Land Settlement Schemes and the Alleviation of Rural Poverty in Sarawak, East Malaysia: A Critical Commentary

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Introduction

For a long time now the Malaysian government, the Sarawak state authorities and several outside agencies and observers have recognised that one of the main tasks which modern Sarawak faces is the improvement of its agricultural sector and the alleviation of rural poverty. Much of what James Jackson said in the mid-1960s, in his outstanding geographical study of Sarawak, is still of relevance today.

> The extension and improvement of farming is the cornerstone of development planning in Sarawak for, despite the recent growth of the timber industry, agriculture will remain the basis of the economy and ultimately social and economic progress depends on the upgrading of rural incomes. However, in terms of agricultural development, Sarawak faces severe difficulties. Over vast areas soils are poor, and often acid; the steep slopes characteristic of much of the interior and the extensive peat swamps of the coastal plains inhibit development and enhance costs, as does the lack of roads. The widespread existence of the bush-fallow method of hill-*padi* farming presents a complex and urgent problem which must be solved before agricultural development can proceed much further in interior areas. Training schemes are required to overcome the general ignorance of good farming practices and there is a shortage of suitable staff. Finally, development is hampered by land-tenure problems.
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> (1968: 73–74)

Government planning in Sarawak must be seen in the context of the wider Federation of Malaysia's New Economic Policy, initiated with the Second Malaysia Plan (1971–75). The main objective of the policy has been to promote national unity by means of two strategies — the eradication of poverty irrespective of race, and the restructuring of society to eliminate the identification of race with economic function and geographical location (Fisk 1982: 17–18). These strategies are, in turn, very much dependent on the continuous expansion of the Malaysian economy. In any case, since the formation of the Federation, government attention in the East Malaysian state of Sarawak has, to an important degree, been directed towards the rural areas, where poverty is considered to be most acute. The Third and Fourth Malaysia Plans

specifically refer to Sarawak's high incidence of poverty and the goal of poverty redressal among "indigenous races" (e.g., Third Malaysia Plan 1976: 39, 48–49; Zulkifly 1982: 220–21), especially those such as the long-house dwelling Ibans and Bidayuhs (or Land Dayaks), the coastal Malays and the Melanaus. These peoples are mainly located in rural areas and pursue such various activities as rice farming, especially using shifting agricultural methods, small-scale fishing and the cultivation of low value, low yielding cash-crops such as rubber, coconuts and sago (Fisk 1982: 19; Fourth Malaysia Plan 1981: 37). Despite some involvement in a money income, these peoples are still very much concerned with subsistence activities. It is also well to bear in mind that average incomes calculated on a state basis place Sarawak and the east coast states of the Peninsula well behind the developed west coast states of West Malaysia (Zainudin Salleh and Zulkifly Osman 1982: 145). Not only are direct income flows lower in Sarawak, but also the level of provision of public amenities — roads, houses, hospitals, clinics and water and electricity supplies (Fisk 1982: 12). Sarawak is also a relatively sparsely populated state; it comprises 38 per cent of the total area of Malaysia (12,325,000 hectares) with only about 9 per cent of the population (just over 1.2 million in 1980).[1]

In a broad sense the assumption of government that economic growth is compatible with, and more than this necessary for the general alleviation of poverty in such places as Sarawak, has to be treated with caution. What seems to have happened is that far from providing the appropriate resources for a general rise in the living standards of the rural poor, and for narrowing the gap between them and the rich, the growth sectors of the Sarawak economy have neither contributed significantly to an improvement in the circumstances of most of the rural poor nor narrowed the gap between the well-to-do and the poverty-stricken; indeed, in some cases the position of the latter has been made worse.[2] James Osborn has noted, in his survey of development studies in Sarawak, that Malaysian government policy intends to bring the economies of the peripheral areas "closer in mood and format of activity to their national centers and to earn foreign exchange and grow natural products for use in the national economies" (1978: 105). He adds that "there will be no turning back of the drive to extract and sell resources from Borneo...." (p. 106). The Third Malaysia Plan also remarks on the "untapped economic potential" of the East Malaysian states in terms of timber, petroleum products, hydro-electric power and large areas of empty land for estate crops such as oil palm (1976: 43). The condition of a large percentage of Sarawak's rural poor might seem a little difficult to comprehend when we read Fisk's summary, in his recent survey of the Malaysian economy, that

> It is from Sabah and Sarawak that Malaysia's oil production has come in the 1960s and during most of the 1970s and it looks like continuing to be an important source, particularly of liquefied natural gas exports, in the 1980s and 1990s. Sabah and Sarawak also has large commercial exploitable forests of high value....
>
> (1982: 12)

Part of the problem is that growth is concentrated in restricted sectors of the economy.[3] In 1981 67 per cent of Sarawak's exports by value were petroleum and petroleum products (Hatch 1982: 103), derived from "a capital-intensive offshore

enclave" which employs very few people (Leigh 1979: 341); 20 per cent comprised timber, and only 5 per cent agricultural products (mainly rubber, pepper and oil palm) (Hatch, p. 103, preliminary figures). Though timber exploitation does generate some income and employment opportunities among rural people,[4] it has probably had, on balance, more disadvantages than advantages for poor farmers (see below).[5] Of course, revenues from exports are, in part, redirected by government towards rural development, and for several years, and particularly since the oil boom, Sarawak has had very large trade surpluses; in the first ten months of 1983, for example, the surplus stood at M$2,396 million. But, though a not inconsiderable amount of resources, in terms of time, personnel and finances, has been directed into rural areas, it has clearly not been as effective as it might have been.[6] Indeed, B.G. Grijpstra has said of Sarawak that

> Lack of qualified staff and difficult communications have always been greater impediments to development than shortage of funds. This has led to a situation where the number of projects implemented, and funds spent, are regarded to be the indicators of development, and not the intended effects of these activities and expenditure. Goals of development have been substituted by the means to development.
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> (1976: 50)

The two main strategies which have been used in Sarawak to eradicate rural poverty have been, first, *in situ* agricultural improvement and land development, and secondly the opening up of new land and resettlement with the concentration on cash crops such as oil palm, rubber and cocoa (Fisk 1982: 19; Higgins 1982: 181; Sulong Mohamed 1982: 43; and the Third Malaysia Plan 1976: 49, 156 and Fourth Malaysia Plan 1981: 32 ff). In this paper I want to concentrate on land schemes, both *in situ* and on newly opened land, which have been organised and financed by state agencies. In comparison with the land development schemes of Peninsular Malaysia established by such federal organisations as FELDA and FELCRA, those in Sarawak have been much more modest in scale, and have been organised by state authorities. Nevertheless, the Sarawak government sees these schemes as spear-heading the drive towards rural transformation, especially in the elimination of rural poverty and in solving the problems posed by shifting cultivation. Before presenting a general outline and critical appreciation of these schemes, something has to be said about the difficulties of delimiting rural poverty in Sarawak, and in Malaysia in general, and official attitudes towards the practice of slash-and-burn agriculture.

Rural Poverty in Sarawak

Though I have referred to poverty in Sarawak, indeed Malaysian government publications, and federal and state politicians frequently refer to it, there is little hard-and-fast information on poverty in the state, nor has much research been undertaken on its incidence, characteristics, variations and underlying causes.[7] In a paper in Mokhzani's and Khoo's collection of essays on Malaysian poverty presented to Professor Ungku Aziz, Kamal Salih remarks "The most important fact about research on poverty in Malaysia is the lack of relevant and accurate data" (1977: 30),[8] and the Third Malaysia

Plan states that no figures were available as of 1976 for levels of poverty in Sarawak; the Plan did suggest that the incidence of poverty was higher there than on the Peninsula because 78 per cent of Sarawak's indigenous labour was in the low income agricultural sector.

Perhaps we might start with Husin Ali's general discussion of poverty in his little volume *Poverty and Landlessness in Kelantan, Malaysia* (1983a: 1–25). He states that minimally poverty is "a condition of insufficiency to acquire basic needs" (p. 1). Both "insufficiency" and "basic needs" cannot properly be established in absolute terms, and though in Malaysia the majority of people have food, clothing and housing, these are not always adequate in terms of average levels of provision and general social expectations in the country (pp. 2–3). Husin Ali argues that "basic needs" in Malaysia, besides referring to food, clothing and housing, should also embrace such social facilities as the availability of potable water, electricity, education and medical care, especially for children (p. 2). In this regard, though absolute deprivation is not present, or at least rare in Malaysia, and more specifically in Sarawak, there is plenty of evidence to demonstrate that for many people, in relative terms, the quality of life, and the levels of comfort and well-being, are inadequate; many people are not getting sufficient calories and a balanced diet, their dwellings and clothing are inadequate, and they are not provided with or simply cannot afford facilities such as electricity and piped water. Of course, the inability to meet these needs[9] is itself related to low income, insufficient or no property rights, low-paid occupations, and inadequate labour resources (pp. 4, 6). Indeed a FAO survey of rural poverty in Sarawak — the first real attempt to define poverty and collate information on it in the state — pointed to certain specific populations which it considered to be in poverty. The survey was conducted in January and February 1980. Target groups for poverty redressal were any rural or fishing family earning less than M$100 per month in cash income;[10] any rural family wishing to farm, but having no customary or property rights; any rural family whose labour force is limited and has dependent children; and any family showing evidence of severe malnutrition and with health problems (in this last case a high infant mortality rate is an important index). Though these criteria are perfectly acceptable guidelines for delimiting poverty, it is impossible, on the basis of them, to establish with precision the numbers of poor people and households in rural Sarawak. There is very little information of this kind available in an easily accessible form. There are specific studies of certain village communities and sample surveys of certain areas and districts of Sarawak, providing data on crop yields, food availability, and so on; but no overall picture, particularly using statistical data, can be readily formed.

