of village grown fruits and vegetable in Serian and Kuching. This normally was done during the weekend, on Saturday and Sunday. At the time of the fieldwork not many villagers participated in this new form of economic activity because there were jobs to be had on the cocoa projects. In other villages near Tian where there were no local employment opportunities, weekend vending of garden produce was engaged in by more people.

In Engkaroh at the time of the fieldwork no one was engaged in this activity. The main obstacle for the development of market gardening in Engkaroh was the high cost and difficulties of transportation. Occasionally though, some villagers had a surplus production of the more durable crops such as maize and this was taken to Serian to be sold. But this was not a regular activity and the surplus production for sale was normally not intended.

The improved accessibility of these two villages however, had drawn them into the local market for certain produce, especially those village products which were not grown by the market gardeners nearer to the towns. One agricultural product which was easily marketed was durian, a seasonal fruit which was highly sought-after locally. The 'durian season', although its harvest was very irregular, generally fell around September. The durian trees grew abundantly on Bidayuh land in Tian and Engkaroh and provided a good source of cash during their fruiting season. In Tian 5 persons reported having sold between M\$300

to M\$400 worth of durian during the 1986 fruit season. In Engkaroh the durian trees did not bear fruit during that season but according to the villagers, during the previous fruit season the tree owners earned quite a substantial income from the sale of the fruits. Durians were sold by individuals along the roadside to passing motorists or the middlemen who visited the villages with vans. It was also quite common for the middlemen to buy all the fruit on a tree for the season at an agreed price to be paid before the fruit ripen. The villagers have had very little problem in disposing of their durians.

The potential for the development of market gardening was good, especially in Tian because of its proximity to the urban market. The link with the local market had opened opportunities to the farmers in both villages to diversify into other cash crops. The DOA may yet again play a role in promoting this new activity through its recently introduced Agricultural Diversification Scheme.

The other linkage which the people of the two communities had with the wider local economy was employment in the wage labour market and the manual and lower ranks of the civil services. Table 6.1 shows the distribution of the members of the households interviewed in the various categories of employment in which members of the communities were engaged.

Table 6.1 : Occupational Pattern in Engkaroh and Tian in 1987.

Occupation	Engkaroh	%	Tian	%
Agriculture related work	230	98.7	47	68.0
Urban wage labour	3	1.3	8	11.7
Scheme/plantation/factory office work	-	-	3	4.4
Government/civil service	-	-	11	15.9
Total	n = 233	100.0	69	100.0

Reflecting the relative situation of the two communities, Table 6.1 shows that Tian had more people engaged in non-agricultural work. Almost 30 per cent of the members of the respondents' households in Tian were employed in this category, while in Engkaroh only 1.3 per cent or three persons were so employed. These figures, however, do not show the employment situations at other times. It should be pointed out that the situation changed with the agricultural seasons and the availability of job opportunities in the wage labour market. In Engkaroh many of the households interviewed had members who used to work as casual labourers in the towns at sometime in the past. It was very common for individuals to be employed intermittently; for example, for several one month stints in a year.

External employment in Engkaroh appeared to be very low because of the job opportunities created by the tea plantation. Since the opening of the plantation many villagers, who were employed as casual labourers in the towns, returned to the village to work, and those who

had sought employment in the towns stopped doing so because of the local opportunities. According to village informants, before the opening of the tea plantation, many villagers worked in the towns for short and long terms depending on their farming commitments and the job opportunities in the town. The younger people tended to work longer periods and in more distant places.

If 'wage labour' is included in Table 6.1 as a separate category, most of the people who were considered as working under the category 'Agriculture related job' would also appear under 'wage labour'. The reason for classifying the villagers who worked on the plantation under the category 'Agriculture related job' was the general perception that farming was their main occupation and that at least in theory, the villagers were in fact owners of the tea plantation. In practical terms, however, those villagers who worked on the plantation were wage labourers. As seen from the time of the fieldwork, for the foreseeable future, the only way the villagers were likely to benefit from the plantation was through their employment as wage labourers.

Besides having more people employed in non-agricultural work, more people in Tian were engaged in a wider range of occupations in that category. While in Engkaroh, because of the distance from the employment market, the villagers had to migrate (on a short- and long-term basis) to work in the external labour market. In Tian, several individuals, who were working in the nearby towns, lived in the village and yet others returned to the village weekly.

The cocoa project in Tian had also created opportunities for employment locally but unlike the situation in Engkaroh, the people who participated in the project did not become mere workers. They instead became owners of cocoa plantations. For those whose plantations were too big for them to manage on their own, it was necessary to employ the villagers who did not have any share in the project. They therefore became employers of their fellow villagers or those from the surrounding villagers. In 1987, it was not possible to obtain information on how many people would have been employed in such a manner. But among the villagers interviewed, 14 of those who had a share in the cocoa project, anticipated that they would need at least one worker to assist them on the cocoa plantation and possibly more workers during the period of peak labour demand in padi cultivation. Three individuals predicted that they would need at least three workers throughout the year to work on their cocoa plantations. These three villagers claimed to own between 10 to 30 acres of land under the project.

If the expressed preferences of the heads of households, as shown in Table 6.2, for the occupations which their children and grandchildren should seek was any indication of the trend in which the future occupational pattern in the two communities would take, then it could be expected that more people in Tian would be employed in the urban sector than the people of Engkaroh. Table 6.2 reflects the perception of the heads of households who were interviewed on the actual opportunities for such jobs. In Tian, because of its relative proximity to the job markets and the fact that many of the villagers had already gained such employment, the urban job market appeared to offer more

opportunities. There were considerably fewer reasons for optimism among the villagers in Engkaroh.

Table 6.2 : Occupational Preferences for Children and Grandchildren

Type of Occupation	Engkaroh	%	Tian	%
Working on Tea /Cocoa plantation	12	20.0	5	14.0
Urban work	18	30.0	21	62.0
Padi farming	30	50.0	8	24.0
	n = 60	100.0	34	100.0

The table shows the preferences of the heads of households, but it may not reflect the preferences of the younger generation. Interviews of some of the secondary school leavers in both communities indicated that these young people would rather work as wage labourers on the plantations than on the padi farms.

6.02 The Villagers and the Bureaucracy.

One of the major tasks of the government in a new nation is to integrate the marginal communities into national life. Modernization, a process which every nation is striving to promote, entails the integration of the marginal communities in all aspects - politically, culturally,

economically, and socially. One aspect of modernization, which the government has consistently emphasized since Sarawak's independence in 1963, is the improvement in livelihoods and the provision of basic physical and social infrastructure in the rural communities. As pointed out in Chapter Two, rural development has always been one of the most important areas of public concern, and this is reflected in the proliferation of governmental and semi-governmental agencies to implement these policies in the post-independence period.

The activities of the public agencies constitute a major link between a rural community and the wider society and was one of the major forms of 'outward-orientation' in Tian and Engkaroh. There was a widespread perception that the government should be responsible for the material well-being of the villagers, although as pointed out in the previous chapter, they were cautious about participating in government-initiated projects where they have to risk something. But the desire to benefit from the government rural development drive was pervasive and strong. The general opinion among the villagers was that the government should be the main activator in any form of village improvement. When the villagers reflected on issues of village development, more often than not the 'government' was mentioned as the most important variable. This could have been a reflection of the growing pathological dependence on the government, an attribute which sometimes is considered as a cause for the lack of initiative among rural communities. But it also reflected the villagers' awareness of the new external resources in their environment and their predisposition to look

beyond the boundaries of their villages for solutions to their local problems.

