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Forest, Resources and People in Bulungan

Elements for a History of Settlement, Trade, and Social Dynamics in Borneo, 1880-2000

Bernard Sellato

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Cover Photo: Hornbill carving in gate
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Foreword

The text below is a revised version of a report submitted to CIFOR, the output of a study entitled 'Social and economic history of Bulungan'. It is based mainly on a survey in Bulungan[1] conducted during a three-week trip to the Tarakan, Sesayap, Malinau, Tanjung Palas, and Long Peso' districts in October and November 1998. Drs. Dollop Mamung, whose kind and efficient assistance I wish to acknowledge here, accompanied me in this survey. More than forty people were interviewed in over fifteen locations. I had previously conducted very brief surveys in the lower Kayan area (1991) and in Malinau (1993) and have also spent several long periods in Long Pujungan District between 1991 and 1995.

In 1998 Carin Van Empel, a Dutch graduate student, carried out research in the Dutch archives. She explored collections in the Algemeen Rijksarchief in The Hague and the Koninklijk Instituut voor de Tropen in Amsterdam and selected relevant Memories van Overgave (handover reports), Mailrapporten (mail reports) and Verbalen (records) for the period 1877-1937. A further selection of the documents located was photocopied, and Van Empel translated fragments of the copied documents into English. These I later edited. Also in 1998, Dra. Erna Rositah gathered documents from various government agencies in Jakarta, Samarinda, and Tanjung Selor. These

documents are primarily statistics, dealing with provincial, regency, and district levels. (On Dutch archives in Jakarta concerning Kalimantan, see Knapen 1997b.)

A very large body of literature with relevance to the history of Bulungan is available, in Indonesian, Dutch, English, and even French, and over 350 titles (not including government statistics or archival documents) were reviewed, although not all were actually used. Apart from published books and articles, these sources include scores of unpublished documents and reports. The Dutch archive documents (except for some important Memories van Overgave) and Indonesian government reports and statistics have not been listed in the bibliography. As the original text of the present volume was written as a consultancy report, meant for project planners and fieldworkers, precise bibliographic references were not included. Its conversion into an academic text for publication, that is, with academically defensible standards, particularly with regard to bibliographic references, proved too formidable a task, given the time constraints. Therefore, for each section of the text, the most important references have been grouped in notes (see References).

Most useful to this study was the work, often unpublished, of other scholars, such as Rajindra Puri and Lars Kaskija, to whom I extend my heartfelt thanks. Earlier reports by the Kayan Mentarang project of WWF (particularly Culture and Conservation, a research programme) and a number of reports by CIFOR's BRF personnel, some based on studies made at later dates than my survey, were also very useful (see References). I am also indebted to the reviewers of the original report and a few other readers (Patrice Levang, Reed Wadley, Lini Wollenberg, Lars Kaskija, and Godwin Limberg) for their valuable feedback, comments, corrections, and additional data, and to Dr. Rajindra Puri for identification of some forest products.

At CIFOR's request, I held in Samarinda a two-day workshop entitled '*Metoda Penggalian Sejarah Sosial Ekonomi dan Hukum di Pedalaman Kalimantan'* (Methods for Investigation into Social, Economic, and Legal History in Interior Borneo; 11-12 November 1998). This workshop in Indonesian, attended by some thirty participants (research staff, faculty, students, NGOs), was jointly organised by the Center for Social Forestry (CSF) of Mulawarman University, Samarinda, and the Institute for Research on Southeast Asia of CNRS, France, and benefited from the participation of Drs. G. Simon Devung. I wish to thank Drs. Devung, Dr. Ir. Apriadi D. Gani of CSF, and the Rector of Mulawarman University.

Finally, a note of warning: this text is not a comprehensive 'All about Bulungan', but serves as an introduction to the Bulungan region. Furthermore, it still very much reveals its origins. Rather than attempt to produce an all-encompassing but necessarily shallow picture of the whole of Bulungan in historical perspective, I had chosen, in the field study and in the original report, to focus on the areas of immediate interest to CIFOR and on those themes of direct relevance to CIFOR's BRF. This is still apparent in the present text. Considering the size and complexity of the region, the depth of the historical scope, the range of issues surveyed, as well as the sheer volume of literature and documentation examined, it is a basic digest, with a few topics emphasised due to the circumstances of the original study. It is hoped that, impressionistic as it may be, the present text conveys the right information and a few sound ideas. All its biases and shortcomings are my sole responsibility.

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[1] In this report, Bulungan refers to the original regency (*kabupaten*) established by the government of Indonesia in 1959. In late 1999 this district was divided into three regencies, Malinau, Nunukan and a smaller Bulungan. The area was still one regency at the time the material for this volume was prepared.

1. Introduction

The region under consideration is Bulungan Regency, the northern part of the province of East Kalimantan. Although certain parts of Bulungan have long been well known and studied (e.g., Apo Kayan), others, such as Long Pujungan and Malinau districts, virtually remained *terrae incognitae* to scholars until after 1990, when massive research programmes (e.g., WWF's 'Culture and Conservation' in Long Pujungan and later, CIFOR's BRF project in Malinau) or individual researchers (L. Kaskija, R. Puri) started activity. The historical scope extends from about 1880 to present.

Geographically, in connection with the BRF location, the primary focus is on the two districts of Long Pujungan and Malinau; thematically, it is on institutions and land and forest use patterns, and their recent changes. A secondary focus is on the downstream regions (Bulungan and Sesayap), insofar as their very existence and history have shaped the present situation upstream.

The study's overall methodology was to extract as much useful information as possible from all types of available sources and bring together the data across disciplines to produce a general, intelligible picture of the region's history, with emphasis on social and economic features. I chose to give priority to qualitative first-hand data procured

through interviews and to relevant historical data not available in the literature. Data from oral history, both ethnic history (based on migrations, genealogies, etc.) and personal histories (life histories), constitute the original contribution of this study to the history of Bulungan. They were cross-checked against and complemented with written data from the literature. Background data available elsewhere, e.g., extensive data on the Kenyah of Long Pujungan in 'Culture and Conservation' reports, are referred to, but not restated or discussed at any length.

Quantitative data were found to be extremely disappointing, if not altogether misleading, and little use could be made of them, e.g., Table 1. Government statistics, often unavailable for the period before 1970, steadily improved in quality from about 1970 until about 1985. However, in the late 1980s and even more so after 1990 some degree of administrative liberalisation led to widespread manipulation of the statistics, making them unreliable.

Also, because of a rapidly changing situation in the field, I chose to prioritise the discussion of important background socio-cultural factors with durable effect on socio-economic and behavioural patterns, rather than report on local issues of incidental, 'there and then' relevance, many of which have probably become obsolete since my visit.

A region like Bulungan has a morphological 'structure' (its physiography, that determines such features as habitat, economic pursuits and communication) but it also has a sociological 'structure' (the network of relationships linking its human components). Resilient features of earlier phases still weigh heavily on today's social relationships and, therefore, on the new type of 'structure' established by the Indonesian nation-state.

Therefore, this study, through its historical perspective, attempts to connect the traditional to the modern and make sense of the latter

by exposing the transition from the former. It offers some broad ideas that should prove useful in understanding how the past has shaped the present and how the present socio-economic situation owes many of its specific features to past patterns and events.

This type of background study should constitute a systematic component of any project focusing on traditional local communities, and should be carried out prior to any other activities involving these communities.

2. Environment and Population

This section provides a general background for the following sections and covers, as brief introductory statements, the natural setting, the organisation of human and social space in the different river basins concerned, and the past and present demographic situation.

2.1 One Forested Domain

Details of the general ecological setting of the Bulungan region and features of the forests of the upper Bahau, Malinau, and Tubu river basins are amply documented elsewhere (Wulffraat and Samsu 2000, Sørensen and Morris 1997, Eghenter and Sellato 1999b, O'Brien, 1998). Whatever the limits of the Bulungan Research Forest (BRF), it is important to stress that the Bahau, Malinau, and Tubu river basins constitute one single forested domain, albeit with numerous local specific characteristics due to differences in elevation, geology, hydrography, and type of forest.

This thinly populated, forested domain is rich in natural resources. Resources include products crucial to local people's subsistence (food, shelter, and tools), e.g., timber, rattans, game and fish, wild sago, fruit, and vegetables, medicinal plants, iron ore, clay, salted waters,

etc., and products of commercial value that are collected and traded abroad to procure indispensable imported goods.

Although local groups, until the Dutch pacification, fought against one another for land and subsistence products, and also for control of commercial resources, they managed until recently to prevent outsiders from massively entering their territories, irrespective of the actual sustainability of their own methods of land and resource management. In recent years, the continuing validity of their control over not only their commercial resources but also their lands has been questioned by the presence of powerful outside parties, which the local communities are in no position to resist. The area's low population density, which played a major role in guaranteeing the preservation of the forests through the centuries, now prominently accounts for the local groups' weakness in defending their rights (Sellato 1992).

In 1997 Bulungan's forests were classified as follows: *hutan lindung* (14%), *hutan suaka alam* (25%), *hutan produksi tetap* (26.5%), *hutan produksi terbatas* (17%), and *hutan konversi lainnya* (10.5%). The relevance of this classification to actual activities carried out in the field remains untested. In the upstream area, the percentage of protected areas is higher, and the creation of the large Kayan Mentarang National Park, although failing to prevent local occurrences of encroachment, represents an indisputable improvement in the long-term protection of the forested domain, insofar as the local people's effective collaboration is secured. There is much information available elsewhere on this subject (see various WWF reports).

This forested domain is intersected by rivers and water divides. Rivers enable communication between upstream part and downstream areas, and the upstream-downstream axis constitutes a major feature in the organisation of space and life by the region's inhabitants. Fractures along this axis, such as dangerous rapids or waterfalls, form natural

obstacles that inhibit communication and become human and social divides. Water divides form the natural boundaries of river basins but also serve as communication lines linking one river basin to the next. Footpaths follow or criss-cross water divides, and ethnic groups are just as often found straddling a watershed as they are on both sides of a stream. Migrations went across water divides more often than they followed river streams.

Whereas river streams form clear territorial boundaries, water divides form poorly defined boundaries. For safety reasons, farmers tend to stay away from border zones and, often, it is nomadic Punan groups, associated with farmers on one or other side of the border (or both), which occupy those no-man's-land areas. Beside collecting their subsistence (and commercial products) in the forest, the Punan act on behalf of the farmers as watchdogs on the watersheds, which are the sites of numerous, ancient and recent incidents between two groups over commercial forest products.

2.2 Two River Basins

Irrespective of the frequent communication across water divides, traditional local groups, colonial administrations, and modern independent governments alike have maintained water divides to circumscribe territorial units. For example, the upper Bahau territories were under the authority of the Kenyah Leppo' Ma'ut paramount chief and the Pujungan basin under the Kenyah Uma' Alim leader (Van Walchren 1907, Fischer and Gramberg 1910), while the Malinau basin was under the Merap leader (Kaskija 1992b). The Dutch confirmed the Leppo' Ma'ut and Pujungan territories, separated by major rapids, by making them administrative divisions. The Indonesian administration, however, regrouped them into one district (*kecamatan*), covering the whole of the Bahau river drainage. The fact that settlements of the upper Tubu and upper Malinau areas are closer

to, respectively, the Bahau and Long Peso' than to Malinau Kota never precluded their political inclusion in the river basins to which they belong.

The natural structure of this region of Borneo – in contrast to regions where networks of land paths feature prominently against the hydrographic network, e.g. Kerayan (Sellato 1997), Apo Kayan (Eghenter 1995 and 1999) and the Tunjung plateau (Sellato 1990) – determines to some extent its social and political structure, although not usually its ethnic boundaries.

Indonesian administrations have treated the river basins of the Bahau-Pujungan and the Malinau-Tubu as administrative units. The Malinau and Tubu, because of their roughly parallel courses, their nearby confluence with the Sesayap-Mentarang and their middle and upper courses well-connected by land paths, were until very recently treated as if they formed a single water drainage.

While this makes sense for the Bahau-Pujungan, overwhelmingly populated by Kenyah, it makes less sense for the Malinau-Tubu unit, and particularly for the Tubu. The Tubu has three sections In terms of communications and ethnic links, the uppermost section is better connected to the middle Malinau (where many people have moved; see Kaskija 1992a) or even to the Bahau (where some Punan children attend school) than to the lower Tubu. Nevertheless, when the boundaries of Malinau and Mentarang districts were recently altered, the whole Tubu drainage changed hands.

Malinau District's area was usually given as 8783 km^2, (sometimes as 8692 km^2), including mainly the Malinau and Tubu river basins (respectively 364 500 ha and 261 675 ha), and a portion of the course of the Sesayap-Mentarang river. However, in 1997, the Tubu river basin and a short section of the Mentarang River were transferred to Mentarang District, and Malinau District was then only 5238 km^2.

Long Pujungan District used to cover 8400 km^2, but an alternative figure of 9177 km^2 is sometimes found. More recently, the district has expanded to 11 551 km^2 (presumably after inclusion of the upper Iwan river basin), although previous figures still appear in reports. As the upper Iwan area is totally devoid of population, this increase only has an impact on computed population density.

2.3 Population

It is relatively easy to reconstruct the demographic history of Long Pujungan District, because it is a self-contained, well-bounded region, with a residence pattern of discrete, named village units. Only the small, fluid Punan band units are somewhat difficult to trace. Moreover, figures are available for the first half of the 20th century when the district was a colonial administrative unit.

In Malinau, things are more complex. Firstly, fluid Punan groups constitute a notable proportion of the population. Secondly, the district is not clearly bounded by natural geographic features, as it includes a portion of the Sesayap-Mentarang River. Thirdly, movements in and out of the district have been commonplace as the terrain is relatively easy (except for the Tubu), and are thus difficult to trace. The Dutch administrative entity where the Malinau sub-district included the present Sesayap District, is not congruent with the present district.

Long Pujungan District

Long Pujungan District today has a very low population (about 3100 in 1997) but the actual figure is probably lower since scores of registered residents live outside the district. Population in 1965 (Rudes 1965) was estimated at 7000 (density 0.8), and by 1971 had dropped to 4276. Between 1978 and 1987 it oscillated between 3100 and 3500,

and a theoretical out-migration of 2750 persons could be computed for the period 1971-1987 (Von Franz 1988). Between 1989 and 1993, the population sank below 3000, and reached an all-time low of about 2700 in 1991-92. The population declined by 25% between 1981 and 1991, and then apparently rose by 15% between 1991 and 1997.

This situation is typical of depopulating upriver regions in East Kalimantan in recent decades. Out-migration is generally the result of a quest for better living conditions, focused on the access to cheaper trade goods and better education and health facilities, but locally the lack of swidden farming land also has been an important factor.

In the first half of the 20th century, population in Long Pujungan was higher than the 1965 estimate. In 1905-7 (Van Walchren 1907, Fischer and Gramberg 1910), nine distinct groups, each in one single large settlement of longhouses perched on a fortified hilltop and separated from its neighbours by long stretches of jungle or difficult rapids, were endemically hostile to each other. An estimate of 10 000 Kenyah for the whole Bahau drainage (density 1.2) is reasonable, with 5000 in six settlements in the Pujungan River, 4000 in the upper Bahau, and more in the Lurah region. There were also some Saben communities scattered along the Bahau's uppermost tributaries, and a few Punan bands.

With Dutch peace prevailing in the region, Kenyah groups settled by the main streams and later split into smaller settlements, most remaining within their vast historic territories, while several moved downstream out of the district. In the 1930s, when Christian missionaries first penetrated the area (Lewis 1987), there were some 20 settlements with a total population of 6100.

In the 1960s and 1970s, the increased administrative and military presence triggered by the Confrontation with Malaysia caused major disruptions: longhouses were demolished (following an official dictum and widespread conversion to Christianity) and massive emigration

occurred, involving whole sections of villages and sometimes whole villages, to the downriver regions, the Malinau area, and Sarawak. In the 1980s, a government programme attempted to regroup the remaining 21 small communities (*desa*). Today, the district's population is distributed among about sixteen settlements (averaging 175 persons), of which three are Punan hamlets of shifting whereabouts.

Long Pujungan thus lost over 70% of its population in less than one century. This figure is consistent with that for Apo Kayan, which in 1900 had about 20 000 people. Even assuming that early estimates were too high, a 50% loss remains impressive. One reason for such a steady out-migration might be that the Bahau region was (and is) deemed altogether unattractive. Indeed, powerful, warlike groups, such as the Modang (Ga'ai) and Kenyah Uma' Kulit, who in the 19th century entered the Bahau region in search of good swidden lands and certainly had first pick soon moved on to other regions. Today, hardly any resident group produces significant rice surpluses from swidden farming, even from the few available good lands.

Population density, if calculated on the basis of the old figure of 8400 km^2, was below 0.4 people km^{-2} in 1997. If the upper course of the Iwan River, an empty patch of land, is included, then density falls to below 0.3. Villages had been ascribed theoretical (rather than measured) territories (*wilayah desa*) of 320-460 km^2 After inclusion of the Iwan area, the territories of all villages were artificially and indiscriminately inflated to 400 600 km^2. In fact, only the *desa* located farthest upstream the Bahau, Lurah, and Pujungan river courses are contiguous to the Iwan basin. Nevertheless, a large number of Kenyah groups who once resided in the Iwan area, including groups now residing outside Long Pujungan and Kayan Hilir districts, may claim rights over lands in the Iwan river basin. This may eventually become a bone of contention if the stakes are raised, for example, in the case of forest products, or more seriously, if new roads opened the area to transmigration, as is the current situation in Kerayan District.

Malinau District

In the Dutch archives, population figures for the Tidung Lands seem scarce. The 'Tidung Lands' included several coastal polities (Sebuku, Sembakung, Tidung proper), with their respective hinterlands, which, although visited in as early as the turn of the 20th century, were neither well known nor properly 'administered' before about 1920. Before that date, the Dutch administration focused its activity on Bulungan, intervening in the Tidung Lands only in the form of military expeditions to suppress headhunting and rebellion. (There was a military post at Long Berang in 1915, then at Malinau in 1919).

Population figures available in the archives for 1935 are: Malinau 8678, Sembakung 7333, Mentarang 6289, and Kerayan 5097. With Tarakan computed separately, 'Malinau' probably included today's Malinau and Sesayap districts. In 1997, the combined population of Malinau and Sesayap districts was over 26 000. However, Sesayap, now thinly populated, was probably much more densely populated in the past than Malinau. Reasons for this reversal certainly included the strong development of trade with Malinau's vast hinterland and, later, logging and irrigated farming. Significant population figures for this area in the period between 1935 and the 70 have not yet been located.

During the 1970s, Malinau District's population rose by about 25%, from about 13 500 to about 17 500. If the statistics are correct, the population reached over 18 500 in 1983-85, receded to about 17 000 in 1986-87, reached 18 000 again in 1990, 19 000 in 1992 and then vacillated between 20 800 and 21 800 in 1994-96. There is no apparent explanation for these fluctuations. Nevertheless, this would represent a mere 12% increase between 1980 and 1996.

In 1997, with the Tubu river basin being transferred to Mentarang District (with the district head transferred from Long Berang to Pulau

Sapi) and the total number of *desa* in Malinau District cut from 67 to 59, population fell to just 19 674 in 1997 and 19 876 in June 1999. Population movements from Long Pujungan District to Malinau District from the 1960s to the 1980s have involved several groups of Kenyah (Leppo' Ké, Uma' Long, Uma' Lasan, Nyibun, and Pua'; see, e.g., Njau 1995 and 1998, Eghenter and Sellato 1999b), to the extent that the Kenyah have now probably outnumbered their Merap hosts (Kaskija 1992a), a fact that has important bearing on current district politics. In another important migration, Punan groups from the Tubu moved into the Malinau river drainage and to the Malinau Kota area.

Comments

Bulungan Regency as a whole saw its population increase slowly from 95 700 in 1961 to 119 200 in 1971, then sharply to 176 900 in 1980, 211 600 in 1987, and to 288 500 (or 267 200, according to sources) in 1996, reaching probably 300 000 in 1998. Bulungan's population has thus grown by at least 25% in ten years. The development of industrial activities, including petroleum, timber, plywood plants, shrimp farms and oil palm estates, must account for this population growth. During the same period 1987-96, Long Pujungan District lost 8% and Malinau District may have gained 15%.

The reasons behind the discrepancy in the demographic evolution of the two districts lie in a dramatic improvement of communications in Malinau District. The Malinau is a much easier river to navigate than the Bahau. Moreover, land routes have been opened in recent years, particularly that leading from Malinau Kota to Long Loreh and beyond to the Kayan River. Moreover, the recent activities of large companies in Malinau District have contributed to both keeping the local population in the area and attracting outside people. Interestingly, the road is beginning to lead to changes in settlement

patterns. The recent establishment of a new *kabupaten* in Malinau will likely speed demographic growth there.

In contrast, the government has done little to improve river communications to and within Long Pujungan District (not even blast the rocks that form the most difficult rapids), or existing land routes (logging roads; e.g., a new road to Long Pujungan) to benefit villagers. More generally, Long Pujungan contrasts with Malinau by its longer distance from trade and administrative centres, and thus by its isolation; by its low population density, which makes it unlikely that the people will gain access to better education and health facilities within the district unless a drastic population resettlement scheme occurs; by the low numbers of outsiders attracted to the district for reasons of employment, since very few companies will ever establish there (in this sense, the Park is a mixed blessing); and by its overall out-migration (including to Malinau), as opposed to Malinau's in-migration, which is combined with some degree of down-migration from upstream to downstream within the district.

3. Tribes and States in Northern East Borneo

This section describes the major societal types forming the region's human setting and by way of conclusion, proposes that the area be considered as one single regional historical setting involving all the agents under consideration.

In Bulungan Regency, as in most other regions of Borneo, there is a traditional dichotomy, endorsed by the government and local elite, as well as by some anthropologists and other social scientists, between coastal 'Malays' (Moslems), and hinterland 'Dayak' (formerly heathens, *kafir*, now mostly Christians). This dichotomy emerged from the theory that so-called Proto-Malays (including the Dayak) constituted a first 'wave' of migration to the archipelago and were pushed into the interior by the later Deutero-Malay migration wave (including the 'Malays').

This theory has long been discarded, and it is now established that an overwhelming majority of the groups presently called Malays in Borneo are really former Dayak groups converted to the Malay way of life and, later, to Islam. Nevertheless, in the eyes of outsiders, from early explorers and colonial administrators to the current Indonesian civil servants, Malays have remained associated with a more advanced culture and technology, and 'Dayak' with

primitiveness and backwardness. This view is still prominent today in shaping the attitudes and behaviours of both categories and their mode of relationship. For example, Bulungan's coastal Malays are derived from Dayak groups (see Sellato 1998b), but the Indonesian administration, for both political and ideological reasons, continues to view the peoples of the interior as retarded cousins in need of assistance to reach a higher stage of civilisation.

As for the Punan, former hunting-gathering nomads, they were one century ago thought by downriver people and even explorers to have tails and were hunted as animals. Today, in the nation's eyes they have remained the epitome of a shameful primitiveness needing eradication, for others e.g., NGOs, they have become romantic symbols of environmental wisdom and well-preserved traditional indigenous knowledge.

3.1 The Coastal Polities

The coastal area of Bulungan has a long history of petty trading polities, emerged from local ethnic groups under the influence of maritime traders.

The brief history of Bulungan that I proposed in 1998 (Sellato 1998b) is an example of the processes that led to the emergence of Kalimantan's coastal sultanates (see Sather 1971). Here, the history of the Tidung Sesayap kingdom, hitherto unstudied and relevant to a historical understanding of the Malinau area, has been more developed whilst the history of Sembawang, the other local petty state with relevance to Malinau, is treated more cursorily since it closely parallels that of Tidung Sesayap.

While there are several written sources for Bulungan, the reconstruction of Sesayap and Sembawang history, including the

proposed chronology (which I believe to be accurate with a margin of error of, at most, twenty years either way for the 17th and 18th centuries, and about ten years for the 19th century), is based mainly on interviews, with relatively little input from the published literature and archival documents.

Bulungan

The sultanate of Bulungan developed from a group of Dayak settled near the coast, a fact that is willingly acknowledged by the sultanate circles (Akbarsyah 1997, Anonymous 1991 and 1993). This Dayak group, the Kayan Uma' Apan, moved from Apo Kayan in the 17th century down the Kayan River, settled near Long Peleban (middle Kayan, and then moved farther downstream to the Binai River, near the coast. There, a Kayan princess, marrying a visiting nobleman, Lancang, allegedly from Brunei (c.1650), started a dynasty of Indianised kings, which later was centred near Tanjung Selor. A century later (c.1750), this dynasty converted to Islam, and a long line of sultans, vassals to the sultan of Berau (himself a vassal to Kutai), followed until the 1850s, when the Dutch began interfering in local affairs, trying to eradicate piracy and the slave trade.

Although the sultanate had little territorial basis, tribal groups in its near vicinity were in a rather servile situation and submitted to tribute and corvée to the sultan collecting and farming for him. Moreover, the sultans purchased slaves for the same purpose. Tribal groups located upstream on the middle Kayan River, e.g., the Kayan Uma' Laran and their associates, the Segai and the Kenyah Uma' Alim, remained autonomous and eventually rebelled against the sultan, when he tried to force them to bring their trade his way, and to impose his terms (heavy duties, etc.). Some groups had to pay tribute to the sultan in the form of forest products, rice, etc. Remote upstream groups, Apo Kayan, Bahau-Pujungan, remained totally independent

and tribute-free, although at times they came downstream to trade (but they could also trade elsewhere across the watershed), until the early 1900s when the colonial administration took their fate in its hands by improving safety and communications to boost trade. It was not until about 1925, however, that the Dutch actually administered the upstream regions.

Bulungan, like other sultanates in Borneo, built its wealth on trade and duties levied on trade goods, taking advantage of its position between the non-timber forest product (NTFP) flux from upstream and the maritime trade. Its agricultural orientation began late and was linked to the availability of slave labour. During the early Dutch times, the sultan was granted monopolies of the trade in salt and opium (1881); later, he received royalties, dwindling in percentage through time, from the exploitation of petroleum and coal.

Politically, the sultanate progressively came under Dutch tutelage through successive agreements or contracts, each weakening it a bit more. After conquering Berau (1834) and getting Kutai to recognise their authority (1848), the Dutch signed a *Politiek Contract* with the Sultan of Bulungan (1850). A decree in 1877 allowed them to handle some of the sultanate's affairs. In the late 1880s the sultanate's territory became officially part of the Dutch colonial empire and the Dutch had their say in the appointment of a new sultan. In 1893, they obtained a plot of land in Tanjung Selor to set up a government post, and in the early 1900s they forced the sultan to sign a harsh 'short declaration' (*Korte Verklaring*). This stated that the sultan should refrain from all interference in Apo Kayan, Pujungan, and Leppo' Ma'ut (upper Bahau), giving the Dutch a free hand there. The Dutch military helped the sultan put down a Dayak rebellion in the middle Kayan (1909), one by Raja Pendeta in the Tidung Lands (1909), and another by some *datu* (local lords) in Salimbatu (1915), and the Tidung Lands were officially (re-)integrated into the sultan's traditional domain. In 1933, the Tidung Lands were, under the 'effective rule'

system, transformed into three sub-districts, Sembakung, Mentarang, and Kerayan.

Now that the sultans of Bulungan were much less powerful, the sultanate was made into a Zelfbestuur (1928), a Dutch term for 'self-governing' political entities in the Indonesian archipelago, and in 1929 the territories of Apo Kayan, Pujungan, and Leppo' Ma'ut were integrated into the sultanate. After the Japanese occupation, Bulungan was made a *Wilayah Swapraja* (Autonomous Territory, 1950), and then a *Wilayah Istimewa* (Special Territory, 1955). Just after the last sultan, Jalaluddin, died (1958), the sultanates were abolished (1959) and Bulungan became an ordinary regency (*Daerah Tingkat II or kabupaten*), in which the sultan's heirs maintained some prominence only for a while.

Tidung Sesayap

In northern Bulungan, a number of trading posts were established in various islands (Nunukan, Bunyu, Tarakan, Mandul, etc.) each of them eventually developing into a petty kingdom (*kerajaan*). It is assumed that this process dates back to about 1000 AD, and probably earlier. Ancient (Chinese) archives mention trade in this region, but no named polity, whereas Western reports provide information only after about 1750. Local oral traditions take us back to about 1650 (my chronology) by which time kingdoms began establishing themselves farther inland. (On the persistence of distinct ethnolinguistic Tidung sub-groupings, see Beech 1908, Sather 1972 and Appell-Warren 1986.)

In the 17th century, there seems to have been a Tarakan kingdom, centred on Tarakan and covering the coastal area from the southern mouth of the Sesayap and the northern mouth of the Kayan (Fig. 1). This, apparently, led to the integration of various coastal tribes (mainly Berusu') and outsiders of various origins (Bugis, Taosug of

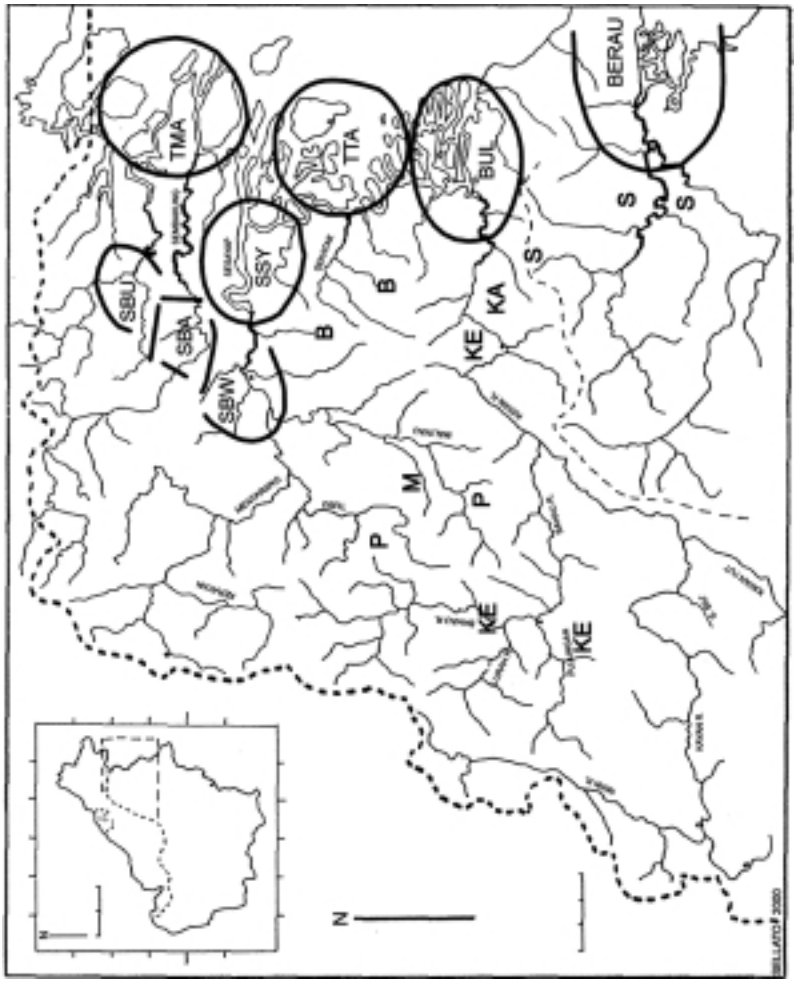


Figure 1. Northern East Kalimantan Coastal Polities

Sulu, and possibly Bajau who all competed to control trade) into a new coastal entity called Tidung (a term probably meaning 'hill'). Another kingdom on Pulau Mandul controlled the mouths of the Sebuku and the Sembakung. It involved the local Tagal population, which after much mixing became the Tidung Sembakung. At this point, the insular trading points were just meeting spots for maritime ships and for boats returning from expeditions to inland regions with birds' nests and other products. The region's coastal areas also produced large quantities of processed sago, a vital staple on ships, and Tidung was famous for its sago exports (Warren 1981; on sago, see Avé 1977).