Perhaps one of the most useful surveys is that by R.A. Cramb and J. Dian (1979a) under the auspices of the Planning Division of the Sarawak Department of Agriculture. They conducted socio-economic studies in several rural areas of the state in order to provide basic data and make recommendations for the establishment of a state-wide extension scheme, in the context of the National Extension Project.[11] They discovered that in long-settled areas throughout the state, where farmers are almost totally dependent on dry rice agriculture, with little possibility for the cultivation of wet rice, rice shortages are very common, particularly in such Iban regions as Engkilili, Lubok Antu, Nanga Spak and Julau (cf. Hatch 1982: 98–101). In an in-

dependent survey in 1977, Cramb pointed out that in the Batang Ai region, near Lubok Antu, only about 20 per cent of his sample Iban households were self-supporting in rice more often than not, and, in general, households met, in any one year, only about one-third of their annual rice needs (1979: 15). In the Batang Ai yields of dry rice per acre amounted to about 50 gallons in the 1976–77 season (cf. Padoch 1982: 78). This is an extremely poor yield, and in the neighbouring "impoverished" Engkilili region it was even lower (Cramb and Dian 1979a: 47–48). In the Julau and Kanowit districts of the lower Rajang river in Sarawak's Third and Sixth Divisions, Iban average yields of dry rice were somewhat better at just under 100 gallons per acre in the 1977 season, but this is still relatively low (Cramb and Dian 1979b: 80–81, 35–36, 52–53); Sidu pointed out that in a sample survey of Iban households in the Mujong-Baleh area of the middle Rajang in the Seventh Division, shifting cultivation met in 1980 only about 30 per cent of average annual rice requirements (1981: 1–2, 33).[12] In a study of the Bidayuh district of the Upper Sadong in Sarawak's First Division, Grijpstra, using a sample of 400 households, found that 48 per cent of households were only self-sufficient in rice for up to six months of the year in 1971–72, and 23 per cent of them could only meet 1 to 3 months of their annual needs (1976: 102).

Another indicator of poverty is malnutrition, and Hatch refers to nutritional surveys carried out among rural farmers by the Sarawak Department of Medical and Health Services from 1974 (1982: 89). A report on these surveys was produced in 1978 by A.J.U. Anderson. Some of the findings recorded there must be treated with extreme caution, and though the level of malnutrition indicated in these surveys may well have been exaggerated, it does seem that inadequate food intake and unbalanced diets are problems for many shifting cultivators. Despite the fact that rice shortage, reported in various other studies, does not necessarily mean that farmers are not getting sufficient food, since they grow other crops as well and have other sources of income, the extreme degrees of shortage of the basic food crop may well indicate that total calorific intake is inadequate. The Anderson report maintained that malnutrition in Sarawak is serious and "the result of a general and continuing food insufficiency rather than periodic famine interspersed with adequacy" (Hatch 1982: 98, referring to Anderson). The survey of 4,106 Sarawak children under nine years of age from various rural ethnic groups concluded that a considerable proportion of them was suffering moderate to severe protein-calorie malnutrition. Despite these claims Hatch maintains that, though there is a malnutrition problem among shifting cultivators, we still do not really know its intensity and extent (1982: 100–101).

The most common and convenient method of determining households in poverty is to establish a "poverty line" (usually monthly and yearly income per household), based on what a given government considers an appropriate level of income needed to meet the defined "basic needs" of an average household or family (cf. Husin Ali 1983a: 6 ff). Husin Ali points out that the *Government of Malaysia Treasury, Economic Report* for 1974–75 established a poverty line in Malaysia of M$25 per capita, or M$150 for a family of six members (1983a: 9). This base-line categorised 40 per cent of the Malaysian population as poor in 1974. However, Kevin Young *et al.* refer to a poverty line in Malaysia in 1975 as M$180 per household at 1970 prices. It is, of course, very difficult to establish the bases of these figures. The poverty line is adjusted through time as well, and Zainudin Salleh and Zulkifly Osman (1982: 145) state that

a poverty line used by Malaysian planning authorities in the late 1970s was M$246 per household per month for rural areas, assuming an average household size of 5.4 persons (at June 1977 prices).

Presumably based on this figure of about M$150 to 180 per household per month, the Fourth Malaysia Plan states that 51.7 per cent of all households in Sarawak in 1976 were below the poverty line; this comprises 107,100 households (1981: 43). This figure is not so very different from one given in the FAO report (1980), based on the Census of Agriculture 1977, which puts the number of poor *rural* households in Sarawak in 1976 at 80,850. In terms of numbers of people this could be anywhere between 436,590 (80,850 × 5.4 persons per household) and 578,340 (107,100 × 5.4 persons), or if we take Husin Ali's household size of 6 persons, then the top range would be 642,600; the estimated population for 1976 in Sarawak was 1,131,234 (Hatch 1982: 72), so that the percentage of people in poverty would range from about 38 per cent to 57 per cent. An article in *The Borneo Post*,[13] referring to the FAO report, notes that in 1980 64 per cent of the rural Ibans and 68 per cent of the Bidayuhs were poor, about 52 per cent of rural Melanaus, 42 per cent of orang ulu (including such groups as the Kayans and Kenyahs), about 40 per cent of the rural Malays and 21 per cent of the rural Chinese. I estimate that this comprises, at a minimum, about 479,000 people, out of a total population of about 1.235 million in 1980 (i.e., just under 40 per cent), and it would be about 47 per cent of the total rural population.

A survey conducted in 1982 in the Kalaka-Saribas districts of Sarawak, by a team from the Universiti Pertanian Malaysia referred to an official poverty line of M$385 per month for 1981 (Mohd. Zainal Abidin, 1982: 100–101), and in 1984 I was informed by some government officials in Kuching that it stood at M$425 per month for a household of 5.6 persons.[14] However, I have no data on the total numbers of households or people in Sarawak in poverty, corresponding to these poverty lines for 1981 and 1984.

Of course, we cannot be absolutely certain of any of these figures. Even the poverty lines which I have referred to above may be wrong. They do not coincide between different sources, and the criteria used to establish them may well differ. Indeed, Jomo Kwame Sundaram states that the Malaysian government "claims to monitor the incidence of poverty in relation to a (publicly undisclosed) poverty line" (1983: 51). What is more, one of the biggest problems with these figures is that, even if monthly statistics for household incomes were available and were accurate, which they are not, we are dealing with rural dwellers, many of whom are still substantially involved in the subsistence sector, in which cash values are not placed on production. Even the cash which is obtained usually comes primarily from only one or two cash crops, particularly rubber and pepper; these are subject to quite marked fluctuations in price on the world market, and, therefore, household incomes can also vary considerably over a short period of time.

What is certain is that over recent years the low quality rubber, especially produced by Sarawak smallholders, has tended to fall in price overall. On the other hand, the inputs such as fertilizers, pesticides, and weed-killers, bought by Sarawak farmers, despite subsidies, have, in general, risen in price; because of the remote locations of many of these farmers, and the rise in oil prices since the early 1970s, transport costs have also increased, though they were already very high for these cultivators

in the 1960s. The FAO Survey believed this process to have happened between 1977 and 1980, so that poor households probably became poorer during this period; and since 1970 the report suggested that rural dwellers may well have become comparatively worse off than the urban population.

There are some indications of income levels from surveys in rural Sarawak. Cramb's report on the Batang Ai Iban in the Second Division indicated an average monthly household income of M$75 (M$900 per year) in 1977 (1979). The Iban areas around Lubok Antu and Engkilili were all considered extremely poor, and government agencies had implemented various development schemes there to alleviate poverty. Cramb's and Dian's investigation among the Julau Iban found that over 50 per cent of the households surveyed had an annual income of below M$800 (about M$66 per month) in 1976. Average annual household income from all sources amounted to M$1,350 (M$112.5 per month) (1979b: 50–51). The Universiti Pertanian team found that, in its Kalaka-Saribas survey of 823 households in 1982, and taking a poverty line of M$385 (for 1981), 85 per cent of the households there were below that level; and 56.8 per cent of households had a monthly income of below M$166 (at June 1977 prices). These figures excluded subsistence production. Of the respondents, 36.5 per cent relied totally on farming for their income, and for average farm income per household per annum, a figure of M$1,418 (M$118 per month) was given (Mohd. Zainal Abidin 1982: 100–101, 111–12). Sidu discovered an average annual household gross income for Iban in the Baleh-Mujong area of the Seventh Division of M$3,627 (M$302 per month) in 1980. This was still apparently below the poverty line, but the average figure was distorted by a few comparatively wealthy households in the region; the lowest annual household income was M$120 (1981: 69, 72). Finally, Grijpstra, in his investigation of the Bidayuh of the Sadong region in 1971–72, indicated that annual cash incomes per household "are at best a few hundred dollars"; and, if rubber prices are good, then 100 to 200 dollars more can be added (1976: 103). This area too, like the interior regions of the Second Division, has been a focal point for government rural development programmes.