To the villagers, the government was a vague notion. Their most frequent contact with the government was through the field sections of the various executive departments of the government - the mobile medical unit, the malaria eradication team, the field staff of the Department of Agriculture, the schools, the District Office, and SALCRA's project offices. It should be noted that these government agencies were dealing mainly with the provision of some forms of services not the enforcement of law and order and the exaction of dues from the villagers. Indeed, the villagers were not exposed to repressive government measures. The Malaysian government was, as pointed out by Scott (1985: 50), 'less predatory than most of its neighbours'.

The most familiar government department and one with which the villagers in both communities had the most contact was the Medical Department. The Department, through its mobile rural clinic and the malaria eradication programme, had regular contact with the villagers. Especially for the people of Engkaroh, the mobile clinic provided the main, if not the only, access to modern medicine. Although the clinic was not equipped to deal with serious illnesses, the services which it offered covered the most common health problems such as fever, intestinal complaints, minor wounds, pre- and post-natal child and mother care and advice on health and general hygiene. The malaria eradication programme had almost wiped out the disease; it was a major health hazard until as recently as the late 1960s. The mobile clinic visited the

villages every three weeks, spending two days in each village, while the malaria teams made their spraying rounds every three months.

In Engkaroh, the Medical Department had assisted the villagers in laying a piped water supply system. Formerly the village, which was situated near the upper reaches of a river, depended on the river for the supply of drinking water and as a place for washing and bathing. Under this arrangement and to minimise the distance to the various houses, the water collection points were built within the village. This meant that the drinking water was frequently contaminated by washing and bathing upstream. Furthermore, because most of the houses were located quite a distance from the stream, carrying water for use in the house was an onerous task for the women and children who normally undertook such chores. A piped water supply to the houses was therefore both a health improvement and a labour-saving innovation. With the material and technical assistance from the Department, the villagers dammed the upper reaches of the stream to create a reservoir, which supplied water through the water-pipe system, also laid down with help from the Medical Department. Although the villagers also contributed partly to the cost of setting up the water supply system, it could not have been done without the help of the Department.

The most widely known government department in rural Sarawak is the Department of Agriculture. Overwhelmingly, the villagers in this study, associated the Department with the various forms of agricultural subsidy schemes. I have mentioned some of the activities of the Department, with respect to the 'improvement strategy' of agricultural

modernization, in an earlier chapter. Although most of the villagers had applied for one type of subsidy or another, not all of them had received one. However, more than half of the total number of villagers who were interviewed had received some form of subsidy from the Department. In Tian, 19 heads of household had received agricultural subsidies; of these 6 were given a pepper subsidy only, 5 obtained the rubber subsidy only, and 8 obtained both pepper and rubber subsidies. In Engkaroh, 31 heads of household had received one or both types of subsidy - 14 obtained the rubber planting subsidy only, 11 received the pepper subsidy, and 6 were given both types. The Department assisted the villagers in Engkaroh in constructing a communal fish pond in the late 1970s. The fish pond project had initially received much enthusiasm from the villagers but when the villagers were left to look after the pond by themselves, their lack of cooperation had caused it to be neglected.

The recipients of the subsidies had to be supervised by the field staff of the Department over a certain period to ensure that they used them properly. Although the Department had been unable to provide adequate supervision because of the shortage of manpower, its field staff had at least maintained some contact with the farmers at the early stages of the implementation of the subsidies.

The villagers themselves also took the initiative to contact the local branch of the Agricultural Department at Serian and Tebakang. Individuals would go to these offices to enquire about subsidies or to seek information and advice on certain crops or small agricultural

projects. Because of the proximity to the office in Serian, more villagers in Tian made such visits and on a more frequent basis.

The office with which the villagers had the widest range of contact was the District Office. It was one section of the bureaucracy which the villagers saw clearly as the 'government'. Historically, the District Office was the most visible part of the bureaucracy to the rural communities. This was particularly so when the government's only role in the remote areas of the country was that of maintaining law and order.

The District Office had also created a physical link with the villagers through its appointment of the headman in each village and a Pengarah/Penghulu, a chief of all the headmen in a particular area. The headman was a salaried functionary of the District Office. He represented the District Office at the village level. But he was also supposed to represent the villagers in the village-District Office/Government relationship. The headman traditionally was the leader of the community. He and the other village elders were a repository, as it were, of the adat or custom and tradition of the community. This was basically still true at the time of the fieldwork, but the headman was assisted by an appointed committee of two or three villagers (not necessarily elders) who commanded the respect of the community.

Although in settling a dispute between members of the community the headman often lacked the capacity to exercise power, the headman played an important role in obtaining a consensus, which was

generally the basis of his judgements. Consensus was also the basis of leadership decisions regarding communal activities, but such decisions were not binding, that is, those who differed could withhold their cooperation. In a situation where a section of the community disagreed with the majority opinion, the action finally agreed upon was usually never carried out. This proved to be a major weakness in the position of the leaders in the community. Where the headman lacked forcefulness and charisma, the position tended to be much more ineffective.

The headmen of Tian and Engkaroh provided contrasting cases in the headman's effectiveness due to personal qualities. The headman of Tian was a dynamic person and had the ability to draw the support of his villagers for his opinions. His greatest asset was his familiarity with local officials and politicians. The headman of Engkaroh, on the other hand, was a rather reserved individual. Many village elders thought that he was too aloof and much too involved in doing things which only benefitted himself. The fact that he was one of the mandors or work supervisors appointed by the plantation management was a cause for much scepticism among the villagers about his ability to represent them in their cases with the management.

The leadership problem in Engkaroh seemed to have worsened with the increase in the external involvement of the headman. In assuming the task of representing the government and the plantation management as a work supervisor he alienated himself from a section of the villagers. He failed to balance his roles - that of representing the villagers and the external authorities. To the villagers he had, in a sense,

become a part of the authorities, something which the strongly egalitarian Bidayuh villagers were loathe to accept. The headman was in this predicament because he lacked leadership qualities, particularly his inability to define the needs of his villagers and meet these needs preferably with external resources. It was easier therefore for him to play the role of a representative of the authorities where his tasks were clearly set down and routinized.

The headman of Tian was able to balance his roles well. Like the headman of Engkaroh, he was also appointed as a work supervisor on the cocoa project and exercised his role as the representative of the authorities. But he also appeared to the villagers to be actively representing their interests. He had been actively involved in getting the authorities to supply the village with electricity. In 1984, the village was supplied with electricity, something which the village had always wanted, being close to the towns. During his tenure, he successfully applied for funds, from the minor rural project allocation, for the improvement of the village. The levelling of the present village site in 1986 was the result of such efforts and so was the improvement of roads and footpaths in the village in 1985. Although it was not possible to establish whether these allocations of public funds were due entirely to his persuasive efforts or not, the villagers had given the headman the credit for bringing about these improvements.

There was a general conviction among the villagers in both communities that the headman should utilize his position in the administration to 'win' the favours of the authorities for the community.

This 'modern' expected role of the headman meant that there should be some new criteria in the choice of an ideal headman. Overwhelmingly, the villagers in the two communities agreed that a candidate for the headmanship should have some formal education and experience in dealing with government departments. These criteria were thought by most to be more important than the traditional qualities such as age, knowledge of local customs and tradition, and success in padi farming.

The opening of the land development projects in these two communities had further widened the scope of the villagers' relationships with the bureaucracy. Because of the physical presence of SALCRA in the communities and the extent of its involvement in the lives of the villagers, this relationship was more important than the others. The villagers also perceived SALCRA's role in the same manner as they did the other government departments. In other words, SALCRA's projects were expected to be welfare-oriented. The projects were seen as another case of communities gaining external resources for their improvement, akin to the various agricultural subsidies, free medical services, and the allocation of public funds for the village development.

In Tian, the nature of the project did not involve such a drastic change in the economic pattern of the village but all the same, it took up a significant amount of the land and labour resources of the villagers. The projects, therefore, directly placed the welfare of the villagers in the hands of SALCRA.