By about 1650, trade activities moved to inside the major estuaries (Sesayap, Sembakung). The Tidung Sembakung polity moved to Pagar, up the Sembakung. The Tidung Sesayap polity perhaps an offshoot from Tarakan, developed from three settlements on the Manjelutung River on the main Sesayap River (Fig. 2). Sultanate sources state that Sesayap, like Bulungan and Sekatak, was one of the seven domains (*benua-rantau*) of the kingdom of Berau, which was then allied to Brunei but at war with Sulu. According to informants, the local people of the Sesayap were the long-forgotten *suku* Kepatal (possibly belonging to the Putuk grouping), which generated the group now known as Tidung Sesayap. One Awai, probably a Kepatal leader, started the long line of the Raja Tidung or Raja Sayap, all bearing Dayak names.

After the Taosug of Sulu settled at Tarakan and the Sulu leader of Tarakan allied with Bulungan, a marriage between the Tidung chief's daughter and a Kayan prince from Bulungan brought Tidung under Bulungan. Their son, Baginda, the first to bear an Indianised name, was also the first to convert to Islam. Thus there is an almost direct transformation of a Dayak chieftainship into a Moslem polity. However, conversion remained limited to royalty, and by the late 1700s the population was not yet Moslem. Sulu power kept increasing and the Sulu eventually sacked Berau in 1789. Meanwhile, the Bugis,

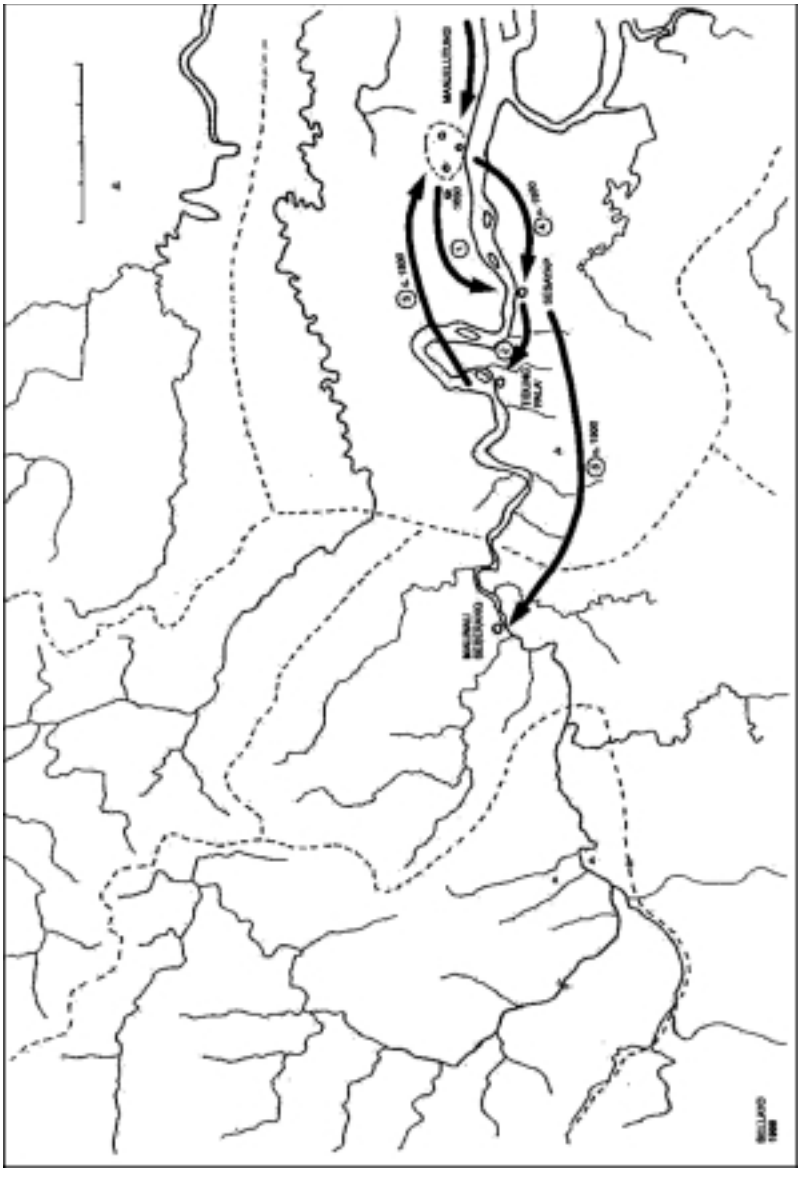


Figure 2. The Tidung Sesayap Kingdom

established in Kutai and farther south (Pasir), were pushing north towards Bulungan.

During the second half of the 18th century, it seems that the Tidung kingdom moved its seat to Sesayap and Tidung Pala', farther up the Sesayap, either for security reasons (pirate raids were common) or for keeping a tighter grip on the birds' nests caves. There was much fighting in the late 18th century between the Sulu and Bugis for the control of trade in Bulungan. Eventually, the Bulungan sultanate remained in the Bugis sphere, while the northern regions came under Sulu control despite the Sultan of Bulungan's claim. By 1800, the Sultanate of Berau, split in two and much weakened, had to let Bulungan and the other northern polities escape its domination. The Sulu now being in firm control of the region, Tidung may then have moved its seat back to Manjelutung.

In the first half of the 19th century, 'Tidung' was a town of 2000 (1812) and noted for its exports (mainly to Sulu): 50 *kati* of white nests and 100-200 *pikul* of black nests annually, 300 *pikul* of wax, 2 *pikul* of camphor, 1 *pikul* of gold, and much rattan (Hunt 1837, Warren 1981). The Tidung, not only those of Sesayap, were also deeply involved in the slave trade (not to mention piracy). Slaves were the main labour in the collection of NTFPs and, probably, in sago production. Slaves were bartered to Dayak chiefs in the interior for NTFPs. It is only after 1800 that polities like Tidung, began turning to agricultural (rice) production, perhaps because of the availability of slave labour (*cf*. the Sultan of Bulungan's rice fields in Salimbatu), and perhaps because the trading fleets progressively began to request rice rather than dry sago pellets for their crews' staple food.

About 1850, Tidung moved again to Sesayap. In Tarakan, birds'nests, wax, gold and, on request, gutta and rattans were traded for salt, cloth, salted fish, and slaves. Sago from the Tidung and rice from upstream Dayak groups were also on the market. However, by about 1860, Tarakan ceased to be the region's meeting point for maritime

trade. The Dutch, who had moved in 1850 after signing their *Politiek Contract* with Bulungan, fought piracy, put down Dayak rebellions, took control of trade, and brought Tidung again under the overlordship of Bulungan (and therefore of the sultan of Berau).

The kings of Tidung moved to Malinau Seberang (about 1900), close to the bird's nest caves of the Bengalun, on which they still retain rights today. After the turn of the 20th century, the Dutch contracts (*Korte verklaringen*) with Bulungan allowed them to intervene more directly on behalf of Bulungan, in particular to put down rebellions in 1909 and 1915. Tidung then slowly disintegrated and its kings remained only as prominent members of the local council established by the Dutch administration at Malinau. Today, the old and nearly blind Pangeran Bakti, *raja* of Tidung, lives in poverty in a dilapidated house at Malinau Seberang.

Sembawang

This polity has a very similar history to that of Tidung Sesayap. Locally known as *Kerajaan* (Kingdom of) Tanjung Belimbing or *Kerajaan* Kabiran after one of its recent kings, Raja Pendeta, and mentioned in the written literature as the Sembawang kingdom, it is now almost forgotten. Nevertheless, it played an important role in the opening of the Malinau and Tubu river basins to trade.

Originating as a settlement on Bunyu Island probably populated by people from Berayu' (Berau), it moved in the first half of the 18th century to Moyo Island (Liu Moyo or Liu Maya) at the southern mouth of the Sesayap (Fig. 3). The polity's king was Raja Lambat (or Rambat), a nobleman reportedly hailing from Banjarmasin. In Moyo Island the settlers mixed with local coastal Dayak (probably Berusu'). They then moved up the southern branch of the Sesayap delta to Bebatu' and later, under the king Mas Mangku, to Penagar. By the end of the 18th century, they were settled much farther upstream, at

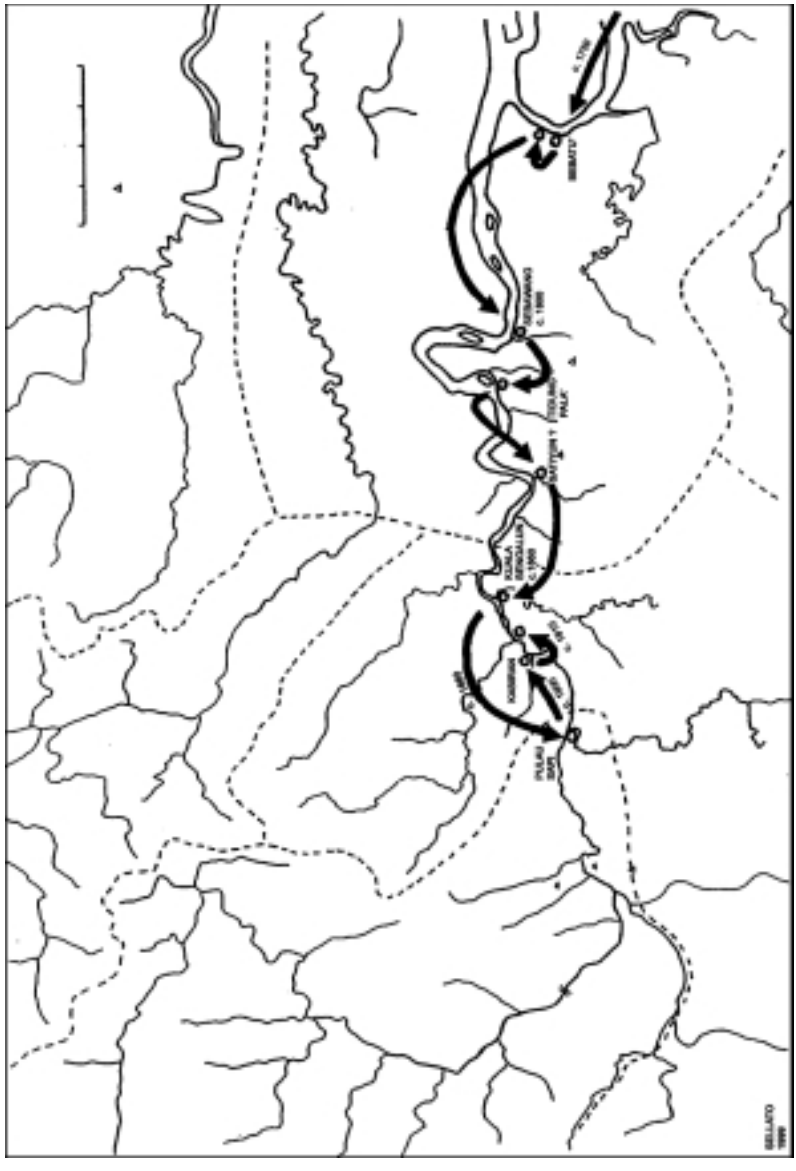


Figure 3. The Sembawang Kingdom

Sebawang (or Sembawang, at the mouth of the Se[m]bawang River, known for its bird's nest caves), under Raja Sebawang. Raja Sebawang converted to Islam and became Raja Alamsyah aka Panembahan Tua Sebawang, but as with Tidung Sesayap, it probably was at least a half-century before the population actually became Moslem. After an attack by the Sulu, victoriously repelled Alamsyah moved to Tidung Pala', a better stronghold, where the polity seat remained, under several kings bearing the title of Panembahan, for about fifty years.

Around 1860, Ali Hanafiah, who had the title Panembahan Raja Tua, moved his capital upstream to the confluence of the Bengalun (another river with bird's nest caves). He then moved a long way upstream to Pulau Sapi, because of repeated attacks by the Tinggalan of Sembakung and raids by the Segai of the Kayan who plundered the bird's nest caves of the Sekatak and Sebawang rivers. Interestingly, the Dutch archives mention an Arab trader who in 1883 was given permission to exploit rattan in the Bengalun River basin, possibly the first record of a single-product concession.

At Bengalun and Pulau Sapi, the Sembawang kings did much trading, especially of bird's nests, with the Merap who had then become the masters of the Malinau and controlled the caves on the Gong Solok, Rian, and Seturan rivers. Eventually, a Sembawang king obtained the Gong Solok area in a compensation deal brokered by the Merap, after the Berusu' murdered some of his men there. The trade with the hinterland, in which the Sembawang leaders had managed to undercut the Tidung Sesayap kings, probably accounted for much of the late 19th century exports from Tidung. Nevertheless, the Sembawang line was allied by marriage with the Tidung Sesayap and, later, the Tidung Sembakung of Mensalong.

The next king, Sapu, who had the title Panembahan Raja Pendeta, moved his capital to Kabiran. Amidst more Segai attacks, he did much trading with the Merap of Langap, either directly or through a Chinese middleman known as *tokay* Cui who purchased bird's nests

from Merap chief Alang La'ing. At the turn of the 20th century he led a rebellion against Bulungan and the Dutch and was captured (1909) and exiled to Nusa Kambangan. The kingdom was abolished as punishment. Eventually, his nephew, Panembahan Aji Kuning, founded and settled at Sebambon, which later became Malinau Kota. The Dutch military set up a post there in 1919. The Dutch established lists of bird's nest caves and their owners, which the Sultan of Bulungan's administration duly stamped.

Aji Kuning was made *kepala kampung* (village head) of Malinau and, like the *Raja* Tidung, the Merap leader of Langap, and four other chieftains (1935), a member of the *Majelis Kerapatan Besar Tanah-tanah Tidun*g (High Council of the Tidung Territories). In 1936 it seems that his cousin, Aji Kapitan was made *kepala adat* (customary chief) of the *suku Tidung* (the Tidung people), thus pushing aside the much weakened Tidung Sesayap king.

After World War II, Aji Soleman, finding Malinau Kota too narrow, moved his people a short way upstream to Tanjung Belimbing. The current leader, Aji Saharman, living in a large, comfortable, modern house at Tanjung Belimbing, states that he would be the *kepala adat* of the Tidung if only the government would acknowledge him, — a notion that the current heir of Tidung Sesayap, old Pangeran Bakti, strongly opposes.

3.2 The Stratified Groups

This section focuses on the Merap and, to a lesser extent, on the Kenyah for which there is abundant published information (Sørensen and Morris 1997; Eghenter and Sellato 1999b, see Chung Chin 1984). While Kenyah society displays social stratification, Merap society seems to have had in the past a distinct, yet also strongly inegalitarian, type of organisation. These two groups contrast sharply with the Tebilun (aka Abai), the other main group of relevance displaying

features similar to those observed among the Putuk and the 'Lun Dayeh' people of Kerayan (see Sellato 1997).

Tebilun society, not treated here in detail for lack of substantial data, appears more egalitarian, with much vertical social mobility linked with individual families' fortunes, a fluid, shifting group membership and much group fission, a residence pattern of small, often shifting settlements, and vague territorial patterns. Social status is acquired or achieved through individual success and consolidated through expensive feasts of prestige, particularly for funerals, and very heavy bridewealth payments (*furut* and cognate terms).

The Merap

Traditionally, the Merap constitute the politically dominant group of the Malinau River basin. This group, calling itself Mbraa, is variously known as Mbau, Bau, Hwang Bau (people of the Bahau), or Hwan Apan (people of the hilltops; see Kaskija 1992b). It originated in the upper Iwan and later moved into the Lurah. When the Kayan Uma' Apan, coming from Apo Kayan, moved up the Bahau to Long Uli' (17th c.), the Merap and other local groups retreated to the upper Bahau. Some of those groups, after submitting to the Uma' Apan, went down the Kayan with them, while another Kayan group, the Uma' Laran, settled on the Pujungan River (c.1750).

The Merap moved as several groups into the upper Tubu and Malinau river basins because of Uma' Laran pressure. Repeated attacks by the Uma' Laran and their Kenyah allies (Uma' Alim, Uma' Kulit, etc.) to the Malinau area caused the Merap to flee down the Malinau River, up the Mentarang and Semamu, and settle for some time on the upper Kerayan (Pa' Upan). They eventually went to the Kalun, gathered their forces and mustered the assistance of kin groups that had in the meantime) settled on the upper Tubu and of the Punan

of the Tubu to finally defeat the Uma' Laran at a fortified hilltop village on the Tubu-Malinau divide (c.1860).

Then, part of the Merap settled again on the upper Malinau with some Punan groups, while others remained on the upper Tubu. They soon expanded downstream to Long Gong Solok, pushing the Berusu' to the Sekatak, and now claim to be the traditional masters of the whole Malinau River basin. An important factor in this expansion was the control of bird's nest caves in the Seturan, Rian, and Menahan river basins. The Merap now number about 1000, including some 500 in the Langap area.

Merap society now appears formally stratified following the common Kayan and Kenyah pattern; aristocrats, commoners, and slaves. However, this pattern was clearly superimposed by borrowing upon an earlier type of social organisation where 'war leaders' were the actual holders of authority. Not much is known of this earlier form of organisation. The major line of war leaders seems to have been that of the upper Malinau (the strongest force, to block Kayan attacks; now Langap), while minor lines ruled at Long Kenday (upper Tubu) and Gong Solok. We have no precise clues on the existence and status of slaves prior to about 1850.

These leaders privately owned valuables resources, like the bird's nest caves. Merap chiefs thus struck agreements with the leaders of the petty kingdoms downstream, who bartered for the bird's nests and built their commercial fortunes on them (on such tribe-state relations, see Rousseau 1989). These chiefs won official recognition by the local trading kings, the Sultan of Bulungan, and the Dutch administration both of their ownership of the caves and of their position of *kepala adat besar* (paramount customary chiefs) for the whole of the Malinau drainage, a position still claimed today, despite the strong challenge put up by Kenyah newcomers.

The Kenyah

There is much information available on the history and social organisation of the Kenyah groups of the Bahau, as noted above. Therefore, this section focuses on those groups that moved into the Malinau drainage. Important features of the Kenyah groups of and from the Bahau are that they have remained relatively isolated until recent times and that their traditional societal characteristics have remained strong compared to those of other groups, such as the Merap, who have long been exposed to a more open social and economic environment. In both the Bahau and Malinau, aristocrats have retained today their hold on political power, and the fundamental aristocrat versus commoner distinction still features prominently in village society.

Apart from an early and ill-fated incursion (about 1890) into the upper Tubu by the Nyibun who were decimated by an Uma' Alim attack and returned to the upper Bahau; see Njau 1998), Kenyah movements into the Malinau began in the mid-1960s, with the Pua' from Long Pua' settling in Tanjung Nanga' and the Uma' Long (Oma Lung) settling at Setulang and Batu Kajang. They were followed in the late 1960s and early 1970s by the Leppo' Ké who settled at Long Loreh (en masse in 1972-1975; see below), and with associated Nyibun, at Gong Solok (1975) and the Uma' Lasan at Setarap (see Kaskija 1992a and 2000). Later, more families joined relatives in the Malinau and now there must be over 1000 Kenyah in the Malinau. The Pua', like the so-called Leppo' Kuda' of Paya Seturan, are not really Kenyah as both are pre-Kenyah groups of the Bahau and Pujungan belonging to the Ngorek (Kayanic linguistic) cluster (see Sellato 1995b).

In certain cases, the migration took place as an organised move either sponsored by or with assistance from the government (on Kenyah migration, see Peluso 1980, Guerreiro and Sellato 1984, Eghenter 1995, 1999 and f2). The Malinau was sparsely populated and lands

were allocated to the newcomers. The earlier, mostly Merap residents conceded those lands, which were often without clearly defined boundaries. This led to land conflicts in the 1990s when pressure on farm land and the question of ownership, particularly in the context of the presence of timber and mining companies, became hot issues.

The Leppo' Ké migration to Long Loreh is described in detail to explain both the traditional legal procedure and the modern recurrent vicinity problems (see also Njau 1998). Around 1960, Lawai Lérang, a chief of the Leppo' Ké village of Long Lat, visited the Merap chief, Mpang Alang (whose name Mpang is variously rendered in writing as Empang, Impang, or Ampang) of Langap and inquired about land. There was plenty of empty land on the Malinau, and Lawai and Mpang came to an agreement without the administration being involved. Soon, a few families came to make swiddens on land borrowed (*pinjam-pakai*) from the Merap. In 1967, Lawai and other families settled at Long Loreh. By 1975 the Leppo' Ké were already numerous, and they kept coming until about 1980.

In February 1975 a written agreement was passed between the Merap and the Leppo' Ké, setting the limit between Long Loreh and Langap. (This limit was later renegotiated under questionable circumstances.) The Leppo' Ké paid a small gong to the Merap, as a tangible proof of the land transfer, and agreed, as is normal procedure, to yield to Merap *adat*. It is interesting that the traditional legal procedure here was mostly carried out before official arrangements (involving the government's Social Department (DEPSOS) and resettlement programme (RESPEN)) were made. Informants state that the role of the administration was limited to sanctioning (*mengesahkan*) the land transfer. This role in fact also included the transfer of the *status desa* of Punan Liu Mahan (a Punan *desa*) to the Kenyah. A similar transfer was made in Gong Solok and to this day both Punan communities resent having been despoiled of their *status desa*. It is typical of the relationship between Merap and Punan that the former could freely dispose of the latter's territories, even though the

territories had initially been officially allocated to the Punan; and that the administration simply condoned the transfer of territories to the Kenyah.

The newcomer groups generally fared well in their new environment during the 1970s and 1980s, due to strong social structure, leadership, and discipline. These features, as well as their sheer numbers and economic dynamism, have allowed them to take the lead in terms of the economic and social development of the area and to some extent challenge the political authority (or influence) of the traditional landlords, the Merap, at district level.

3.3 The Punan Groups

Large numbers of Punan or formerly nomadic hunter-gatherers are found in Bulungan. After a brief review of isolated minor groups, this section focuses on the Punan groups of the Tubu and Malinau River basins, about which little has been written.

Minor Punan groups

The Punan Benalui (or Punan Badeng) are found in Long Pujungan District (on this group, see Puri 1996 and 1998a). They came from Sarawak to the Lurah River with the Kenyah Badeng one century ago and now number about 350, distributed in six settlements in the Lurah and east of the Bahau, in the Ahan and Aran Rivers. They have remained closely associated with the Badeng and some lived previously in the Badeng village of Long Peliran (on the Badeng, see Apuy n.d.). More recently, this group has moved from Long Peliran to Long Pujungan.

The Punan Bengalun are found on the upper Bengalun River, at and around Punan Bengalun village (where they may number about 100),

as well as at Sesua' and Batu Lidung, in association with Berusu' and, more recently, with Putuk from upstream the Mentarang. It seems that their *raison d'être* was to keep watch over the bird's nest caves of the upper Bengalun on behalf of the two neighbouring petty kingdoms. They are closely related, over low watersheds, to the Punan groups of the Sekatak (Punan Sekatak or Punan Berusu') and to Punan of the upper Gong Solok River. The Punan Gong Solok, reputed to be the 'wildest' (in Indonesian *liar, i.e.,* the most nomadic and, by inference, the most 'primitive'), still numbered about 150 in 1977, but they were wiped out by an epidemic, and only some thirty people remain today on the upper Gong Solok River.

The Punan Berun, Punan Benyaong, and Punan Lasan, now living in the middle Kayan area, came from the Bahau with the Kayan migrations from upstream (c. 1850; see Sellato 1995b) and call themselves Punan Bahau. The Punan Berun (at Muara Getawan, Berun River) are associated with the Kayan Uma' Laran of Long Telenjau, while the Punan Benyaong (at Belebah, Benyaong River) are close to the Long Pulung people of Naha Aya', and the Punan Lasan are now living (at Long Lasan) with the Pua'. Altogether, they probably number less than 500. These Punan both farm and collect NTFPs, which they seem to trade exclusively with their overlords.

The Punan of the Tubu and Malinau

The Punan of the Tubu and Malinau river basins form by far the most numerous group of former hunter-gatherers in Borneo, about 3500-4000 persons (Kaskija 1998). To some extent, this group seems of heterogeneous origins. Although a number of informants claim that 'Punan are the original population of the Tubu, they originated from there and have always lived there,' this claim is not authenticated by some knowledgeable informants, who suggest that the Tubu was populated from the Mentarang and, ultimately, the coastal Sesayap area, in the wake of the 18th-century westward migrations of the

Tebilun (aka Abai). Punan groups may have occupied the upper Tubu by 1800, and migrations into the upper Malinau basin must have occurred about 1850 as the Punan from the Tubu followed the Merap there. However, there might have been in the Malinau one local Punan group, of uncertain origins, prior to the Merap's arrival. Moreover, there appears to have been ancient migrations of Punan from the upper Bahau (*cf.* the Punan Bahau) to the upper Tubu, as well as a substantial, though more recent (just before 1900), input of (Punan) Beketan hailing from Sarawak into the Punan bands of the upper Malinau.

According to some informants and based on available historical and linguistic data, it seems that four Punan sub-groups exist today in Malinau District (Sellato, work in progress), despite recent, politically-motivated claims that all Punan form a single entity and despite the fact that there has been locally extensive intermingling of these sub-groups with one another and with outsiders.

One sub-group consists of Punan settlements of the Mentarang proper (Paking, Lubuk Manis) and formerly of the lowermost Tubu; another, of settlements of the middle Tubu, from and including the Menabur to and including the Kalun; a third sub-group includes the settlements of the uppermost Tubu (from Long Kenday); and the fourth, the Punan Malinau. There is some lexical variation between these four groups. Apart from the Punan Tubu *sensu lato*, the Punan Bengalun, Punan Gong Solok, and Punan Sekatak (or Punan Berusu'; see Appell 1983) appear to form a distinct group whose language is more remotely related, although the Punan Malinau have long been in contact with them.

The four 'Punan Tubu' sub-groups, insofar as they have, at least in part, a common origin, clearly have differentiated through cultural contacts during their respective histories. The Punan of the Mentarang have long been associated with the Tebilun and can now hardly be distinguished from them except by language.

This is also, *pro parte*, the case with the Punan of the middle Tubu, who were long associated with the Tebilun, particularly at Long Nit, where the paramount Tebilun (Abai) chief of the Tubu resided. These Punan however, were also associated with groups like the Milau (*cf.* also Tempuu, a group of Lengilu', part of the Lun Dayeh *s.l.*; see Sellato 1997), particularly on the Semamu and the Kalun. The Punan of the upper Tubu had close links with the Merap, a sub-group of which lived at Long Kenday (now at Nunuk Tana' Kibang). Some Punan from the upper and middle Tubu moved into the upper Malinau, and others, probably mainly from the upper Tubu, followed another Merap sub-group to settle on the upper Malinau.

Due to their early and long association with the Tebilun, all four Punan sub-groups, except those of distinct origins, have been acquainted with agriculture for at least a century, although probably only a small fraction who lived near or intermarried with the Tebilun, actually practiced rice farming in earnest. The open (non-stratified) and fluid nature of Tebilun society allowed for intense intermarrying and it is probable that a substantial percentage of the Punan of the Mentarang and middle Tubu simply became 'Abai' over time. As one Tebilun informant said 'Those living by the main river were Abai, those farther inland were Punan,' notwithstanding the question of language. (The exonym Abai may mean 'those of downstream' or 'those of the river banks.') Those remaining 'Punan' (again, a cultural, as much as ethnic, connotation) borrowed a number of Tebilun cultural features, notably their expensive bridewealth payment which constituted a strong incentive to focus their activity on collecting NTFPs. The settlements of these two sub-groups had special ties with given Tebilun villages; trading with them and acknowledging the Tebilun chiefs as their *kepala adat*, to whom they referred when needed. Therefore they had no social or political organisation above the band or hamlet level. Band or hamlet leaders were wise, mature, and experienced individuals, often women, whose authority was informally acknowledged.

The stratified Merap society, on the other hand, did not allow much intermarrying, and it was the Merap chiefs' strategy to keep the Punan as 'Punan,' that is, away from farming and busy collecting NTFPs for them. This accounts for the Punan of the upper Tubu and of the Malinau remaining more nomadic until a much later date. These Punan also referred to the Merap chiefs as their *kepala adat*, and were apparently much more dependent on them than the other Punan sub-groups discussed above. Moreover, most Punan of the upper Malinau were settled there by the Merap, and therefore were not the owners of the territory (an informal limit between Punan and Merap seems to be at the confluence of the Kelawit), contrary to the Punan of the upper Tubu, who were there before the Merap. The Merap used the Punan for many purposes, from helping fight off the Kayan Uma' Laran attack (about 1860) to guarding the bird's nest caves and rattan gardens of the Seturan and Rian Rivers (recently).

These historical factors account for striking differences among the sub-groups in terms of dialect and current social and economic situation, and for the resilience of their different behaviours (subservient or outspoken) towards their overlords and outside parties.

Recent movements include those of some Punan from the upper Malinau (Liu Mahan, Pelancau) and the Tubu (Bilah Mekayuk; mistranscripted as Bekayuh) to the middle Malinau (Kuala Ran, Long Loreh, Paya Seturan) in the early 1960s; massive emigration from the upper and mostly the middle Tubu to downstream resettlement villages (Respen Sembuak consists of eight *desa* of Punan Tubu, one of Abai and one of mixed Merap and Tempu), and from the lower Tubu to Paking and Lubuk Manis.