Despite all the difficulties of determining what constitutes poverty, and the degree and extent of it in Sarawak, it is reasonably safe to suggest that, in the government's view, and given the evidence from various surveys on farming communities in the state, the poor mainly, but not exclusively, come from the so-called rural indigenous peoples concentrated in such activities as rice farming, small-scale fishing, and rubber, sago and coconut smallholding. Areas of particularly acute poverty are found in many parts of the First and Second Divisions of Sarawak among the Ibans and Bidayuhs, and along the coastal margins of the state among the Malays and Melanaus. These areas contain the greatest concentrations of population, and, in relation to those who are shifting cultivators, subsistence economic activities are no longer able to provide an acceptable standard of living for most of these rice farmers. It is impossible, as we have seen from the discussion above, to determine numbers of people in poverty in Sarawak with any precision, using the unsatisfactory and contradictory indicators of government. But we would probably not be too far out, if we suggested that, from the government's view, about 40 per cent of Sarawak's total population of 1.2 million plus is below the poverty line and/or considered to require some assistance from government to raise incomes. This figure, I suspect, could be rather higher, if we

had more comprehensive and accurate data on household economic activities, income, expenditure, diet and social provisions. It may be as high as around 50 per cent of the total population. In terms of the rural population as a whole, it would seem that around 50 per cent are considered as poor, and this may also be a conservative estimate. In the view of government authorities in Sarawak, one of the most serious problems they face, which has a direct effect on rural poverty, and also has other detrimental consequences on the environment and the profits of the logging industry, is shifting cultivation. It is to this that we now turn.

Shifting Cultivation

Most subsistence farmers in Sarawak are engaged in the shifting cultivation of hill rice, and are concentrated in the rolling and moderately steep hill areas of the interior; it is here that logging is also now being extensively undertaken. This hilly country is only really suitable for a basically dry rice economy, with the cultivation of tree crops such as rubber.

Over the last twenty years, the area cleared annually for shifting cultivation, at least in the official statistics, varied between about 60,000 to 86,000 hectares (Hatch 1982: 62). Hatch, in a detailed study of shifting cultivation in Sarawak, presents a convincing case that probably the real hectarage cleared, in a given year, is about double the official figure (p. 67; cf. Hatch and Lim 1978: 1), about 1.2 per cent of the total area of the state. In the shifting cultivation cycle, in other words that area of land which has been used before and is under fallow, there is about 2.4 million hectares, about one fifth of the total area of the state. In the mid-1960s, Jackson gives a figure of about 40 per cent of Sarawak's total population involved to some extent in shifting cultivation (1968: 78–88). Hatch states that approximately 50,000 households were engaged in shifting agriculture in the late 1970s (n.d.: 1), which is about 250,000 to 300,000 people.[15] It is probably higher than this, given the hectarages cleared.

In the context of poverty alleviation among shifting cultivators, one should be aware of a specific and ultimate goal of government in Sarawak; pursuit of this goal may compromise the relative success of the agricultural development schemes. Shifting cultivation is seen as one of the main causes of poverty; it is generally negatively assessed; it is seen as primitive, wasteful of natural resources, difficult to control administratively, and in direct competition with the timber industry. The removal of shifting cultivation in government eyes is therefore a most important step in raising rural incomes. A report on shifting cultivation in Sarawak was produced in 1978 from a government workshop held in Kuching with representatives from the State Planning Unit, Forestry, Medical and Health Services, the Land Consolidation and Rehabilitation Authority, Department of Agriculture, Land and Survey, Drainage and Irrigation and the Sarawak Museum. It was compiled, from the various papers, by Hatch and Lim and published under the auspices of the Department of Agriculture. It stresses "... the fact that shifting cultivation represents probably the greatest single threat to the integrity of Sarawak's natural resources and results in totally unacceptable degrees of human suffering" (1978: 28; cf. Jackson 1968: 80–81). The report is liberally sprinkled with emotive language about the problems posed by shifting

cultivation in the government's view — large land areas used for the agricultural cycle, malnutrition and poverty, low levels of production and productivity, complex and inflexible tenurial systems, primitive techniques, traditional orientations, illegal encroachment on forest reserves and damage to the environment. In *The Borneo Bulletin* of June 25, 1983, the Local Government Minister, Joseph Balan Seling, was quoted as having said that the state government is "preparing the way for scattered ulu communities to regroup into larger, more centralised settlements". The interior people have to "change their attitude to life and face the modern world" (p. 25). For the Minister, resettlement to accessible locations is the answer. Furthermore, the Deputy Minister of Agriculture, Luhat Wan, has apparently said that "Moves will be made to persuade them [shifting cultivators] there are far more benefits in established farming rather than the wasteful methods they follow" and that "The indiscriminate felling of trees and the burning-off of large areas are two main adverse points of shifting agriculture." In my view the government's ultimate desire is to eliminate shifting cultivation, and to encourage farmers to take up either wet rice agriculture if feasible and/or cash-cropping. This may mean that, in some cases, the government may take actions which are not in the best interests of shifting cultivators, particularly when they are guided by a narrow, jaundiced view of this kind of farming system.

It must be said then that government policies directed towards changing the habits of shifting cultivators do not stem purely from a desire to raise rural standards of living, but also arise very particularly from a negative evaluation of shifting agriculture in the context of the desire to safeguard and promote logging activities, which generate profits for a privileged few in Sarawak, and earn foreign exchange. The Kuching workshop also disapproved of shifting cultivation because after slashing, burning and farming, the vegetation does regenerate, but this is generally "very poor quality secondary forest that is of little or no commercial timber value" (1978: 13). The report calculates that the net revenue loss to Sarawak's economy per year from the burning of timber resources by farmers in M$300 million (pp. 1, 9). The report is prepared to admit that environmental degeneration "may also be partially attributable to increased timber exploitation" (p. 12). As numerous observers have emphasised, shifting cultivation is not an inherently destructive form of agriculture.[16] But unfortunately population growth and sustained swiddening in some parts of Sarawak have led to environmental deterioration. What is more, government action to restrict the movements of farmers, and particularly to confine slash-and-burn agriculture to permit logging, has led to intensification of land use by natives and, therefore, to ecological problems. Nevertheless, it is at least arguable that soil damage, water pollution, destruction of fish-spawning grounds, siltation, increased downriver flooding, more violent fluctuations in river levels, and the disruption of river transport are more to do with logging than swiddening (cf. Hatch 1982: 101–108). The Third Malaysia Plan noted that in the period 1976–80 logging was scheduled to expand into the hill or dryland dipterocarp forests of Sarawak because the swamp forests (yielding such timber as meranti and ramin) and covering about 20 per cent of the total area of the state "have been largely depleted" (1976: 211). In fact, Hatch points out that licences for large-scale timber exploitation had already been granted in the 1960s in the areas of hill forest and he remarks that this forest "will surely all disappear unless

concerted efforts are made to preserve it'' (1982:60). In the *Sarawak Tribure* of June 26, 1983, the Deputy Minister of Primary Industries, Haji Bujang Haji Ulis was reported as having said that the felling of timber had been going on at a ''mind-boggling rate''. In 1980, 144,130 hectares of forest had been felled in Sarawak for timber. At this pace, and given the other demands on land from shifting cultivation, roads, housing, cash-cropping and so on, even the most optimistic forecasters estimate that the timber resources sought after by the logging industry will be exhausted in another twenty years' time. Partly, in response to this problem, the Fourth Malaysia Plan specifically refers to the need for forest conservation measures (1981: 201–202). By all accounts, reafforestation programmes, initiated significantly in the late 1970s, have had a very limited impact to date (Lee and Lai 1982: 5–11), but a recent, though probably temporary, downturn in the Sarawak timber industry has provided a brief breathing space for Sarawak's forests.

Bearing in mind the context above — government views about shifting cultivation, the importance of logging as a generator of revenue, and the inability of land and timber resources to cope with the pressures being placed upon them — shifting cultivators are going to be forced to change, like it or not. Furthermore, government development schemes are then only partly motivated by a desire to alleviate rural poverty.

Rural Development in Sarawak

Though my focus is land development schemes, the Sarawak government has implemented a range of other measures as well to assist farmers in raising their incomes. It is useful to consider these other activities briefly because they can complement land settlement projects,[17] and some are integrated into these projects. The main strategy has been to extend assistance to farmers in cash and kind for a fixed period, provided the recipients meet certain prescribed conditions. Farmers are encouraged to upgrade and diversify their operations by the adoption of new technology and crops, by accepting subsidised inputs such as fertilizers, weed-killers and pesticides, and improved planting materials, and by following instruction in improved methods of crop management and animal husbandry.

The Department of Agriculture (e.g., 1978: 37–49) promotes a number of schemes for small farmers; the main ones are the Rubber Planting Scheme (supplying high-yielding rubber seedlings for replanting or new planting); the Coconut Planting Scheme (directed especially to the diversification of the enterprises of coastal fishermen); the Pepper Subsidy Scheme (encouraging the planting of pepper by subsidy because it demands a high level of capital [and labour] input); the Agricultural Diversification Scheme (providing planting materials such as cocoa, coffee, cashew nuts, sugar cane, fruit, maize, soya beans, groundnuts and water melons); Assistance to Padi Planters Scheme (encouraging a changeover to wet rice farming from dry rice, and the extension of the area under wet rice); the Livestock Development Subsidy Scheme (improving pig and poultry rearing in particular); and the Inland Fisheries and Aquaculture Development Programme (assisting in the construction of village fish-ponds and stocking them with fish fry). The Department of Drainage and Irrigation, in conjunction with Agriculture, also has an important part to play in providing

facilities for wet rice farming and double cropping and in improving coastal cultivation conditions for coconut, cocoa and fruit growing.