All of the villagers interviewed were aware of the financial commitment they had incurred in participating in the project, but most did not see that it involved a personal financial risk, and those who did believed strongly that the government or SALCRA would ensure that the people would not suffer the consequences of a failure. The only misgiving which the villagers often expressed with regard to the project, especially in Engkaroh, was the prospect of having nothing to fall back on in the event that the project should fail.

6.03 Grassroots Politics : The Discovery of a Bargaining Chip

Although party politics has been in existence in Sarawak since the early 1960s, and over those years the rural people have had several occasions to vote into office their political representatives, the awareness of the fact that their votes were highly prized by those who seek political power had only really developed in recent years. I had the opportunity to gauge the political awareness of the villagers and understand its nature in the weeks preceeding the state election in April, 1987. From my observations and interviews with the villagers, it was obvious that the people of Tian and Engkaroh took a keen interest in the fortunes of their local politicians and the political parties which were competing for their support.

To be fair, it should also be pointed out that communal awareness had also galvanized the villagers politically. In particular, during the April, 1987 election campaign, a heightened consciousness of Dayakism,

the political unity of the non-Muslim indigenous peoples in Sarawak, appeared to be considered as important as the question of patronage. This latter consideration, however, was promoted mainly by party campaigners from outside the village, and the village-level leaders of particular parties.

The villagers measured the credibility of their political representative by the contribution he made to the community, either from his personal resources or through his influence; that is his command over public resources. At the village level, political dissatisfaction with the government generally meant a dissatisfaction with the local representative. On the other hand, the local representative was quick to claim credit for any publicly sponsored project in the area. When feasible projects were not forthcoming in the area, the local representative frequently had to use his own resources to sponsor publicly visible minor village improvement undertakings.

Besides establishing himself as a patron of the community, the politician had also to establish specific patron-client links with influential local individuals, or the power-brokers in the village. The village power-brokers in their turn had to maintain a following among the villagers which, frequently, involved some form of patronage.

Some examples of how this form of political arrangement had worked advantageously for the villagers were the construction of the village church in Engkaroh, and the gravelling of the road connecting the village to the main road. The church had become a very important

building in most Bidayuh villages. For the more serious Christians, it provided a proper place for worship instead of a classroom or a village hall, while for others it was a symbol of modernity.

The people of Engkaroh had a chapel built for them by the SDA mission. It was a small wooden building which could not accommodate the whole population of the village should everybody have decided to turn up for a service. The villagers had wanted a church for a long time, especially when the neighbouring village, Mayang Mawang, had built a proper one. The villagers lacked the resources to build it on their own. The SDA mission could not finance such a project alone. The villagers, therefore, turned to their local politician, who obtained a grant from the government to finance part of the cost. Because a combination of the contributions from the government, the mission, and the villagers themselves was still insufficient, the politician himself had to contribute personally to the costs of the construction. In 1987, the church was still incomplete. The building work had been halted for several weeks because there was a shortage of materials. The local politician had promised personally to contribute the materials. Meanwhile, the villagers had already used the partly completed church for holding their Saturday services. The village leaders were confident that the politician would finance the completion of the church. They said he would not let them worship under an incomplete roof in a church which had the bare earth as its flooring. The responsibility of completing the church was, therefore, entrusted to the local politician and, in fact, the obligation on the part of the politician to ensure its completion was stronger because the uncompleted church had raised another grievance - that the people

were worshipping in a church with no proper roof, a floor of bare earth, and no benches.

In the early months of 1987, the road connecting the village to the Serian-Mongkos main road had been damaged by heavy rain. The road was difficult to walk on let alone for a motorised vehicle to pass through. It had been constructed with funds made available for minor projects. Its maintenance was, however, left to the villagers. Because the main users of the road were the Chinese traders from Serian, the villagers were able at times to get these traders to gravel the road when it became too muddy. But this was not a regular arrangement and in the early months of 1987, such assistance from the traders was not forthcoming. Some villagers approached the local state assemblyman to ask for his assistance in getting the gravel for the road. He gave the villagers a few truck-loads of gravel and that made the road passable, probably for half a year, after which a similar request would have to be made again.

In Tian, a similar village level political process took place. The headman himself was a strong power-broker and had a close connection with at least two local politicians. Much of his success in getting public funds for minor village improvements referred to earlier was attributable to this connection. In 1987, the headman requested the politicians to use their influence in getting the authorities to provide the village with a piped-water supply. Considering his influence on the politician then, it was very likely that the village would get the piped-water supply.

During the state elections of April, 1987 (referred to in Chapter Two), the people of Engkaroh were faced with a difficult political decision. They had to choose between supporting their local representative, who had become a member of the Parti Bansa Dayak Sarawak (PBDS), or rejecting the Sarawak National Party (SNAP), the political party which they had supported until then, and, at that time, a partner of the ruling coalition of political parties. Their representative had made a decision in April, 1987 to join a group of politicians who opposed the government. During the election, which was called after the state assembly was dissolved in early April, the local representative had to defend his seat as an opposition candidate. The villagers were convinced that the PBDS and the group which opposed the ruling party would win and form the new government. On top of that the local opposition candidate was their political patron, therefore they felt morally obliged to support him. Furthermore, the ruling party's candidate for the constituency was someone they were unfamiliar with and was, therefore, less likely to feel obliged to help them. The village political leaders, who were closer to the incumbent representative and had gained more favours from him, also exerted their influence among the villagers. According to these village leaders, most of the villagers who turned out to vote during the election, voted for the incumbent candidate. If one considers the fact that these villagers had traditionally supported the SNAP and were familiar with its symbol and the fact that there was suspicion among the Bidayuh of the Iban who dominated the PBDS, their support for the incumbent candidate was clearly based mainly on their relationship with the politician rather than the party and their belief that they were supporting the new government. Furthermore,

this politician had previously switched party allegiances but the villagers had always supported him whatever party he belonged to.

In Tian, although it appeared that the villagers were supporting a particular political party - the Parti Pesaka Bumiputera Bersatu (PBB), the major component of the ruling coalition, this support was mainly based on their support for their local representative, who was a member of the party. Although the representative was not competing in the election, he had given his support for the new candidate who was also from the same party. The villagers were therefore giving their support to the incumbent and thereby to his successor. The headman of Tian, who himself was an ardent supporter of the incumbent representative, was a highly influential village politician. He played an important role during the election campaign in ensuring that the villagers voted for the party's candidate. One way of convincing the villagers of the virtues of the choice was to point out the past 'contributions' of the incumbent to the welfare of the village. The villagers were reminded that supporting the party candidate would mean ensuring the continuation of the influence of the previous representative and the party.

The involvement of the communities in national politics had created a new kind of leader in the village - the village political leaders. This new kind of leader could come from the traditional leaders' group, but very often they did not. In Engkaroh, for example, the village political leaders were generally those people who had some education and were engaged in non-farming work, especially those who had experience working in the towns, mainly with the armed forces. With the

growing awareness of politics among the villagers, this group of village politicians provided an alternative source of leadership to that of the headman and his committee. They had, in the case of Engkaroh, significantly undermined the influence of the traditional leadership. In Tian, on the other hand, the traditional leadership (the headman) also played the role of the village political leader. Although he was not more educated than the headman of Engkaroh, Tian's headman actively associated himself with local politicians and was an influential opinion leader in the village. The fact that he assumed both leadership roles strengthened his position. Although there were some villagers who often disagreed with him, he was obviously much more influential than his counterpart in Engkaroh. In Engkaroh, the political leaders frequently had an open conflict with the headman especially regarding issues related to the work on the plantation. In any dealings with the local and state politicians, it was this group of leaders which often took the initiative.