Today, only very few small settlements remain on the upper Tubu (Long Pada, Long Ranau, Long Nyau) and the middle Tubu (Long Titi, Rian Tubu, and *pro parte* Long Lihi'; see Kaskija 2000) but it is clear that official residents of resettlement villages, and even some

of their leaders (e.g., Sembuak), often spend much of their time in their old haunts.

3.4 One Regional History

To acknowledge, *in abstracto*, that societies are the product of their history is one thing. To take these societies' history into account when dealing with conservation, development, and related issues is another. Moreover, it is important to envision a tribal group's history not just as a history of migrations, internecine feuds and intertribal wars, but also as part and parcel of, and interdependent with, a wider regional history extending well beyond the boundaries of ethnic territories and even, for that matter, the island's coastline. This section illustrates the relevance of the wider history to the question of NTFP depletion in interior Kalimantan.

In addition to the evidence relating to the process of state formation in Borneo's coastal regions, from tribal entities to Indianised trading kingdoms to Moslem sultanates two important points emerge; the crucial role of trade in the region's historical social and political changes, and the shift of trading places from the coastal islands towards the interior between the 17th century and the turn of the 20th century, and later.

It is clear that trade posts were first centred at strategic offshore locations, serving as base camps for expeditions to inland areas relatively close to the coast. The mixing of seafaring trading people (Taosug, Bajau, Bugis) with local coastal groups (e.g., Berusu') provided the keys to trade with inland areas. Forest products were probably still plentiful near these islands as late as the 16th and 17th centuries. Bird's nest caves in coastal areas produced impressive volumes of nests. Other NTFPs and gold were also available in large quantities. Moreover, coastal people also provided much processed sago to visiting ships (*cf.* the case of Brunei and the Melanau of

Sarawak). I am inclined to believe that interior regions, such as the upper Malinau or the Pujungan, remained relatively unconcerned by the NTFP trade frenzy occurring downstream, if only because of distance and safety, until the 18th century or later. This topic deserves further study.

Due probably to excessive exploitation of the coastal areas where the role of the slave trade and slave labour was important, traders were soon pushing towards the interior, leading to the establishment of trade posts, which later became petty 'kingdoms,' on the lower course of major rivers. These kingdoms were not territorially based or bounded but moved wherever trade opportunities seemed better or for security reasons. By settling further inland, they opened up increasingly remote areas of upper river courses to trade, bringing leaders of more isolated tribal groups into partnership. Some polities settling farther upstream were able to divert trade from their downstream neighbours despite possibly having to pay duty to them on their way to the coast. Access to trade resources meant striking deals with tribal chieftains, and kingdoms often competed for partnerships with these chieftains who held resource-rich territories. Marriage and blood brotherhood were common ways to bind a tribal group to a downriver kingdom.

I propose that systematic exploitation of NTFPs, following market demand, only recently progressed from the coasts to the interior. When the coastal areas became depleted in the 18th century, trade posts moved upstream to tap more remote regions. For example, the polities of the Sesayap area moved roughly from offshore islands (e.g., Tarakan about 1600) to the mainland (delta, e.g., Manjelutung about 1650), to the stem rivers (e.g., Sesayap or Sebawang about 1750), to the first elevated areas on lower rivers (e.g., Tidung Pala' about 1800), to the first major river confluences (e.g., Pulau Sapi about 1850) (Fig. 1 and 2).

The interior groups, the Merap of the Malinau and Kenyah of the middle Kayan, seem to have become heavily involved in NTFP exploitation and trade only after about 1850. Various facts bear witness to this; the Merap's territorial strategies to control the bird's nest caves and the repeated raids by Kayan, Segai, and Kenyah from the middle Kayan on the caves of the Malinau, Sekatak, and even Sesayap areas. This pattern, far from unusual, was also noted for the Iban in the middle Kapuas and for the Punan of the upper Kapuas. The serious involvement of the uppermost groups (Apo Kayan, Bahau-Pujungan, Kerayan) probably dates back to the last decade of the 19th century, when the international market demand for certain NTFPs (gutta, etc.) became truly intense.

What I call here 'systematic exploitation' does not involve tribal groups traveling downstream once a year, trading NTFPs only to fulfill their needs for imported goods. Rather, it involves outside traders, whether or not they are permanently (or semi-permanently) settled in a given village, placing the villagers in a situation where they have, because of marriage bonds or debt, to work more or less exclusively for the traders and collect NTFPs in the largest possible quantity (see Sellato in progress). Alternatively, petty kingdoms provided tribal chieftains with slave labour that was procured directly through raids or indirectly from the maritime slave trade to intensify the NTFP trade.

After Malinau Kota had become an important local trade centre, individual outside traders (Bugis, Chinese or even Arabs) started settling and sometimes marrying in then remote upstream villages: Langap (Malinau), Long Nit (Tubu), or Long Peso' (Kayan) in the 1920s and 1930s, and in the 1950s in even more remote Punan hamlets.

Finally, in the 1980s and 1990s, companies using helicopters dropped teams of outside collectors in totally uninhabited areas (e.g., the upper

Iwan) to gain access to the last patches of forest that had not been systematically exploited. More accessible regions being depleted and demand and prices being increasingly high, the systematic exploitation of certain valuable NTFPs has now reached the end of the frontier. The process from the island's coasts to its centre took about four centuries (17-20th c.) to complete (Fig. 4).

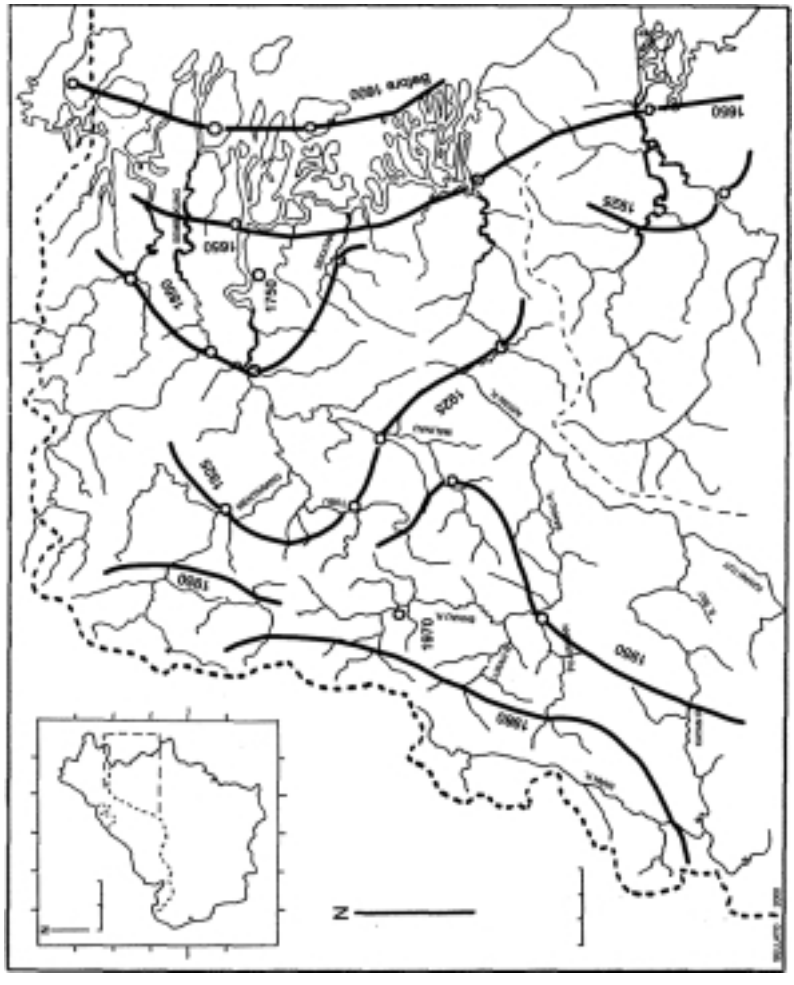


Figure 4. Progress of the 'Extraction Front'

4. Territory, Resources and Land Use

I now describe what is known or can be reconstructed of the economic history of the region through the 20th century from available written sources. This section briefly examines traditional patterns of land and resource control and their recent alterations and then focuses on agriculture, which in the past was of foremost importance to interior groups' subsistence economy, although of less relevance to the more trade-oriented coastal groups.

Agriculture, and particularly rice agriculture, underwent drastic changes, due to colonial intervention in the coastal kingdoms. The earlier kingdoms probably lived exclusively on a staple of sago grown by coastal tribes (see Hunt 1837, Warren 1981). Later, when they settled on the lower courses of major rivers, they increasingly focused on trade, almost totally neglecting agriculture and subsisting on the rice tribute received from the vassal tribal groups of the middle rivers. When the Dutch abolished tributes and corvées, the kingdoms relied on their slaves to cultivate vast rice farms to feed their townspeople. The tribal groups then readjusted their farming activities to their own subsistence needs, allowing them and their slaves more time to collect NTFPs.

Following the formal abolition of slavery, its actual progressive disappearance dealt a final blow to the kingdoms' autonomous

economy in that the kings were left eventually with whatever subsidies or royalties the Dutch were willing to grant them. It dealt a blow to prominent tribal chieftains, too, for whom slave labour was a major economic asset. However, some continued to use 'their' Punan to collect NTFPs. There is reason to believe that certain 'Punan' groups in Kalimantan derive from displaced slaves of allochthonous origins (e.g., Sumba; see Needham 1983).

The introduction and development of cash crops, in the long term, allowed townspeople and commoners of tribal groups to emancipate themselves from the aristocracy's economic grip, especially after the disappearance of slave labour. This led to the final economic disintegration and pauperisation of the kings' families (e.g., Tidung Sesayap), and is still leading today to crumbling traditional social organisation among stratified tribal entities.

4.1 Forest and Resources

This section briefly considers traditional patterns of land and resource control, and some notable recent alterations of those patterns among the coastal polities, the stratified tribal groups, the non-stratified tribal groups and the Punan groups.

Among Coastal Polities

Lower-river kingdoms hardly had any territorial basis beyond the sites of the major harbour town and one or several secondary trading posts, and their immediate vicinity. Territorial control was not the purpose of these kingdoms. Rather, the purpose was control of trade resources (see, e.g., Magenda 1991). Trade-strategic sites were sought, as well as those allowing for defence. Therefore, the first low hilltop sites with necessary freshwater at the head of a delta were often

favourite spots, with better strongholds farther upriver in case of retreat. Up until the mid-19th century the kingdoms apparently did not care much about effective control of lands.

Harbour-towns were open, multi-ethnic agglomerations, where anyone could settle insofar as he could find an economic occupation. Membership in such communities was by essence fluid (ships coming and going) and historically shifting (e.g., alternating Sulu and Bugis control). A hierarchy within the community gave prominence to the ruler's extended family circle, which monopolised positions in the kingdom's administration (e.g., Wortmann 1971).

The kingdoms' access to resources occurring in the wild was mostly through communities that had entered by various ways into patron-client relations with the kingdoms. While communities in the near vicinity of the kingdom were directly subordinate to it, others farther upstream had become tribute-paying vassals. An important goal for the kingdom was to lure more trade from the uppermost courses of the rivers where it could not reach directly and where independent tribal groups had alternative trading routes and partners.

The understanding and subsequent formalisation of the kingdoms' territories by the colonial administration reflected, on the one hand, the idea that the Dutch had of a bounded, territorial polity and, on the other hand, the extent of the territories in which coastal rulers had control over trade through patron-client relations. The 'independent' peoples of the Apo Kayan, Pujungan, and Leppo' Ma'ut (upper Bahau) regions who had long been trading alternatively with Sarawak, the Mahakam, or Bulungan, were finally drawn by the *Pax neerlandica* into Bulungan's trade sphere. Then, only after the Dutch had started administering Apo Kayan, Pujungan, and Leppo' Ma'ut and intensifying their trade to Tanjung Selor did these regions become part of the Bulungan sultanate.

By the time the kingdoms became more involved in agriculture, they also became more interested in control over land. This, however, occurred by rulers and members of their families privately appropriating farming lands. The Sultan of Bulungan thus had large private rice farms and cash crop plantations. When slave labour became unavailable these estates were increasingly fragmented and current descendants of coastal rulers are hardly landowners. However, some remain owners of bird's nest caves.

Among Stratified Tribal Groups

Strongly contrasting with the coastal kingdoms, the stratified groups of the interior had, and still have, a keen sense of territoriality. These groups functioned at a basic subsistence level so the territory had to contain all necessary resources. Everything not procured from the territory had to be procured by way of trade, which was both costly in time and energy and usually dangerous due to rapids and enemies. These groups moved around much, often aggressively, to secure the best possible territories for themselves.

Primary resources included good farming land, in regions not particularly fertile (*cf.* the narrow claystone strips in Long Pujungan District; see Anonymous 1982); an appropriately large, healthy, flood-safe, and if possible defendable flat site for the village, in regions where good village sites are few; and scores of natural items that should be available from the forests within the territory (see above). Strategic aspects linked to a territory also included the possibility to lay hands on other groups' trade. For example, the Uma' Alim managed to control the main trade route from Apo Kayan to Tanjung Selor via the Bahau.

As the local group was tightly bounded, membership was exclusive, with an individual either a full member of the community or a total stranger (see Rousseau 1990, Sellato 1987). The rights and duties

associated with membership were also exclusive. The local group's territory, always clearly defined by treaties with its neighbors, was either the personal property of the leading aristocratic family or placed under its custody (varying with definitions). Access to land and resources within this territory was in principle restricted to local group members. In this context each community remained very much on its own, practicing a high level of endogamy and maintaining its own dialect and customs (see e.g., Liman 1995, Sellato 1995c, Soriente 1995). Each also carried their ethnic name through many migrations, as almost always happened among the Central Borneo stratified groups (see Lah 1989), unlike non-stratified group, which tended to be named after the river where they resided.

In the past, land and territories changed hands only in formal ways. This occurred by conquest, when the vanquished group's ruler surrendered his lands and people to his victor and lost his independence; by acquisition by one group from another, through ritual payment of a gong or sword, with the newcomer group often having to acknowledge the traditional landlords' *adat* and the their chief's ritual authority; or by gift, when one dominant group migrated to a new area with one vassal group and allocated land in the area to that group. Land could also be leased for short periods by groups in the course of a long-distance migration. For example, the Merap fleeing from Kayan Uma' Laran attacks borrowed land from the Lengilu' of the upper Kerayan for several years; they had only the usufruct of the land for a payment of one slave every year.

Resource-rich lands within the group's territory were therefore strictly under the group's exclusive control. Encroachment by outsiders was a major offence. Within the group, access to land and resources was regulated by *adat* (see Fried 1992, Bunde 1995, Kanyan 1995, Devung and Rudy 1998, Eghenter and Sellato 1999b; see also Chin 1985). According to *adat*, certain portions of the territory (e.g., the Kenyah *tana' ulen*) were allocated to certain persons or families, in effect

reserving access to resources in these estates to given social groups and excluding outsiders. In its traditional forms, the *tana' ulen* often were the loci of rational economic management of wild resources. New forms of ownership (or custodianship) and management of these estates have emerged in the last decade (see Eghenter 2001) with the erosion of traditional aristocratic prerogatives, including the ownership of slaves, and the introduction of new ideas.

Aristocratic rulers, acting as sponsors and main beneficiaries, organised the collection of forest products for trade. Whereas jungle trips to collect NTFPs could be staged upon various occasions during the year, massive trade expeditions took place mostly during the season between two rice cycles. Purchased goods mostly fell into two categories: goods of general use by the community at large (salt, iron, cloth, tobacco) and prestige goods for the aristocratic leader (ceramic jars, gongs, etc.). Other purchased goods e.g., cannons, were both general-use and personal-prestige items.

Nowadays, local government agencies generally broker transfer of territories in East Kalimantan. Lands are taken from their traditional owners, not always with their full agreement, and granted to newcomer groups. Boundaries are not precisely delineated and subsequent renegotiations and even, dispute, seem common. Moreover, certain types of residual rights e.g., fruit trees, often remain with the former landlords as was the case in traditional situations. Sometimes, several groups are resettled together in one site, with several *desa* sharing a common *wilayah* (Sembuak, Loreh). Nevertheless, formal traditional land transfers took place as recently as the 1970s and 1980s, e.g., Long Tebulo and Sajau, and readjustments of *wilayah desa* boundaries were carried out in the traditional *adat* way well into the 1990s, e.g., Long Peliran (see Jacobus 1995).

In communities uprooted from their traditional territories, concepts of territoriality have evolved in two ways. First, the 'territory' is no longer strictly bounded as in the past. Forest users and collectors

now range into neighbouring *wilayah desa*, with due permission and no fear of retaliation, and even farther to areas not submitted to restrictions. Second, the territory, and even more so its resources, are no longer the focus of a feeling of collective ownership. Villagers still cooperate to some extent under *adat* regulations, but often compete for access to resources , as the aristocratic rule that in the past ensured collective action has dissolved and individual behavior tends to become the norm.

Among Non-Stratified Tribal Groups

This section only concerns Malinau District, including the Tubu drainage, where there are various non-stratified groups, e.g., the Tebilun (Abai and the Putuk, and other minor (non-Punan) groups. Although no in-depth research has been carried out on these groups' social organisation and patterns of land and resource control in this region, some background facts, based on local interviews (1993, 1998) and experience elsewhere are given.

Social groupings are not strictly bounded, as they are in stratified societies (see Sellato 1987). Fluid membership and intense inter-community marriage probably led to the concept of a local ethnic territory e.g., the lower-middle Tubu drainage, within which several Tebilun communities co-existed and moved through time. Since there was also intense mixing with neighbouring ethnic groups, the Punan, Tempuu, Milau and Putuk, the limits of this ethnic territory were probably not well-defined, and a number of mixed Tebilun villages are known.

Farmland, except for possible privately owned reserves that were the property (apanage) of a *kepala adat*, was probably widely accessible to any member of the various communities within the territory. Broad personal networks of relations created through widespread village exogamy allowed individuals to settle anywhere, providing they had

relatives there (Sellato f1). Access to forest resources, likewise, was probably not restricted within the territory and extended beyond it to areas without access restrictions.

Many of the Tebilun communities consisted of two parts, as associated Punan bands resided in close proximity and could be viewed as segmentary societies. The Punan, living some distance inland, subsisted on wild sago and collected NTFPs, while the 'Abai,' residing near the river, cultivated rice and traded NTFPs downstream. The two segments, however, were not clearly separate and rather formed a continuum, as some Tebilun also collected NTFPs and some Punan also farmed. There was also intense intermarrying causing shifts from one category to another.

Among Punan Groups

Concepts of territoriality among Punan groups generally seem vague. Most often, Punan groups traveled extensively through the island and could be found in a close political and economic association with given farming groups, or more precisely, with given aristocratic leaders of given farming groups (Sellato 1994b, 1994d). They migrated from one river basin to another, either following their farming partners (see Apuy n.d., Puri 1996) or, after a dispute, in order to change partners.

For stratified farming groups, territories are adjacent and formally bounded. In this context, Punan bands were 'guests' or 'visitors' on farmers' territories (Sellato 1994). The aristocrats of farming groups sought to attract and retain 'visiting' Punan bands to exploit their territories' commercial resources. The Punan then met their subsistence needs in the forests upstream from the farmers and under their political and military protection. They also provided necessary trade items for the farming rulers.

The Punan bands, later semi-settled or settled, had no formal territories of their own according to stratified farmers' *adat*. Interestingly, the creation by the government of formal administrative entities (*desa*) and their respective *wilayah desa* for tiny hamlets of semi-nomadic Punan, along with the general trend of downstream migration of farming groups, left many Punan communities with huge tracts of upstream territory that they can now legitimately claim as their own. However, the farmers, just as legitimately, according to *adat*, still claim them as their own traditional lands, which may explain why the Merap chiefs freely dispose of Punan lands. Punan collectors do not feel restricted by these territorial boundaries and range far and wide beyond them.

The upstream lands are usually rich in forest products and, most often, the local Punan population is very small. As long as the Punan traded through their old patrons no problem occurred. Those patrons defended their Punan, that is, their territories' resources, against encroachers by diplomacy and force of arms (Sellato 1994). When the Punan 'got wise' (*jadi pandai*), according to a Punan informant, they started by-passing their patrons and trading directly downstream. The farmers, retaining a narrow territory and being numerous, felt cheated as both 'their' Punan and 'their' NTFPs were escaping their hold. Whereas some Punan groups, e.g., Punan Berun and Punan Benyaong, have been maintained in a state of dependency by their patrons, others, e.g., Punan Benalui, have largely started by-passing them (here, the Badeng).

In the case of the Punan Tubu (*s.l.*), two patterns likely occurred. Among the Punan Tubu historically associated with the Tebilun, the tendency is for very autonomous nuclear-family units seeking individual fortunes on their own initiative. These people, long acquainted with trade and traders, display commercial flair switching from one forest product to another following market fluctuations and always opting for those with more profitable price-to-labour ratios (see Harrisson 1959a, Kaskija 1998).

The modes of resource management should be distinguished between subsistence resources and trade resources. All known Punan groups usually manage subsistence resources in a sustainable way, including the traditional *mulung* 'stewardship' of sago palm groves, while most groups tend, like the Punan Tubu, to push extractive practices for commercial products to their limits, felling even illipe trees during the *Banjir Kap* times (Sellato f2). This is in line with hunter-gatherers' usual immediate-return strategies (*cf.* the forest as a free supermarket, Kaskija 1998).

Conversely, the Punan Tubu, including the Punan Malinau, traditionally associated with the Merap tend to display a more subservient attitude toward their old patrons at Langap who claim ownership of the whole Malinau drainage. Some Punan groups were assigned the role of watching over the watershed areas of the upper Malinau for attacks by the neighbouring Kayan Uma' Laran and Kenyah Uma' Alim. Others watched over the upper Tubu for Iban raids. Others again were given the special task of guarding the bird's nest caves of the upper Rian and Seturan rivers on behalf of their owners, the Merap rulers. These Punan, being constrained to remain on assignment in isolated locations and to trade exclusively with the Merap chiefs, developed the typical shy and withdrawn behaviour often described in Punan. They seem to have recently begun to timidly shake the Merap grip.

4.2 Agricultural Patterns

About 50% of Bulungan's population (about 300 000 in 1997) is involved in agriculture. In Long Pujungan District, the figure reaches 95% while in Malinau District it may be about 75% or higher. This section focuses on rice and cash crop farming.

The dominant traditional rice-farming technique today among the Kenyah, Merap, and other upland groups is the slash-and-burn

(swidden) technique (see Bahari 1995, Saccheri and Walker 1991; more generally, several publications by M. Dove). However, the Kenyah, known to some of their neighbours as Paya or Paya' (literally '[people of the] swamps') were historically fond of swampy sites, in which they probably grew mainly taro and some wet rice without irrigation. The swiddening technique probably spread among the Kenyah after protracted contact with the Kayan, who were dedicated swiddeners. It likely spread together with iron tools which allowed for easier opening of swidden fields, and an ideology of the cultural superiority of swiddening over swamp farming. Both iron tools and the ideology were borrowed from Kayan groups, together with social stratification and certain particular techniques such as weaving. Other 'swamp people' in Kerayan functioned without iron tools until World War II (Harrisson 1959a). Basic irrigation techniques were introduced late (around 1965) in Long Pujungan District and remain limited by the lack of flat lands (Eghenter and Sellato 1999b).

In a subsistence economy, such as that of the Kenyah, the role of taro and cassava, although generally not given due consideration by government agencies, should not be downplayed as they still feature prominently in the daily diet and, *a fortiori*, as an emergency staple food.

The introduction of cash crops to the Bulungan region occurred only recently. Despite some setbacks, they, particularly coffee and cocoa, have started to develop well but only in Malinau, where transportation networks are appropriate, as opposed to Long Pujungan.

Rice Agriculture

As there is much information available on rice farming techniques (both wet and dry fields) and cycle of activities, organisational patterns and cooperative groupings, rice varieties and their management, and

even *adat* and traditional augury among the Kenyah of Long Pujungan District (Eghenter and Sellato 1999b, Sørensen and Morris 1997), these topics will not be discussed here. Conversely, little is known of Merap, Tebilun or Punan Tubu farming practices. This section attempts to make sense of the available quantitative data.

Examining official statistics is a perplexing and trying endeavour. At the district level, statistics are poor. Agricultural statistics for Malinau District for 1997demonstrate this: each village's rice production was systematically calculated by applying, for hill rice, a 1.1 multiplying factor to the acreage listed and, for irrigated rice, a 3.1 factor. It is not clear how the area was computed.

A disillusioned field agricultural extension officer at Long Peso' District explained that, having neither staff nor funds for visits to villages, he had to resort to sending forms to *desa* leaders to be filled in and, receiving no response, ended up using 'samples and estimates' (*sic*). Beyond this shortcoming for which local officers can hardly be blamed, the published statistics are riddled with errors in the placement of commas, addition errors, switches of columns, years skipped, etc., which make the figures altogether meaningless. Further errors and switches are introduced in regency and provincial statistics, to the extent that one is better off using the district statistics.

Table 1, constructed from various sources, gives the least meaningless set of figures for Long Pujungan District, but only general trends can be inferred. These district statistics do not include a breakdown of agricultural production per *desa*.

Wet-rice (*sawah*) farming progressed from an annual 6-25 ha and production of 10-50 t in the second half of the 1970s to an annual average of 100 ha and production of 160-280 t in the 1990s. This suggests a yield of 22.5 ha^{-1} during good years. The dramatic increase of wet-rice farming can be linked to prior droughts as it rose in 1982, and again in the early 1990s.

Table 1. Paddy in Long Pujungan District: Area and production

Year	Wet (ha)	Wet (t)	Hill (ha)	Hill (t)
1976	14	29	1220	1620
1977	8	13	1000	1756
1978	6	10	103?	1545
1979	23	43	540	820
1980	25	50	200	800?
1981	-	-	-	-
1982	60	117	500	800
1983	41	74	650	104
1984	43	61	700	205
1985	39	67	640	106
1986	50	85	300	600
1987	53	66	500	723
1988	68	73	652	781
1989	50	105	985	1063
1990	72	367?	741	1406
1991	108	260	760	1475
1992	128	279	857	1472
1993	123	270	843	1601
1994	101	1616?	1031	1649
1995	34	7	145	290
1996	75	187	858	1630
1997	80	160	1071	1606

Dry-rice (*ladang*) areas over the twenty-year period 1976-1997 were 500-1000 ha (with a few exceptions), and production 800-1600 t, suggesting an average yield of about 1.6 ha^{-1}. Drought years, e.g., 1983 and 1995, registered particularly poor harvests.

These yields must be qualified. For the whole regency in 1997, statistics give 53 433 t of wet paddy for a total area of 14 923 ha, a yield of 3.6 t ha^{-1}, and 30 971 t of hill paddy for 12 468 ha, a yield of 2.5 t ha^{-1}. The Long Peso' officer distinguished between *ladang intensifikasi* (well maintained and fertilised) yielding an estimated 2.1 t ha^{-1} and *ladang ekstensifikasi* (the ordinary dry field), yielding 1.9 t ha^{-1}. Wet fields yields were 2.3 t ha^{-1}.

Irrigated wet fields in South Kalimantan and Central Java at best yield 2.72.9 t ha^{-1}. For South Kalimantan, a range of 1.7-3.0 t was given (Potter and Ali 1989). A yield of 3.6 is highly unlikely, unless it includes two harvests a year. These do not occur everywhere in Bulungan, especially when the field is inundated rather than irrigated. Nevertheless in good years, a yield of 2 t for Long Pujungan District's wet fields is plausible.

Any figure above 1.5 t ha^{-1} for dry fields, is probably inflated. A plausible figure for ordinary dry fields, considering the relatively poor soils, is about 1 t ha^{-1} and 1.5 t ha^{-1} for the few fertilised fields. In this respect, the 1.1 multiplying factor applied in Malinau District agricultural statistics is very acceptable. Other sources give for dry fields figures ranging from 600-900 kg, which may be low. These discrepancies are no doubt due to miscalculations at various levels.

According to regency statistics (*Laporan Dinas Pertanian*), Long Pujungan in 1997 produced 2650 t of paddy whereas the district statistics give only 1766 t (Table 1). Since 1 kg of paddy gives 0.65 kg of husked rice (with another 11% discounted as 'unfit for consumption') and on the basis of an annual average need of 113 kg of husked rice per person, it was calculated that Long Pujungan produced a surplus of over 1000 t of husked-rice. Indeed, there were traces of husked-rice exports from Long Pujungan: only 8 t in 1997/98 at a price of Rp 1200 kg^{-1}. This figure, if correct, is not surprising. Among traditional, subsistence-based communities the current year's rice surplus is commonly stored to cover the risk of a poor harvest the following year. Moreover, much of the district's surplus is probably traded among villages in the district.

The 1997/98 planting season in Long Pujungan District was a fiasco due to an extended drought from October to May. In August 1997, households planted 1 to 3 hectares of rice, as usual, except for the Punan hamlets of Long Lame, Long Sungai Bawang, and Long Belaka. After harvesting in February, only three households of *desa*

Long Pujungan obtained sufficient rice whilst the rest collected just a handful to a few kilograms. The villages of Long Apan, Long Jelet, and Pua' obtained extremely little and having no stocks from earlier years had to purchase rice from shops. They paid for their rice from earnings from eaglewood (*gaharu*) collection and working as coolies for local *tokay* or in Malaysia. In the upper Bahau, the villages of Long Alango, Long Kemuat and Apau Ping had some wet fields with reasonably good harvests but had nothing from their dry fields. Fortunately, all, except for Long Aking, had sufficient rice stocks from previous years.

As a consequence of the poor harvests in the previous year, all villages made unusually large dry fields for the 1998/99 planting season. Many households, being short of seed bought some from neighbours. The government sent two shipments of seed in August and September, 1998, to needy villages. Curiously, villagers in the Bahau area still do not display much enthusiasm for making wet fields despite their bitter experience with droughts (on this reluctance, see Okushima 1999). Plans to open a wet field area on Sungai Ahan which has good flat lands, were dropped for some reason (*karena sesuatu hal*). There are very few other flat lands in the district.

The recorded cassava production in Long Pujungan in 1995 reached 335 which is more than the total combined paddy production of that year. In 1997 Bulungan Regency produced over 20 000 t of cassava compared with 31 091 t of hill paddy. Routine or emergency reliance on cassava should not be underestimated (on cassava, see Van der Eng 1998). Taro also plays an often-underestimated role in the local diet. On the upper Bahau, people cook *ma' opa'* , boiled cassava or taro mixed with rice. In the Pujungan river area, some groups, e.g., the Uma' Lasan, pound and dry cassava to make flour (*napu ubi*) which they mix with rice.