The key element in much of Department of Agriculture thinking has been a subsidy programme on agricultural inputs rather than an integrated programme of credit and extension, or subsidies on prices of crops to the farmer. The only specific source of institutional credit in Sarawak is Bank Pertanian, with its headquarters in Kuching, and one branch office outside the First Division. The bank provides long-term credit to the more wealthy farmers. Its officers, who are in any case few in number, rarely go into rural areas; and small farmers are not considered to have the requisite collateral in land to qualify for a loan. For immediate short-term credit small farmers and even larger scale cultivators rely on private, usually Chinese shopkeepers and traders. Co-operatives or Farmers' Organisations for the operation of credit and to facilitate marketing are very few in number in the state, though attempts have been made to establish them. The Department of Agriculture provides administrative support, management expertise and grants for recurrent expenditure. The greatest success in establishing co-operatives has come in the First Division where there are substantial numbers of energetic, wealthy cash-crop farmers, particularly Chinese. But even here the co-operatives have a long way to go before they are fully independent of the Agricultural Department.

The Department does engage in extension services, for example, instruction in home economics for females in rural farming communities; a farmers' training programme run at Agricultural Training Centres to encourage young people to take up farming as a career; and agricultural education in schools, run jointly with the Education Department. There have also been recent attempts to upgrade extension services in the context of the National Extension Project (Cramb and Dian 1979a), but these have apparently not met with much success, both because of the lack of trained personnel, and the resistance of farmers to courses of instruction which they perceive as too "educational" in tone and orientation. What seems to have happened in Sarawak is that extension services have, for a long time, been primarily directed towards the supervision of subsidy schemes, and this continues to be the case.

As a result of the subsidy schemes, some farmers have been able to raise their living standards, though it is impossible to give even approximate numbers of these and the degree to which the schemes have helped alleviate rural poverty. For example, Cramb and Dian report that there is evidence that some shifting cultivators, who also grow rubber, are increasingly intensifying their hill rice cultivation, reducing their farm areas, applying subsidised fertilizers, pesticides and weed-killers, and diversifying into cash crops other than rubber (especially pepper, and now cocoa), and into fruit tree and vegetable cultivation and fish ponds (Cramb and Dian 1979a; cf. Hatch 1982: 121, 125–27; Kedit 1980: 84–85).[18] These changes are recommended by the Department of Agriculture as transitional steps on the way to settled agriculture. Where land is not suitable for *in situ* rehabilitation and development, then resettlement is advocated.

Nevertheless, the effectiveness of the subsidy schemes has been questioned. There is certainly abuse of them. For example, farmers have been known to sell subsidised fertilizers, weed-killers and pesticides to local Chinese shopkeepers for a slightly higher price than the subsidised price, rather than use them on their farms. Qualifications

for the receipt of subsidies have also often not been checked adequately, so that farmers may get fertilizers for their rubber when they are not regularly working and maintaining their gardens. A further problem is the lack of attention of the Department of Agriculture to the total farming enterprise of a given farmer — his labour inputs, his resources, the quality of his land, his farming and non-farming activities — and, therefore, to whether he is capable of utilising the subsidies to good effect. Though extension services have also been devoted to the supervision of the use of subsidies, these appear to have been inadequate because farmers have sold subsidised inputs, employed them unsatisfactorily, or have not had sufficient training in cultivating new crops, using new inputs and improving existing crop management. I was informed that quite a number of agricultural officers preferred to concentrate on the office-based administrative aspects of the schemes, rather than undertake tuition and supervision at farm level.

Perhaps from the point of view of poverty alleviation, the subsidy schemes demonstrate one of their most serious shortcomings. Poor, illiterate farmers are either reluctant to involve themselves in the sometimes long, drawn-out bureaucratic procedures needed to secure a subsidy, or if involved, they are not given clear ideas from agricultural officers about what the scheme is supposed to achieve, nor informed that success depends not on the use of one subsidised input, but on a total package managed in an appropriate way. It still seems to have been the better educated, more well-to-do farmers who have received most benefits from the subsidy schemes. From general impressions, scattered government reports, and opinions of government officials, it seems that the gap between rich and poor farmers has increased over the last twelve to fifteen years, though there is no doubt that some poor farmers have been enabled to raise their incomes and diversify and improve their agricultural enterprises with government assistance.

Land Settlement Schemes

The Sarawak Development Finance Corporation (SDFC) and the Sarawak Land Development Board (SLDB)

The Sarawak government has, over the last twenty years placed great emphasis on encouraging subsistence farmers to move into cash-crop agriculture organised on an estate-basis in large-scale settlement schemes. The history of these schemes really begins in 1964 with what was called Rubber Planting Scheme B.[19] The scheme was modelled on the Federal Land Development Authority (FELDA) programmes of Peninsular Malaysia. Some of the early schemes were not simply intended to promote rural development, provide land-hungry farmers with adequate land and raise rural incomes, but also to resettle Iban shifting cultivators from the border areas of the Second Division of Sarawak because of the insecurity arising from Sukarno's Confrontation with Malaysia. I believe there was also some intention on the part of government to foster inter-ethnic harmony; some of the schemes were ethnically mixed with Chinese and Malays as well as different native peoples; and no doubt government was conscious of the need to do something to alleviate land hunger among rural Chinese as well as native peoples, and for the Chinese in particular were intended as a contribution to the solution of Chinese land shortage.

The schemes were planned by Divisional Development Committees, which designated certain environmentally favourable and accessible areas of the state as "development areas" to which mainly poor farmers would be moved. Ideally, these areas should also be within state land, unencumbered by existing native tenurial rights. In some cases, however, land had to be purchased from natives, or it was donated by people already there who intended to join the scheme (Lee 1970: 192–93). As with FELDA, though with some differences of detail, settlers were selected on a point-scoring basis. The projects were planted with high-yielding rubber by or under the supervision of the Department of Agriculture, and after the first two years the Development Committees were to supervise the schemes with the settlers taking over crop management from the Department. Each scheme had a manager on site, and was supplied with a centralised planned village, comprising single-family dwellings, with access roads, schools, a clinic, water-supply and so on. The settlers were officially to be allotted separate holdings of about ten acres, made up of eight acres of rubber, two acres for mixed fruit, vegetables, cash crops and so on, and a one quarter acre house lot. In effect, in some cases, land allocations were apparently somewhat less than the official figures (Wilson 1969: 201).

The subsistence needs of the settlers and the costs of looking after the land (e.g., for the purchase of fertilizers) until the rubber matured were met by a loan which had to be repaid over 15 years at an interest of 7.5 per cent per annum. In addition, settlers were provided with a mortgage on their house. The loans were given by the Sarawak Development Finance Corporation (SDFC), which was the state agency responsible for constructing the resettlement housing. The SDFC assumed all managerial, supervisory and financial duties for the schemes in 1968. After the loan was repaid, then the intention was to fully alienate the holdings to the respective settler households and issue a written title for a 99-year lease free of land tax. There was also some attempt to establish farmers' co-operatives for buying inputs and for marketing produce other than rubber. The rubber was to be delivered to the government agents responsible for the schemes at the centralised rubber processing factories. A portion of the returns to the rubber smallholders was deducted at the factory in payment of the loan.

By 1970 there were seven completed rubber projects at Triboh, Melugu, Skrang, Meradong, Sibintek, Lambir and Lubai Tengah.[20] The total hectarage of rubber planted amounted to about 5,540 (about 13,700 acres) accommodating 1,177 settler households (about 6,400 people) (Hatch 1982: 119; Lee 1968: 286–87).[21] Two SMR processing plants were established at Skrang and Meradong, and two RSA factories at Lambir and Lubai Tengah. In the early 1970s Dixon estimated that at Triboh debts per settler household averaged between about M$5,400 to M$6,000 (in 1984 M$3 = £1). By the late 1970s I was informed that debts per household on all the schemes averaged about M$10,000.

In 1972 the SDFC was reorganised and divided into two statutory bodies. Up to that time the Corporation had been involved in a range of non-agricultural, largely urban-based ventures as well as in land development. The Sarawak Land Development Board (SLDB) became responsible for the rural programmes and their liabilities, and the Sarawak Economic Development Corporation (SEDC) assumed responsibility for the other activities. The SLDB was also given the task of developing large, new tracts

of land especially for oil palm in the designated development area of Miri-Bintulu. Unfortunately the SLDB was already at a disadvantage because it had had to take over the extremely tangled finances of the SDFC. It was said that it inherited a debt of about M$10 million. Apparently no clear obligations and regulations had been imposed on the settlers to facilitate the recovery of the loans, and no conditions had been laid down for the proper management of the plantations by settlers. Settler selection procedures were inadequate and were based on inaccurate, misleading and scanty information. Some settlers were not even farmers, but were unemployed or underemployed wage-workers and urban-dwellers; a few were retired government employees. Some settlers were also too old or too infirm for the task in hand. Settler motivation was a problem. There were households which did not wish to tap and maintain rubber; they simply wanted a house and land as security in old age, or as a financial investment. Government personnel staffing the scheme was also in general poorly trained and inefficient in organising and supervising labour. Perhaps most seriously the returns from rubber, as it turned out, did not provide a sufficient income for the settlers, and in addition permit them to repay their loans (cf. Lee 1970: 206–207; Wilson 1969: 201). Much of the rubber began to find its way to private Chinese dealers in the open market, where prices were a bit better, rather than being channelled to the government processing factories. This then was another factor contributing to the Land Development Board's inability to recover the debt.