Politics evidently had given the villagers of Tian and Engkaroh an avenue through which they could tap external resources for use in the village, either by the whole community or by individuals. Through the political processes at the grassroots level, they had developed a form of patron-client relationship with the political leaders and parties. In both communities, the relationship had proved to be advantageous - they had been able to secure external resources, although limited in amount. Politics, at least in the form in which it was understood by the villagers, was a factor which had become prominent in their perception of how the limitations of their village economy might be overcome.

6.04 Christianity and its Role in the Adoption of Urban Culture.

Perhaps one of the single-most important social processes in the experience of the Bidayuh communities was their conversion to Christianity. It was not only a radical change in the religious beliefs of the community but also a change in many aspects of the established ways of life; traditional Bidayuh religion, as pointed out earlier, was an integral part of their system of production and their social organization. Besides adopting a foreign system of beliefs, conversion also involved changes in many aspects of social organization, cultural practices, and even economic outlook. I argued earlier that the replacement of the traditional religion by Christianity had eroded the spiritual significance of padi cultivation. Although there are no concrete data to show that there was a causal relationship between the erosion of the spiritual meaning of padi cultivation and the adoption of cash crops, it was observed that those farmers who had planted more cash crops were mainly Christians. Elsewhere it has been suggested that the conversion to Christianity freed the people from the economic restrictions imposed by the traditional religious beliefs (Grijpstra, 1976: 75; 1978).

The missionaries combined their spiritual goals with the more worldly ones of modernising the Bidayuh communities. The Bidayuh were taught the fundamentals of 'modern' living - cleanliness and proper hygiene, literacy, the virtues of modern medicine, living in separate houses, and the superiority of a more settled form of agriculture. The inculcation of this modern value system involved a rejection of at least part of the old and established system and brought Bidayuh culture into

a closer relationship with urban culture. Cultural borrowing, especially from what were seen as urban sources - the 'superior culture'- became a more widespread tendency. But the adoption of modern ways of life and values did not depend only on the willingness to borrow or mimic, it was also necessary to have the ability to follow the new ways and that there be appropriate conditions for these to be put into practice.

The conversion of the people of Engkaroh to the Seventh Day Adventist church began in the early 1960s. From the recollections of the elders in the village about some of the activities of the missionaries then, it was evident that the conversion occurred swiftly and with less than due consideration for the cooperation of the villagers. The village elders recalled how the villagers were asked to clear the jungle in front of their longhouse for what was supposed to be an airstrip for the mission's aeroplane. When the jungle was cleared and a field was taking shape, the villagers instead were asked to build individual huts in the cleared area. It turned out that the cleared jungle was intended as the site of their new village, which was organized in the form of a cluster of single houses, each comprising a household.

The change to single house dwelling arrangements happened immediately after the villagers' spiritual conversion. The elders were not sure if longhouse living was regarded as unchristian by the new religion but, according to them, the act of abandoning the longhouse was the most drastic aspect of their rejection of their traditional way of life. It was possible that the missionaries thought it necessary to disassociate the villagers from the environment where the traditional beliefs were

practised to ensure not only a psychological orientation to the new religion but also a physical one. This was necessary in the context of Adventism's emphasis on the doctrine of rebirth as an integral part of conversion (Dixon, 1972: 210). Becoming a Christian to an Adventist is an immediate event, and it implies an immediate rejection of any animistic beliefs which are certain to conflict and compete with the Christian theology.

Being late-comers, the SDA missionaries might have also learnt from the experience of the other Christian denominations, that the conversion of the longhouse people did not result in the people embracing the religion in its purest form when they were allowed to retain important elements of their traditional life-style.

It was also possible that the missionaries, who were individuals unaccustomed to the living conditions of the longhouses, were motivated by their desire to introduce the villagers to what they believed was a better mode of life. Even the village elders themselves in the late 1980s, of course having accepted the values which the missionaries brought, saw the longhouse as 'very dirty and unhygienic'. One elder, who claimed that he was in his late teens when the villagers abandoned the longhouse, said that there was a high incidence of infant death, skin diseases, and fatal intestinal diseases such as cholera then. Comparing the situation then with the condition of the village in 1986-87, he believed that the missionaries had brought them out of their earlier squalor and disease-ridden existence.

In Tian, being nearer to Serian and Kuching and therefore more accessible, the people came into contact with the earlier missionary activities of the Society for the Propagation of the Gospel (SPG) and the Roman Catholics. The SPG was the earliest mission to attempt the conversion of the community, and later the Catholics. The conversion of some members of the community to Catholicism led to a split in the community, resulting in two 'quarters' - the Catholics occupying the northern part of the village, known as Tian Baru, and the SPG, the southern part or what was Tian proper. The conversion of the people of Tian was a relatively gradual process, for this reason it was possible for two missions to compete for their followings from among the same community.

After their conversion, starting in the late 1940s, the villagers continued to live in the longhouse, which was located about one kilometre south of the present village site. The change to single house dwelling arrangements took place in the early 1960s. Unlike the case of Engkaroh, this change could not be attributed directly to the villagers' conversion to Christianity, although it must have been partly responsible. The headman recalled that before the longhouse was abandoned it had been in a serious state of neglect. It seems that some of the members of the longhouse community had become reluctant to repair their sections of the longhouse. What caused this reluctance was not clear. The longhouse certainly was disintegrating both physically and socially.

As in Engkaroh, the village elders in Tian who were interviewed thought that the change to separate dwelling arrangements had been

necessary because their longhouse was a very unhealthy place to live in. Among the SPG and the Catholic missions, the efforts at educating the Bidayuh to appreciate the values of cleanliness and other basic aspects of modern living was as actively carried out as that of the SDA mission. The awareness which this had created must have partly accounted for the frequent references to the unhygienic living conditions of the longhouse, and the peoples' willingness to abandon it for single house dwellings.

Another factor which might have contributed to the breakdown of the longhouse form of residence in Tian was the conversion of some of its residents to another Christian denomination - Catholicism (the split referred to earlier). In other communities, this situation had caused the breaking away of a part of the original community to form a new one (Geddes, 1954a). Although this was not mentioned by the villagers as the reason for the change to single house dwellings, some village elders suggested that it had weakened the social cohesion of the original longhouse community.

The change to separate residential form and the villagers' exposure to the values of cleanliness and proper hygiene did not result in an immediate improvement in the standard of hygiene. According to the village elders (in both communities), when they first moved to their single houses, the condition was just as bad as that of the longhouse they had left behind. The huts, which were supposed to be their temporary home before they built their permanent houses, were congested and soon fell into a bad state of disrepair.

As much as they depended on local materials for their longhouse, the villagers were also dependent on the same materials for their single houses. They still depended on bamboo and local softwood, and sago leaf for making the roofing materials. House-building skills did not improve while the building of single houses became a much more demanding task as individuals had to build the whole house themselves, without relying on community cooperation. With the longhouse, individuals had at least one section of their apartments constructed jointly with their immediate neighbours. Because the houses were built in some haste, especially in Engkaroh, generally they were of poor workmanship. Several of the houses in the village up to the late 1980s were no better than the apartments in the longhouses.

One improvement in the environment of Engkaroh which took place soon after the villagers had been converted to the SDA was the disappearance of the village pigs, which had been the main cause of the constantly muddy and wet compound of the village. The disappearance of the village pigs was a consequence of the SDA's prohibition against the consumption of pork. The general appearance of relative cleanliness in the village with separate houses was also partly due to the space in between houses, making it easier for the area beneath the houses (some houses were built on stilts) to dry out quickly after it rained.

In Tian, the move to single house dwellings was also undertaken in gradual stages. Initially the villagers built temporary huts along the ridge which had been levelled to form the site of the present day village. Like the situation in Engkaroh, the single houses in Tian were also not

much of an improvement over the longhouse. The houses were built on the sides of a hill, a location which exposed the houses to the danger of landslides. Many houses were threatened with the possibility of losing the ground on which they were built. This prompted the villagers to request the authorities to level the hill so that they could rebuild their permanent houses on level ground. This was done in 1982 and since then the villagers had rebuilt their houses on stable ground.