In 1995-96, 19% of all households in the village of Long Pujungan and 16% in Long Alango resorted to using wild or semi-cultivated

sago (mainly *Eugeissona utilis* and *Arenga undulatifolia*). However, none in Apau Ping did so (Wollenberg and Uluk 1998).

There has been no reported case of death by starvation, or even of serious food deprivation as a result of crop failures. Staple foods are varied enough in a versatile subsistence system that includes widely available wild foods that famines causing heavy loss of life and commonly occurring in Indonesia's drier regions, have probably never occurred in interior Kalimantan (on risk avoidance strategies, see Christensen and Mertz 1993).

During 1987/1997 Malinau District registered a remarkable stagnation of the area of irrigated-rice which oscillated between 1200 and 1500 ha, with a few just as remarkable exceptions (if correct): 750-1000 ha in 1988, 1991 and 1997 (dry years?) and a peak at almost 2000 ha in 1989. For 1997, district statistics give production as 3515 t from 1134 ha, but regency statistics give an unbelievable production of 4145 t from 972 ha. In both cases, alleged yields are far from plausible. In any event, production seems to be stagnating despite a strong population increase.

The area for hill rice varies from one year to the next, from 900 to 2300 ha with production at 1500-3500. For 1997, 1509 ha yielded 1660 t, which is an acceptable figure, but regency statistics gave a less likely figure of 982 ha yielding 1529 t. Like irrigated rice, hill rice production has not significantly increased during the 1990s. It appears that in 1997 Malinau District registered a net deficit in rice to feed its population, while producing about 372 t of cassava.

In Malinau, people living in lower river areas mostly cultivate wet rice and of the official 3515 t produced in 1997, over 1000 t came from Malinau Kota. Malinau Seberang, Kaliamok, Batu Lidung, and Tanjung Lapang accounted for another 1000 t, while another 23 *desa* (from a total of 67) produced the rest. Along the Malinau River,

Setulang and Tanjung Nanga' were significant wet-rice producers with over 100 t each, and Long Loreh and Langap with about 50 t each.

In 1997, the first year when farm size was measured, data collected for *desa* Long Loreh show 244 farming households cultivating 160 ha of paddy, 19 ha of coffee and 58 ha of cocoa. If correct, these figures suggest a net decline in rice production. The average dry-rice field is just over 1 h and the largest just under 2 ha, with yields of 850-1100 kg ha^{-1}. Wet-rice farming is said to be considered more profitable, with yields about 1.8 t ha^{-1}. Nevertheless, despite the first wet-rice fields having been opened as early as 1983, in 1998 only 15 households (6%) of *desa* Long Loreh made inundated (not irrigated) rice fields in addition to their dry-rice fields.

With an area of 160 ha, of which possibly 25 ha are wet fields, and the yields given above, Long Loreh may have produced 160-180 t of rice in 1997. The Long Loreh people claim that they have never purchased rice, but instead always sold rice surpluses to neighbouring villages.

Cash Crops

The same problem of reliability plagues official statistics for cash crops. For example, for Long Pujungan, the very same figures are given as metric tonnes in some documents and as quintals (1 metric quintal is 100 kg) in others and, more generally, various sources give inconsistent figures. Nevertheless clove and coffee production only began to be notable and included in district statistics by 1979. Likewise, pepper and cocoa were included by 1986 and cinnamon by 1992 (Table 2).

Table 2. Cash Crop Production in Long Pujungan District (tonnes)

Year	Clove	Coffee	Pepper	Cocoa	Cinnamon
1976	-	-	-	-	-
1977	-	-	-	-	-
1978	-	-	-	-	-
1979	0.1	3.5	-	-	-
1980	0.25	5	-	-	-
1981	-	-	-	-	-
1982	0.5	8	-	-	-
1983	0.5	7	-	-	-
1984	0.8	4	-	-	-
1986	0.2	6	0.2	0.05	-
1985	1	8	-	-	-
1987	0.1	5.2	0.2	0.7	-
1988	-	6.5	0.1	0.3	-
1989	0.5	24	-	0.7	-
1990	-	45	0.8	-	-
1991	-	47	0.8	0.5	-
1992	0.2	49	0.9	2.3	30
1993	-	57	0.3	-	-
1994	3?	6	0.3	4	30
1995	-	35	0.5	-	30
1996	-	35	0.5	-	20
1997	-	36	0.7	4	30

Cinnamon was reported by local informants (Wollenberg, unpublished data) to be in demand as early as 1962, with prices in 1963/64 climbing to Rp 300 kg^{-1} at Long Alango and Rp 400-500 at Tanjung Selor, only to slump by 1975. Prices rose to Rp 300 again in 1985 and to Rp 1000 kg^{-1} in 1990. Cinnamon only appears in statistics in 1992 and the production figures do not appear reliable. Furthermore, the erratic data do not explicitly distinguish between wild and planted cinnamon. If official figures are believed, planted cinnamon yields 400 kg ha^{-1} of dry, marketable bark.

The people in Long Pujungan were never very enthusiastic about clove production and production ceased altogether by 1995 when prices fell too low. For Bulungan in general, production fell from

over 60 t about 1990 to nil in 1994 after controlled prices were pushed down to Rp 4000 kg^{-1}. Prices at Long Pujungan were even lower.

In coastal markets coffee prices were Rp 325-400 kg^{-1} in the 1970s, then jumped to Rp 660 in 1980, about Rp 1000 in 1983 and, by the mid-980s, Rp 3000, where they remained until 1992. They rose again in 1993 to reach Rp 6000 in 1996 and Rp 12 000 in 1998.

While coffee is the only significant cash crop in Long Pujungan District (official figures give 36 t in 1997), traders paid much lower prices. In 1997 the district exported 9 t of coffee at Rp 2500 kg^{-1} to Tanjung Selor. One may wonder whether the remaining 25 t produced were consumed locally. Interestingly, in 1994/95, 125 kg of ground coffee were included in the subsidised-transport goods sent from Tanjung Selor to Long Pujungan.

In 1997 Malinau produced about 250 t of coffee and the whole of Bulungan 900 t. During the 1990s, Malinau District annually produced 510 t of pepper and 500700 t of cocoa.

Cocoa appeared in regency statistics in 1981 with a total of 4 t for the regency at a market price of Rp 1311 kg^{-1}. Production increased dramatically to 260 t the following year to reach 2240 t in 1990 and over 5000 t in 1996. Malinau, thus, is a big cocoa producer in Bulungan. Prices, however, hovered between Rp 1800-2000 kg^{-1} until it passed Rp 2500 kg^{-1} in 1994, reached Rp 2800 in 1996 and jumped to Rp 9000 in 1998. In *desa* Long Loreh, cocoa areas have developed rapidly since 1988, and more than doubled since 1990. In 1997 there were 58 ha of cocoa with an average 800 trees ha^{-1}.

To the extent that the available figures are true, cocoa yields are almost 700 kg ha^{-1} and pepper yields average over 500 kg ha^{-1}.

In Malinau, as with wet rice, cash crops are cultivated mainly by people of downriver settlements. These crops' production are thus not

discussed here in depth. However, the planting of perennial cash crops has come to play a strategic role in recent changes in patterns of ownership of and conflict over land in upriver settlements.

Recent Trends

Technological advances have brought recent changes to the interior regions. Insofar as fuel is available (as, for remote upstream settlements availability depends on the river level), chainsaws are commonly used in opening swiddens. Improved communications also allow easier access to tools, seeds, herbicides and pesticides. This is especially true in Malinau District, but less so in Long Pujungan District.

It is obvious that the people of Malinau District have already begun a shift from a subsistence economy, still the dominant pattern in Long Pujungan District, toward a market economy. In strictly agricultural terms, the relative neglect of rice farming and the emerging importance of cash crops are significant. The fast-improving land communications to villages on the Malinau River allow easier transportation of produce to the markets and so, better prices for the farmers.

In Long Pujungan District, no such neglect of rice farming is noticeable. If statistics are correct, production in the 1990s was in the range of that of the late 1970s, despite outmigration. Some progress in wet-rice farming in the early 1990s is also noteworthy, although it seems linked to the occurrence of severe droughts. Despite its established utility during these recent droughts and the Kenyah's being swamp farmers in the past, the Kenyah in both Long Pujungan or Malinau districts do not seem enthusiastic about wet-rice farming.

It is not as clear in Long Pujungan as in Malinau District if the apparent stagnation of rice production is connected with the development of cash crops. Cash crops began to play a role in the

local economy about 1980, but the low prices paid by traders, as well as expensive (due partly to transport costs) or simply unavailable seeds and chemicals do not provide much incentive to farmers in Long Pujungan.

Interestingly, certain wild plant taxa formerly listed as NTFPs e.g., cinnamon are now listed as (perennial) cash crops (*tanaman keras*). For cinnamon, no apparent distinction is ever made between the bark of wild trees and that of planted trees. Here, the process of 'domestication' (*pembudidayaan*) is irrelevant in terms of trade (quality and prices). There has been talk of possible future production of 'domestic' eaglewood by planting and then infecting the trees with the appropriate parasite. In this particular forest environment, one feature that often distinguishes NTFPs from cash crops is the scattered versus clustered occurrence. In this respect cinnamon of the upper Bahau, an exogenous species, might have been planted in ancient times before becoming a wild resource to the current population. Also, rattan, much of which has long been planted, may possibly be moved to the cash crop category.

Current literature commonly includes some cultivated products in the NTFP category (De Beer 1992, De Beer and McDermott 1989, Dixon *et al.* 1991, Van Valkenburg 1997). Forests, indeed, can be natural or planted. However, the 'scattered versus clustered' criterion remains valid, since planted forests tend to display resources that are more clustered than natural forests. Then the 'natural versus planted' criterion stresses the ownership factor, which becomes crucial in tenure. It is ownership of (wild or planted) resources or, at least, unchallenged control over them through time, which plays a major role in encouraging sustainable practices in the management of these resources. The role of the 'subsistence resources versus trade resources' criterion in resource sustainability is discussed in Sellato (In Press b).

In recent years there have been important changes in patterns of and regulations over ownership of and access to land. Traditional 'private' aristocratic domains have changed status due to crumbling social structure, pressure from the communities, as well as some intervention from outside agencies such as NGOs. In a number of Kenyah villages, the *tana' ulen* estates have been either surrendered to a special council for collective management, particularly regarding NTFPs, granted access for public use (collective and/or individual), or even opened to rice farming (Long Apan Baru) or cash crop cultivation (Loreh). On this, see, e.g., Eghenter 2001.

In Malinau District, a situation combining outsiders' challenges to villagers' land control, increasing individualistic behaviour among villagers, development of cash crop cultivation, boundary disputes between *desa*, and locally, several *desa* sharing the same *wilayah* has led to a rising awareness of the importance of actual land ownership, which in turn has led to major changes in attitudes towards traditional land use patterns.

Modern actual land ownership normally occurs through certification (*sertifikat tanah*) by the relevant government agency (Badan Pertanahan). In principle, land that is not certified remains state property, with some tolerance regarding land actually under cultivation by inferior communities. But villagers consider certification costly and prefer to make use of traditional *adat* rules – which confer to the farmer and his heirs permanent rights over fruit trees that he has planted – to obtain recognition of their *de facto* ownership. Thus, villagers arrange to plant perennial cash crops in selected strategic plots of land located near a road, near the boundaries of their own *wilayah desa*, in contested zones between two villages or even, deliberately, within another village's *wilayah* or a company's concession, in order to establish rights on those plots or, sometimes, to simply claim compensation. In Long Loreh and neighbouring villages, these strategies clearly trigger conflicts in the short term, but long-term effects are still to be assessed.

5. Forest Products and Trade

Along with agriculture, trade is the major economic activity. The past patterns of agriculture and trade have together strongly contributed to the shaping of recent regional history.

The historic incremental economic opening up of the region was hastened in the 20th century by Dutch intervention (see Black 1985). This was particularly obvious in the NTFP trade, as the eradication of warfare and headhunting led to increased safety, more trading trips by upriver people, and ultimately to the Dutch administration's goal of a much larger volume of trade in lower-river harbours (see Broersma 1927; also, Peluso 1983). (On Dutch forest policies, see Potter 1988.)

A few statistics capture the regional economy. In 1997 Bulungan Regency exported, through its six sea harbours goods, presumably including forestry products, worth about US$213 million against imports of over US$7 million. The regency's budget in 1996/97 was about Rp 73 billion. Petroleum and gas products (*migas*) accounted only for about 15% in the regency's 1997 gross domestic product of Rp 1.3 billion, while agriculture was almost 40% and trade over 14%. The annual per capita gross domestic product was Rp 4.5 million for 1997.

Forestry accounts for a substantial portion of Bulungan's economy. In 1997, 43.5% of Bulungan's forests were under the production forest status (combined *hutan produksi tetap* and *hutan produksi terbatas*). Bulungan then was divided into three forestry sectors — Bulungan Utara, Bulungan Tengah, and Bulungan Selatan. In these three sectors, 33 forest concession holders (HPH, *hak pengusahaan hutan*) hold rights over 4 965 293 ha. Log (*kayu bulat*) production has fluctuated over the last twenty years between 0.4 and 1.6 million m^3, with peaks in 1980 and 1989/90. The official 1997 production is about 1 million m^3. Production from illegal logging was never taken into account.

It is difficult to capture an accurate picture of the actual weight of NTFPs in Bulungan's economy. Statistics on both volumes and prices are scattered and inconsistent. Also, as is well known, a substantial part of the NTFP trade volume is unrecorded. A certain degree of secrecy surrounds the NTFP question, on the part of both the traders and concerned government officials, not to mention very discreet government- or army-linked business corporations. Finally, some products e.g., bird's nests or cinnamon, are not always included in NTFP lists.

Moreover, prices vary considerably with time with strong fluctuations following international demand (e.g., the Gulf War) and exchange rates (e.g., the Asian monetary crisis, *Krismon*. Also, some traders offer higher prices when products become scarcer. Prices vary with the place of transaction, from remote upriver settlements to coastal market towns, due to high transportation costs and with perceived grade or quality of the products. Profits for traders are generally high, but also depend on the number of middlemen along the trade chain, with major traders in Tarakan and Tanjung Selor dealing directly with Surabaya or Singapore. In this respect, the trend, in the last decade or so has been for collectors to reduce the number of middlemen.

5.1 NTFPs Traded

This section attempts to list, identify, and describe NTFPs that were, or are, collected and traded. Then, a tentative synoptic history of NTFP trade and trading for the 20th century is proposed using available written record and personal histories.

The expression NTFP (HHNK, *Hasil-hasil Hutan Non-Kayu*, formerly *Hasil Hutan Ikutan*; the latter phrase now has become a blanket name for the most minor of NTFPs) covers virtually anything that comes out of the forest except timber, and has some even marginal trade value on local or wider markets. NTFPs include animal as well as plant products. They range from the modest locally-traded *bekkai* leaf relish to the famous, internationally sought edible bird's nests. In some official reports, charcoal (*arang*) and even silk (*sutera*) are designated NTFPs.

The list below records forest products traded in the recent colonial past and now under various vernacular names.

Exudates (Resins, Latexes and Gums)

Eaglewood (also known as incense wood and aloe[s] wood) or *gaharu* (locally, *sekkau*, *lelah*) derives from *Aquilaria malaccensis* (accounting for much of the top grade) and ten other species of the genus *Aquilaria*, as well as from several other genera (of which *Gonostylus*). The term *kemedangan* is sometimes used in forestry reports and statistics, referring to low-grade resin-impregnated ligneous material of all species, which is shipped to Jakarta and Singapore, as opposed to *gubal gaharu*, referring to the high-grade resinous material. Before the mid-1980s, *eaglewood* was divided into only a few grade categories (two for official reports, three for traders), but more quality-grading categories were created later, leading to a rather confusing situation, with categories varying

with regions and individual traders. Although some local medicinal use has been reported (E. Wollenberg, personal communication), eaglewood in all its forms is mainly used from the Middle East to the Far East to manufacture incense. Eaglewood (apparently mostly *A. malaccensis* and *A. filaria*) is exported principally through or via Singapore, while smaller volumes are shipped directly from Indonesia to Japan, Taiwan, and Saudi Arabia.

Jelutung (*getah susu*; locally, *getah akar*), a high-quality latex, is obtained from several species of the genera *Dyera* (especially, *D. costulata*) and Alstonia (family Apocynaceae). The Punan distinguish two or three taxa of latex-bearing lianas (Punan Tubu *téwan*, *geta'an*, and *merongo*; Punan Malinau *pulut téwan* and *pulut merongu'*). *Jelutung* has traditionally been used among some interior groups to make footballs, and has been exported to make golf balls and insulation for submarine cables.

Gutta percha (*getah perca*, *getah merah*, *getah hutan*, or *karet hutan*) is the common trade name for exudates from several species of the genus Palaquium (Sapotaceae), which was used as a substitute for rubber from *Hevea brasilensis)*. While *P. gutta* provided the best gum, the bulk of the gutta exported from Borneo was of the lower-grade *hangkang*, from *P. leiocarpum*, and *ketipai* (locally *pulut ketipai*, *tekipai*, *nyatu*, *nyato*), from several other species. Both trade names are sometimes found listed in Dutch reports, and not always clearly distinguished from gutta percha. In the upper Bahau area, *ketipai* was identified (incorrectly?) as *Litsea* sp.(Lauraceae). The Punan Malinau say they collected another type of *ketipai* called *pulut tawén,* which may be from a *Litsea* sp.

Copal (*damar daging* or *damar matakucing*; locally *tumuh*, *nyatong*), a translucent whitish resin naturally seeping from *Agathis borneensis* trunks, mostly growing in highlands, was used locally to make lamps and exported for varnishes. The *damar merah* or *damar tanah*, a brownish lower-grade product, possibly from dipterocarps, e.g., *Shorea* spp.,

growing in the lowlands, was formerly collected for export, and is still collected locally for caulking boats.

Rattans

About 146 species of rattans have been recorded in Borneo, of which possibly 10% have been or are traded. The names of trade categories vary with trade towns and with periods (colonial and post-independence), and are not congruent with taxa in local languages, or scientific taxa. The Dutch reports often list '*rotan*' without discriminating among species. Indonesian reports (Bulungan) list five marketed categories: *segah*, *belerang*, *utar-2 biasa*, *utar-2 belerang*, and *bengkuran*. The trade name *belerang* may refer to semi-processed rattan (possibly of the *segah* category), bleached with sulphuric acid (*asam belerang*; G. Limberg, personal communication.). In forestry reports and statistics, there is only *rotan segah*, as opposed to *rotan campuran* (mixed rattans of other types). A category known as *rotan sutera* ('silk rattan') is collected, and even planted, in the lower Malinau drainage. (On rattan among Kenyah groups, see Stockdale 1992, Sirait 1995, Martin 1995, Eghenter and Sellato 1999b; elsewhere, see Weinstock 1983.)

For some species, trade names and scientific taxa can be more or less equated. *Rotan segah*, for instance, includes *segah* proper (*Calamus caesius*) and *segah batu* (*C. marginatus*). *Rotan pulut* categories (*pulut putih*, *pulut merah*) cover several species, of which *C. javensis* and *Ceratolobus concolor* seem the most common. The *rotan jalayan* trade category corresponds to the Kenyah *tebungan* (*Calamus ornatus*). R*otan utar-utar* categories seem to include at least one species of *Korthalsia*. Thick rattan vines, used to make furniture, are also collected, among which are *rotan manau* (*C. manan*) and *semambu* (*C. scipionum*).

There have been several studies on aspects of the collecting, processing, transport, and trade of rattans, in upstream regions, e.g.,

Bahau, Apo Kayan, and harbour towns, e.g., Samarinda (Sirait 1999, Sirait 1997). A thorough botanical identification of all trade categories in various regions with their names in local languages, would be useful (*cf* Puri 2001).

Other Vegetable Products

The illipe nut, called *tengkawang*, comes from over a dozen *Shorea* species (of the genus *Shorea*, Dipterocarpaceae). The nut has a very high fat content and is (was) widely used in West Kalimantan as a cooking oil and lighting fuel and for ritual purposes. However, these uses have not been recorded in East Kalimantan. The nut is exported for use as a substitute to chocolate butter. Whereas the illipe nut trade has always been very strong in West Kalimantan, it has remained marginal in East Kalimantan, for no obvious reasons. The illipe nut is an NTFP with highly erratic production. *Tengkawang* species on average have major crops, yielding 20 kg tree^{-1} on average, only every three to four years.

Katiau (or *ketiau*), listed in Dutch trade reports, refers to several tree species (*Ganua motleyana* and *Payena* spp.), which produce a latex but are mostly known, like the *tengkawang*, for their seeds with high fat content (motley).

The true cinnamon (*Cinnamomum zeylanicum*) is an exotic species introduced from Sri Lanka to Sarawak by the Brookes. Other species (*Cinnamomum iners* and *C. javanicum*), possibly endemic to Borneo, were reported in Apo Kayan, and their bark is used as a substitute for that of the true cinnamon. This fragrant bark, removed from the felled trunk, is commonly exported for use as a spice, though it was not used by the local people until very recently, when they mixed it with coffee drinks. Supposedly 'wild', but clustered cinnamon trees (*kayu manis*) occur in the upper Bahau, above Long Tua (Saben territory),

but it is not known to which species they belong, nor how or when they arrived. Cinnamon plantations of undetermined species were established in Long Alango in the 1980s and the bark is now a cash crop commodity.

Akar janju (a corrupt transcription of *jamuju*), probably *Cuscuta australis* Conv. is rarely recorded in written sources. It seems to have long been collected for Chinese medicinal uses. According to one Punan Tubu informant, who equated it with a liana called *kecu'ang*, it was used to treat jaundice and diabetes.

Other products of historical importance, traded from Indonesia as early as the first centuries AD but apparently no longer traded in East Kalimantan include benzoin (*Styrax* spp.) and camphor (*kapur barus*, *Dryobalanops aromatica*; see Nicholl 1979). Dragonblood, a red dye extracted from the fruit of a rattan species (*Daemonorops draco*) was widely traded before the mid-20th century.

Products still traded include: the *pasak bumi* (*Eurycoma longifolia* Jack, Simaroubaceae), a medicinal root, exported to the coasts and Java, and other medicinal plants (mostly Zingiberaceae); the *bekkai* leaves (*Albertisia* sp.), traded short distances at district level for use as a flavor enhancer vegetable poisons (*Antiaris toxicaria* and *Strychnos* sp.), traded very locally and increasingly rarely, for blowpipe arrows; and roofing shingles (*sirap*), traditionally made of the Bornean ironwood (*Eusideroxylon zwageri*, Lauraceae; *ulin* or *belian*), and possibly now substituted by other timber species also traded in the towns.

In recent years, due to faster means of transportation, fruit have been traded from interior regions to coastal towns. They include longan fruit (*buah matakucing* or *isau, Dimocarpus longan*, Sapindaceae; see Puri 1998b), durian, mango and jackfruit. Although the longan tends to be viewed as a NTFP, and often is felled to collect the fruit, it is not clear to what extent the varieties collected are cultivars. This also applies to other fruit.

Animal Products

Edible bird's nests (*sarang burung walet*), a long-established 'forest' product, are produced by the salivary glands of two species of swiftlets (*Collocalia* spp.) and are used by the Chinese for aphrodisiac soups. Traditional categories are 'white', 'black', and 'mossy' (*sarang lumut*) nests, while other local trade categories are *sarang gundul* (literally 'bald'; gray, but not including down or moss) and 'pink' nests. Important bird's nest caves have long been known, exploited, and become the private property of coastal kings (later, sultans) and tribal chiefs, but scores of new caves have been discovered during the last decade, following market demand. As far as I am aware, there have been no large scale attempts yet at 'domesticated' production in Bulungan, as in Java.

Various animal parts have long been traded in Borneo. These include all parts and particularly the horns of the Sumatran rhinoceros and concretions (bezoar stones, *batu guliga*) found in the langur monkey's (*Presbytis*) gallbladder and in the healed wounds of various species of porcupines, all of which are important in Chinese pharmacopoeia and bring very high prices. Deer antlers (of *Rusa* spp., *Muntiacus* spp., and *Tragulus* spp.), also used in Chinese pharmacopoeia, are now more often marketed to the coast for house wall decoration, as are the horns of the wild cattle (*banteng*). Dayak and Chinese used the skulls of the helmeted hornbill (*Rhinoplax vigil*) for carving.

Animal products traded among interior groups included the tail feathers of two hornbill species (*Buceros rhinoceros* and *Rhinoplax vigil*) and of the Argus pheasant (*Argusianus argus*), and claws, fangs and hides of honey bears and clouded leopards for use as ornaments on dancing and war outfits, or baby carriers. Interestingly, imported products, such as elephant ivory and tiger skins and fangs, were widely traded from Sumatra and/or Malaya to and within Borneo.

Beeswax and honey have long been traded, beeswax to long-distance networks, and honey to more local markets (see De Vries 1992). The bees (*Apis dorsata*), generally wild, nest in the tops of high trees (often *Koompassia excelsa, tapang* or *tanyit*; and *Lithocarpus sundaicus*) whichlocal people preserve when burning fields. However, the collecting process is destructive of the hives. Moreover, some groups, e.g., the Pua', were and to some extent remain dedicated apiarists.

More recently, a live-animal market has developed strongly through open or underground channels serving both local or provincial personalities and international animal-smuggling rings. This mainly concerns young specimens of orangutan and gibbon, and some songbird species (e.g., *Pycnonotus*) and hornbills (mainly *B. rhinoceros*), kept and traded as pets. Moreover, carved skulls of Muntiacus deer and even orang-utan are now offered for sale on the tourist market.

5.2 History of Trade

'Tidung' in 1812 was a town of 2,000 people, part of the Sulu trade network, and noted for its exports, listed as an annual 50 *kati* (31 kg) white bird's nests and 100-200 *pikul* (6-12 t) black nests, 300 *pikul* (19 t) wax, 2 *pikul* (125 kg) camphor, 1 *pikul* (62.5 kg) gold, and large quantities of rattans (Hunt 1837, Warren 1981). This list, including only products of value on international markets, reads very much like the standard Sulu shopping list for the larger part of the 19th century. Very likely, the same items had been on ship captains' lists since the 17th century. Some products of more local interest, e.g., honey, were also marketed in the region and some, e.g., hornbill feathers, traded only among interior tribes.

New products came into heavy demand in the last twenty years of the 19th century, mostly from the industrializing Western world. This period corresponds with the increasing Dutch efforts to control

regional trade, e.g., establishment of a government post in Tanjung Selor. During the period roughly 1880-1920, traditional trade channels continued somewhat, side by side with the emerging Dutch-controlled trade channels, although the Taosug's trade monopoly over the northern part of Bulungan had been dismantled. In the 1920s, most, but not all, of the NTFP trade came under the control of the Dutch administration.

There is some qualitative information on trade on Bulungan coasts in the 19th century available but quantitative data are scarce, barely featuring in archives before the mid-1920s and ceasing about 1940. Figures released by the Indonesian government start about 1970. This fragmentary and often inconsistent data covering only 1920-1940 and 1970-1998 hardly allows for a significant reconstruction of Bulungan's NTFP trade in the 20th century.

(In the following sections all prices are current; DFl refers to Dutch guilders; 'South-East Borneo' refers to the Dutch colonial province of Zuid-en Oost-Borneo, covering today's South, Central, and East Kalimantan provinces.)

Exudates (Resins, Latexes and Gums)

Although known to have a longer history, the eaglewood trade became important after about 1800 and remained so until the end of the colonial period. Dutch records show a very strong increase in production during the 1920s. In South-East Borneo, in 1928, production increased five-fold to 66 t while prices fell from DFl 3.2 kg^{-1} in 1925 to DFl 0.4 kg^{-1} in 1928. With the Depression, prices slumped and remained low (DFl 0.5-0.6 kg^{-1}) during the 1930s. Production in Bulungan decreased progressively from about 14 t (1931) to less than 1 t by the end of the decade. Prices remained low during the 1940s and 1950s. The data available to me, however, are

too inconsistent to allow construction of significant tables for long-term production or prices.

After the *Banjir Kap* period (about 1970), prices rose again. Business-oriented army units reportedly interfered heavy-handedly with the eaglewood trade in Malinau District and elsewhere about 1985. Indonesian forestry records for 1987 divide eaglewood into grades 1 and 2 with respective prices of Rp 35 000-70 000 and Rp 15 000-25 000 kg^{-1} but neither the categories nor the prices necessarily reflect the trade reality. A 1993 study in Long Pujungan District gives top-quality grade prices paid to the collector as up to Rp 800 000 kg^{-1} (Konradus 1995, Eghenter and Sellato 1999b). About this time, companies based in Samarinda, with suspected government or army connections, reportedly used helicopters to transport teams of collectors and their gaharu in and out of largely uninhabited border areas.

A Bulungan forestry report on NTFPs does not cover 1983-87 and gives no figures for eaglewood production during 1988-96. I was not able to locate reliable and consistent government records of volumes and prices covering the last twenty years. However, there are figures regarding local prices. Long Pujungan District exported in 1996/97 about 700 kg of eaglewood at prices ranging from Rp 75 000 to Rp 2 million for super grade and in 1997/98, 1000 kg with prices Rp 0.8-4 million. For the same year, forestry reports give *kemedangan* (low-grade eaglewood) production as over 3 t. Prices for top-grade have reached Rp 8-11 million kg^{-1}, but slumped in late 1998 to Rp 6 million, and even Rp 2.5 million.

Clearly, production has substantially declined in the 1990s. Reports for Bulungan Tengah, sometimes combining *gaharu* and *kemedangan*, give production as 50 t for 1992/93, 25 t for 1993/94, and only 6.6 t for 1994/95. Bulungan Selatan also shows a steep decline in production with 10 t in 1990, 1.9 t in 1994 and 1.4 t in 1998. However,

in 1995 local statistics give production for Kayan Hulu and Kayan Hilir districts as 750 kg and 500 kg respectively, but mention that eaglewood was flown directly to Samarinda and so was recorded neither at Tanjung Selor nor in Bulungan Selatan reports.

The *jelutung* trade apparently began about 1900 and reached peak production between the 1910s and the 1930s. Dutch records for South-East Borneo show a high of almost 6000 t year^{-1} for 1926 and 1927 but this declined to almost nothing in the 1960s when *jelutung* practically disappeared from the world market. Recent official figures give national *jelutung* exports of 2100 t in 1997, having risen from 300 t the previous year.

Gutta percha (*getah merah*) trade began in the 1840s and developed well at the end of the century with the use of the latex for surgery and insulation of electric cables, and exploitation intensified c. 1920 (see Potter 1997). Although reports' use of trade names is sometimes confusing, it appears that, for all guttas, Tanjung Selor experienced a powerful rush in 1919: Exports increased nine-fold from 1918 to 327 tons, to then stabilize in the range of 20-60 tons per year in the early 1920s. Meanwhile, Banjarmasin exports climbed from 500 tons in 1918 to 1,100 tons in 1925 and remained high in the late 1920s (average DFl 1 per kg), and Samarinda increased its *hangkang* exports from 4 tons in 1918 to 208 tons in 1924.