The low income from rubber was not only a consequence of a fall in price on the world market, but also of poor tapping methods, management of holdings, and motivation on the part of settlers, and poor supervision by government staff. Most seriously, many settlers began to find work outside the schemes to support themselves, or moved off the projects altogether; in the latter case, their holdings were transferred, sold or rented to others, especially to Chinese (Wilson 1969: 201). Thus, in some cases the phenomenon of small-scale absentee landlordism has grown up. Some settlers also claimed that initially they had insufficient land holdings to cater for population growth and for their children to inherit (Lee 1970: 205). In addition, certainly in the case of Lubai Tengah estate, and possibly in some others, by the late 1970s rubber land was being allowed to revert back to secondary forest because settlers had either left the scheme, or were not interested in maintaining their gardens. The schemes' infrastructures were also deteriorating; for example, the road system on the Skrang estate was in a very poor state of repair.

As a means of alleviating poverty and providing an adequate long-term livelihood for settlers, the rubber schemes seem not to have been particularly successful, given the resources which have been lavished upon them. Various figures for monthly income per settler household in 1984 have been quoted to me, varying from M$120 to M$350 (cf. Lee 1970: 205–206). It is unclear whether this is exclusive of loan repayment, and whether it includes money earned off the scheme. In any case, these incomes are still below the official poverty-line, and at the lower end of the range of earnings substantially so. Furthermore, many settlers for whom the projects were intended either no longer live on site, or, if they do, they do not obtain their main income from rubber.

According to official information less than 10 per cent of the settler households, many of these Chinese, had cleared their debt and been given title to their land. What is more the schemes are extremely expensive to establish, because in most cases in-

frastructure has had to be provided from scratch. Jackson has said "Topographic conditions, the lack of roads and the shortage of trained staff make these land development schemes extremely expensive...." (1968: 96).[22] Even if we accept the official figure for settlers of 1,177 households, or about 6,400 persons, this is small in relation to the estimated total numbers of poor in Sarawak. By 1981 it was very clear to the state government that the situation of the rubber schemes was irretrievable. The bulk of the loans to settlers would not be recoverable and would have to be written off; the amount and quality of rubber produced were low; settlers were not committed to the scheme, indeed the Iban who had friends and relatives on these schemes were extremely suspicious of any government land settlement proposals because of their knowledge of the SLDB rubber estates; and the SLDB could no longer afford to maintain the facilities on the schemes. Therefore, the Board was instructed to withdraw from the estates. In 1984, there were no SLDB officials on the schemes, nor any other input, with the exception of a skeleton staff stationed at the rubber factories, who were still ready to receive rubber for processing from the settlers. There is some hope from government that the factories can be sold off to the private sector, but the rubber estates have been effectively abandoned.

Perhaps partly because of the problems experienced on the rubber schemes, the remaining part of the SLDB programme, has been largely directed towards oil palm cultivation on state land, organised on the basis of centrally-managed estates employing wage-labour. There has been no provision of community facilities and planned villages as in earlier rubber schemes, and no procedure for establishing smallholders by alienating plots of land to them. By the late 1970s there were twelve oil palm estates under way, all in the Miri-Bintulu area. The first scheme at Bukit Peninjau had, in fact, been started in 1970 under the auspices of the SDFC.[23] Subsequently cocoa was also planted in the Lambir-Subis area, comprising about 800 hectares in 1984. Official figures vary, but in 1984, the oil palm schemes amounted to somewhere in the region of 15,000 hectares, 12,000 of which were in full production, employing about 2,500 people. The Fourth Malaysia Plan provided a figure of 19,700 hectares for all land developed by state agencies in Sarawak for oil palm, cocoa and rubber by 1981, most of this under SLDB management (1981: 35).

Many of the SLDB employees are housed on the estates; there was a suggestion in SLDB circles in the 1970s that, if some of the workers proved satisfactory, then the Board would allow them to bring their families to settle on the scheme and they might be granted a 10 acre lot of oil palm and be given title to it. I do not think this suggestion has been put into practice, mainly because of labour problems, and more general management and financial difficulties on the estates. In the report on the Bukit Peninjau estate, undertaken as part of the Miri-Bintulu Regional Planning Study (1974), it was found that most of the labour force comprised young and highly mobile workers from rural areas, who had been unhappy with traditional farming and village life. But there were some people who had moved from impoverished areas, especially Iban from the Second Division, in search of paid employment. What is certain is that the labour turnover on these schemes is high; labourers arrive and depart at any time during the year, and often stay for only a few months. Wages are low; and availability of labour and its quality have been a problem; foreign workers such as Indonesians have been recruited in an attempt to solve these problems.

The SLDB oil palm estates have then provided some wage employment for some workers from poor rural households, but their contribution to the alleviation of rural poverty, particularly in relation to the money poured into the Board's coffers, must be considered slight. There are frequent reports of poor SLDB management, inadequate financial accounting procedures, a lack of good field supervision and the encouragement of proper cultivation practices among labourers, and frequent breakdowns in machinery and plant. One serious difficulty met by the SLDB has largely been outside its control; before its land development began in the Miri-Bintulu region, the area was substantially undeveloped; the unsealed roads there are still inadequate for transporting the kernels quickly and efficiently to the Board's mills, and then to transfer the oil to the bulking installations for export by sea.[24] This is especially so during the monsoon season, when unsealed roads deteriorate rapidly, and the coastal harbours are not easily accessible for taking out the oil by boat. The SLDB has neither the finance nor the official responsibility for maintaining and improving this infrastructure. Sometimes oil palm fruit has to be abandoned because it cannot be got out for processing; transport costs, and more general production costs are high on these estates. SLDB officials also claim that some of the revenue earned from oil palm has had to go to support the ailing rubber schemes, and that too much was expected from the Board by state politicians, who wanted large areas of estate crops to be developed quickly to meet unrealistic targets set in Kuching.

It is not surprising that the SLDB is now in serious trouble, and it is common knowledge that it has been making substantial losses for several years. Having already abandoned its rubber schemes, the possibility is now being discussed in Kuching, though it was first suggested in 1982, of selling off the oil palm estates, mills and bulking installations to the private sector. The problem is that the Board's liabilities are now so high that prospective buyers (which have to be ideally Malaysian-owned companies) may be unwilling to take on the burden. On top of this, the state authorities would like the SLDB to retain 30 per cent of the equity in any new plantation company. It is said that the Board's outstanding loans and the interest on these amounted to about M$180 million in 1984, about 70 per cent of these being federal loans (cf. Clad 1984: 45–46). State loans comprise about M$30 million. The Board also continues to receive about M$10 million in loans and a further M$10 million in grant from the state every year. Until privatisation can be effected, if indeed it can be, the state government will have to continue to maintain the Board, and it is calculated that the SLDB's financial position will continue to deteriorate by about M$20 million a year. There is then quite naturally no plans to develop SLDB enterprises any further, and in official statements in the press and by government the Board is said to be "consolidating" its existing operations.

The Sarawak Land Consolidation and Rehabilitation Authority (SALCRA)

Mainly as a result of the problems of the SLDB in opening new land for development and resettling farmers, and the fact that natives were generally unwilling to participate in the Board's schemes, another statutory state body, SALCRA, was established in May 1976. This is presently the only state agency actively involved in promoting schemes for the benefit of poor farmers. SALCRA's brief was primarily to develop

land *in situ* on behalf of poor rural dwellers, especially shifting cultivators, rather than undertake resettlement and open new land. The Authority was also set up to get round the problem of dealing in native customary land, held under native tenurial systems without written title (Sidi Munan 1980: 12; Kedit 1978). A great difficulty in developing land in Sarawak is to determine rights in native land for purposes of demarcation, rationalisation, compensation, alienation and so on. Therefore, the aims of SALCRA, as set out in its statutes, are to promote and undertake the development, consolidation and rehabilitation of land (including Native Customary Land) in the state for agricultural purposes; and to provide land improvement schemes, advisers and training facilities in various aspects of farming, and in the management of agricultural land. It can provide other amenities as well such as roads and medical facilities (Lim 1981: 37 ff). SALCRA is financed through state government grants and loans, and federal and commercial loans. It can develop projects on its own, or in association with any public or private body as managing agents, or at the request of landowners. The important feature of SALCRA's development of native land is that, once the agreement of native right-holders has been secured, the Authority has exclusive right to develop and manage the land, but the status of land rights do not change. They remain in the hands of the natives participating in the scheme. But even in the surveying of the land prior to developing it, there are frequent problems determining who has rights in what, and the amount of land each participant is contributing to the project (Humen 1981: 102).

The land is developed in a block and planted to cash crops, using the landholders as paid workers at a fixed daily rate (from between M$6 to M$8), under the supervision of SALCRA field staff. The Authority can, and does employ contractors and casual labourers as well. When the crops are mature and bearing fruit, and SALCRA is satisfied of the ability of the land-holders to manage the scheme themselves, then the estate is divided into lots; there may be some boundary rationalisation and redistribution of land, but each scheme participant gets a consolidated lot according to the amount of land originally contributed to the project (Hatch 1982: 118, 121; Sidi Munan 1980: 14). This task has not yet been carried through on any SALCRA scheme. One of the intentions in founding SALCRA was to minimise adjudication of land rights on native land, by not requiring that these be changed; theoretically the only real problem arises when the land has to be eventually consolidated and rationalised. Therefore, the land owners become smallholder cash crop cultivators, delivering their crop to a central SALCRA-run processing plant. Landholders can also continue to utilise the other land they have in the vicinity of the scheme for rice, vegetables, fruit and other crops.