The activities of the missionaries have had a more direct and immediate impact in Engkaroh than in Tian. But in both communities, the activities of the missionaries had contributed to the villagers' own disparagement of their traditional ways of life. They have been taught to follow the ways of urban people, which they had associated with the modern world. Their traditional living arrangements were associated with diseases and squalor. The villagers saw that what was considered to be a better way of life was similar to that practised by the Chinese and Malays in the towns. These therefore became the sources of cultural borrowing.

Improvements in housing were made possible by the expansion in the opportunities for earning cash income. When the people first left the longhouse, they moved into separate houses on stilts, about four feet from the ground, very much like a typical Malay house. But in 1987 many of the houses in Tian and Engkaroh, more so in Engkaroh, were stiltless. These stiltless houses were either of single storey or double storied (ground and top floors). The single storey houses generally had floors made of cement while many double storey houses had ground

floors of bare earth. The reason for the latter was because the houseowners were not in a great hurry to cement the floor since they already had a proper floor on the top storey.

Some dwellings were built as semi-detached houses normally by two close relatives. This was done only in Engkaroh. Many of the new houses in Engkaroh were built of hollow brick, cement, wood, asbestos, and corrugated iron sheets. These materials were used in varying proportions according to the financial situation of the particular houseowner. Inside the more recently constructed houses, the space was divided into rooms, although some only with makeshift partitions. There were clear divisions between a living room, a kitchen and dining area, and the bedrooms. In many houses, there was no partition separating the living room from the kitchen and dining area. In such houses, the only area hidden from the view of visitors was the bedroom.

These new styles of houses were modelled after the town houses and Chinese farm houses. Houses with a cement ground floor, wooden top floor, hollow brick wall, and asbestos or corrugated iron sheet roof were fashioned after the new and cheaper houses in the towns, while the practice of using bare earth as a temporary, and in some cases, semi-permanent floor, was an application of a common practice among Chinese farmers in the area.

The houses were arranged in a ribbon pattern, facing the village road on each side. Again this was the pattern of town settlement and Malay villages. In Engkaroh, however, some parts of the village were not

arranged in this pattern. At the end of the village road, several houses were grouped together haphazardly, their location being dictated by the need to site the houses on higher ground.

Living in stiltless houses meant that the occupants could not dispose of their garbage and household waste in the old ways, that was by dropping it through the slats in their bamboo floors and leaving it to be cleared by the village pigs, which roamed under the longhouse. Even those villagers who still lived in raised houses could not practise the old method of waste disposal without protest from their neighbours who lived in stiltless houses. Household waste in both communities was normally heaped in the backyard. Some villagers took the trouble to burn the waste occasionally while most of them left it to rot. Human waste was also disposed of away from the houses, some in pit latrines and others in the bush. This is one aspect of hygienic practices which the missionaries have tried to inculcate. The adoption of new practices of waste disposal became a practical necessity with the changes to separate house residential arrangements. Furthermore, in Engkaroh where the SDA prohibited the rearing of pigs and the consumption of pork, there were no animals to clear the waste, and the villagers had to make an effort to clear it. Also the responsibility for cleanliness became 'individualized' to each household living in a separate house; it was clear that the waste surrounding a particular house was the responsibility of the occupants.

Whether it was intended or not, the encouragement and direct action of the missionaries to change residential arrangements in Tian and

Engkaroh and to inculcate the values of modern living were mutually supporting. Because of the physical change it became imperative for the villagers to adopt the new practices which the missionaries had taught them. Since the model of the desired new way of life introduced by the missionaries was similar to that of the town people, villagers developed a tendency to emulate urban society. Of course, the missionaries were not the only group responsible for this. There were other sources of influence, for example, the various government agencies, particularly in the post-independence period. But the missionaries, particularly the SDA mission in Engkaroh, directly attempted to change traditional values and worldviews.

The conversion of the villagers to Christianity also provided them with a basis for cultural communality with people of other communities, including those in the towns who had been similarly converted. Christianity is one of the main religions of the town people. Those who brought the religion to the villagers were also people from the towns. The sharing of a religious belief with other communities enabled the villagers to identify with people beyond their villages. Religion also modified the Bidayuh view of who constituted their community, in other words that people from other communities, who share their religion, were also part of their community, or at least were those with whom they could easily identify.

In Engkaroh, the villagers, who were almost all followers of the SDA, were particularly conscious of their religious identity and their similarity with other SDA communities, whether they were Bidayuh or

non-Bidayuh. The people of Engkaroh maintained very little contact with the people in neighbouring Mayang village, who were mostly Catholics. This religious difference contributed to the problem of lack of cooperation between the people of these communities on the tea plantation. Instead, the people of Engkaroh regarded the people of distant Lanchang, who were also followers of the SDA, as real neighbours. The consciousness of the people of Engkaroh about their religious identity was attributable to their minority status in the local area and even in the whole of Kuching Division. The SDA mission, being a latecomer to the area, was left with very few communities to convert. These tended to be the communities which were least accessible when the river was the main form of transportation and roads were not yet developed in the district.

SDA Bidayuh communities were not only few in number but were also far from each other. Because they were normally surrounded by villages which belonged to the other Christian denominations, they tended to be very conscious of their religion's uniqueness. The uniqueness of the SDA communities was not only due to their minority status but also their observance of certain religious practices and prohibitions. The followers observed a sabbath day on Saturday, when work of all kinds was suspended. This was the day when the service and the equivalent of the 'Sunday school' was held. To the people of Engkaroh, the observance of a sabbath day on Saturday was strictly followed.

The followers of SDA were prohibited from eating pork and some types of fish. The consumption of any kind of alcoholic drink was also prohibited. These two dietary prohibitions went against two important elements in traditional Bidayuh culture. Although the Bidayuh villagers did not eat meat very often, when they had meat or were able to buy meat, it was often pork. Pork was more readily available. Of the wild animals, wild pigs were relatively more numerous than the other big animals in the surrounding forest, and a hunter was more likely to catch a pig than a deer, once their favourite game. In the village pigs were reared for their meat and for sale. For people who know very little animal husbandry, pigs are very easy to keep. The animals were allowed to roam about the village, feeding out of household refuse, and locally growing plants, which were the favourite food for pigs. To prohibit the Bidayuh from eating pork, therefore, was to deprive them of their most easily available and favourite meat. To the non-SDA villagers, the practice seemed to limit a source of good food.

Alcoholic drinks such as rice wine, beer, and whisky were some of the main fares in any Bidayuh celebration. When the Bidayuh still practised their traditional religion, rice wine was often consumed and offered at rituals to honour and appease the spirits. To a certain extent, this practice had been carried over to both the secular and Christian religious celebration (except among the SDA followers) of today. Indeed, the consumption of alcoholic drink at any other times was very common. Village youths often organized dancing parties in the village hall and beer was always available to enliven such occasions. The fact that a group of people ritually abstained from taking pork and alcoholic drink

among people who considered pork to be a delicacy and alcoholic drink, a necessary part of a good time, certainly gave the group a unique identity.

6.05 Conclusion

This chapter shows that the Bidayuh farmers of Tian and Engkaroh had also been responsive to changes in the non-agricultural facets of their communities. These changes had prompted their participation in the wider society and created an awareness of the wider society as an important resource in their quest for solutions to the limitations of their village economy. Some of these changes were radical in nature, that is they took place rather rapidly and involved important aspects of their lives such as their belief system and their way of life. Even in respect of these rather radical changes, both communities, were able to accommodate these forces of change and adapt to the situations very much as they did with changes in the realm of agriculture.