But true gutta production seems to soon decrease: Records show, for the whole of South-East Borneo, an abrupt drop from some 100 tons (1926) to less than two tons (1928), possibly partly due to depletion, with *hangkang* remaining strong. Gutta exports as a whole then declined sharply when planted *Hevea*, acclimated to Southeast Asian colonies, began production, to come close to nil in the 1930s. They increased again, for some reason, from the 1940s to the 1960s, to then cease for good. After independence was achieved (1949), *ketipai* was no longer exported. Today, it is still marketed locally, as small balls (Rp 2,000 a piece), to glue machete blades to their handles.

The trade in copal and other damar categories may have started about 1900. For South-East Borneo, the production of all damar categories was 2000-3500 t year^{-1} in 1925-1928, with a steady price of DFl 0.2 kg^{-1}. Copal production increased dramatically during the late 1930s, and prices remained at DFl 0.12-0.19 kg^{-1}. Export of lower-quality damar categories also increased and peaked between 1940 and 1970, but with prices declining sharply in the 1970s from DFl 0.08 to DFl 0.03 kg^{-1}, the export also declined. A forestry report for Bulungan gives production as 50 t in 1976 and 2 t in 1977. However, national copal exports were 1600 t in 1997, a figure that remained stable throughout the 1990s. In contrast, exports of other damar categories increased from about 2300 t in 1993 to above 18 000 t in 1997 due to the development of plantations.

Rattans

The rattan trade has a long history although volumes were limited (see Boomgaard 1998). In the 17th century, the VOC in Batavia (now Jakarta) recorded average rattan imports of less than 500 kg year^{-1}. The price of rattan remained stable between 1650 and 1800. Recorded exports slightly fell between 1800 and 1830. Then they boomed about 1835, trade now including Borneo's east coast as a result of the Dutch conquest of the sultanate of Berau. The period 1860-1900 saw the establishment of large rattan plantations in South Kalimantan which may have triggered a decline in Sarawak's (wild) rattan exports in the 1910s.

During the late 1920s, South-East Borneo's rattan production, mostly from South Kalimantan plantations, reached almost 20 000 t year^{-1} at DFl 0.02 kg^{-1}. Exports from the northeast coast were modest at less than 1000 t in 1930, while Samarinda exported almost 3000 t year^{-1} and Banjarmasin almost 5000 t. Tanjung Selor increased its exports from 75 t in 1929 to 448 t in 1930 at nearly DFl 0.03 kg^{-1}. However,

in the late 1930s, the northeast coast exported only about 200 t at DFl 0.06-0.07 kg^{-1}. Indonesian annual rattan exports peaked at about 35000 tin 1938-1939. Exports resumed in 1947 at about 15 000 t at DFl 0.5 kg^{-1} to reach 27 000 t at Rp 1500 kg^{-1} in 1953.

During the late 1970s, rattan prices on the world market skyrocketed and continued to rise until the mid-1980s. In 1987 *belerang* was the most expensive (Rp 1200-1400 kg^{-1}) of the five rattan categories marketed, above *rotan segah* (Rp 700-800 kg^{-1}). The 1988 ban on the export of semi-processed rattan caused raw rattan prices to fall, and East Kalimantan's production decreased from an all-time high of 13 500 t in 1988 to 3203 t in 1989 and 1549 t in 1991, while bird's nests became the premium product and the eaglewood remained expensive. In Bulungan, production fell from 900 t in 1988-89 to 30 t in 1991-92. In Bulungan Selatan alone in 1990-91 rotan *segah* production fell sharply from 213 t in 1988-89 to 47 t and *rotan campuran* from 78 t to 21 t. No production seems to have been recorded for. Bulungan Selatan between 1992 and 1996 but there was 1.7 t in 1997 and 14 t in 1998. According to informants, *rotan segah* was indeed picking up again in 1998. However, *rotan campuran* apparently was no longer exported after 1992.

During the 1990s, the national rattan production and exports, given in official statistics, fluctuated between 35 000 and 90 000 t and between 50 000 and 100 000 t respectively.

Other Vegetable Products

The illipe nut trade dates back to about 1850. Small volumes were exported from Tanjung Selor in 1924. The whole of South-East Borneo exported at most about 550 t at DFl 0.1-0.2 kg^{-1} in 1926. The combined production of Bulungan and Berau reached a peak of 660 t at DFl 0.03 kg^{-1} in 1935. Exports appear to have ceased after 1970, possibly because most trees were felled for timber in the last

years of the *Banjir Kap* period and the Kaltim market for illipe was never strong. Until recently, people of the upper Mahakam area crossed the water divide to collect illipe nuts, which they then traded in the upper Kapuas markets (on illipe in West Kalimantan, see Grossmann 1992).

Now, thirty years later, the Malinau-Tubu area is reported to be rich again in illipe trees. A mastfruiting (*musim raya*) occurred in April-May 1998, and for Bulungan Tengah forestry records give production of 620 t, which Chinese trading companies based in Pontianak purchased. National exports, reflecting erratic mastfruiting, reached 4000 t in 1995 and 10 000 t in 1996 but fell to 500 t in 1994 and 1000 t in 1997.

South-East Borneo in the late 1920s exported annually 1400-2600 t of *katiau* seeds at DFl 0.4-0.6 kg^{-1}. I found no statistics for later dates and it is possible that *katiau* was combined with *tengkawang* nuts although in the 1920s prices differed notably.

Cinnamon was usually listed as a NTFP in forestry reports. Its production in Bulungan seems erratic, as it is recorded only in 1977 and 1988at 1.8 t and 1.1 t respectively. The price in 1987 was Rp 750-1000 kg^{-1}. However, these figures are contradicted by a Bulungan Selatan forestry report listing production at 116 kg in 1989, 300 kg in 1991, over 10 t in 1994, and 5 t in 1997, suggesting that planted cinnamon was taken into account. Since 1993, cinnamon has also been listed as a cash crop commodity in agricultural reports, but seems restricted for Bulungan to Long Pujungan District (100 ha planted in 1997) and Long Peso' District (14 ha), with a combined production of 30 t.

The elusive *akar janju* was mentioned in a Bulungan forestry report with only a production of 7259 kg in 1988, and in a Bulungan Selatan forestry report only 87 kg in 1990, 1539 kg in 1994, and 373 kg in 1996. The only mention of price was Rp 1250-1750 kg^{-1} in 1987.

Roofing shingles are recorded in forestry reports as 12 882 pieces in 1994, increasing to an unlikely 150 000 pieces in 1996.

Finally, Dutch reports record camphor production for the whole of South-East Borneo at 20-200 kg $year^{-1}$ in the late 1920s. Local informants said that camphor was still collected about 1950.

Animal Products

The bird's nest trade is too complex and politically intricate to be treated in detail here. However, available written records offer some insight into the situation during the colonial period. The 1812 figures for 'Tidung' are interesting: about 30 kg of white nests and a staggering 6-12 t of black nests. Besides the white/black ratio of 1: 200, the sheer volume of the Tidung nest trade is impressive in that the Dutch archives record an average 25 t $year^{-1}$ for the whole of South-East Borneo in the late 1920s, with Berau, Kutai, and Tabalong in South Kalimantan being big exporters. Prices fell from DFl 5.7 kg^{-1} (1925) to DFl 3.9 kg^{-1} (1928).

In the early 1930s, Bulungan exported an average 1.5 t $year^{-1}$, and in the late 1930s the combined exports of Bulungan and Berau reached the same amount, while prices fell from DFl 2.7 kg^{-1} (1936) to DFl 1.8 kg^{-1} (1938). For comparative purposes, also in 1938, rice was DFl 0.06 kg^{-1}. These figures suggest a steady decrease in exported volumes from Bulungan, or at least by Tidung over time, possibly due to over-exploitation of the caves and systematic plundering by marauding tribes.

Reliable quantitative information on the bird's nest trade is difficult to obtain for the post-World War II period, and especially for the last 15 years when there has been an unprecedented boom with soaring prices. As early as 1987, top-grade white nests reached Rp 0.5-0.6 million. Many caves in the lower and middle Kayan basin have long

been on record, some controlled by the late sultan's family and others by Dayak aristocrats, and many more have been discovered recently. I have little information on exports from Tanjung Selor, except that the nests are generally sent to Surabaya and Singapore, where Chinese companies forward them to Hongkong and China. Long Pujungan District, reports record 1500 kg of birds' nests exported in 1996/97 and 1997/98, worth respectively Rp 0.25-3.9 million and Rp 1.5-8 million. The Bulungan Selatan forestry district for the period 1989-1998 only reported an unlikely 6 kg of white nests in 1991 and another 7 kg in 1993, while black nest volumes fluctuated between 250 kg and 2.5 t annually.

In Malinau District, the bird's nest caves of the Rian, Seturan, and Menahan rivers, belonging to Merap aristocrats, produced significant yields in the time of Merap leader Alang Mpang but, after his death about 1980, ownership of the caves was shared between a number of heirs who over-exploited them, to the extent that production is now very low. The caves on the upper Gong Solok belonged to the Tidung Sembawang prince and those on the Bengalun rivers belonged to the Tidung Sesayap king. It is unclear whether these caves are now co-owned by several branches of both ruling families (that intermarried in the past) and, as informants suggest, are exploited in turns. However, it is clear that production is now almost nothing (*hampir habis*) because of over-exploitation in recent years. Production in the Bulungan Tengah forestry district, which also includes caves on the Sekatak drainage, was given as 290 kg in 1993/94 and 585 kg in 1994/95, possibly after the discovery of new caves.

Wax has been a long-time major trade item. 'Tidung' exported about 19 t in the early 19th century. In the late 1920s, the whole of South-East Borneo exported 50-100 t $year^{-1}$ at a price of DFl 1.3-1.5 kg^{-1}. About 7-12 $year^{-1}$ were exported by Bulungan and Berau in the late 1930s, at an average DFl 0.3 kg^{-1}. The last mention I was able to find in Indonesian forestry records is 405 kg in 1977.

Honey from the interior is still found in shops in coastal towns. Government statistics give prices as Rp 1000-2000 kg^{-1} for 1987. After the 1997/98 drought the price was Rp 30 000 a 0.6 litre bottle (G. Limberg, personal communication), possibly as a result of forest fires.

Comments

The '*Banjir Kap*' period for the people of the interior, refers to the last years of the 1960s and the first years of the 1970s. In the late 1960s, timber prices went very high, compared to NTFP prices, and the people of the interior entered the timber boom that had existed for some time downstream. The *banjir kap* technique involves felling trees near rivers in upstream areas, marking the logs, and waiting for the next big river flood to float them downstream. There, self-styled timber companies retrieved the logs from natural river pools, and paid the lumberjacks' according to their identification marks.

In 1970, new national regulations were issued: PP 21 and PP 33 (PP stands for *Peraturan Pemerintah*, Government Regulation – which prohibited this small-scale logging technique and centralised the timber concession system. PP 21 concerns 'the right to exploit the forest and the right to collect products from the forest' (*PP 21 tentang hak pengusahaan hutan dan hak pemungutan hasil hutan*), while PP 33 concerns forestry planning (*PP 33 tentang perencanaan hutan*). These new regulations amended the earlier UU 5 1967, Law (*Undang-Undang*) No. 5 of 1967, the Basic Forestry Laws (*Ketentuan-ketentuan Pokok Kehutanan*).

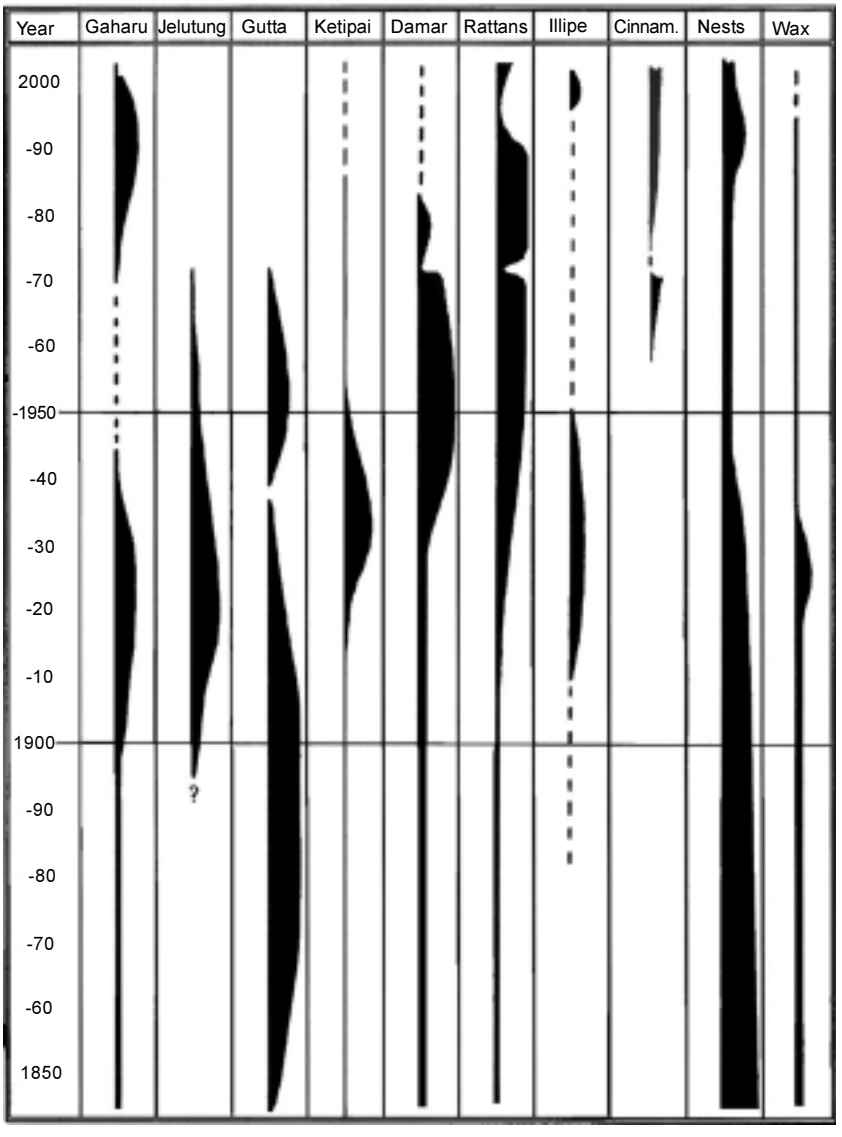
In the interior, however, *banjir kap* style logging was practised for several more years. Little NTFP collection occurred during this period, but much damage was done to upriver forests, where much valuable timber was felled and never carried away by floods. Even otherwise valuable species, such as illipe trees, were felled for timber, e.g., by the Punan Tubu. According to recent reports, in the relative law-

and-order vacuum of the 1990s illegal *banjir kap* activities resumed in the Malinau river drainage (1994, 1997, and 2000), but they now (2001) seem to have been regulated under permits for small scale timber licenses (E. Wollenberg, personal communication). The *Banjir Kap* period marks the turning point leading to the modern massive involvement of the most remote upriver people into the mainstream forest product trade.

A rough preliminary chart (Fig. 5) gives an impression of the relative weight of the trade in Bulungan of ten NTFPs from 1850 to present. The chart reflects the bias of the periods for which records have been used, particularly 1920-1940. The width of each black line reflects the relative importance through time of volumes traded for a given product, but it is not proportional to the actual volumes traded, either for each given product along the time line or for different products across the chart (synchronically).

This outline only shows major trends: Vertically, along the time scale, it shows the varying prices of selected NTFPs; and horizontally, it shows, decade after decade, the types of products in greatest demand. International trade in eaglewood, rattans and wax predates 1850 and to some extent, the advent of the not industrialised world had little impact before the 1920s. Other products with a mainly local trade (*ketipai,* damar), suddenly had new technical uses which led to a steep increase in trade in the 1920s and 1930s. After the West's further technological advances made these new uses obsolete, trade in these products resumed its local scale. The trade in *gutta percha* and *jelutung* seems to have been created ex nihilo for modern technological uses, about 1850 and about 1900 respectively. Thus, when the West's need for them ebbed, these products disappeared from trade. Trade in bird's nests, which had been conducted for over a millennium, may have started to decline sometime in the 19th century and continued steadily to decline through the 20th century. There was a powerful surge in international demand in the 1980s and 1990s, which resulted in the discovery of many new caves. However, over-exploitation of

Figure 5. Forest Product Trade in Bulungan, 1850-2000



the resource, which seems to be common today, suggests this revival will be short-lived.

Histories of Trading

Interviews were carried out in Malinau, Tarakan, Tanjung Palas, and Long Peso' districts with individuals involved in the NTFP trade at some time in their lives. Interestingly, the NTFP trade runs in families with the result that activities related to the NTFP trade could be documented across several generations.

The brief, non-verbatim histories are examples of NTFP collectors' and traders' 'careers' and, especially for outsiders (Chinese and Arabs), their business integration and progress through several generations. Interesting patterns of trade, collecting and trading behaviour, and trading relationships appear in these histories.

The 'RPK' Affair

The RPK story should be told first, as it apparently never made it to the newsstands, yet it significantly affected the NTFP trade. For collectors and traders in Malinau, there are the pre-RPK, RPK, and post-RPK periods. In Tanjung Selor and Long Peso' the RPK affair was not apparently a traumatic experience, and constituted just one episode in the long history of the local NTFP trade.

In the early 1980s, before RPK, the rattan trade was on the wane, and eaglewood although collected was cheap. The *tengkulak* (or *pengumpul*, upstream trade middlemen) bartered or purchased it. and, presumably according to the collectors' degree of sophistication and the place of purchase, either bought it in bulk for around Rp 15 000 kg^{-1}, irrespective of quality, or sorted it in three grades #1 valued at

Rp 50 000 kg^{-1}, #2 at Rp 5000 kg^{-1} and #3 at Rp 2500 kg^{-1}. A Chinese *tokay* (trader) of Malinau Kota, who closely monitored international prices, noted that, at the precise time when RPK appeared in Malinau, the price for #1 grade had just reached Rp 200 000 kg^{-1}, a fact unlikely to be known to upstream collectors. In any event, at this time, eaglewood was 'getting hot' (*gaharu mulai panas*).

'RPK', short for RPK-AD, stands for Resimen Para Komando Angkatan Darat, the former name of the KOPASSUS (Korps Pasukan Khusus, the Indonesian Army's Special Forces). An alternative name is Regu Pasukan Khusus (Special Forces Teams, which points at the same entity. RPK arrived in Bulungan in 1984/85, as a company called PT Saguaro, known to be owned by RPK-AD. PT Saguaro opened offices in Tarakan, and from there moved in to Malinau Kota and Tanjung Selor. In Tanjung Selor RPK is known as KOBAME (the acronym for Korps Baret Merah). There is no doubt about its military background and local people refer to it as '*ABRI tak berseragam*' (plain-clothed Armed Forces) or '*tentara bisnis*' (business military).

In Malinau Kota, RPK rented a building at the downstream end of the town and soon, all the town's *tokay* were summoned to the District Office and instructed to sell their eaglewood stocks to RPK. They were forbidden to buy any from collectors. *Tengkulak* and collectors, including the upstream Punan, also had to sell their eaglewood exclusively to RPK. Informants relate that RPK took over the whole eaglewood trade overnight using force (*main paksa*) and intimidation. The RPK staff were reportedly 'tough' (*keras*) and 'cruel' (*kejam*), but I have heard no reports of actual violence.

RPK set up 'base camps' headed by Army officers in some villages. In remote upstream areas, they hired (or rather conscripted) local *tengkulak*, who acted as middlemen to bring all the available eaglewood to RPK headquarters and forced the people to collect more in the forest. However, frightened villagers often refused to go. Some *tengkulak* reported that the RPK seized about 100 sacks of eaglewood

from Chinese *tokay*, but the *tokay* stressed that nothing was seized and no purchase was unpaid. Also, RPK opened a general store in Malinau Kota, where they sold usual trade goods to the public at the same prices as the shops in town.

The company at first seems to have kept to the existing grade categories, paying Rp 100 000-150 000 kg^{-1} for #1, Rp 25 000-50 000 for #2 and Rp 6000-7500 for #3. Eaglewood was always weighed and paid for in cash. Later, RPK created finer grade categories (*kelas*) and rejected the lower-grade categories (*medang, cf. kemedangan*). Meanwhile, prices rose to Rp 300 000 kg^{-1}.

This took place over about one year as in 1986 RPK left Malinau, probably to pursue their activities elsewhere. Meanwhile, eaglewood prices had tripled, probably following international prices. According to one informant, RPK swept the area clean (*gasak semua*) of its eaglewood and left. A Chinese *tokay* also remarked that, altogether, RPK had not been very successful (*kurang berhasil*), due to the population's lack of collaboration.

The RPK established themselves in Tanjung Selor at about the same time as in Malinau, and ordered the eaglewood to be sold exclusively to them. They used four grade categories: *baik*, *sedang*, *teri* and *medang*. According to a seasoned Arab trader, their prices were about 10% below the actual market prices. They also opened a 'base-camp' in Long Peso' District, residing for about one year with a local Chinese trader who also had to sell to them. Interestingly, the RPK staff included a Thai whose job was to sort the incoming eaglewood into different grades and decide on prices.

During this RPK period, according to informants, virtually no one in Malinau District collected other NTFPs, even though eaglewood was now scarce and only found in more remote areas. For collectors, this was the situation until the late 1990s. After RPK left, the *tengkulak*

started buying eaglewood from collectors again and prices continued to rise, but most NTFP traders carried on selling their eaglewood to RPK, who apparently maintained contact (possibly from Tarakan or Samarinda) with traders in Malinau. One *tengkulak* said he was phoned several times, as recently as about 1997, and had sold eaglewood to RPK. When he was not contacted he sold it elsewhere. Some Chinese *tokay* also started buying eaglewood again and selling it discreetly through other channels.

Some years later, starting in 1990, companies suspected of having government or army connections targeted sparsely populated regions of the border of Bulungan with eastern Sarawak, particularly Apo Kayan (Kayan Hulu and Kayan Hilir Districts), including the Iwan River drainage (located within Kayan Mentarang conservation area, and now in Long Pujungan District), and parts of the Kerayan District. Four companies, CV Sumber Daya Alam, CV Bumi Andalas, CV Samarinda Jaya and CV Kaltim Jaya, all based in Samarinda, operated in these regions without a license and used large helicopters to drop teams of collectors in uninhabited forested sectors. For many months eaglewood was collected and later removed by helicopter to Samarinda. These large volumes of eaglewood no doubt evaded forestry statistics. In 1994, teams of collectors were dropped within the nature reserve in Kerayan District by army helicopters officially on trips to map the border with Sarawak. Complaints by the World Wide Fund for Nature apparently did not succeed in halting this practice.

This type of hit-and-run activity, geared to immediate profit and with no consideration of the short-term economic impact on the local population or long-term environmental consequences, is typical of business practices among government and army circles in the 1980s and early 1990s. So are the takeovers of whole business sectors by intimidation and with involvement of local government officials. It is probable that the same type of eaglewood activity occurred in

other regions of Kalimantan and elsewhere where it also went unreported, even by NGOs. Probably other business sectors were also targeted, according to opportunities.

These practices do not in essence differ from those of earlier trade monopoly holders e.g., the Sulu in Tidung. They simply intensified the extractive system and pushed its geographic limits to the most remote regions, as far as the international border and, occasionally, beyond it. They are also similar to the local communities' practices, which have been known to greatly exceed the limits of sustainable exploitation of natural resources when commercial incentives have been strong enough (see Sellato in progress).

The Kenyah

Traditional trading expeditions by upriver tribal groups were organised annually, when traveling was deemed safe from enemies, normally during the season between two rice cycles (February March to April-May). Reports and descriptions of such expeditions (Kenyah *peselai*, *cf*. Iban *bejalai*) from upriver settlements to the coastal town can be found in the published literature.

The Kenyah Leppo' Ké of the uppermost Bahau drainage (Ngiam River) sometimes went to Tanjung Selor. Without outboard engines on their heavily laden canoes, it took seven days from Long Lat to Tanjung Selor, twelve more days to return to Long Pujungan, and another week to reach their village, depending on the river level. The Leppo' Ké travelled for about 25 days, excluding the time in Tanjung Selor. Since their territories were adjacent to the Malinau River basin, they sometimes found it more convenient to travel over land and then use available waterways in the next river basin and trade in Malinau.

The Leppo' Ké of Long Lat (now at Apau Ping and Long Loreh) organised large annual trading expeditions to Malinau at least since

the mid-1950s, and probably much earlier. This lasted until the early 1970s, when the people of Long Lat split, one large group moving to Long Loreh (Malinau). It is through their long acquaintance with the Merap of the Malinau that the Leppo' Ké of Long Lat (along with another Leppo' Ké group from the village of Long Lio) decided, finally, to settle at Long Loreh. Throughout the year, whenever there was an opportunity, young men collected *damar daging* (since eaglewood and rattan had low value then) in the upper Tubu drainage where they seem to have had stronger historical links than the Merap with the Punan residents About 40 men walked from Long Lat after the rice harvest across to the upper Berini and then across again to the first navigable stretch of the Ranau River. Along the way, they gathered all the damar they had stored in wickerwork baskets in small huts covered with leaves. On the Ranau, in about three days they made seven canoes of about 6-7 *depa* (10-11 m) in length. Then they sailed down to the Tubu and to the town of Malinau. There, as informants recall it, they sold their damar for about Rp 6000 kg^{-1}. They purchased salt, iron, *belacu* cloth (calico or unbleached cloth) and kerosene, and returned to Long Lat.

The Arabs

Abdurrahman Idrus was born about 1860 in Singapore to a Hadramaut family of cloth traders from Yemen. In the 1880s, he travelled to Tarakan, built a small house, married a Tidung woman, and remained there a long time as a trader. There was at that time an active Arab trade network between Singapore, Palembang and Tarakan.

About 1900, Abdurrahman visited the Sultan of Bulungan and obtained from him a piece of land across the river from Tanjung Palas, in a place now known as Kampung Arab (Tanjung Selor). He opened a textile shop there and his son, Umar Idris (born about 1890), carried on the trade.

In the late 1920s, Umar's son, Hamid Idris (born about 1910), started trading on his own, going to Apo Kayan, employing Kenyah boatmen from Long Peso', then other Kenyah farther upriver, to transport his goods. He sold salt, red and white *belacu* cloth, much tobacco and some goat hair (as sword decoration), and procured bezoar stones, damar and various gums, which he floated downriver on rafts.

By the 1930s, there were in Tanjung Selor some forty Sunni Arab families with names like Sebe', Godal, Ambri, Jufri or Bin Sen. Many were traders, many others were sailors manning the sultan's ships; some were gardeners, either on their own or on the sultan's payroll, and a few were shipbuilders. Since the Dutch times, however, the Chinese community had been economically stronger than the Arabs.

During the Japanese occupation, the Arab traders bought rice and other foodstuffs from villages upriver to feed the town, and provided timber from Kaburau to build the Japanese headquarters in Tarakan. They also continued selling cloth.

After Independence, Hamid started buying *jelutung* from the Sekatak area. Damar was then no longer collected in the area. Later, from about 1962, the demand for rattan increased steadily. After Hamid's death (1965), his elder son, Haji Hud Idris took over the family business. During the *Banjir Kap* period, everyone bought timber, including Hud, who also bought rattan from the Kaburau area. No other NTFP was collected. The 1971 joint decree passed by three ministries (known as 'Keputusan Tiga Menteri' and possibly referring here to either the PP 33 of 1970 or the actual implementation thereof) brought a halt to unregulated timber felling and introduced the timber concession system. After this, eaglewood prices began to rise, whereas damar was no longer in strong demand.

Informant Abubakar Idris (born 1948 and currently the most prominent Arab businessman in Tanjung Selor) went into trade on his own in 1979. Up to now (1998) he has only traded in eaglewood.

He never went far upriver, like his forefathers did, and only once went as far as Long Peso'. His eaglewood was and is collected mainly in the middle Kayan area and gathered at Long Peso'. He sponsors collecting teams going upriver, mainly Kenyah and Bulungan people. He also became an important building contractor.

After the RPK period, eaglewood prices fluctuated a lot, reaching a peak in early 1998 (Rp 5 million kg^{-1} for top grade), but falling again because of exchange rates to Rp 2.5 million for top grade and Rp 10 000 for *medang*. Volumes traded today are smaller and quality is lower. Collectors have started visiting areas exploited earlier (*hutan sekarang diulang lagi*) but expedition costs are now very high.

Meanwhile, rattan prices rose until the late 1980s, reaching Rp 2500 kg^{-1}. Then rattan trade came to a standstill for about ten years (1988-1998). In 1998, it resumed, with good *rotan segah* from around the confluence of the Bahau bringing Rp 3000 kg^{-1} (dried).

The Arab community of Tanjung Selor has intensely intermarried with Bulungan and Tidung people (also Moslem), as well as with Kayan and Kenyah people (Dayak wives became Moslem). Unlike the Chinese, Arabs have never been considered 'foreigners'. If they were born in Indonesia before Independence, they automatically obtained Indonesian citizenship. In fact, most Arabs here can no longer speak or read Arabic, nor read the Koran. Many Arabs are teachers or civil servants but among them there are no religious teachers (who now come from Palu in Sulawesi).

The Chinese

Around 1930, Lim Hong Hiam (LHH) settled with his family in Langap on the Malinau River. Chinese traders had been in the region for some time: For example, a *tokay*, named Cui, was living at Kabiran in the first decade of the 20th century. There were in 1930 about a

dozen Chinese families, nine of which were residing in Malinau Kota and the rest in Mentarang (at Long Berang and on the Semamu River, strategic places on the trade routes from Kerayan). They were mostly from Hailam (seven families) and Caociu (aka Teochew, Teochiu, Chaozhou; five families). Some rented small houses in Malinau Kota and others went upstream. LHH, also from Hailam (Hainan Island) had come with his wife and son Lim Ju Hin (LJH), also known as A Heng, from China via Singapore and Tawau, Sabah. He started an orchard on the Sembuak River but soon decided to go upstream. (On the Chinese in East Borneo, see Bertling 1925.)

During the 1930s, LHH traded on a small-scale, selling chewing tobacco (*tembakau sugi*), salt, and *belacu* cloth, and buying damar and *rotan segah*. At that time, it took five days to travel from Malinau to Langap. Meanwhile, LJH remained on the Sembuak River, where his elder son, A Peng, was born about 1935, and tended the family's orchard. All this continued during the Japanese period. LHH remained at Langap. Informant A Ket (William Aket), LJH's second son, was born on the Sembuak River in 1944.