There is one further consideration — the local scheme participants have to pay back to SALCRA the development costs of the estate, which are treated as a loan to the settlers; these costs do not include the general administrative and staff expenses of SALCRA, but they do include the daily wages which settlers receive as estate labourers during the establishment of the farms. If any profits are made during SALCRA's tutelage, then these are handed over to the settlers, after the deduction of SALCRA's expenses. The landholders are also given formal, written title to the land.

SALCRA land development has been slow. Its staff complain that there are frequent cash flow problems for the Authority, which affect the implementation schedules at the local level. However, monitoring of SALCRA expenditure and costs by the Authority's financial officers leaves much to be desired. The most serious problem for the effective implementation of estate schemes and close financial management, is SALCRA's lack of skilled personnel. One indication of SALCRA's staff difficulties is that it has had to rely on some staff seconded from the SLDB. One solution to the shortage of skilled manpower is to engage outside professional assistance under contract, and this is being done in one of the Authority's schemes. Furthermore, SALCRA has no specific funds for research and no specialised research staff, particularly in the crucial area of social and community development. Staff of the Sarawak Museum had to be called on to conduct a social survey in the early stages of the SALCRA Lemanak-Batang Ai oil palm scheme (Kedit 1978). An additional problem relates to cost. SALCRA has to direct its attention to poor, generally remote regions of the state; this necessarily entails greater expenditure on such items as infrastructure — roads, processing plant and so on — and the schemes are distant from port facilities for export. Projects are also the product of centrally based office planning; there is little flexibility to meet local conditions and needs; nor is there any real desire or ability on the part of most local managers and supervisors to take decisions on the spot. Ambitious targets, as we have seen with the SLDB, have been set, which have not been realisable, and there has consequently been less attention to the consolidation of what has already been achieved.

It is instructive to examine briefly some of the SALCRA projects. The Authority's main focus has been on its Lemanak (Merindun) and Batang Ai (Batu Kaya) oil palm schemes. It began operations there in 1976, and planting began in 1977 (Sidi Munan 1980: 14). The area is considered to be an extremely poor one, where Iban shifting cultivation provides well below an adequate livelihood (cf. Kedit 1978; 1980). About 3,600 hectares have been planted (Merindun = 2,415 hectares, Batang Ai = 1,172 hectares) involving 508 households or about 2,750 people (Hatch 1982: 120). SALCRA has also commenced planting oil palm not far from Merindun at the Pakit-Undop scheme. 500 hectares have so far been established with a further 1,200 hectares planned; it should benefit 153 households or about 850 people. Again we are dealing with quite small numbers of farmers in relation to Sarawak's total number of rural poor.

It should be noted that up to the end of 1984 the early schemes, already nearly eight years old had not yet yielded any income. Part of the problem is that the processing mill at Merindun has not been made ready on time; by August 1984 it had still not been connected to a water supply, and it is now over two years behind schedule. There is nowhere else to process the oil palm kernels and somewhere in the region of 1,000 hectares of palm are ready for harvesting, and have been for some time. What is more, there have been difficulties in finding a suitably qualified factory manager. One very serious consideration for the future is that, should the mill break down, there is no means of processing the oil palm quickly; spare parts also have to come from the Peninsular, and long delays are likely. The roads in the area are also inadequate. The main road from Bandar Sri Aman, the nearest sizeable town, to Lubok Antu is unsealed for most of its length, and deteriorates in the mon-

soon season. Oil palm from the Pakit-Undop scheme, which is near Bandar Sri Aman, will have to be taken up the road to Merindun for processing at the mill; the palm oil will then have to be brought down again and on to coastal bulking installations. All this adds to production costs.

It is my opinion that, because of the delays in the scheme, and the resulting increased expenditure, and larger loans to the settlers, it is unlikely that SALCRA will be able to recoup its development costs. It was said that Iban households participating in the scheme were earning upwards of M$150 per month from SALCRA daily wages paid for estate labour. This compares with a monthly average per household of below M$50 before the start of the scheme. It is hoped that earnings will be substantially improved when the processing of the oil palm begins (Humen 1981: 102; Lim 1981: 37 ff). Nevertheless, even the figure of M$150 per month is below the official poverty line, and this money theoretically has to be repaid to SALCRA.

SALCRA has other schemes in progress. There are three cocoa projects in the early stages of establishment. One in the Lundu district of the First Division at Kampong Bajo Pandan Blungai of 408 hectares; this is in a very early stage, and field establishment works are under way. The second scheme is in the Iban Paku-Layar area near Betong in the Second Division. It is planned to plant about 1,224 hectares of cocoa there in four phases, involving 350 households. Nurseries have been set up, and surveying, land clearing and road construction are being implemented at the present time. The third project is in the Bidayuh area of Kampong Taie near Serian in the First Division of Sarawak; it is further advanced than the other two schemes. 816 hectares of cocoa in three phases, benefiting about 100 households, have been planned; but the scheme is meeting with great difficulties. When I visited the Taie project in 1983 it was already about two years old; approximately 200 hectares had been cleared of undergrowth, secondary forest and old rubber trees, and planted with cover crops and nitrogen-fixing plants. Unfortunately the land had not been kept clean of weeds, and imperata grass was choking, and in some cases had killed off the cover crops. By mid-1984 cocoa planting had been started, and a nursery established; but because of inadequate shade, the in-filling of cover crops, to replace those which had died off, was being carried on simultaneously with cocoa planting. In addition, because of weed problems, the scheme supervisors had been content with clearing patches of ground and inserting the cocoa; some of this was already dying off for lack of shade, lack of watering, and the re-invasion of imperata. Weeds still had a firm hold, and would no doubt feed off the fertilizer applications intended for the cocoa. There also appeared to be no calculation of appropriate numbers of cocoa plants per hectare to give adequate yields and a sufficient income to the landholders. Planting was very haphazard. Finally, the nursery was poorly kept and there had been delays in securing the required amount of planting material. What all this adds up to are ultimately delays in completing the scheme on time, increased costs of implementation to be passed on to the farmers, and lower than expected incomes from the cocoa, and lower yields per hectare. In the meantime the goodwill, confidence and trust of the local participants have been undermined.

In establishing the cocoa what would have been more sensible, so I am told, would have been to leave some of the trees from the old secondary forest and rubber gardens, underbrush these and intercrop the cocoa immediately using these existing

trees as shade. Weeds would also have been less of a problem, and the cocoa would now be yielding.

The problems experienced in the project seem to stem from one main factor — the lack of a trained estate manager and skilled field personnel knowledgeable in cocoa planting. Kampong Taie has its full complement of SALCRA staff, accommodation, electric generator, vehicles and roads, but there is little sign of the staff organising, supervising and working with local labour in the field, nor of keeping an accurate account of work done, of forward planning of work schedules and of precise calculations of costs and expenditure. Indeed, it would seem that the SALCRA employees have been unable to instil confidence in and win the support of the local Bidayuhs. Though some local labourers are working on the scheme, SALCRA has relied heavily on outside contractors to undertake the establishment and maintenance of the cocoa. Contractors recruit labour, do the job contracted for, often cut corners to save time and money, and leave; there is no involvement of the labour force in the continuous care and management of the project. At this stage, the cocoa scheme does not look viable, and, bearing in mind that costs in relation to results are high, it may well not provide any long term solution to rural poverty in the area, though there has been a temporary injection of cash for those local people working on the scheme for the SALCRA fixed daily rate of M$8.

One promising development is the SALCRA-sponsored Kampong Mayang Mawang tea project, established in a very poor Bidayuh area near Tebakang, not far from Kampong Taie. The scheme is financed by a commercial loan guaranteed by SALCRA and the total costs of the scheme are estimated at between M$5–6 million. This is a modest project of 204 hectares begun in 1982, and scheduled for completion in 1985, with a tea processing factory on site. It is hoped that up to about 1,000 households will eventually become involved (Hatch 1982: 120), and when the tea is in production a household should be able to earn about M$200 per month. Two Bidayuh villages, Mayang and Engkeroh, are participating, and money has certainly been going into the area in the form of daily wages (here it is M$6 per day), and there is plenty of evidence of villagers improving their standard of living; they are buying consumer goods, building new houses and purchasing food in the market. By August 1984, about 85 hectares, or roughly 40 per cent of the planned hectarage had been planted to tea.

One key feature which distinguishes this scheme from the others described above is that external management services at Mayang have been hired by SALCRA on contract for a fee. A Sri Lankan estate manager on contract from Tate and Lyle, who has worked on tea plantations for many years, has sole managerial responsibility for establishing and organising the tea estate, with some institutional support from SALCRA. The manager closely supervises the Bidayuh work-force; he is always available for on-the-spot advice and consultation; and he has the expertise to handle and supervise all aspects of the work — clearing the land, setting out access roads, planting and cultivating tea, processing and marketing it, and planning and constructing the factory, offices and estate accommodation. He has organised his work-force in small field teams headed by local supervisors; these are in turn responsible to the young village headman of Mayang, and a young, educated, energetic man of Engkeroh. These latter are responsible for implementing and co-ordinating the work-

schedules each day. There is also meticulous attention to costs and to the details of expenditure. All the field tasks have been costed, and reasonable amounts of time have been calculated for their completion. To earn the M$6 per day each worker has to accomplish a precisely worked out task in, for example, spraying imperata grass with weed-killer, weeding, making holes for the tea plants, planting, watering, filling bags of soil for the nursery. For work over and above the allotted task per day each labourer then goes on to piece-rates. To qualify as field-labourers the local Bidayuh also have to agree to put in a set number of days per month on the scheme.