As a result of these changes, both communities had strengthened their political, cultural, and economic linkages with the wider society. These linkages no doubt, were likely to multiply and be enhanced as the communities increased their political, cultural, and economic interactions with the wider society.

CHAPTER SEVEN

CONCLUSION

This study suggests that change is inherent to a community and that the impetus for change is both internal and external to it. The nature of change or how the community is changing is determined by the community itself, based on its experience, the resources at its disposal, and the relevant factors in its environment. Increasingly however, in many societies, the government is playing an important role in determining the nature of change through its policies. In this case there is bound to be a conflict between the two unless there is compatibility between change desired by the government and the pattern of change at the community level.

7.01 Change is Inherent.

It has been suggested that traditional communities such as the shifting cultivation communities are reluctant to change. They cling to their traditional modes of life because of their love for it. This perception is common among those who hold that the traditional system of agriculture which supports such communities is ecologically conservative and in a stable state of balanced equilibrium (Padoch, 1978: 6). It is also suggested that where this balanced equilibrium is disturbed, such as when the land for shifting cultivation is limited, the system would atrophy, bringing in its wake all forms of maladaptation (Hong,

1987). This view suggests that shifting cultivators are not capable of adapting to internal and external forces impinging upon their system.

It is this view that promotes the perception that shifting cultivators are traditional people bounded to their traditional practices by custom and a value system which defends the tradition. Seen from this point of view, it is obvious that a community which still maintains the practice of shifting cultivation, even in a modified form and within an evolved farming system, is perceived to be traditional - the persistence of shifting cultivation is a manifestation of the attachment to tradition.

This view also implies that the shifting cultivators, given the choice, would not want to change. Any change that is taking place is forced upon them by external forces such as the political and economic intrusions of the urban-based elites, and the insidious phenomenon of population growth (also externally induced - as a result of the Western advancement in medical science). Therefore, as Hong (ibid: 31) puts it '(t)oday these self-contained communities are threatened by the larger society and powerful forces of the State which they cannot avoid or control'.

The farmers of Tian and Engkaroh show, on the contrary, that they were not averse to change neither were they totally forced to change. They had evolved a farming system which they regarded as suitable, given the limitations of their environment. Their semi-commercial agriculture was their response to both the external and internal forces impinging upon their traditional system. It was through the adaptive

nature of their semi- commercial agriculture that they were able to incorporate modern agricultural innovations.

Their traditional agricultural system was far from ideal. Among the Bidayuh one would find it difficult to hear of a nostalgia for the days gone by. As I pointed out in Chapter Three, the traditional system was fraught with limitations and these limitations in the end had to be overcome with involvement in the wider society. Thus, their acceptance of rubber growing was quite instantaneous and at one stage, was undertaken against the regulations of the authorities. Similar response was observed later when other crops were introduced after the decline in the economic importance of rubber.

The manner in which they change or the form of change which they could accept, however, were governed by what they considered to be local cultural, political, and economic realities. For example, the coexistence of rubber-growing and the subsistence agricultural activities in their semi-commercial farming system was based on their consideration of the risks inherent in production for the market. No single economic activity had been found which could sufficiently support a farming household. Therefore, agricultural specialization was something which they did not consider to be rational.

The adaptive change involving the diversity of economic activities which I discussed in Chapter Four, was the most rational path of change to pursue. It was less risky and less demanding in terms of investment in inputs. The small-scale acceptance of innovation, such as the growing of

only 300 vines of pepper did not cause the farmer too many difficulties in securing enough capital to start the garden. Some farmers even resorted to using cheaper materials for the vine posts. The small scale of cash crops cultivation also ensured that the limited labour of the household was not stretched beyond its capacity, so that every activity in this 'economic diversity' could be carried out properly.

The responses of the villagers of Tian and Engkaroh to the in situ land development projects in their area demonstrate the implications of this local pattern of adaptation on planned change. In Engkaroh, the implementation of the tea plantation project was not readily supported by the villagers. The project's major problem was the unwillingness of many villagers to participate fully as labourers on the plantation. Many villagers were unable to turn up for work on the plantation regularly because they had also to work on their padi fields and pepper gardens; they had to maintain 'economic diversity' - the essence of their adaptive strategy. As long as they had not developed enough confidence in the tea plantation, adherence to the strategy was prudent.

In Tian, the introduction of the cocoa project did not upset the adaptive strategy. Unlike the tea project, the cocoa project in Tian did not compete directly for labour with other activities. It also did not compete for land with padi cultivation. It was therefore easily incorporated into the local pattern of adaptation to change.

It was this adaptive form of change which had given these communities the appearance of unchanging communities. They were

still growing hill padi with the shifting cultivation method, but this hill padi was part of the diversity which I mentioned earlier. If one looks at change as a lineal and unidirectional process, it is quite likely that one would consider the Bidayuh semi-commercial farming as a transitional stage towards a fully commercialized agriculture. The persistence of hill padi was not due to the farmers' attachment to tradition as the farmers of Tian and Engkaroh have demonstrated. Hill padi was still grown mainly because there was no land available for a switch to swamp padi. In Engkaroh, the terrain was so hilly that swamp land was only found in narrow valleys and these were prone to flooding. As a result, most of the farmers in Engkaroh still grew hill padi. In Tian, on the other hand, there was substantial swamp land, therefore many farmers had switched to the cultivation of swamp padi. Thus, generally the persistence of hill padi cultivation was not due to the persistence of tradition but rather the limitation of local resources, especially suitable land for alternative activities.

Shifting cultivation was still practised but in a much modified form. The use of modern inputs such as fertilizer, weedicide, and power-saws was quite widespread. Some of these innovations were made because they could improve the productivity of the farm. Others were adopted because of the need to save labour to be used in other activities. In both Tian and Engkaroh labour saving innovations were adopted quite extensively after the villagers were involved in SALCRA's projects.

In his study of rural development among the Bidayuh, Grijpstra (1976) suggested that the problem of Bidayuh agriculture is the inability

of Bidayuh farmers to take risks. I think it is rather unfair to expect people to risk their livelihood, especially when they do not have much to fall back on. I suggest instead that the problem of Bidayuh agriculture is that the risks were too heavily stacked against them and therefore that it was irrational to take risks prodigally. Nevertheless, they did take risks, as evidenced in the changes and innovations which they had accepted into their agriculture and economy, but these were made through strategies which minimised the impact of possible failures on their livelihood.

Geddes (1954a: 112) argued that the Bidayuh were not inherently opposed to developments which could benefit them. One of the main reasons why they sometimes opposed change was their mistrust of the external world. As Geddes (*ibid*: 113) puts it:

The Land Dayaks (Bidayuh) are people without illusions of their own worth. They have a low opinion of the world and of their place in it. They do not expect anyone, even the government, to bother much about them. Believing that they must rely on themselves, they naturally prefer to do so in their own way. They will not therefore be much inclined to accept a reordering of their affairs until they have been given a practical demonstration of a genuine concern for their welfare on the part of those who advise them.

This mistrust of the external world was still the essence of the reaction of the people of Tian and Engkaroh to externally induced change. In economic matters the attitude was manifested in the cautious and gradual manner in which changes were accepted. The mistrust was not unfounded; the unstable market for their produce and labour was a

reality which all rational farmers, not only Bidayuh farmers, would have to consider in making their production decisions.

7.02 Change: The Village Level Perspective.

The study of Tian and Engkaroh also shows that there was variation in the pattern of change in the two villages, although they were located in the same general area and populated by people of the same culture. The form of economic adaptation in the two villages was determined by the nature of the local resources, mainly land, and the proximity to the local market and urban centres.