After the war, LHH sold tobacco, salt, coarse cloth, and a little kerosene and in return, he obtained eaglewood, rattan, and *damar daging*. Trade then was still restricted (*masih susah barang*) but in the 1950s, the family was able to own (buy or build) a small house in Malinau Kota.

In 1962, a new law, known as PP 10, forced 'foreigners' (i.e., mainly the Chinese) to remain in urban centres under military control. This seems to have applied to all Kalimantan Chinese considered as 'foreigners' (i.e., those who had not become Indonesian citizens), with the exception of the West Kalimantan Chinese who had a special status. The 'foreigners' were forbidden to go upriver had to remain in the district town and trade under the name of an Indonesian national. The aging LHH returned to Malinau Kota where he built a bigger house and died there in 1970, aged over 80. A Ket became an

Indonesian citizen (*masuk WNI*) in 1962. Most of the Chinese who had not taken up Indonesian citizenship turned to activities related to gardens and orchards. After the PP 10 problem came the Confrontation (*Konfrontasi*) with Malaysia (1964-65) and its aftermath.

During 1962-1968, none of LHH's family members remained upriver. A Ket opened a small shop at Malinau Kota in 1965, when trade began picking up again. In 1968, he acquired an outboard engine and started travelling routinely to the upper Malinau, to Tanjung Nanga'. Chuan, the son of A Luk (Lim Ju Lok, a Chinese trader) and his Punan Malinau wife, lived at Long Lake', trading eaglewood. LJH, meanwhile, did a little bird's nest trade with the Tidung people of Tanjung Belimbing, owners of the upper Gong Solok River caves.

During *Banjir Kap* (1968-1970) everyone felled timber and no one collected eaglewood. A Ket sold salt, sugar, biscuits, batik and kerosene for lamps, and bought mainly rice, as he had purchased a rice husking machine in Malinau, and sometimes *rotan segah*. Nobody bought damar any more. He also bought a little timber, which he sold to a bigger trader, Lim Guan Ju (also known as Lim Sio Ming, *tokay* Sioming or Sumeng, a Caociu). Sioming and *tokay* Ali (Lim Guan Ki or A Li, also a Caociu, son of *tokay* Cui of Kabiran) were the main *tokay* for NTFPs in Malinau Kota. Sioming bought *jelutung*, processed it with special equipment he has acquired, and exported it, possibly to Hongkong. So, A Ket sold to these two *tokay* whatever NTFPs he obtained upriver.

After 1970, eaglewood soon became the most sought-after product (*nomor satu*) as the market for *rotan segah* was very unstable. Malinau Kota grew to became a real town. A Ket enlarged his house in 1972 and, around 1975, his shop began to prosper (*mulai makmur barang*). He bought land in Tarakan and built a wooden house, as timber was still cheap, back then. Then the RPK arrived, but after one year 'returned to Java' (*pulang ke Jawa*). A Ket's father died that year (1985).

In the post-RPK years 1986-1989, the eaglewood trade diminished, and A Ket traded *rotan segah*, selling to a company in Surabaya. Rattan prices remained strong until the government's decree forbidding the export of raw rattan. The company reduced its activity, the price of rattan went down and rattan collection ceased. In 1991, the eaglewood trade re-emerged very strongly (*timbul lagi kuat*) but by 1998, the price of eaglewood was falling and people started again collecting *rotan segah*.

There are today about 30 Chinese families at Malinau Kota. Most are Buddhist (there is a Buddhist wihara at Malinau), some are Catholic, and a few are Protestant. There are also three families at Tidung Pala', who have moved there from Sesayap, where business activity was too low (*sepi*). No Chinese is now residing upstream but there are offspring of Chinese traders in some villages there. Chuan, son of A Luk, died in 1994 after having held the position of *kepala desa* of Long Lake' from 1980-1994.

Lim Tai Hing, also from Hailam, came to Tanjung Selor around 1900. He had left his wife in Hongkong, but his son Lim Hi Ki, born about 1890, was with him. He was already an established trader in Hongkong and opened a shop in Tanjung Selor a shop bearing his name. There was another Chinese trader, Sing Hiap Seng, possible a Kuangfu man, already in Tanjung Selor. Soon afterwards, Mr. Lim opened a branch shop, along with a rubber plantation, in Long Bia. He was then the richest *tokay* in Tanjung Selor. About 1905, he brought a number of young Chinese men to Tanjung Selor by boat (*kapal tongkang*) to staff his shops. They were all Hailam and among them was Cia Cin Eng also known as A Eng, then aged 15, who became the father of Cia Bun Ning also known as Samuel Moming.

In Long Bia, Lim Tai Hing traded with the Dayak for many years. He sold salt, sugar, kerosene, *belacu* cloth, and chewing tobacco, for which

he obtained rattan, *damar daging* and some eaglewood. In the mid-1930s, Lim Hi Ki returned briefly to Hongkong to find a wife, and informant Lim Hiao Kuang was born in Long Bia in 1939.

The younger Lims remained at Long Bia until the PP 10 decree forced them to close the Long Bia branch, and they become Indonesian citizens in 1961-62. The whole family returned to live in Tanjung Selor and were not involved with NTFPs again.

The Malinau-Tubu *Tengkulak*

In the late 19th century, the Tebilun (Abai) of the lower Tubu, having entered blood-brotherhood (*sebila'*) alliances with the Punan Tubu, gathered NTFPs from them and once in a while brought the products to the *tokay* downriver. The Tebilun recall that some Tidung traders eventually visited the lower Tubu area. Much later, about 1930, a Chinese trader from Malinau Kota, named A Ngi', also went some distance up the Tubu.

About 1900-1905, a Bugis named Wa' Mada' established himself asa *tengkulak* (or *tengkolak*, upriver middleman), gathering NTFPs from local people of the Tubu on behalf of two Chinese *tokay* in Malinau Kota. His sector was the whole middle and upper Tubu river drainage. Mada' was given a wife by the Raja Tidung (Tidung Sesayap). She had a daughter from a first marriage, who married an Arab, Ahmad Bakran, about 1915 and Ahmad Bakran thereby became Mada's 'son'.

Ahmad Bakran, also known as Ahmad Mada' and most widely known and remembered in the Malinau and Tubu as Mod, Mad or Med, eventually took over the position of *tengkulak* from his 'father' in the late 1920s and worked for the same *tokay*. Mod settled at Long Nit while Mada' lived in Malinau Kota and sometimes went to Long Lake', on the Malinau, to trade, using *tebuku* (knotted string) to set meeting dates with the Punan. At about that time, the *kiyai* (district head) of Malinau started visiting villages on the Malinau and Tubu

to collect tax (*pajak, uang kepala*) and pass on the government's instructions.

In the late 1930s, old Mada' hired a Tidung man from Malinau, Ma' Lakan, to make the rounds in his place. The NTFPs, mainly *ketipai* and *jelutung,* were then bartered in bulk without being weighed, for salt, tobacco and *belacu* cloth. During the Japanese occupation, Mod left his Long Nit trade post and took over from Ma' Lakan. He procured eaglewood*, damar daging, rotan segah* and small quantities of *ketipai* and *jelutung*, which he sold to Malinau, Tarakan, and Tanjung Selor.

Just after the war, Mod encouraged his son-in-law, Abdurrahman (or Abdurrahim, born about 1920), an Arab with some education, to start a school at Long Nit. Abdurrahman opened the school for two years (about 1948-50) and taught one hundred children the first three grades of primary school under the name of Guru Kwing.

At the same time, A Luk replaced Mod, and opened a trade station (*pos*) at Long Lake', which had become a settled hamlet. This Chinese trader married a Punan Malinau and had a son, Chuan. *Ketipai* and *jelutung* were no longer traded in Malinau or Tarakan, although they were still traded in Tawau until about 1970. A Luk bought eaglewood, damar, some *rotan segah* and *rotan pulut* and sold them to Sioming in Malinau Kota. The main *tokay* for NTFPs in Malinau were the Chinese Ali and Sioming.

Until 1960, prices for *damar daging* were still rising, but in 1963, just before the Confrontation with Malaysia (1964-65), they dropped suddenly and the damar trade collapsed (*damar hilang*). There was no NTFP trade during the Confrontation, as most men were forced to work as coolies for the Army. In the late 1960s, with the *Banjir Kap* in progress, Mod left the NTFP trade to take up the much more profitable business of timber felling. He handed the NTFP trade of the Tubu to A Ta' and A Peng, two Chinese *tokay* from Malinau Kota

who sought mainly rattan. In the upper Malinau, A Luk started trading for eaglewood, while his son Chuan was dealing in timber.

Rotan segah began to bring good prices in the mid-1970s and Mod and Abdurrahman returned to the NTFP trade on the Tubu. Chuan replaced his father as *tengkulak* at Long Lake'. In the late 1970s and very early 1980s, eaglewood became the main NTFP, followed by rattan. Rattan however, collapsed in 1983 while eaglewood prices increased dramatically (*gaharu mulai panas*).

Then RPK arrived in 1985. Thamrin and I'it, the sons of Abdurrahman, were hired by RPK for their experience in the Tubu trade. After RPK, rattan was no longer collected, and Thamrin remained in the very profitable eaglewood trade on the Tubu.

In 1995, Thamrin split his 'territory' of the Tubu, transferring the uppermost Tubu drainage to Mohamad Almudi (possibly an Arab), but retaining the Rian and Kalun river drainages, which he visited regularly. When he did not sell his eaglewood to RPK, he sold it directly to Chinese traders from Singapore, Jakarta, or Batam, or to Arabs from abroad. In the upper Malinau, after Chuan's death, a Putuk man, Wesley, took over as *tengkulak* and *kepala desa* in Long Lake'. In 1998, Abdurrahman, now retired, lived in Tarakan, but Thamrin was still based in Malinau Kota.

The Punan

Bare' Tangga' was born in 1934, during, as he put it, the time of year when people were cutting the undergrowth to make a new field at Sungai Bila', then a hamlet of six houses. The Punan there, called Hwang Bila' 'people of the Bila',' were under a band leader (*lakin*). They farmed and, although not really settled, they had to pay tax (*uang kepala*) to the Dutch administration.

His father told him that before 1934, *jelutung* (*getah susu*, or *getah akar*; Punan *téwan* and *merongo*), gutta percha (*getah merah*) and *ketipai* were the main products collected. Iban and Beketan collectors came from Sarawak in search of these products. Some of the Beketan remained and intermarried with the Punan of the upper Malinau.

In the 1930s, the *tengkulak*, Mod, lived in Long Nit, where he had a permanent house. *Tengkulak* was the Melayu name, but the Punan called him *tuki,* a corruption of *tokay*. Mod came to Sungai Bila' routinely every few months, and told the Punan what to collect and where. He set meeting appointments in advance using a *tebuku* knotted string. When the Punan left for collecting expeditions they simply observed the omen animals and did not perform the current rituals (*selamatan*). The practice of *selamatan* was probably borrowed from downstream, often Moslem, collectors.

Mod, the only permanent trader in the Tubu, was affiliated to *tokay* Ali in Malinau Kota. The most important trade item in the late 1930s was the *rotan segah*, forty bundles (*gelung*) of which could procure a bolt of *kain belacu* (here described as coarse white cloth). Eaglewood was also collected and sold for DFl 0.5 kg^{-1}. Standard daily wages then were DFl 0.2. Other, less important products collected were *damar daging*, *gutta percha, jelutung*, and even *damar merah*, the low-grade resin (Punan *ilu icok*).

The Japanese never went to the upper part of the Tubu, but the *kiyai* (*camat*) and Indonesian soldiers under Japanese orders did come during that period. People collected eaglewood. Just after the war, Bare' attended Guru Kwing's school at Long Nit. Eaglewood and *rattan* were still collected, but prices were declining, and the trade in *damar daging* increased, particularly on the Menabur River. Camphor (Punan *betiting*) brought a very high price.

Bare' began to collect (Punan *ngusa*) on his own in the mid-1950s. Eaglewood was the main NTFP, followed by *rotan segah,* with other

rattans, including *rotan pulut*, lagging behind. There was still strong trade in d*amar daging*, however, until about 1960-62, when it disappeared from the market. At that time, prices for eaglewood fell, but *rotan segah* prices remained firm, together with *rotan pulut*.

After the *Banjir Kap* (1969-72), prices for *rotan segah* slumped, but rose again about 1980. Meanwhile, eaglewood continued to be collected, but remained cheap at about Rp 15 000 kg^{-1}. There were no grades, and eaglewood was simply ranked as good (*baik*) or not good (*kurang baik*). Most collectors had an account (*bon*) with the *tengkulak*, and the few who did not were paid in cash.

Then, eaglewood prices rose quickly to Rp 50 000 kg^{-1} and RPK arrived. RPK introduced grade categories (*kelas*) and bought directly from the people, with Thamrin as a middleman. RPK paid cash, up to Rp 100 000 kg^{-1}, after sorting and weighing the eaglewood. Some Punan took their eaglewood directly to Malinau Kota and obtained up to Rp 300 000 kg^{-1} for the highest grade. Nobody collected rattan at that time. In the late 1980s, after RPK had left, eaglewood prices increased, and no other forest product was collected. According to Bare', *gaharu* remained the principal trade product through the 1990s. By the end of 1998, however, people had started again collecting rattans, this time the *semambu* category, which is weighed and sold undried.

Comments

There is some discrepancy in the accounts of the rise and fall though time of the various dominant NTFPs given by the different informants. There is also some discrepancy between accounts of personal experiences and the general trade trends given earlier. Both types of discrepancies are normal, reflecting a broad variation due to different areas and socio-economic contexts. They also reflect different individual pursuits and varying views of the same market,

e.g., a NTFP may at one time bring a high price, making it a collector's main target, while the *tokay*, trading only small quantities of that NTFP, considers it a marginal product.

These accounts show clearly both the traditional patterns of the NTFP trade among upstream groups and changes in trade patterns during the 20th century. Whereas the NTFP trade from remote upstream regions was historically at best a side activity performed on a once-a-year basis, it became, with the *Pax neerlandica* and the penetration of middlemen to the interior, a round-the-year activity. For the Punan groups particularly, NTFP-collecting expeditions sponsored by outsiders and with imported rice as foodstuff almost totally replaced the traditional nomadic rounds focused on subsistence activities (mainly wild sago).

In the 19th century, the coastal groups functioned as petty trading kingdoms (Tidung, Bulungan) with monopolies over the products of their hinterland, and catered to the great maritime trading powers of the time (Taosug, Bugis; on this, see Warren 1981; see also Keppel 1846, Marryat 1848, Irwin 1955). In the Dutch colonial period, they had to make room for foreign traders (Chinese, Arabs, and others) who were commercially more dynamic and economically stronger. These traders were favoured by the Dutch (Bertling 1925), both directly as they were more trusted than the local kings, and indirectly as privileges of the kings, such as tribute from hinterland tribes and slavery, were abolished. The foreign traders almost completely put the coastal groups out of business. Although a few independent Westerners, including the famous Lingard, conducted business on East Borneo's coast, the Dutch administration was only interested in controlling and deriving profit from the existing trade, and in increasing trade.

With increasing general safety, travelling and residing upstream became common place for traders. The upstream middlemen shared the territory among themselves, each controlling one or several river

basins, after entering into agreements or marriage bonds with the local communities. A pyramidal organisation of trade established itself from temporary upstream posts, permanent midstream relay comptoirs complete with shops, major town *tokay*, to the seaport of Tarakan. Recently, with improved transportation and communications, some intermediate relays have been cut out e.g., Punan trading directly to town, and town *tokay* connecting directly to the international trade.

Annex 1 describes basic goods, prices, and subsidies in Bulungan.

6. Being Administered and Its Consequences

This section examines a small number of fields in which the successive administrations, from the Dutch colonial rule to Indonesia's New Order, have left lasting traces. It also examines what occurred once the area became open to various types of outsiders.

This region of Kalimantan and, especially its interior districts, has not been the object of particular efforts in socio-economic development. The administrations' past interventions in the area and their consequences are first examined briefly Education, health and socio-economic assistance covering the last three decades are described separately.

The impact of outside parties on local communities the modes of social relationships developed with these communities, and the potential for conflict this vicinity entails, are described in the last section.

6.1 Administrations: The Legacy of the Past

This account does not go into detail of the history, especially the early history, of the colonial administration of Borneo in general, or its eastern coast in particular (see Black 1985, Lindblad 1988, Magenda

1991). Much is available in colonial archives, which has not been reviewed systematically for this purpose. The focus here is on important consequences of the colonial administration. One important point here is that the impact of the Dutch administration in remote interior regions, which lasted just over a couple of decades, should not be overestimated.

There has been some continuity in the successive stages of administrative partitioning of the region (Fig. 6). The traditional ethnic divides on which the Dutch roughly based their administrative divisions have now generally become blurred in downstream districts due to widespread migration, while they remain relevant in remote upstream districts. In the latter case, this policy has allowed traditional social organisation to retain to this day some of its strength despite the abolition of slavery, and traditional leaders to retain some power. This power is nevertheless eroding, but not as fast as that of leaders of upstream groups who have settled downstream in a more open and challenging social environment.

Opening and Controlling the Hinterland

The physical isolation of upstream groups was partly reduced by some endeavours by the Dutch administration to improve the condition of waterways (e.g., blowing up rocks in rapids in the lower course of the Bahau) and to develop and maintain overland footpaths (e.g., from Apo Kayan to the Bahau). Since Independence, although roads have been opened in the lowlands, often in connection with efforts to develop forestry (e.g., logging roads open to the public), there has been little development in the interior. Nevertheless, the availability of increasingly powerful outboard motors since the 1960s has improved river traffic and trade. Travel by air to the interior developed primarily through missionary organisations, associated with the local communities' self-help efforts of opening airstrips and some government assistance, but remains limited today.

Figure 6. Administrative Divisions

After the eradication of warfare and headhunting by the Dutch in the 1910s and after the Japanese occupation, the next significant episode was the Confrontation with Malaysia, which strongly, although indirectly, contributed to the opening of the interior regions. The presence of the Indonesian, mainly Javanese military led to some erosion of local control, e.g., Long Pujungan, and to the introduction of new techniques, e.g., rice nurseries in Kerayan District. Later interventions by the administration and its agencies at district and village level brought about notable improvements in health and education. Christian missionaries of various denominations, were also active in these fields (see, e.g., Lewis 1987). Electricity, husking mills, agricultural extension assistance and even television reached many isolated villages.

Successive administrations focused on altering the traditional settlement patterns to enable communities to have better access to facilities such as health, education and trade, and to give the administration better control over them by military, census and tax. During Dutch colonial times, hilltop villages were first removed to locations by streams, then to the banks of the main rivers and later, farther downstream towards the district seat. In the 1960s, longhouses were dismantled and single-family dwellings encouraged. Resettlement, in the 1970s, of many tiny villages into single, larger settlements was made through special government programmes (*Regrouping Desa* [*sic*], e.g., Kerayan District). More or less spontaneous moves of upstream villages to downstream regions were generally closely monitored or even directly handled by the administration (RESPEN, *Resetelmen Penduduk*).

Contradictory policies of vacating the border areas for social and economic reasons and of strengthening physical presence in the same areas for political and military reasons came and went between the 1960s and the 1980s. More recently, an expensive project of building a road along the border with Sarawak (*daerah perbatasan*) to be settled by transmigrants and/or army veterans, seems to have been

abandoned. Efforts at controlling the population, for various reasons, appear to be an enduring feature of government policies. (On *daerah perbatasan*, see Mubyarto *et al.* 1991a.)

This emphasis on control led, probably during the 1960s, to changing modes of relations between villagers and the Indonesian administration. A basic type of relationship was established featuring systemic top-down strategies, state priorities imposed upon local communities (including in development) in the form of *diktats*, complete subservience of villagers towards the *Muspika*, which included the district administration's head (*camat*), head of Koramil (*Komando Rayon Militer*, the local army unit), and head of Polsek (*Polisi Sektor*, the local Police unit) and generally no consultation or dialogue.

The village head (*Kades*, *kepala desa*), although his selection was based on traditional leadership, was considered by the administration to be its representative (*perpanjangan tangan pemerintah*) in the village, rather than a representative of the villagers. This basic and initial 'misunderstanding', a symptom of the central government's obsession with control and top-down rule, is a crucial factor in the long-lasting malfunction of village governance. The administration tightly controlled the selection of village heads and later, through intimidation or bribery, used the elected (or more accurately, appointed) heads, to carry out the government's instructions and implement its programmes.

At the district level, the control by the *Muspika* was overwhelming. Common local occurrences of feuds, as well as of collusion, between the three parties placed village heads in awkward situations, in which they often had to become involved in the *Muspika's* corrupt practices, either embezzling government funds or taking bribes (a practice commonly known as *makan*) from outside parties to sanction illegal activities. Involvement of their leaders in *Muspika*-sponsored criminal practices and in outsiders' illegal activities probably constituted a major factor in the current confidence crisis among villagers.

Adat, Then and Now

Apart from forbidding war, headhunting, human sacrifice and slavery, the Dutch did not interfere much with the local *adat*, leaving the interior people to carry on with their social and legal systems. An important project (the *Adatrechtsbundels* project) of the Dutch administration set out to record *adat* law throughout Indonesia (see Van Vollenhoven 1918-33; for Kalimantan, see Mallinckrodt 1928). Independent Indonesia, likewise, did not interfere much with *adat*, except by encouraging conversion to world religions.

What actually occurred from Dutch colonial times on was the gradual marginalisation of *adat* structures as a foremost feature in the regional political organisation and its replacement by administrative bureaucracies. In the mid-1930s the Dutch, installing their own administration in the Malinau-Sesayap area, created a *Majelis Kerapatan Besar Tanah-tanah Tidung*, of which most, or all, tribal chieftains and coastal polity leaders were made members. For the Dutch, this council had only a consultative role, but it allowed the various ethno-cultural entities to continue with their pre-colonial mode of social relationships, thus preventing or settling inter-community conflicts and facilitating the administration's work.

At about the same time as the central Indonesian government installed, nationwide, the *desa* administrative apparatus, the *aparat desa*, consisting of a *kepala desa* (village head), his *wakil* (deputy), and various subordinate positions, it established in Kalimantan an *aparat adat* on the same model, headed by a *kepala adat*. Each *desa* still has both a *kepala desa* and *kepala adat*. In contrast to the *aparat desa* relaying government instructions to the people, the *aparat adat* was designed to function as a local justice of the peace.

Paramount leaders, for a whole river basin or a whole ethnic group or subgroup, were maintained as *kepala adat besar*, a title earlier bestowed on them by the Dutch administration. These leaders became

supreme *adat* heads in the districts they formerly controlled, although they had no longer any real political power. Many were appointed as members of the local parliament, DPRD (*Dewan Perwakilan Rakyat*), at regency level (*Tingkat II*), a rather impotent political position under the New Order, but one that has increased significantly in power since decentralization policies were implemented in 2001 (E. Wollenberg, personal communication). In other regions of Kalimantan other traditional titles were used, such as *temunggung*, *demang*, or *penghulu*.

A 1968 decision by the local judiciary (*Pengadilan Negeri/Ekonomi*, whose seat was in Tarakan for Bulungan and Berau regencies), based on meetings with various *desa* and *adat* leaders in Malinau, recommended the creation of a *Lembaga Kerapatan Adat* wherever it did not yet exist in both Bulungan and Berau regencies. Apparently this confirmed the need to maintain, at least at district level, an inter-community coordinating agency based on *adat*. Although this was clearly the result of an attempt by traditional aristocrats to uphold whatever privileges they still held, it probably contributed to the administrative formalisation of the *aparat adat* structure at *desa* and district levels. By then this structure was totally deprived of any political role, as it paralleled in internal legal affairs the formal administrative structure of *aparat desa* (village head and staff).

Traditional leaders, at the *desa* level, had the option to seek election as village head, since *adat* chiefs (*kepala adat* although officially recognised by the administration, did not wield much political power. At the district level, however, these leaders could not easily become *camat* (district head), as this was by government appointment and it required a special training of several years at APDN (*Akademi Pemerintahan Dalam Negeri*, the Domestic Administration Academy). The sons of a number of traditional leaders later became *camat*. So, paramount *adat* chiefs (*kepala adat besar*) at district level, who had been the Dutch administration's prime interlocutors for political matters, were restricted to strictly local legal matters. Moreover, in

1986, the title and function of *kepala adat besar* were abolished by provincial governor's decree. The reason reportedly was that the administration could no longer afford to pay the *adat* chiefs' very small honorarium. According to that decree, surviving *kepala adat besar* would continue to function until they died, after which no new *kepala adat besar* would be elected.

Adat law has remained strong in interior districts (Jacobus 1995, Eghenter and Sellato 1999b), but it has lost considerable strength in downstream areas, where national law clearly has marginalised it and reduced it to ruling only over matters of petty importance within the *adat* community. In some remote regions, such as Kerayan District, immigrant communities, mainly Moslems, started in the early 1990s to challenge the local *adat* and its *kepala adat's* rulings, claiming that only national law should be recognised. Angry villagers, in turn, claimed that their *adat* should be recognised as the only legal system within their territory, at least for offenses beneath the level of manslaughter, which is automatically investigated by Police and brought to national-law courts.

Although the function of *kepala adat besar* has been abolished formally, local communities apparently feel the need to have it re-installed in the modern context, as they believe such *adat* leaders may carry enough political weight at regency or provincial level to guarantee a strengthening at district level of their specific *adat* systems in the face of national law. So, despite the 1986 decree, local communities have continued electing new *adat* leaders above the *desa* level. Possibly in response to this trend, a 1992 governor's decree focused on the development of *adat*, *adat* institutions and *adat* leaders at *desa* level (*Pembinaan dan pengembangan adat-istiadat dan kebiasaan masyarakat serta lembaga adat dan pemangku adat di tingkat desa*). The decree was in response to a national decree on the same subject, which sought to 're-awaken' *adat*', but to do so on government's terms and with specifications that kept it under government control. It may be supposed that strengthening *adat* institutions at the *desa* level was

viewed as a way to defuse possible problems related to the emergence of supra-*desa adat* leaders.

Several problems plague *adat* leaders, precluding efficient action. First, they have not been acknowledged (by SK, *surat keputusan*, an official decree) by the administration so they are not invited to join in official consultations. Second, such elections as have been held are ambiguously based on either territorial units (district) or ethnic units. Third, rival factions convene their respective conferences, eventually electing two rival leaders, both unofficial, both deprived of the support of part of their alleged constituency, and thus both unable to achieve anything. Finally, either ethnically- or territorially-based groups taking the formal legal status of *lembaga* (institute) or *yayasan* (foundation) elect their leaders (*ketua*), who then jockey for a role of representation of their group at district and regency levels.

The following examples may show how confused the current situation is. Although there seems to be one surviving official *kepala adat besar* for Mentarang District, a *Musyawarah Adat Besar Suku Lundaye* (High Adat Council of the Lundaye) elected a *kepala adat besar* (or *kepala suku*) allegedly for the whole Lundaye population (*persekutuan* or association of Lundaye) and covering five districts. (The phrase *kepala suku*, or ethnic group leader, in use in the Dutch times, is gaining ground after a long eclipse.) In 1998, a convention of about 40 leaders from various *desa* on the Malinau River founded the *Lembaga Adat Dayak se-Sungai Malinau* and elected one of the Merap leaders, Mpang Alang, as its chairman (*ketua*); most ethnic groups of the Malinau were invited to join in this convention although many complained the procedure was anything but democratic. The Punan were not invited, on the grounds that they already had their own *Lembaga Adat Punan,* formed about 1994. Some suggest that *Lembaga Adat Punan*, purporting to be representative of all Punan groups in East Kalimantan, is not even properly representative of all the groups of Punan Tubu and Punan Malinau.

This confused situation is dynamic, especially since the broad *de facto* liberalisation since 1998 (Rhee 2000). On the one hand, efforts to integrate elements of *adat* legal systems into the national law, which began in the mid-1990s, seem to be making progress; on the other hand, there seems to be some new receptivity in higher spheres to claims of cultural specificity. The situation is also preoccupying, as the liberalisation really conceals a political vacuum, from which no one can foretell what will emerge. Too many leaders, whose real constituency may be questioned, are jockeying for positions of power in an uncertain future and may constitute more of a threat to than an asset for the local communities.

In one recent development, Law No. 41 of 1999 (UU 41) states that communities that qualify as *masyarakat adat* — that is, 'traditional' communities in which *adat* remains a prominent organisational and legal basis of society –may hold tenure rights over certain forested parts (*hutan adat*) of their wilayah desa. This may provide a strong incentive for communities to try and revive their *adat* system (Eghenter 2000), even though the state formally retains ownership and control over the area as state forest lands.

Religions

World religions were always more or less formally encouraged by the successive administrations. Whereas the Dutch encouraged missionary activity and conversion, the post-1965 Indonesian regime made it a crime to not 'have a religion,' branding traditional beliefs as non-religions and equating supposed atheism with communism, which triggered many *ad hoc* conversions to either Christianity or Islam (*agama KTP*, ID-card religion). The deployment to every district of army and police forces, mainly comprising Moslems, served the government's unofficial agenda of spreading a standard, Moslem-Javanese, Indonesian culture to all parts of the archipelago. Islam gained ground in Dayak regions through this channel and the

spontaneous penetration of Moslem traders and workforce into the interior. The process of Islamisation started in the 18th century in the interior and earlier in coastal polities, and consistently pushing further into the interior was bolstered by the process of Indonesianisation.

Christian missions played an early and important role in setting up schools and health facilities in Kalimantan's interior (see Coomans 1987, Lewis 1987; on mission activities, see also Conley 1974). Many remote interior Dayak communities have produced doctors, lawyers, and university professors after four generations, while villages in Java's mountainous regions still retain a high illiteracy rate. Missionary schools in the interior were mostly taken over by the State to become state schools (*sekolah swasta dinegerikan*) in the 1970s and 1980s.

Beginning in the 1970s, church organisations became active in technical and socio-economic development. In the 1980s they also started broad 'law awareness' programmes (*penyadaran hukum*), to assist villagers to set up local NGOs to either defend their rights in case of conflict or handle their own development projects. Such programmes appear to have been halted recently. From the 1970s through the 1990s, Christian organisations were praised for their efforts in the defence of minorities, and Christianity became a prominent element in Dayak identity in the face of the dominant Moslem groups (see Sellato f3). Protestant and Catholic organisations are currently playing an active and useful role in socio-economic development, particularly in Malinau District.

In a very recent development (1999), however, Christianity, along with education, was blamed by provincial NGOs for its contributing role in the crumbling of *adat* (Anonymous 1999). The local population were not supportive of this attack on church and school.