This stress on incentives and close supervision seems to have won favour among the local villagers. Importantly they have been involved in the scheme from its inception; and there has been no recruitment of contract labour. My impression was that the participants in the scheme took pride in it as their scheme. The estate manager also envisages the tea project as a local growth point; other neighbouring villagers, who are not formally part of the scheme, can obtain tea plants and instruction in cultivation methods, and set up their own smallholdings; they can then use the processing facilities of the Mayang factory. I believe that this was one of the original intentions behind the establishment of the SLDB estates in the Miri-Bintulu area; they were to provide foci and growth points for outlying settlements. Unfortunately this goal for the SLDB has not been realised.

In my opinion the SALCRA tea scheme, as a result of the exceptional qualities of its manager, stands every chance of success. But there are qualifications. SALCRA has found it very difficult to recruit a local deputy manager to be trained in tea growing; one was found only after the scheme had been in progress for two years; much will depend on the abilities and initiative of this man, when the present manager's contract expires. Furthermore, land rights at Mayang eventually have to be rationalised and consolidated, and it remains to be seen whether this can be accomplished without dispute. Already there have been some arguments over land, especially in securing village land for the construction of the tea factory; this has resulted in delays in establishing the factory to receive some of the tea which is now ready for processing.

It is worth remembering that all the SALCRA schemes taken together only amount to about 7,800 to 8,000 hectares, either planted, in process or planned, and involve about 2,250 households or approximately just over 12,000 people. This is at a total cost in 1984 of about M$80 million or about M$35,500 per household. It remains to be seen whether these costs are justified in terms of the progress which is made towards poverty alleviation, and the degree to which rural incomes are increased. At this stage, any judgement on SALCRA's achievements must take into account the considerable difficulties which the Authority has experienced in the implementation of its projects.

Although SALCRA has been responsible for *in situ* land development, it is also involved in one resettlement scheme. This is located very near Merindun, in the Lubok Antu district, and is designed to cater for the resettlement of 21 Iban long-houses, comprising about 2,800 people, who have to be moved from the areas upstream of the market centre of Lubok Antu to make way for a dam and hydro-electric project. To demonstrate the demands and pressures now being placed on SALCRA, it needs emphasising that when the government authorities were examining the proposals for setting up a farm scheme in the resettlement area below the dam, the only government

agency thought capable of developing the land, and acceptable to the Iban as well, was SALCRA. The first phase of resettlement took place in 1982, and the second phase in October 1984. Iban settlers have been provided with newly-constructed long-houses, electricity, piped water and access roads. SALCRA have been instructed to plant blocks of land to high-yielding rubber and cocoa, which will then be divided up into household lots (3 acres of cocoa and 5 acres of rubber per household). Each household has an additional 3 acres of land for other crops such as vegetables and fruit; but there is no suitable land for growing rice. The Iban in the Lubok Antu district are considered to be very poor, and the farm scheme has therefore been designed to generate a monthly income of M$500 per household. This income is crucially dependent on the yields and prices of cocoa, an appropriate level of farm management by settlers, and adequate establishment of the cash crops by SALCRA. The Authority may well have to plant somewhere in the region of 1,700 hectares of land. The Iban settlers have to pay back the costs of development to SALCRA, and the costs of constructing the new long-houses to the Housing Development Commission.

I have examined the Batang Ai scheme in detail elsewhere (King n.d.), and I do not propose to cover these data here. But various problems met with in the scheme have to be frankly admitted. There were delays in implementing the farms. Two years after the first settlers had been moved, SALCRA had still not established their crops. This delay has obvious implications for the projected costs of the scheme, settler loans which have to be repaid, and net incomes to settlers. SALCRA has acknowledged that they have a shortage of field supervisors experienced in cocoa planting. The Authority has also been unable to obtain sufficient planting materials on time, and it has had to cope with delays largely out of its control — for example, caused by difficulties in acquiring land for resettlement from Iban already in the resettlement area, by problems in sorting out land rights for compensation, by the slow progress of other government agencies responsible for constructing access roads into the scheme. In my view, SALCRA was overstretched in terms of finance, personnel and expertise, even before it was called upon to assist in the resettlement programme.

One major problem for the resettlement scheme, again beyond SALCRA's control, is that Iban settlers have been given no facilities for growing rice. The farm plans originally envisaged that settlers would be able to cultivate terraced hill rice, but this proposal subsequently proved to be unviable. Therefore, former Iban shifting cultivators, poor and substantially within the subsistence sector prior to their move, will now be placed in a precarious position of dependence on the market. They will not be able to grow rice and will have to purchase it, though there is land to grow some fruit and vegetables, and they can rear animals. Their main income will have to depend on rubber and cocoa. They will have to pay back their loans to government, though admittedly they can use some of their compensation money for this purpose. They will also need to find cash to pay for regular electricity and water bills. The amount of land allotted for household cultivation is not capable of accommodating any large future expansion in population.

I have concluded elsewhere (King n.d.) in my appraisal of the scheme, that Iban may well begin to default on their loans and bills, seek employment off the scheme, and some households may even decide to leave altogether in search of land for rice cultivation. Large amounts of money have been pumped into the area already in com-

pensation to Iban for the loss of their land and other property; and, as is customary on SALCRA's schemes, settlers are receiving daily wages for working on the farms in the Authority's employ. But is the money spent being put to good use if there is no sustainable agricultural future for the settler households?

The Land Custody and Development Authority (LCDA)

This state statutory body was established in June 1981 with an initial state grant of M$10 million. It would appear that the founding of the Authority was a direct response to a recommendation in the Fourth Malaysia Plan for the introduction of a share-ownership system on state-run land development schemes (1981: 281). It was envisaged that the small landholders participating in a given scheme would be granted individual ownership of a house-plot, receive wages for working on the plantation, and a share of the profits of the cash-crop enterprise. What seemed to be of concern to the planners were the high costs of past and present land development programmes, and the need to encourage settlers to engage in more intensive cultivation practices and participate more fully in the schemes so as to maximise income. Perhaps there was also the dissatisfaction with the generally perceived slow pace of other land development agencies in such states as Sarawak and their lack of expertise, and the recognition of the need to inject some dynamism into rural development by involving the private sector. But one of the stated aims of the LCDA is to raise rural incomes.

It is important to note that the Authority has been instructed not only to promote, plan and assist in the implementation of agricultural schemes, but commercial, industrial and residential projects as well. Indeed, the LCDA has been much more successful to date in the non-agricultural sector; it has had to be, because the state government has insisted that the Authority has to be self-financing, and for that reason it has tended to concentrate on the more lucrative urban projects.

In relation to land development the LCDA attempts to bring private capital and expertise together with local land and labour. The land scheme has to be operated along business lines. The Authority has wide-ranging powers to acquire and develop land either in new or in already settled areas. The LCDA ideally enters into an agreement with the owners of the land to undertake development on the basis that landholders surrender their land titles or rights to the Authority; these are to be held in trust by the Authority which can then sell or lease them on the owners' behalf after development has been completed. If agreement cannot be reached, theoretically the LCDA has the power to acquire the land compulsorily at fair market rates. It can also act simply as an intermediary to bring owners and developers together to reach an agreement about equitable shares; then the Authority holds the signed agreement. The LCDA may or may not provide some investment or other inputs during development, but it does not have the management and technical expertise to undertake the schemes itself. The joint venture partner would have guaranteed occupation rights to the land. The dividends paid to those who have surrendered the land are assessed on the basis of the quantity and quality of land contributed by each landholder, taking into account management, operating and capital costs as well.

By August 1984 the LCDA had no estate project in progress on Native Customary Land. Private companies have been wary of involvement, because of the uncertainty

surrounding native rights in land. There has been great resistance on the part of the native population to participation in the schemes because of their unwillingness to surrender land rights, and their suspicion of private commercial plantation companies. Even if the land is sublet, the original landholders have very little control over the development process, and no guarantee that they will be employed on the scheme. It is also difficult, as SALCRA has come to realise, to establish the distribution of rights to land, when there are no written titles, and where several individuals may claim rights to a given plot of land. When people have a strong attachment to the land, any proposals to transfer land rights are potentially highly contentious issues.

At the moment the only schemes which the LCDA are hoping to promote successfully are an oil palm estate near Lundu in the First Division at Kampong Stinggang, Stungkor, with an initial development of 6,070 hectares; a private company has undertaken a feasibility study there, but some details are still causing difficulties and have to be worked out; there is also a likely oil palm project on a joint venture basis with the Commonwealth Development Corporation at Suai in the Miri-Bintulu area. The CDC already has an oil palm estate in the region. Other planned developments are at Bau (rubber, 4,049 hectares), Semongok (cocoa, 202 hectares), Suai (cocoa, 810 hectares), Sungai Galesah, Sebubok (oil palm, 1,200 hectares). But it has to be said that none of these projects are certain; the LCDA has had no impact on the alleviation of rural poverty to date; and judging by the attitudes of the native population towards the Authority's projects and the nature of the projects themselves, it is unlikely to provide much benefit to poor rural farmers in the future.