One major difference between Tian and Engkaroh was the main type of padi grown. In Tian, swamp padi was predominant, while in Engkaroh it was hill padi. This difference arose because of the availability of swamp land in Tian and the lack of such land in Engkaroh. This situation had some important implications for the nature of agricultural change in each village. In Tian, the production of a food crop, that is padi, did not compete in the use of land with the cash crops because most cash crops did not use swamp land. Therefore, any development involving the expansion of cash crops would not have jeopardised food crop production. In contrast hill padi in Engkaroh competed with other crops for land. The land used for the tea plantation in Engkaroh was former hill padi land. The rubber gardens, emerging cocoa gardens, and pepper gardens in Engkaroh all utilized former padi land.

The two villages were also different in that padi cultivation in Tian was a more rewarding activity than that in Engkaroh. A possible implication of this was that in Engkaroh it would be much easier for the villagers to expand the commercial component of their semi-commercial farming system. This was because their subsistence activity was only contributing minimally to their total income. The only way they could improve their income was to produce more cash crops.

In Tian padi cultivation was a viable activity, the harvest during the 1986/87 season was quite substantial for many farmers. The continuance of padi cultivation in Tian would not obstruct the expansion of cash crops because it did not compete with them for land and hired labour was easier to obtain if there was a need for it.

These local variations had implications for development policies which are designed for implementation nationwide. The blanket policies and development projects which are treated as 'blue prints' are not likely to take these local variations into consideration.

Besides this village level variation, policy formulation and development planning should also recognize the semi-commercial form of agriculture as a locally evolved system, based on local knowledge and goals of the farmers concerned. This idea has been supported by scholars of development studies (Lim, 1987; Cramb, 1990, Abdullah, 1991).

Gomes (1990) has argued that the 'simple commodity production', which is similar to 'semi-commercial farming', had contributed to the

improvement in the income of the Orang Asli in Peninsular Malaysia. Likewise the semi-commercial farming evolved by the villagers of Tian and Engkaroh, which I described in Chapter Four, was a viable system in the context of the local limitations. Any attempt at improving agriculture in the area should not overlook this local pattern of adaptation.

No attempt has been made specifically to improve this local system. The DOA, however, has contributed indirectly to the improvement of this system through its subsidy schemes (refer Chapter Two). Thus King (1988) suggested that the DOA's programmes of in situ agricultural development could have contributed most to the increase in the welfare of farmers in Sarawak. However, the DOA's subsidy programme is crop specific, not addressed to the farmers' total farming system. A recognition of this local farming system in the formulation of policies and plans in itself is a promotion of local participation in development.

7.03 Planned Change With Peoples' Participation.

The experience of Tian and Engkaroh with the in situ land development projects has yielded some new insights into the role of planned change in development. Planned change need not be an 'imposition' which the people have to bear or are forced to reject. There can be cooperation between policy-makers, implementors, and the beneficiaries.

The in situ land development projects implemented by SALCRA in the two villages were based on a land development policy adapted specifically for the development of native customary land. This policy takes into consideration the peculiar status of native lands such as the multiple rights, and their generally poor agricultural value, utilized for an unproductive shifting cultivation of hill padi; and the scattering of land belonging to a landowning group over a wide area. The area chosen for the implementation of the project is normally an area where the farmers are generally poor and have limited opportunities to improve their income. In this sense SALCRA's development policy is designed for the specific problems of the native farmers in Sarawak, it is not a national development policy which could be applied anywhere in Malaysia.

Even though the policy is tailored to the local situation, SALCRA's projects are not implemented as a 'blue print'; the implementation of the project takes into consideration the specific area in which it is implemented. In Tian and Engkaroh it was this nature of the project implementation which had allowed many local inputs to influence the projects.

The management of both schemes was quite independent of the head office in their daily running of the projects. Unlike 'blue print' projects such as the FELDA schemes in Peninsular Malaysia, SALCRA's projects are not based on a certain 'model'. This allowed the management at project level to improvise when the situation required. In other words, the management of the project has the potential to act promptly on the feedback from the villagers.

7.04 Gradual Change.

The difference in the reaction of the people of Engkaroh and Tian to the projects, was partly due to the speed of change required by each project. The speed of change in the case of Tian and Engkaroh was determined by the nature of the projects. As I pointed out in Chapter Five, the difference in the reaction was also due to the clash (in the case of Engkaroh) and compatibility (in the case of Tian) of the projects with the then - prevailing pattern of adaptation in each village.

The tea project in Engkaroh was a totally new experience for the villagers. The most alien aspect of the project was the 'work culture' - the regimentation and discipline. These involved the individual directly and immediately upon the implementation of the project. Because of the difficulties in adjusting to the requirements of work on the plantation many villagers initially showed dissatisfaction with the project. The poor labour turn out was partly due to this. On the psychological plane, this difficult period of adjustment also caused much unhappiness - an issue which is often overshadowed in development planning by the concern for improved income.

The villagers in Engkaroh needed time to get used to the new 'work culture'. My observations indicated that the villagers valued the employment opportunities offered by the tea project. This was evident in the manner in which they distributed their labour; many villagers turned up for work on the scheme for more days than the 10 day minimum but not for every working day in a month. This ensured that they would not

be suspended from working on the plantation. Most of those who were suspended appealed to be reinstated and regretted their failure to turn up for sufficient days.

Their complaints about the tea project were mainly directed at the nature of work. They said that they found it difficult to sustain the pace of work as they had to meet a certain target daily. They also found it very difficult to go through the monotony of picking leaves, digging holes (for planting the tea seedlings), and spraying pesticide. This was compounded by the fixed working and resting periods and the constant supervision by the field staff of the plantation.

This difficulty in adjusting to the new work culture was understandable considering the more leisurely, independent, and varied nature of the work on their own farms. An individual also could not see the direct connection between his effort and production. On his farm the farmer could see his effort in the form of the harvest. Partly because of this, many villagers felt that they were mere kuli or labourers on the plantation.

To ensure a willing participation on the tea project, the farmers needed a period of learning and getting used to the new work practices. The plantation management took considerable effort to ease the farmers' period of adjustment; one notable measure was the very personal approach taken by the scheme management in dealing with the villagers. The plantation also appointed its mandor, or supervisors, from among

the villagers. These supervisors could be trained to handle the villagers properly so that they could associate better with the plantation.

In Tian, the cocoa project did not require such an abrupt change in the work culture or the acceptance of a totally new one. Indeed undertaking such work as was required by the cocoa plantation was something which the villagers were already used to. They had been working on their own rubber and pepper gardens. Clearing the weeds and applying fertilizer were tasks which they had done on their own gardens.

Unlike the tea plantation, the cocoa plantation did not demand as much labour. There was no compulsion on the part of the participants to work every day on the cocoa plantation. In fact the participants in the project could hire someone else to work instead. This was possible because 'ownership' of part of the plantation was clearer. In Engkaroh the plantation belonged to the whole village, therefore it was the responsibility of everybody to contribute labour (as paid workers) to the plantation.

To the participants in the cocoa project in Tian, working on the cocoa project was just like working on their own cocoa garden. Not only was the nature of work familiar but the concept of ownership and how they could benefit from the project was also similar to their other cash crop-growing activities. In comparison, the people of Tian were undergoing a gradual change while those of Engkaroh experienced a

relatively rapid change. This had affected the manner in which the villagers in each village responded to the projects.

7.05 The Bukar-Sadong Bidayuh: Facing the Challenges of Modernization.

Scholars who have studied the Bidayuh have not shown much confidence in the ability of the Bidayuh to face the changes brought by modernization. Leach (1950), one of the earliest scholars to study the Bidayuh, thought that their household economy would atrophy upon contact with the wider society. Grijpstra (1976) considered the main problem of the Bidayuh farmers as being unable to take risks. Geddes (1954a), who carried out extensive fieldwork among the Bukar-Sadong Bidayuh of Mentu Tapuh (near Engkaroh) suggested that they mistrusted the external world and only believed that they could rely on themselves, even though they had a low opinion of their ability to do so.