6.2 Education, Health and Socio-economic Assistance

The Bulungan Regency, overall, made a major effort to develop primary schools (SD, *sekolah dasar*): Between 1984 and 1997, the number of SD students rose from 25 500 to 47 300. This represents a 85% increase in 13 years, compared with a population increase of about 50% during the same period. In 1997, SD students accounted for 15% of the whole population. However, in Long Pujungan and Malinau the picture is quite different due to local factors.

In 1971, for a population of about 4200, Long Pujungan District had 22 SD schools with 95 classes, 48 teachers, and 2200 students. In 1984, for a population of 3,300, it had 840 SD students. In 1997, for a population of about 3100, it had 14 or 19 SD schools (varying with sources) with 67 classes, 56 teachers, and 690 students. If the figures are correct, SD student population declined from about 50% in 1971 to 22% in 1997. The decline has at least led to a higher teacher-to-student ratio. With population dwindling and villages being relocated in larger settlements, some schools were closed. Also, more children than before are living with relatives or others in larger downriver villages or towns to attend school. If this does not necessarily show that less children attend school, it may hint at an ageing local resident population structure. However, Long Pujungan now has one SLTP (*sekolah lanjutan tingkat pertama*, junior high school; formerly SMP, *sekolah menengah tingkat pertama*) with ten teachers and 121 students.

Malinau District, in 1971, had 63 SD schools with 220 classes, 82 teachers, and 3896 students, for a population of about 14 000. In 1984, SD students were 4108 for a population of 18 500. In 1997, there were 42 SD schools with 255 teachers and 3723 students for a population of 19 700. (Another source gives 274 teachers and 4637 students for 1996.) The trend, as in Long Pujungan District, is towards a smaller number of schools (due to resettlement in fewer, larger settlements), a much higher teacher-to-student ratio, and a lower

relative SD student population. According to different sources, Malinau District has one or seven (as is more likely) SLTP with 40 or 71 teachers, and 612 or 1004 students; and two SLTA (*sekolah lanjutan tingkat atas*, senior high school; formerly SMA, *sekolah menengah tingkat atas*) with 19 or 27 teachers and 301 or 368 students. Since Malinau Kota is easily accessible from other parts of the district, the opportunity for higher education is better than in Long Pujungan.

Figures locally available for *desa* Long Loreh seem to qualify the trend described above: While population increased from 496 in 1990 to 543 in 1997, the numbers of SD graduates increased from 28 to 69, of SMP/SLTP graduates from 30 to 86, of SMA/SLTA graduates from 21 to 40 and of higher-education graduates from 3 to 7. If these figures are correct, they reveal a strong dedication of Long Loreh residents to their children's education.

To further qualify these conclusions, it should be recognised that teachers remain poorly paid, are paid late and often must seek other sources of income to survive. This sometimes leads to a relative neglect of their duties. However, since they have a small cash income, they often start a small business such as a shop with basic commodities, river transport or even the eaglewood trade, and so eventually participate in the emergence of a new bourgeoisie. This new elite, not always of aristocratic descent, but educated and relatively well off, is now often found to be politically challenging the traditional leadership.

The health situation in the two districts is parallel to that of education. Bulungan Regency in 1997 had 37 doctors, 11 dentists, and 414 paramedics. For some reason, the number of doctors has declined steadily from 47 in 1994. It also had four hospitals, 21 *Puskesmas* (*Pusat Kesehatan Masyarakat*, dispensary) and 96 *Puskesmas Pembantu* (branch dispensary). There were about 230 hospital beds, down from 287 in 1995. This gives rates of one physician for 8000 persons, one paramedic for 700 persons and one hospital bed for 1300 persons.

Long Pujungan in 1997 had one doctor, one dentist, and 7 (or 11, varying with sources) paramedics, distributed in one *Puskesmas*, one *Puskesmas Pembantu*, and one so-called *Poliklinik*, with a total of seven beds for a population of 3100. Only three settlements are served, Long Pujungan, Long Alango, and Apau Ping. During the years 1990-1997, there were from 5000 to 20 000 patients' visits per year. The same year, Malinau District had two doctors, one dentist, 11 midwives, 30 (or 36) paramedics, one *Puskesmas*, and 15 *Puskesmas Pembantu*, which conforms to the standard at regency level. It is not clear why major international organisations funding socio-economic development projects do not give a higher priority to building hospitals and training medical personnel.

For a long time the Indonesian government has promoted family planning (KB or *Keluarga Berencana*) and has recorded excellent results. Although official statistics are available concerning, for example, the numbers of KB acceptors or the types of contraceptive devices used, they will not be discussed here. However, family planning programmes certainly had an effect in the field of education, e.g., numbers of students.

Various government agencies provide socio-economic assistance to districts and *desa*, particularly those perceived to be in difficult predicaments or 'lagging behind' (*terbelakang*).

Bulungan Regency in 1997 employed 1062 social workers (PSM, *pekerja sosial masyarakat*). The distribution of these social workers by district (if the figures are correct) is puzzling: The largest number, 250 (25%), is found in Malinau District. Urbanised districts, such as Tanjung Palas or Tarakan, have between 50 and 150 social workers but isolated districts, e.g., Long Pujungan, Kayan Hilir or Kayan Huluhave none. Kerayan is an exception with 62, possibly due to funding by the Evangelist church.

The central government, by way of a presidential decree (*Inpres*, *Instruksi Presiden*), allocates every year a lump sum to all *desa* in the country. This is called *Inpres Bantuan Pembangunan Desa* (presidential decree on development assistance to villages), variously known as *Bandes* or *Bangdes*. For the budget year 1996/97, Bulungan Regency was allocated an amount of Rp 2831 million, and each *desa* received a direct cash fund of Rp 6.5 million. There have been widespread reports of only a small portion of this amount reaching the designated recipients or being used for collective purposes, with so-called *biaya administrasi* ('administrative fees') being diverted at every level, including at the level of the *kepala desa*. This *pungli* (*pemungutan liar*, illicit levy) practice seems a pervasive feature of the system.

Over the years, government agencies have focused financial and technical aid on the 'poorest' populations. Various phrases have been used to refer to the *desa* concerned: *desa miskin* ('poor villages'), *desa terpencil* ('faraway villages'), *suku terasing* or *masyarakat terasing* ('isolated people'), and more recently *desa tertinggal* ('left-behind villages'). The basic concept was that some people were being economically left behind in the process of development and needed special attention. Some, namely the Punan groups, required extra attention because they were more or less nomadic and had to be settled. One of the early programmes directed at Punan groups in the 1970s was called *Proyek Civilisasi* (sic) *Suku-suku Terasing* (Civilization of Isolated Peoples Project). Beyond the humanitarian rationale, there was the common notion that these people were a shame to the nation.

The Ministry of Social Affairs (DEPSOS, *Departemen Sosial*), through its provincial and regency offices, assisted villages wanting to migrate downstream or to more accessible locations. This was carried out particularly through a programme called RESPEN (*Resetelmen Penduduk*). A number of Punan and other communities have been assisted in their relocation since the early 1970s e.g., at Sembuak (1971), Long Loreh (1981-84), Tanjung Nanga' (1999; five upstream Punan *desa* are meant to resettle there). Assistance includes the

building of new houses, free seeds and tools, agricultural extension workers and food for one year. Under DEPSOS' *masyarakat terasing* programme, Long Pujungan District in 1997 still had a total of 576 persons, while Malinau District had 1505 (*Program Pembinaan Suku Terasing*). In Long Pujungan District, two *desa*, Long Pujungan and Long Peliran were in the *desa terpencil* category in 1997, while there were Tanjung Nanga' and Tanjung Sepatui in Malinau District.

Assistance to villages also comes in the form of special programmes, called *bantuan pembangunan dan pembinaan pedesaan* (development assistance and village development), such as the road built in Tanjung Nanga', or *bantuan penataan perbaikan perumahan* (aid for settlement improvement), such as the 40 houses rebuilt in four *desa* in Long Pujungan District. Another programme, called *Program Teknologi Tepat Guna* (TTG), deals with appropriate-technology assistance.

In 1994, the central government launched a nation-wide programme called *Dana Bantuan Inpres Desa Tertinggal* (Assistance Fund to Left-Behind Villages), or IDT, by presidential decree (Inpres, or *Instruksi Presiden*, No. 5 of 27 December 1993), whereby a yearly amount of Rp 20 million is allocated directly and in cash to each *desa* listed as 'left-behind'. Villages may use this amount for its own initiatives in development: They simply must file a request describing how they intend to spend the money (*Daftar Usulan Kegiatan Kelompok*). This money is, in principle, a loan from the State.

In the budget year 1994/95, Bulungan Regency had an amount of Rp 5920 million to be distributed among 296 *desa* listed as *desa tertinggal* by decision of the *bupati* (21 July 1994, following a governor's decree of 27 May 1994). For 1995/96, the amount available was reduced to Rp 2780 million and the total number of *desa* to 139; for 1996/97, it was Rp 1000 million and 50 *desa*; for 1997/98, Rp 560 million and 28 *desa*, all through *bupati* decrees.

In 1994/95, 18 of 21 *desa* of Long Pujungan District and 49 of 67 *desa* of Malinau District were listed as *desa tertinggal*. For 1996/97, only two *desa* of Long Pujungan District were on the list (Long Pujungan and Long Apan Baru), and seven *desa* of Malinau District (Long Loreh, Tanjung Nanga', Kaliamok, Setulang, Sesua, Tanjung Sepatui, and Long Kabiran). The following year, only Long Pujungan, Kaliamok, Sesua, Tanjung Sepatui, and Long Kabiran remained on the list. Some *desa* have been on the list for several consecutive years, others for only one year. Some *desa* have benefited from both the IDT and DEPSOS assistance. As the selection of *desa* does not seem quite rational, e.g., some of the wealthiest *desa* have been included for many years, it is likely that this selection is manipulated by the officials in charge.

The government has long tried to promote the creation of village cooperatives (*Koperasi Unit Desa*, KUD) but this type of cooperative has long been recognised as a general failure throughout the country. In 1997, Bulungan Regency had 185 KUD. Long Pujungan District had only one and Malinau District 14 or 18. According to informants, none is functioning properly. Some are known to only serve to channel public money to private individuals. Nonetheless, KUD, being the only legal entities in many communities, have served to convey collective claims.

6.3 Outsiders

Besides the Administration, a number of outside parties (*pihak luar*) a tactful expression referring to the generic, unnamed outsider) are present in the area. They primarily include timber and mining companies. To the extent of my knowledge, no oil palm plantation estate of substantial size exists but there may be plans for a plantation in the Gunung Bintang area. The cases of timber companies in both Long Pujungan and Malinau districts have been documented in depth in several reports, as has that of the one mining company, P.T. Bara Dinamika Muda Sukses (BDMS), in Malinau District (Yasmi 2001).

The following discussion will focus on general features of the relationships of these outside parties with local communities.

Companies and Local Communities

In terms of job opportunities for the local communities, no quantitative data were available for this report. It would be worth determining (with companies or with villages) the percentage of local work force in the companies' personnel, as well as in the professional categories of the local labour hired. According to some preliminary surveys (Uluk, n.d.), only small percentages of personnel come from local communities, and they generally hold low-qualification and low-responsibility jobs e.g., chainsaw operators, surveyors, truck drivers, etc. –as is the case elsewhere in Kalimantan's interior. The numbers of imported labour are partially reflected in village statistics, if the neighbouring company's personnel is taken into account in population statistics (which is not always the case), by an unusually high male-to-female ratio and sometimes by relatively high numbers of Moslems.

Although some well meaning companies make a point of prioritising local hiring, others find it more comfortable, for security reasons, to keep the company camp or compound with the lowest possible level of interaction with the neighbouring village. Also, companies may limit local hiring for prejudiced considerations of ethnic affiliation or religion. Conversely, well meaning companies' efforts are not always rewarded by a good relationship with the village, or even properly appreciated by the villagers, who often tend to demand more or higher-qualification jobs than the companies can reasonably offer to unskilled labour.

The government imposes upon companies, such as timber or mining companies, to implement at their own expense (a percentage of their budget or profit) programmes of assistance to nearby villages, now known as *Program Pembinaan Masyarakat Desa Hutan* (PMDH or Programme for the Development of Forest Communities; *Bina Desa,*

for short). If these programmes are carried out at all by the companies it is with some reluctance, a common lack of technical competence and inadequate coordination with the various government agencies concerned e.g., agricultural extension staff, at district level.

Although the particulars of the programme are decided after consultation with the villagers, the technical follow-up by the company is often minimal. For example, only five of the ten timber companies operating in Long Peso' District run a *Bina Desa* programme, mostly dealing with development in agriculture (cocoa) or animal husbandry (poultry), with a varying rate of success. With insufficient government control, inconsistent and uncoordinated implementation, reluctance and negligence on the part of the companies, the amounts spent if indeed they conform to the regulations, often bring little real benefit to the communities concerned. Substantial amounts of money from funds meant for *Bina Desa* probably vanish with no tangible results. However, some companies run a very good *Bina Desa*, even going beyond what is required of them, and they have excellent relations with neighbouring villages.

These common shortcomings of the *Bina Desa* programmes probably have made the villagers reluctant to be involved in company-sponsored local development programmes, which in turn contributes to their failure. Instead, they tend to request assistance in kind or cash. For instance, P.T. Inhutani II built a village hall (*balai desa*) for Paya Seturan. Assistance may also come in the form of seed e.g., cocoa. In some cases, villagers' demands are extravagant, e.g., 100 wheelbarrows for a village with a population of about 400. Assistance in cash generally raises more problems than it solves as village leaders commonly mishandle it.

In Malinau District as elsewhere, *Bina Desa* assistance has become entangled with other demands for technical or financial assistance (*bantuan*) made by villages on nearby companies, and also with questions of compensation (*ganti rugi*) for village or villagers' land or

crops used or damaged by the companies. It is not uncommon to find statements issued by villages requesting the company's *bantuan* (assistance) as a form of *ganti rugi* (compensation). These categories that, for the companies, proceed from distinctive legal contexts are irrelevant to villagers, who combine them as 'what can be obtained from the company'. Many disputes derive from the local communities' blurred understanding of these categories.

Vicinity and Conflict

In this situation, proximity almost automatically entails frictions, if only for reasons of misunderstanding. Conflicts may remain latent at the grumbling and moaning stage, and do not necessarily develop in the open. While vicinity relationships may have been described overall as satisfactory, some degree of frustration is unavoidable. Conflicts between companies and local communities having been amply documented in earlier reports. I comment on only a few outstanding features of each documented case here.

While companies exist to make money and wish to experience as little operational delay as possible, they tend to shortcut the local communities' traditional practices. The normal village decision-making procedure involves consultation with the people (*musyawarah*), by way of a meeting of the 'Association of Village Deliberation' (*Lembaga Musyawarah Desa*, LMD), and a consensual decision (*mufakat*; Indonesian administration terminology). But the company wants one single interlocutor, the *kepala desa*, assuming that he both is the representative of his community and has executive powers. This holds true even with multi-*desa* settlements, such as Long Loreh or Langap, where the companies seek to interact with only one person (e.g., the most prominent among the *kepala desa*) for all the villages at a site. Instead of convening a village meeting and exposing matters openly for discussion, which could take some time before an agreement is

reached, a company often prefers the fast track, summoning the *kepala desa* to its camp and negotiating a discreet deal with him there.

This type of deal often includes a commission to the *kepala desa* for his efforts and diligence. As old habits of giving in (*mengalah*) die hard, village heads tend to comply. In several villages in Malinau District, fellow villagers have accused the *kepala desa* of dealing secretly with companies and taking bribes. As particulars of the agreement remain unpublicised, public negotiations commonly stumble or the parties go to court.

Such covert deals between companies and individuals have led to problems within communities: villagers distrust their *kepala desa* and, eventually, other members of the *aparat desa* involved in such deals. They also distrust the company for its devious practices and factions develop, with supporters and detractors of the village head. Eventually even ministers of rival religious denominations can become involved.

The companies are not entirely to blame, however. Subsequent conflict may involve unequal redistribution of compensation paid by the company to the village for the use of its land. This often occurs in multi-ethnic communities, but also in communities where factions have developed. Unless a special committee (*panitia*) is set up, distribution of the compensation money by the village head often lacks transparency.

Devious use of insider's information also leads to conflict. A district head and his cronies may buy land in an area where they know a road is to be built or 'mark' land where they know a company will expand its activities. To 'mark' land, it is usually enough to open a rice field and, some time later, plant cash crops. In this way, the compensation paid by the company will go to the individual 'owner' or user of that land, rather than to the village collectivity as in the case of unused land. This and other reasons have led to a recent strong inclination toward individual control of land (*menguasai tanah*).

Local communities have come to view companies as sources of wealth *per se*, more or less irrespective of what the communities surrender to them. The categories of 'assistance' and 'compensation' are blurred, and the distinction between what the company owes to the community in return for something and what it 'owes' simply because it is 'rich' is likewise not clear. This observation concerning swidden cultivators confirms earlier conclusions reached about the Punan Tubu (Kaskija 2000), whereby the primary principle is 'We have nothing, you have everything, therefore you must give to us.'

This has led local communities to try to wrest as much 'assistance' and 'compensation' as possible from the neighbouring company, and sometimes to make demands verging on the ludicrous. Although the idea that these communities deserve better (or more) than what has been conceded to them in the current situation is not challenged here, certain deeds and initiatives reported or witnessed among them can definitely be regarded as motivated by a desire to derive maximal profit from the situation, irrespective of actual needs.

Clearly, such obvious attempts have made the companies wary of their relationships with local communities and increasingly reluctant to comply with their demands. The companies have reached a point where they believe that the more they grant, the more the villages will ask, which is probably a correct assessment.

Companies, trying to minimise expenses, tend to deal with demands on a case-by-case basis, negotiating separate agreements with various villages. This in turn induces envy and resentment, as well as very strong competition, among villages for assistance and compensation from companies. This competition leads to escalating demands on the companies.

Finally, there are the usual evils of a company's presence about which villagers commonly complain. Particular problems are increased petty criminality and risk to property (from fruit on the tree to canoe

motors), and deteriorating public mores, from young girls being lured to timber camps to the classical trio of gambling, prostitution, and alcohol consumption. A recent (1999) decision by Langap to ban the sale of alcoholic beverages demonstrates the concern (see Njau 1999). Furthermore, local communities have complained of water pollution, particularly in the vicinity of coal mining operations.

As one informant in Paya Seturan put it, 'All was so good before P.T. Meranti Sakti came.' The words are a telling statement of current sentiments, even if an oversimplification.

Collective and Individual Control of the Land

Land, has become increasingly scarce in the Malinau drainage since the Kenyah settled there, and particularly farming land (*lahan pertanian semakin sempit*). Land and boundary conflicts were already rampant among communities before outside companies came. Boundaries were set by agreements between host and guest communities, but were not officially sanctioned by accurate maps or other means. Encroachments of one village's members onto another village's territory occurred, mostly involving rice swiddens, but were settled by *adat*, the land being returned after use.

Land and boundary conflicts between *desa* intensified during the last decade because of the combined effects of the presence of outside companies, occupying parts of the various villages' territories, and of the development of cash crops. While land became scarcer it also became more valuable for reasons beyond its mere scarcity. Land now had value because companies paid compensation for loss of forest and farming land. Informants reported that when Bara Dinamika Muda Sukses started paying compensation of up to Rp 1 million ha^{-1}, everyone wanted to *menguasai tanah* (control the land). The conflict between Langap and Tanjung Nanga' and probably also that between Langap and Loreh subsequently intensified (Njau *et al.* 2001, Yasmi 2001, Kaskija 2000).

The new stakes were what could be wrested from the companies, and the new tools included the planting of cash crops. The most important feature in all these land conflicts has been the steady drift from collective to individual pursuits and from collective to individual control over land.

Collective interest in and control over land still exists Circuitous or underhanded renegotiations of village boundaries were carried out, sometimes involving the *Muspika*, in order for one village to expand its territory at the expense of another. Individual swidden encroachments of guest village A onto host village B's territory do occur, but then village B would in retaliation either encroach on village A or claim rights on its old swidden plots within village A's territory. This leads to inextricable situations with contested boundaries and claims over enclaves.

Acquisition or right of use by a company of lands belonging to a *desa*'s territory is generally subject to payment of a compensation. In some instances however no compensation was negotiated or paid by the company. In others, compensation was agreed upon but not paid in full, or full compensation was given to the village in cash or in the form of assistance, sometimes with the subsequent redistribution problems already described.

An individual race for land control has now intensified, whether at the boundary with another village or in the vicinity of a company's operations. The aim now is control of particular plots of land on which the individual may claim personal ownership and, later, either maintain this ownership over time or claim compensation from a company. In a situation where land is not registered or certified (*disertifikasi*), the best or only way to guarantee recognition of one's claim, by both traditional *adat* and modern usage, is to plant perennial cash crops (*tanaman keras*). These are mainly cocoa and coffee, the modern equivalent of fruit trees in traditional *adat* (on this, see Appell 1992 and Sather 1990).

Villagers tend to target land tracts in critical 'border' areas: They establish cash crop plantations at the edge of the village's territory, or close to companies' activity zones, or by the sides of new roads. An extra reason for opening gardens by a road might that they will be first to be certified, as R. Wadley reported to be common occurrence in West Kalimantan (personal communication). This may be done in a coordinated, collective way, in order to create a 'buffer zone' for protection against encroachment by neighbouring villages or outsiders. It is also done by individuals to 'create' private property with potential added value.

New forms of territoriality have thus developed, with more permanent and more individual forms of ownership. Land then has more value *per se*, irrespective of its real use to its owner, and can have speculation value. This, in turn, has led to new forms of conflicts in which the collective dimension is absent.

Transmigration and Other Outsiders

Transmigration constitutes another influx of outsiders, and East Kalimantan has long been a destination for government-sponsored transmigrants. Over 19 000 were settled between 1957 and the end of the first Five-Year Plan (Pelita I, 1969-73), with totals reaching over 300 000 by the end of Pelita VI (1998). This total does not take returnees into account. In Bulungan Regency, the number of official transmigrants only reached 22 000 during the same period. They were granted formal ownership to 7000 ha of land. In addition there was an unknown number of spontaneous immigrants. Immigrants in general are from Java and South Sulawesi (Bugis-Makasar and Toraja), but significant numbers of people from Nusa Tenggara Timur are also in East Kalimantan.

No official transmigrants have been settled in Long Pujungan District, and I found data on only one transmigration site in Malinau District,

called Tanjung Keranjang, just inland from Malinau Kota. This site, listed as 'in project' in 1993/94, apparently received about 220 persons in 1994 and about 180 more during Pelita VI (1994-98). Each family received 1.75 ha for cultivation (*usaha*), and 0.25 ha for house and home garden (*pekarangan*). I found no trace of Tanjung Keranjang in recent statistics, although it still exists (G. Limberg, personal communication). There does not seem to be any projects for more transmigration projects in Malinau District listed in the 1999/2000 budget, but there a 40 000 ha project near Batu Kajang.

Although this does not concern directly the area under scrutiny here, the granting to transmigrants of formal ownership rights (*sertifikat tanah*, land registration) over lands previously owned, collectively and without official registration, by local communities often raised problems between the former landowners and the newcomers. The former, having been 'convinced' by the administration to vacate a portion of their traditional territory (see Bilung and Lukas 1997, Eghenter and Sellato 1999b, Sellato In Press b), feel frustrated when the latter obtain official land rights, whereas they themselves either cannot obtain recognition of their collective rights over their extensive traditional swiddening areas or cannot afford the cost of registration of their individually owned lands.

A similar problem plagues the relationships between local communities and newcomer communities settling on lands vacated at the government's initiative, even though the latter are not granted official land registration. Moreover, in line with Dayak *adat*, the former landowners generally retain (or believe that they retain) secondary or residual rights over some types of useful trees growing on vacated lands, which further complicates matters with the newcomers.

Finally, a common problem in Kalimantan, probably of some relevance to the region under consideration, is the official transmigrants' defection from agricultural pursuits and their competition with local communities for jobs with companies.

Furthermore, these defectors' eagerness to take even the low-paid jobs that the local Dayak do not want (e.g., road construction or tree barking), contributes to keeping local wages low. Often more aggressive in job seeking, if not necessarily better educated, they benefit from the favour of personnel managers, who themselves come mostly from other islands. Likewise, transmigrants' children may be given priority over local youths.

In the BRF, teams of professional NTFP collectors from outside the river basin commonly visited upstream villages. WWF and CIFOR researchers have written much on this (Konradus 1995, Eghenter and Sellato 1999b, Momberg *et al.* 1997, Césard 2001, Wollenberg 1999 and 2001). It should only be noted here that there is much variation in individual villages' responses to this problem, ranging from imposing no restriction whatsoever to collectors' penetration into and exploitation of the *desa*'s territory, to a formal and total prohibition of access.

In many places e.g., in Long Pujungan District, villages issued decrees (*Surat Keputusan Desa*) restricting the collection of NTFPs by outsiders and imposing on them the payment of a flat fee or a percentage of the produce, and heavy fines in case of infringement. Here, traditional is invoked, revived if necessary, adapted to the situation, committed to paper (complete with official letterhead and rubber stamps), and put in to action (see Wollenberg 1999).

There have been reports of district officials overriding village jurisdiction in this matter and granting collectors permission to operate in that village's territory. In other cases, district officials allegedly connived with NTFP traders to seize the goods of Punan collectors who were in debt to the traders. (On problems of collusion in the eaglewood context, see Konradus 1995, Didin 1994, Momberg *et al.* 1995, WWF 1995.)

What are the relations of local communities with non governmental organizations (NGOs) and their Indonesian equivalent *Lembaga*

Swadaya Masyarakat (LSM)? The local communities regard international, national or regional (East Kalimantan) NGOs differently from local, grassroots NGOs. The basic discriminating factor is that the former come to 'help,' usually with plenty of funds, whereas the latter place demands on community members. A second contrast, possibly just as important, is that the former are viewed as 'neutral' (or non-partisan) *vis-à-vis* the local power game, whereas the latter are marred by faction politics from the very start.

Researchers report the villagers' general satisfaction with the presence and assistance of the international NGOs, and there is no reason to cast doubt on these reports' honesty (e.g., Sudana 1999 a, b and various CIFOR reports). One report, however, mentioned that CIFOR's mapping project might have exacerbated boundary conflicts between *desa*. I have no reports on local communities' relations with regional NGOs, such as Plasma or K-SHK (Konsortium Sistem Hutan Kemasyarakatan), which worked recently in the BRF area, although others (E. Wollenberg, personal communication) indicate that relations remain superficial, with mixed reactions among community members. Some feel the NGOs are genuinely helping, while others feel they are unnecessarily stirring up trouble.

It is important to stress that, generally speaking, local individuals and communities regard an NGO as just another new factor that must be taken into account in their already complex social landscape. Evaluated, tagged as 'useful' or 'not useful,' it is integrated as a pawn in the local power game and is potentially subject to manipulation. As a 'neutral' newcomer, unaware of that power game, its 'wealth potential' soon becomes a target for whichever communities and individuals are best able to manipulate it.

There are also reports that local communities are becoming critical and suspicious of various local LSMs. Some of these local organizations are seen as unfit to fulfill villagers' aspirations, and their leaders often are not trusted. There was a strong negative

response in upstream villages to AMA's (*Aliansi Masyarakat Adat* Kaltim) statement that education and religion contributed to the weakening of *adat* (Anonymous 1999). While there may be truth in this, such unqualified statements can be expected to further discredit local LSMs in the eyes of the average villager.

The 'conflict resolution' procedure, as it is now conducted in East Kalimantan, is of little help to the local communities or groups concerned. Under pretence of involving them in the process and thus legitimising its outcome it often brings to the 'negotiation' table a weak, shy (*minder*) local party, which can only receive a *diktat* from a 'mediator' who may not always be impartial. In land conflict cases, the local party can at best 'negotiate' a reasonable compensation but still lose the land to the outside party (timber company or other) (*cf* Edmunds and Wollenberg 2001).

Involving a local LSM as a mediator between the very community it is supposed to represent and an outside party is even worse. Such LSMs, representing communities with claims to uphold their right to manage their lands, must take sides (*memihak*), and remain partisan through the course of negotiations, in order to succeed. Placing 'aggressive' LSMs in the role of mediator is just a devious way to clip their claws (*bikin ompong LSM yang galak*, my translation).

Conflict resolution, here, only serves the outside party's purpose, that is, to overcome an obstacle. The LSM, possibly aggressive but often naive, may find itself satisfied at being recognised and given a central role. However, in due course, it fails its fellow villagers, which contributes to bringing discredit on itself and to further drive a wedge amongst the frustrated community. The community, then, loses not only its lands but also its cohesion (*kekompakan*). It is my view that outside NGOs often have done more harm than good to local communities by putting into action certain procedures of conflict resolution.

Concluding Remarks

Most of the important points regarding governance and social capital have been touched on above, in the course of the review of how things developed. A large number of field reports have extensively described how things are today and offered invaluable comments and suggestions on what could be done to improve on the current situation. (Njau *et al.* 2001, Yasmi 2001, Rhee 2000, Gomez-Gonzalez 1998, Uluk unpublished reports, Uluk 2000a, 2000b, Uluk and Sudana 2000a, 2000b, Uluk *et al.* 2000). An understanding of how things became what they are today allows to draw some preliminary, hopefully useful, conclusions.

Many factors play a role in the difficulties experienced by local communities in pursuing harmonious social and economic development in the modern context, and by international NGOs assisting these communities' development while striving to ensure the survival of the rainforest. The following can be listed:

- accelerated opening up of traditional societies to the outside world, through migration to downriver regions, ethnic miscegenation, education, religion, television, salaried jobs, local organisations, etc.; and, in relation to this opening up and to its speed, a resilient inferiority complex, the trademark of many interior peoples facing outsiders;

- erosion of traditional patterns of political authority. This includes the threatened but still active role of aristocrats, their enduring but now unacceptable *paren* attitudes, their involvement with supra-village power-brokers and outside parties and in corruption practices, their subsequent loss of credit among their people. Also, the emergence of new, educated elite, and the fact that ordinary people have little say in their community's future;

- relative collective apathy. This is in the face of stalled traditional political and legal institutions and a non-functioning and corrupt modern administration. There are also ineffective and little trusted modern ethnic organisations, deteriorating inter-community relations, and declining interest in collective activities; and a strong emerging individualism in economic pursuits, sometimes leading to anti-social behaviours;

- recent to collectively develop an 'assistance' mentality (*ketergantungan*, as opposed to self-reliance, *keswadayaan*) nothing is collectively initiated outside assistance, from either government, non-government, or corporate agencies; the lack of, or inability to procure, assistance leads to apathy and frustration;

- relative lack of vision of the future. These disoriented communities find no appropriate channels for whatever positive energies they can muster. However, it seems that 'visioning exercises' carried out in a community workshop in 1999 showed that there is some vision possible when people were stimulated to produce it.