Conclusions

In their attempts to alleviate rural poverty so far, the land development boards in Sarawak have not met with much success, and there seems little reason to be optimistic about the future. Given the financial resources, time, energy and personnel devoted to these schemes, the yield has not been very great. Of course, money has gone into some rural areas; roads, houses and other facilities have been provided. But as far as can be determined on the basis of inadequate and frequently misleading data, state statutory boards have not made much of an impression on rural poverty, and in relation to the scale of the problems the numbers of poor farmers receiving assistance are small. What is more, many of the schemes have shown themselves unable to provide a *long term* solution to rural poverty. When one statutory board has encountered problems, or when politicians have formed the opinion that the pace of rural development is insufficient, the solution has been to set up another board. Instead of building on and consolidating what has already been accomplished, more projects have been set in motion by a different authority, diluting and dissipating efforts, and discouraging co-ordination between schemes. One severe problem faced by all state boards has been their inability to recruit skilled personnel experienced in plantation enterprise;[25] politicians sit on the decision-making bodies of these boards, and intervene in their affairs; career bureaucrats make up most of the managerial staff. A further difficulty has been the delays resulting from the necessity to deal in native land governed by customary rights.

As we have seen the SLDB is being wound up; its rubber schemes collapsing, its oil palm schemes soaking up money with little return. SALCRA has spent substantial monies without realising any income to date, and with the possibility that it will not (as the SLDB did not) recover its development costs. There is some room for optimism in the SALCRA-sponsored tea project; and the general concept of *in situ* development of Native Customary Land pursued by SALCRA is a good one, and acceptable to most natives. It is in implementation that SALCRA activities leave much to be desired. Finally, the LCDA since its inception has not been able to set in motion any schemes, mainly because it has been directed to implement commercially-oriented enterprises in areas subject to native customary right.

Perhaps it is not surprising then when we read in the Sarawak press that state politicians have been making overtures to federal land development agencies such as FELDA and FELCRA to bring their resources and expertise to Sarawak, especially to develop oil palm (*The Sarawak Tribune* editorials, August 7, 1984 and August 9, 1984; *The Borneo Post* August 11, 1984). Obviously Sarawak has now recognised that it does not have the technical capacity to achieve what it wishes for rural dwellers; but it is still committed to large-scale land development.

A final point is in order. As we have seen the land schemes are very expensive relative to the number of settlers involved. Land development authorities have also had to shoulder the burden of assisting poor farmers in relatively remote interior regions with few or no infrastructural facilities. Though I have indicated that there are also problems with subsidy schemes, these *in situ* improvement schemes, using subsidies and other inputs, still seem to be the cheapest and most effective way of alleviating poverty.[26] Might it not be better then to try and improve existing agricultural activities in interior regions, rather than commit large resources to integrated resettlement and land settlement schemes which demand a level of managerial, financial and technical expertise that Sarawak cannot at the moment supply? If the state wishes to carry on with the schemes, then it will indeed have to encourage and attract assistance from outside the state, from the Peninsular and from abroad.

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NOTES

1. See for details *Banci Penduduk dan Perumahan Malaysia 1980. Laporan Penduduk Negeri. Sarawak* (1983).
2. For recent critical comments on the Malaysian government's policies of poverty redressal see various papers in Jomo K.S. and R.J.G. Wells, eds. (1983), for example David Lim (pp. 5-22), S. Husin Ali (pp. 45-50), Jomo Kwame Sundaram (pp. 51-61) and Zulkifly Hj. Mustapha (pp. 98-108).

3. For the Peninsula, Frank Peacock argues that "The failure of poverty groups to benefit from high growth rates can be explained by the concentration of growth in certain limited sectors of the economy" (1979: 394).
4. Richard Schwenk has said of the timber industry in the Seventh Division of Sarawak that "the bulk of the profits does not reach the hands of the common people except through wages and the sale of a few logs" (1973: 14).
5. James Clad, in a recent article entitled "An Oil-lumbered State", is of the opinion that Sarawak is too heavily dependent on its two major export commodities, and that it has failed to develop "high-volume cash-crop production" in the interior (1984: 44).
6. There is a view that Sarawak and the federal government have not devoted sufficient resources to rural development. Clad has said that "Sarawak ... has failed to devote enough resources to smallholder cash-cropping, which at present contributes only 4.2 per cent of export receipts yet engages most of the 80 per cent of Sarawak's population who still live in rural areas" (1984: 45). (In the 1980 census, out of a total population of 1,235,553, the number living in the countryside amounted to 1,013,024.) It is difficult to quantify, but my impression is that quite large resources have gone into rural development though one would always wish for more; the main problems arise not so much from the adequacy of the financial provisions but from the ways in which these resources are used.
7. Osborn also bemoans the paucity of research on broader issues of development in Sarawak (1978: 109).
8. This is not to say that no research has been done on the subject but it has tended to concentrate on specific issues, areas and ethnic groups. See, for example, the early papers of Ungku Aziz (1964) and S. Husin Ali (1972) on Malay poverty. For a more general review, though now somewhat out of date, see Pravin Visaria (1981).
9. For some of these people, certain of these facilities may not be perceived as "needs" as such; they are often so classed, however, by government and outside observers, who attempt to arrive at some general view of an acceptable quality of life in a given country and to form an opinion about general attitudes on the part of the population, or representative segments of it, about what is or is not an adequate level of comfort and well-being.
10. This figure differs from other figures given for the poverty-line in Sarawak, and more widely in Malaysia (see below).
11. See especially pp. 21–23 for Cramb's and Dian's summary sketch of the economic environment of farmers in the selected extension regions.
12. In the less populated, more remote Belaga region where pressures on land are not so acute, shifting agriculture met more of the annual rice needs of households, about nine months on average in the 1976 season (Cramb and Dian, 1979c: 21, 24).
13. "Rural Poverty: It's Everyone's Concern", *The Borneo Post*, Monday, August 1, 1983, p. 3.
14. A few informants gave an official figure for average household size of 5.4 persons; I even have a figure of 5.2 persons from another informant.
15. The Third Malaysia Plan stated that 57 per cent of Sarawak's population in 1976 was involved in agriculture, forestry, fishing and hunting (1976: 167). There may well have been then 40 per cent or more of the population still involved in shifting cultivation in the mid-1970s, which would have amounted to about 450,000 people upwards. This is considerably more than Hatch's figure, and would more appropriately fit the cleared hectarages which he estimates.
16. See S.C. Chin (1977) for a sympathetic general view of shifting agriculture.
17. Voon and Khoo state that "In Sarawak there seems to be little done to assist the highland inhabitants. Many of the upland areas are in a dilemma". They add "The Government has discouraged shifting cultivation in the uplands but has not advocated a demonstratively satisfying alternative or remedial activity" (1980: 53). I think this judgement is rather harsh. Government has implemented many projects; the rural development agencies do have alternatives to shifting cultivation; but it remains to be seen to what degree many of these programmes provide "a demonstratively satisfying alternative". Some certainly have not met with much success, as we shall see. For a brief outline of development strategies in Sarawak see Haji Mohd. Aminurashid (1983) and for agriculture in particular see Kementerian Pertanian (1983).
18. See Padoch (1982) for a study of the dynamic responses on the part of the Iban to pressures on shifting cultivation, viz. by labour migration, cash-cropping and other activities, changes in land tenure, population limitation.

19. For details on the background to the scheme see M.R. Read (1964) and Jackson (1968: 94–96). See also Eaton (1974: 55–59).
20. See, for example, Gale Dixon's detailed study of the Triboh scheme in the First Division (1972: 214–34, 266–87). Triboh had 64 settler households, but it was not a resettlement project as such. The participants were already in the area; the land was simply rationalised and developed, and a central village and other facilities were supplied. See also the *Miri-Bintulu Regional Planning Study, Sociology Field Reports* (1974: 101–55) for a very detailed investigation of the Lambir scheme in the Fourth Division. *Sarawak Development Progress 1968–1970* (1970: 24–26, 45–52) contains some general information on the SDFC. For a visual impression of the Melugu scheme in the Second Division of Sarawak see the plates pp. 134–37, 141–45 in Leigh Wright *et al., Vanishing World. The Ibans of Borneo* (1972). For a study of the schemes up to 1967 see Lee (1970: 191–208).
21. See *Perangkaan Pertanian Sarawak* (1982: 21).
22. See also Peacock for similar comments on the FELDA schemes. He maintains that in terms of their cost, their overall impact on reducing rural poverty on the Peninsular has been small (1979: 385, 388).
23. See the *Miri-Bintulu Regional Planning Study, Sociology Field Reports* (1974: 167–83) for a detailed report on Bukit Peninjau and its labour force.
24. Official figures give 20,000 tons of palm oil exported on average per annum since 1981 from SLDB estates.
25. Indeed Sarawak, before its incorporation into the Federation of Malaysia, had seen little in the way of large-scale plantation or estate development.
26. Sarawak is also now promoting the concept of Integrated Agricultural Development Projects to stimulate rural development. In a given area which is considered to require development and assistance, several government departments are to be involved in a range of projects which are interconnected throughout the region, e.g., improved drainage and/or irrigation facilities, flood control, land and crop development, farm-to-market roads, and agricultural support services. So far feasibility studies have been undertaken in the Samarahan river basin of the First Division and the Kalaka-Saribas districts of the Second Division. The problem is that these integrated schemes will rely even more on the efficiency and co-ordination of government departments, and will still require some involvement of government agencies which specialise in land development. Perhaps this is also why Sarawak is currently courting federal land development organisations.

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