The Bidayuh of Engkaroh and Tian in 1986/87 demonstrated that they were facing up to the challenges of modernization. They had evolved a system of agriculture which could sustain the community with a standard of living obviously much better than their ancestors. Their contact with the wider society was not totally destructive; they changed their religion, they had participated in national politics, produced crops for the international and local market, and changed the nature of their dwellings (from the longhouse to the village with separate houses), yet their communities were still intact.

With the linkages that they have established with the wider society they have become part of it (refer Chapter Six). The people of Engkaroh and Tian knew that the resources which they could draw upon to solve their local problems were not confined to the village; the external resources have increasingly been drawn upon. Geddes's (1954a) observations that the Bidayuh then mistrusted outsiders and preferred to rely on themselves may have been true in the late 1940s but in 1986/87 the Bidayuh of Tian and Engkaroh confidently sought relationships with the external community, although they were still cautious.

Their lack of willingness to take risks was not a problem inherent to the Bidayuh, it was rather a problem of everyone in similar situations. Their household economy was very precarious. It was rational to be cautious in that situation. When they saw an opportunity, they demonstrated their ability to use it well. For example the villagers in Tian were quick to accept SALCRA's cocoa project. The people of Engkaroh also accepted the tea project easily though cautiously because of the reasons I have discussed earlier.

7.06 Recommendations

One of the most important insights gained from the study is the importance of recognising the strength of locally evolved economic systems. These latter are the product of local experience, goals and realities. Public policy should incorporate the local system into the new arrangements which are being introduced. In the case of "semi-commercial agriculture", change should not attempt to replace this with a totally transformed socio-economic system. As the experience of Tian and Engkaroh shows, change can build on the existing structure. A recognition of indigenous values and practices and their incorporation into government development projects ensures local participation and co-operation because it does not alienate the local people.

The study also suggests that there is a need to allow for more project-level autonomy in decision-making. Although SALCRA's *in-situ* land development strategy is tailored to local conditions in Sarawak, there is still a great deal of fine-tuning required to make it more responsive and relevant to village-level needs. Project-level managers should be given more autonomy to make decisions on the ways and methods in which the projects are actually implemented. The scheme manager of the tea plantation in Engkaroh, for example, is an individual with a deep understanding of the local people and conditions. This understanding had enabled him to reformulate strategies on the ground where it was administratively possible; this, in turn, had lessened the resistance that the people in Engkaroh had shown to the project in the early stages of its implementation. Given more freedom to make project-level decisions, the scheme-managers might then be

able to devise more effective approaches to meet their individual circumstances.

The study shows the weaknesses of a nation-wide development policy. The fact that local-level conditions and needs vary, as is seen even within the Serian district, demands that such a development policy be modified to allow for locally relevant and sensitive policies. A centrally formulated policy should only provide a general guideline for development within which local-level policy and planning can be made.

POSTSCRIPT

TIAN AND ENKAROH REVISITED

I visited Tian and Engkaroh in early June 1993 and talked with the project management and some village leaders about the situation of the projects at that point in time. Several important changes had taken place since my earlier field research and these are consistent with certain of the findings and conclusions in my thesis.

Villagers in Engkaroh who are working on the tea plantation are now more amenable to this form of activity than they were in 1986/87. The tea plantation no longer faces any problems of labour recruitment, indeed the villagers have been asking the management to expand its operations so that more jobs can be created. The plantation is unable to do this at the present moment because of marketing considerations. However, SALCRA has instead opened up about 500 acres of land adjacent to the tea plantation for oil palm. It is hoped that this will create job opportunities to meet the local demand for work and paid employment.

In the thesis I stated that one of the reasons for the difficulties faced by the villagers in Engkaroh in accepting the plantation as a means of livelihood was the unfamiliar work culture. I also argued that to overcome this obstacle the villagers would have to become accustomed to the new work culture and that this would take time. Today, the workers from Engkaroh have become skilled tea plantation workers. In 1986/87 it was very difficult for the villagers to meet the 21 kilogramme daily target; now tea-pickers generally exceed that target. According to the scheme manager, there is also a remarkable improvement in the quality of the leaves plucked.

This greater involvement in the plantation work means that rice planting has become a relatively less important activity. I do not have the figures on the rice acreages for 1993, but interviews with some of the villagers and the scheme manager strongly suggest that compared to 1986/87, there is less rice planting today. During the rice harvesting months the plantation no longer faces serious labour shortages, although there is still relatively more absenteeism than during other months. Much more recently it would seem that rice cultivation is set to expand again as a result of the increase in the price of rice. This is a consequence of the abolition of the rice price subsidy in Malaysia. Again this reflects the villagers' sensitivity to any threat to their subsistence and in attempts to reduce this vulnerability they are still prone to retreat from the market-place and undertake non-commercial farming. If rice agriculture does increase in importance, then this will in turn present labour problems for the tea estate.

In Tian the project has not been as successful as that in Engkaroh. The cocoa plantation faced a severe drop in the price of cocoa just as it was producing its first crop. Up to now the price of cocoa has remained very low and the crop is highly uneconomical to maintain. As a result, the estate has not been properly maintained. Income from cocoa is minimal and hardly enough to pay back the loans incurred by the scheme participants in developing the plantation.

The few scheme participants whom I interviewed were rather disillusioned about the project. But surprisingly none of those villagers with whom I talked was worried about the prospect of being unable to repay the loan to SALCRA. As I have already mentioned in the thesis, there is a perception on the part of the participants that

SALCRA will not cause them to suffer the consequences of a project failure.

The reaction of the villagers to the failure of cocoa is typical of their reactions to the fall in the prices of cash crops generally. They turn to other activities. As I have said, the adoption of cocoa in Tian has not placed any serious constraints on the resource allocation of the households there. The land utilized was mainly under rubber gardens previously, which were unproductive anyway. However, because of the present low prices for both pepper and cocoa, the main cash crops in Tian's semi-commercial agriculture, there might have been a drop in the cash income of villagers and consequently a fall in their standard of living. I was unable to obtain any information on their current levels of income during the brief interviews, but expression of life being "susah" (difficult) was heard.

In an important respect the villagers in Tian are better placed to cope with this situation. Because of the proximity of the village to the urban job market, wage labour employment provides an alternative source of income for some households. The proximity to the urban centres also makes it easier for those villagers to produce cash crops (mainly vegetables) for the urban market.

When they were asked if they would be willing to participate in government-initiated development projects in the future, all of the villagers with whom I talked answered positively. This is to be expected. Their involvement in the cocoa plantation did not entail any direct sacrifice. They know that they have incurred some debt to SALCRA but they believe that SALCRA will not ask them to repay this if the crop fails as a result of circumstances beyond their control. The pattern of semi-commercial farming and the diversity of the

household economy in the two study villages remains the same today as it was in 1986/87. Differences are only a matter of degree. For example, in Engkaroh, most households have expanded the wage labour component of their range of activities because working on the plantation has proven to be more rewarding and stable. However, this cannot be interpreted as a move towards a total reliance on wage labour on the plantation. The other components of their economy are still maintained, albeit on a reduced scale.

In 1993 *in-situ* land development has been expanded to other Bidayuh communities, not only in the Serian District but also in Bau and Lundu. These projects have generally been accepted well by the communities involved and the policy-makers appear to have noticed this as evidenced in the multiplication of such projects. My visit and interviewing with SALCRA officers at the village-level project offices in June 1993, suggest that both the management and the villagers are generally satisfied with the SALCRA concept and with the projects. As I have already mentioned, the *in-situ* land development strategy has the potential to allow for and promote significant local participation in the planning and implementation of development projects. My findings in 1986/87 and my field observations in June 1993 appear to support this contention.

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