Sudana (1999a) asked: 'What is the reason for all the current problems? The coming of timber and mining companies? The villagers' new awareness, derived from education and other factors? A stimulation to action by the various NGOs that appeared recently? Or some room to manoeuvre recently conceded by the government in the Reformation mood?

The following comments are offered on the current situation and the relations between local communities and outside parties.

Villagers may have a wrong perception of their general economic predicament. While they are in fact economically better off than

poor people in urban or peri-urban areas as is the case worldwide they feel that, because they live in remote regions, they are being 'left out' of the mainstream consumer culture and unfairly deprived of many things to which everybody elsewhere has access. This feeling of frustration, probably sharpened by television broadcasts and other factors, leads in turn to claims that are out of proportion with the general Indonesian economic context. This is not to say that these communities do not deserve attention and assistance. One question may be asked, however: Were they not sitting on tropical rain forest, considered for various reasons a valuable asset by a range of diverse parties, would they be the object of more attention and assistance than poor urban people who do not have better access to goods and services ('many things', *cf.* Kaskija 2000) including education and health facilities?

Villagers experience a new feeling of having been wronged or cheated by the companies that have come to their region. This feeling adds to the frustration of being *terasing*. Although they are not quite clear of what exactly they have been deprived, land, resources, rights, authority or autonomy, they feel that it was valuable. The rationale is: If outsiders are prepared to pay for it, it must be valuable to them, therefore it should be to us, too. Although this may seem simplistic, I believe that in many cases claims and conflicts are grounded on the villagers' poorly articulated notions of 'having been cheated of something' and the 'something' remaining rather hazy.

The well-meant assistance offered by outside parties (NGOs) in articulating these notions and formulating these claims confers stamina and momentum to the villagers. It also boosts their frustration. I have argued elsewhere that inducing expectations within the community in the course of environmental awareness campaigns has led to the communities consciously or unconsciously manipulating the organisation for their own purposes. There is risk that local communities will become convinced that they have been or are being

wronged in one way or another, and express their anger before any structure can be proposed to them (and the concerned outside parties) to ease potential conflicts in their best interests. Exacerbating frustration in the local communities, and even indirectly triggering conflict, by pitting villagers against the government, is one way for some organisations to achieve their ambiguous goals. Such practices might prove efficient for long-term nature conservation, but might not be in the short or long-term best interests of the communities.

Organisations proposing to assist in socio-economic development should adopt a more balanced view of current local situations. Local communities should no longer be viewed as innocent victims, as is too often the case, but rather as fully-fledged agents, for which NGOs are but one more actor in the local social drama. Too often, NGOs openly declare themselves as siding with the communities, which causes other actors e.g., companies, to view them as adversaries. As the goal of these NGOs is to achieve a degree of efficiency in the use of funds and implementation of programmes, they should take into account certain features of local communities, such as individualism, anti-social behaviour, greed, and manipulation, in their approach to the local situations. A role of cautious neutral mediator between the diverse actors would lead to better results than committing to a one-sided strategy of 'empowering' the people. The relevance and appropriateness of such a strategy should very soon come under close scrutiny.

It is reiterated that in-depth research in the social and cultural background of target communities should be carried out prior to any other activities. This can serve as a reliable and unbiased basis to elaborate strategies appropriate to the goals of the organisation. Otherwise their activities may induce expectations amongst the communities, add to existing frustration, raise the stakes of local potential conflicts, and lead to outright manipulation of the organisation by stakeholders within the communities.

References

The list gives the references consulted for each section of the text. Full citations are given in the bibliography.

Section 2

Anonymous 1976, 1977, 1990a; Bailey and Headland 1991; Bailey *et al.* 1989; Bennett 1997; Boomgaard 1997; Boomgaard *et al.* 1997; Brookfield *et al.* 1990, 1995; Eghenter and Sellato eds. 1999, Fischer and Gramberg 1910; Von Franz 1988; Juliansyah *et al.* 1992-93; MacKinnon *et al.* 1996; O'Brien 1998; Puri 1998a; Puri *et al.* 1991; Rudes 1965; Samuel and Yusup 1999; Soenartono 1978; Sørensen and Morris 1997; WWF 1993.

Section 3

Achmat *et al.* 1985; Aernout 1885; Akbarsyah 1997; Anderson 1977; Anonymous 1932, 1953, 1976, 1982, 1990b, 1991, 1992, 1993; A. Appell 1986; G. Appell 1983; Appell-Warren 1986; Apuy n.d.; Avé 1977; Baier 1979, 1987, 1992; Beech 1908; Bilung and Lukas 1997; Black 1985; Boomgaard 1998; Brosius 1986, 1992; Cense 1928; Cense

and Ühlenbeck 1958; Conley 1973, 1974; Coomans 1987; Crain 1970, 1978; Deegan 1973, 1974; Devung 1993; Devung *et al.* 1984-85; Dove 1989; Dransfield 1977; Eghenter 1995, 1999, In Press b; Eghenter and Sellato eds. 1999, In Press; Ellen 1979; Elshout 1926; Fischer and Gramberg 1910; Gallop 1995; Galvin 1975; Van Genderen Stort 1916; Guerreiro and Sellato 1984; Gun 1949; Hang 1956; Harrisson 1959a, 1959b, 1967; Henoch 1970; Hildebrand 1982; Hofman 1985; Hong 1987; Hose and McDougall 1912; Hoskins 1996; Hudson 1978; Hunt 1837; Ipoi 1989; Irwin 1955; Iskandar *et al.* 1995; Jacob 1989; Jessup and Mackie 1984; Jongejans 1922; Karina 1994, 1995; Kaskija 1992a, 1992b, 1998, 2000, In Press; Kedit 1982; Keppel 1846; King 1976, 1978, ed. 1978; Knapen 1997a, 1997b, 1998; Lah 1989; LeBar 1972; Liman 1995; Lindblad 1988; Marryat 1848; Maxwell 1996; Metcalf 1983; Moh. Noor *et al.* 1981; Needham 1972; J. Nicolaisen 1976a, 1976b; Nieuwenhuis 1900, 1901, 1904-07; Njau 1995, 1998; Parnwell and King 1998; Pearce 1989; Pfeffer 1990; Philip 1989; Piazzini 1960; Pollard 1933, 1935; Prentice 1970, 1971; Pringle 1970; Radermacher 1780; Ras 1968; Ray 1913; Reid 1988-93; Roodenburg 1935; Roth 1968; Rousseau 1988, 1989, 1990, ed. 1974; Rudes 1965; Sather 1971, 1972, 1995; Saunders 1994; Scheffelaer 1931; Schneeberger 1979; Sellato 1994; Sierevelt 1927; Soriente 1995; Sutlive 1978; Tehupeiorij 1906; Untilema 1938, 1989; Tulung 1989; Urquhart 1950; Van Walchren 1907; Warren 1981; Whittier 1973, 1978a, 1978b; Whittier and Whittier 1974; Wortmann 1971; Wurm and Hattori 1983.

Section 4

Abdurrahman 1984, 1990; Adiwirata 1983; Angguk 1995; Anonymous 1988, 1996; Bachsan 1984; Bahari 1995; Bilung and Lukas 1997; Brown 1970, 1980; Budi 1982; Bunde 1995; Bushar 1981, 1985; Chin 1985; Christensen and Mertz 1993; Christianita 1995; CIFOR 1997-98; Colfer 1981, 1983, 1993; Colfer *et al.* 1997; Colson 1979; Conklin 1957; Cramb 1985, 1989; Damus 1992; Devung 1997;

Devung and Michael 1990; Devung and Rudy 1998; Dhani 1996; Dove 1980, 1983, 1985a, 1985b, 1988, 1993a; Dyson 1995; Eghenter and Sellato eds. 1999, In Press; Van der Eng 1998; Evers 1995; Foster 1962; Fox 1992; Freeman 1955, 1970; Fujisaka 1986; Guerreiro 1993, 1996; Ter Haar 1980; Helliwell 1992; Hladik *et al.* 1993; Hutterer 1983; Iman 1981, 1982; Jacobus 1995; Janowski 1993; Jayl 1984; Jessup 1981, 1991, 1992; Jiuhardi and Trivena 1990; Kanyan 1995; Kiyono and Hastaniah 1996; Koesnoe 1988; Mallinckrodt 1928; Marten 1986; Martin 1995; Mering 1988, 1989, 1991; Myrna 1995; Ngindra 1995; Okushima 1999; Padoch 1982, 1983, 1988, 1995; Parlindungan 1989, 1991; Potter and Ali 1989; Saccheri and Walker 1991; Saleh 1983; Sather 1990; Seavoy 1973; Sloan 1975; Soerjono 1985; Soerjono *et al.* 1984; Strickland 1986; Surojo 1982; Syahirsyah 1997; UUPA 1960; Vayda *et al.* 1980; Van Vollenhoven 1918-33; Wadley *et al.* 1997; Weinstock 1983; Whitmore 1985; Wong and Manokraman 1985.

Section 5

De Beer 1992; De Beer and McDermott 1989; Bertling 1925; Black 1985; Konradus 1995; Boomgaard 1998; Broersma 1927; Brosius 1995; Bulbeck *et al.* 1998; Burkill 1966; Caldecott 1988, 1990; Caldecott and Caldecott 1985; Chew 1990; Didin 1994; Dixon *et al.* 1991; Dollop 1998; Dransfield 1979; Dunn 1975; Ellen 1979; Fasihuddin 1993; Fox 1995; Grossmann 1992; Hall 1995; Jackson 1970; Jessup n.d.1, n.d.2; Jessup and Peluso 1986; De Jong 1993; Kaur 1998; Lawrence *et al.* 1995; Leaman *et al.* 1991; Lindblad 1988; Magenda 1991; Momberg *et al.* 1995; Morgan 1968; Nicholl 1979; Padoch 1995; Peluso 1983, 1995a; Potter 1988, 1997; Puri 1992, 1995, 1996, 1997, 1998b; Sellato 2000a, In Press b, In Press c; Sirait 1995; 1997; 1999; Sørensen and Morris 1997; Stockdale 1992; Van Valkenburg 1997; De Vries 1992; Wollenberg and Uluk 1998; WWF 1995.

Section 6

Abdoellah *et al.* 1993; Albert 1997; Alexander and Alexander 1993; Anonymous 1989, 1999; G. Appell 1971, 1986, 1991, 1992; Babcock 1979; Barnes *et al.* 1995; Beratha 1982; Boserup 1965; Brookfield *et al.* 1990, 1995; Brosius 1997; Brosius *et al.* 1998; Chartier and Sellato 1998; CIFOR 1997-98; Cleary and Eaton 1992; Colfer *et al.* 1997; Coomans 1987; Cramb 1989; Cramb and Wills 1990; Devung 1996, 1997; Devung and Michael 1990; Dove 1985c, 1992, 1993b; Dove and Kammen 1997; Dove and Tri 1994; Dove ed. 1985, 1988; Eghenter 1997a, 1997b, 1997c, 2000, In Press a; Eghenter and Sellato 1999; Ellen and Harris 1997; Evers 1995; Fitzpatrick 1997; Fried 1992; Galvin 1975; Gomez-Gonzalez 1998; Guerreiro 1992; Headland 1997; Horner and Schulte-Tenckhoff 1995; Ingerson 1997; Jessup 1993; Jessup and Sellato 1990, 1992, 1993, 1994, 1995; Kartawinata *et al.* 1984; Kaskija 2000, In Press; Kleymeyer 1994; Konradus 1995; Kotak 1995; Lahjie and Seibert 1988; Lewis 1987; McNeely and Pitt 1985; Mubyarto 1992; Mubyarto *et al.* 1991a, 1991b, 1992; I. Nicolaisen 1986; Njau 1999; Njau *et al.* 2001; Padoch 1995; Padoch and Peluso 1996; Peluso 1980, 1992, 1995b; Persoon 1998; Poffenberger 1990; Puri 1993; Redford 1991; Redford and Padoch 1992; Rhee 2000; Rousseau 1979; Sellato 1998a, 1999, 2000a, In Press b; Sellato and Chartier 1998; Sirait *et al.* 1994; Soemarwoto 1991; Soetardjo 1953; Sudana 1999a, 1999b; Tjitradjaja 1993; Vayda 1996; Uluk and Sudana 2000a, 2000b; Uluk n.d. unpublished reports, 2000a, 2000b; Uluk *et al.* 2000; Wadley 1993; Wells 1995; Wollenberg *et al.* 2000; WWF 1996; Yasmi 2001

The works below have been useful in the preparation and writing of this report

Abdoellah, Oekan, *et al.* 1993. Communities and forest management in East Kalimantan: pathway to environmental stability. International and Area Studies, Berkeley.

Abdurrahman, S.H. 1984. *Kedudukan hukum adat dalam perundang-undangan Agraria Republik Indonesia.* Akademika Pressindo, Jakarta.

Abdurrahman, S.H., M.H. 1990. *Kedudukan hukum adat dalam kerangka hukum nasional.* Paper to Seminar Adat Masyarakat Dayak se-Kabupaten Kutai, Tenggarong, 9-11 November 1990.

Achmat Maulana *et al.* 1985. *Ungkapan tradisional sebagai sumber informasi kebudayaan daerah Kalimantan Timur*. Dep. Pendidikan dan Kebudayaan, Proyek Inventorisasi dan Dokumentasi Kebudayaan Daerah, Jakarta. 92p.

Adiwirata, Saleh. 1983. *Pengertian hukum adat menurut undang-undang pokok agraria.* Penerbit Alumni, Bandung.

Aernout, W. 1885. *Een woordenlijste der Tidoengsche taal*. De Indisch Gids 7: 536-550.

Akbarsyah 1997. *Birau di Tanjung Selor, Kemasan atraksi seni-budaya daerah tingkat II Bulungan dalam era BIMP-EAGA*. PEMDA Bulungan, Sekretariat Wilayah Daerah, Tanjung Selor, Indonesia. (Indonesian and English).104p.

Albert, B. 1997. *Territorialité, ethnopolitique et développement: a propos du mouvement indien en Amazonie brésilienne.* Cahiers des Amériques Latines 23: 177-210.

Alexander, J. and Alexander, P. 1993. Economic change and public health in a remote Sarawak community. Sojourn 8: 250-274.

Anderson, A.J.U. 1977. Sago and nutrition in Sarawak: paper for the Sago 76 symposium. Sarawak Museum Journal 25: 71-80.

Angguk Lamis. 1995. *Penguasaan tanah berdasarkan hukum adat pada masyarakat Kenyah Leppo' Ma'ut di Long Alango*: report. Culture and Conservation. WWF/IP, Jakarta. 22p.

Anonymous [Dorn?]. 1932. *Militaire Memorie van de afdeeling Boeloengan*. Manuscript. 10p.

Anonymous. 1953. *Republik Indonesia, Kalimantan*. Kementerian Penerangan, Jakarta. 445p.

Anonymous. 1976. *Monografi Daerah Kalimantan Timur*. Jilid 2, Bulungan. Dep. Pendidikan dan Kebudayaan RI, Ditjen Kebudayaan, Proyek Pengembangan Media Kebudayaan, Jakarta: 41p.

Anonymous. 1977. Population and social structure. Report No. 8. Transmigration Area Development Project, Samarinda, Indonesia.

Anonymous. 1982. Geological map of North-east Kalimantan: report and maps. Biro Penelitian Geologi dan Pertambangan and Direktorat Sumber Daya Mineral, Jakarta.

Anonymous. 1988. *Hasil Seminar Peranan Hukum Adat Dalam Menunjang Pembangunan Menghadapi Era Tinggal Landas*. Panitia, Seminar Peranan Hukum Adat. Fakultas Hukum, Universitas Tanjungpura, Pontianak, Indonesia.

Anonymous. 1989. *Proposal pembangunan wilayah perbatasan Kalimantan Timur (Rencana pembangunan dan pemanfaatan potensi lahan Hutan Wilayah Perbatasan dalam Rangka Memperoleh Dana Bantuan Luar Negeri)*. Pemerintah Daerah Propinsi Tingkat I Kalimantan Timur, Samarinda, Indonesia.

Anonymous. 1990a. *Kalimantan Timur dalam Angka*. Kantor Statistik Propinsi Kalimantan Timur, Samarinda, Indonesia.

Anonymous. 1990b. *Sejarah Pemerintahan di Kalimantan Timur dari Masa ke Masa*, Pemda Tk. I Kaltim, [Samarinda], Indonesia. 416p.

Anonymous. 1991. *Lampiran Keputusan Seminar Hari Jadi Kota Tanjung Selor tanggal 27-28 Pebruari 1991 di Tanjung Selor*. A set of four papers, by Mohd. Noor Ars, Drs. H. Mohd. Arsyad, Zulkifli Neman, and H. Dachlansjahrani.

Anonymous. 1992. *Penelitian suku terasing Kenyah Kalimantan Timur*: report. P and K, Direktorat Jenderal Kebudayaan, Direktorat Sejarah dan Nilai Tradisional, Jakarta.

Anonymous. 1993. *Sejarah pemerintahan di Kabupaten Bulungan dari Masa ke Masa*. [Pemda Tk. II Bulungan], Panitia Penyusun, [Tanjung Selor], Indonesia. 86p. + annexes 26p.

Anonymous. 1996. *Himpunan peraturan tentang adat istiadat dan lembaga adat*. Pemerintah Propinsi Daerah Tingkat I Kalimantan Timur, Samarinda, Indonesia. 40p.

Anonymous. 1999. *Ketika masyarakat adat harus bersatu*. Aliansi Masyarakat Adat (AMA) Kaltim. Tempayan (WWF Kayan Mentarang) 17: 9-10.

Appell, A.C.P. 1986. The Bulusu' language of East Kalimantan: ethnographic profile and basic word list. Borneo Research Bulletin 18: 166-174.

Appell, G.N. 1971. Systems of land tenure in Borneo: a problem in ecological determinism. Borneo Research Bulletin 3: 17-20.

Appell, G.N. 1983. Ethnic groups in the northeast region of Indonesian Borneo and their social organizations. Borneo Research Bulletin 15: 38-45.

Appell, G.N. 1986. The health consequences of development. Sarawak Museum Journal 36: 43-74.

Appell, G.N. 1991. Resource management regimes among the swidden agriculturalists of Borneo: does the concept of common property adequately map indigenous systems of ownership? Paper to Common Property Conference, Winnipeg, September 1991.

Appell, G.N. 1992. The history of research on traditional land tenure and tree ownership in Borneo. Paper to Second International Conference of the Borneo Research Council, Kota Kinabalu, July 1992.

Appell-Warren, L.P. 1986. The Tarakan dialect of the Tidung language of East Kalimantan: distribution and basic vocabulary. Borneo Research Bulletin 18: 148-166.

Apuy La'ing Kelong. [n.d.] *Sejarah Perpindahan Kenyah Badeng*. MS. Tanjung Selor, Indonesia. 159p.

Avé, Jan B. 1977. Sago in insular Southeast Asia: historical aspects and contemporary use. *In*: Tan Koonlin (ed.) Sago-76: papers

of the First International Sago Symposium, 21-30. University of Malaya Press, Kuala Lumpur.

Babcock, T.C. 1979. Indigenous ethnicity in Sarawak. Sarawak Museum Journal 22: 191-202.

Bachsan Mustafa, S.H. 1984. *Hukum Agraria dalam perspektif*. Remaja Karya, Bandung, Indonesia.

Bahari Sindju, H. 1995. *Penyiapan dan pemanfaatan lahan dalam praktek perladangan masyarakat Kenyah Leppo' Ké di Apau Ping*: report. Culture and Conservation, WWF/IP, Jakarta.

Baier, M. 1979. *Zur Steinsetzung und Steinbearbeitung Innerborneos*. Tribus 28: 70-82.

Baier, M. 1987. *Megalithische Monumente des Bahau-Gebiets (Kecamatan Pujungan/nordliches Zentralborneo)*. Tribus 36: 117-128.

Baier, M. 1992. *Steinsarkophage und Urnendolmen*. Tribus 41: 161-175.

Bailey, R.C. and Headland, T.N. 1991. The tropical rain forest; is it a productive environment for human foragers? Human Ecology 19: 261-85.

Bailey, R.C. *et al*. 1989. Hunting and gathering in tropical rain forest: is it possible? American Anthopologist 91: 59-81.

Barnes, R.H., Gray, A. and Kingsbury, B. (eds.) 1995. Indigenous peoples of Asia. Monograph and Occasional Paper Series No. 48. Association for Asian Studies, University of Michigan, Ann Arbor, Michigan.

Beech, M.W.H. 1908. The Tidong dialects of Borneo. Oxford University Press, London.

Beer, J. de. 1992. Introduction to non-timber forest products in Southeast Asia. Subsistence use and market value. BOS NieEuWSLETTER, No. 26 11 (2): 9-14.

Beer, J. de, and McDermott, M. 1989. The economic value of non-timber forest product in Southeast Asia with emphasis on Indonesia, Malaysia and Thailand. The Netherlands Committee for IUCN, Amsterdam.

Bennett, C. 1997. Principal findings of field trips to West and East Kalimantan, 24 November and 02-07 December 1997: appendix to a report.

Beratha, I Nyoman. 1982. *Masyarakat Desa dan Pembangunan Desa*. Ghalia Indonesia, Jakarta.

Bertling, C.T. 1925. *De Chineezen op de Oostkust van Borneo*. Koloniale Studiën 9: 1-35.

Bilung Njau and Lukas Lahang. 1997. *Sejarah dan faktor-faktor perpindahan serta pola penguasaan atas tanah masyarakat Dayak Kenyah Lepo Ma'ut dan Lepo Bakung di Kawasan konservasi Kayak Mentarang: report*. Culture and Conservation, WWF/IP, Jakarta.

Black, J. 1985. The 'Lastposten': Eastern Kalimantan and the Dutch in the nineteenth and early twentieth centuries. Journal of Southeast Asian Studies 16: 281-291.

Boomgaard, P. 1997. Introducing environmental histories of Indonesia. *In*: Boomgaard, P., Colombijn, F. and Henley, D. (eds.) Paper landscapes: explorations in the environmental history of Indonesia, 1-26. KITLV Verhandelingen No. 178. KITLV Press Leiden, Netherlands.

Boomgaard, P. 1998. The VOC trade in forest products in the seventeenth century. *In*: Grove, R.H., Damodaran, V. and Sangwan, S. (eds.) Nature and the Orient: the environmental history of South and Southeast Asia, 375-395. Oxford University Press, Delhi, etc.

Boomgaard, P., Colombijn, F. and Henley, D. (eds.) 1997. Paper landscapes: explorations in the environmental history of Indonesia. KITLV Verhandelingen No. 178. KITLV Press Leiden, Netherlands.

Boserup, E. 1965. The conditions of agricultural growth: the economics of agrarian change under population pressure. Allen and Unwin, London.

Broersma, R. 1927. *Handel en Bedrijf in Zuid- en Oost-Borneo*. G. Naeff, 's-Gravenhage, Netherlands. 247p.

Brookfield, H., Jana Lian, F., Low Kwai-Sim and Potter, L. 1990. Borneo and the Malay peninsula. *In*: Turner II, B.L. *et al.* (eds.) The earth as transformed by human action: global and regional changes in biosphere. Cambridge University Press, Cambridge.

Brookfield, H.C., Potter, L. and Byron, Y. 1995. In place of the forest: environmental and socio-economic transformation in Borneo and the Eastern Malay Peninsula. United Nations University Press, Tokyo.

Brosius, J.P. 1986. River, forest and mountain: the Penan Gang landscape. Sarawak Museum Journal 36: 173-184.

Brosius, J.P. 1992. The axiological presence of death among the Penan Gang of Sarawak, Malaysia. Ph.D. Dissertation in Anthropology. University Dissertation Publications.University of Michigan, Ann Arbor, Michigan.

Brosius, J.P. 1995. Bornean forest trade in historical and regional perspective: the case of Penan hunter-gatherers of Sarawak. *In*: Fox, J. (ed.), Society and non-timber forest products in tropical Asia, 13-26. Occasional Papers, Environment Series, No. 19. East-West Center, Honolulu.

Brosius, J.P. 1997. Endangered forest, endangered people: environmentalist representations of indigenous knowledge. Human Ecology 25: 47-69.

Brosius, J.P., Lowenhaupt Tsing, A. and Zerner, C. 1998. Representing communities: histories and politics of community-based natural resource management. Society and Natural Resources 11: 157-168.

Brown, D.E. 1970. Brunei: the structure and history of a Bornean Malay sultanate. Monograph, Vol. 2, No. 2. Brunei Museum, Brunei.

Brown, D.E. 1980. Hiranyagarbha - the Hindu cosmic egg - and Brunei's royal line. Brunei Museum Journal 4 (4): 30-37.

Budi Harsono, S.H. 1982. *Hukum Agraria Indonesia, himpunan peraturan perundang-undangan peraturan Hukum Tanah*. Djambatan, Jakarta.

Bulbeck, D., Reid, A. Lay Cheng Tan and Yiqi Wu. 1998. Southeast Asian exports since the 14th century: cloves, pepper, coffee and sugar. Sources for the Economic History of Southeast Asia 4. Institute of Southeast Asian Studies, Singapore.

Bunde, Y.P. 1995. *Pola penguasaan hak atas tanah pada Masyarakat Kenyah Bakung di Long Apan Baru*: report. Culture and Conservation and. WWF and PHPA, Jakarta. 25p.

Burkill, I.H. 1966. A dictionary of the economic products of the Malay Peninsula. Ministry of Agriculture and Cooperatives, Kuala Lumpur. 2 vols.

Bushar Muhammad, S.H. 1981. *Azas-Azas hukum adat (Suatu Pengantar)*. 3rd ed. Pradnya Paramita, Jakarta.

Bushar Muhammad, S.H. 1985. *Pokok-pokok Hukum Adat*. Pradnya Paramita, Jakarta.

Caldecott, J.O. 1988. Hunting and wildlife management in Sarawak. IUCN, Cambridge.

Caldecott, J.O. 1990. Eruptions and migrations of bearded pig populations. Bongo 18: 2-12.

Caldecott, J.O. and Caldecott, S. 1985. A horde of pork. New Scientist 1469: 32-35.

Cense, A.A. 1928. *De kroniek van Bandjarmasin*. C.A. Mees, Santpoort.

Cense, A.A. and Ühlenbeck, E.M. 1958. Critical survey of studies on the languages of Borneo. Martinus Nijhoff, 's-Gravenhage, Netherlands.

Césard, Nicolas. 2001. Four ethnic groups (Punan, Kenyah, Merap, Lun Dayeh) faced with changes along the Malinau River (Kalimantan Timur). Forest Product and People Programme, CIFOR, Bogor, Indonesia.

Chartier, D. and Sellato, B. 1998. *La prise en compte des pratiques et des usages autochtones: réalité efficiente ou construction occidentale à visée néolibérale. Interférences entre chercheurs et operateurs/ bailleurs de fonds.* Paper to Second Conference, Dynamiques Sociales et Environnement, Bordeaux, France, September 1998.

Chew, D. 1990. Chinese pioneers on the Sarawak frontier 1841-1941. South-East Asian Historical Monographs. Oxford University Press, Singapore.

Chin, S. C. 1985. Agriculture and resource utilization in a lowland rainforest Kenyah community. Sarawak Museum Journal, Special Monograph No. 4.

Chin, S. C. 1984. Agriculture and subsistence in a lowland rainforest Kenyah community. (Volumes I and II). Yale University.

Christensen, H. and Mertz, O. 1993. The risk avoidance strategy of traditional shifting cultivation in Borneo. Sarawak Museum Journal 44: 1-18.

Christianita L. Day. 1995. *Perubahan sosial dan dampaknya terhadap organisasi pertanian di Desa Long Pujungan dan Long Alango*: report. Culture and Conservation, WWF/IP, Jakarta.

CIFOR. 1997-98. A number of field trip reports by Hussey, S. *et al.*, Katz, E., Wollenberg, L., Wollenberg, L. and Asung Uluk.

CIFOR, 2000. *Pedoman Pemetaan Desa Partisipatif di Sungai Malinau.* CIFOR, Bogor, Indonesia.

Cleary, M., and Eaton, P. 1992. Borneo: change and development. Oxford University Press, Singapore. 271p.

Colfer, C.P. 1981. Women, men and time in the forests of East Kalimantan. Borneo Research Bulletin 13: 75-85.

Colfer, C.P. 1983. Change and indigenous agroforestry in East Kalimantan. Borneo Research Bulletin, 15: 3-21.

Colfer, C.P. 1993. Shifting cultivators of Indonesia: marauders or managers of the forest? (with Dudley, R.G. and collaboration of Hadikusumah, H., Rusydi, Sakuntaladewi, N. and Amblani). FAO Community Forestry Case Study Series, No. 6. Food and Agriculture Organization, Rome.

Colfer, C.P., Peluso, N. and Chin, S.C. 1997. Beyond slash and burn: building on indigenous management of Borneo's tropical rain forests. The New York Botanical Garden, New York.

Colson, E. 1979. In good years and in bad: food strategies of self-reliant societies. Journal of Anthropological Research 35: 18-29.

Conklin, H. 1957. Hanunoo Agriculture. United Nations, Rome.

Conley, W.W. 1973. The Kalimantan Kenyah: a study of tribal conversion in terms of dynamic cultural themes. Presbyterian and Reformed Publishing Company, Nurley, New York.

Conley, W.W. 1974. Kenyah cultural themes and their interrelationships. Sarawak Museum Journal, 22: 304-309.

Coomans, M. 1987. *Manusia Dayak, Dahulu, Sekarang, Masa Depan*. Gramedia, Jakarta.

Crain, J.B. 1970. The Lun Dayeh of Sabah, East Malaysia: aspects of marriage and social exchange. Ph.D. dissertation, Cornell University. University Microfilms International, Ann Arbor, Michigan. 410p.

Crain, J.B. 1978. The Lun Dayeh. *In*: King, V.T. (ed.) Essays on Borneo societies,123-142. Monographs on South-East Asia, No. 7. Oxford Univ. Press, London.

Cramb, R.A. 1985. The importance of secondary crops in Iban hill rice farming. Sarawak Museum Journal 34: 37-45.

Cramb, R.A. 1989. Explaining variation in Bornean land tenure: the Iban case. Ethnology 28: 277-300.

Cramb, R.A. and Wills, I.R. 1990. The role of traditional institutions in rural development: community-based land tenure and government land policy in Sarawak, Malaysia. World Development. 18: 347-360.

Damus, D. 1992. *Pengetahuan tentang varietas padi dan tipe budidayanya pada Masyarakat Dayak Hulu Sungai Bahau, Kalimantan Timur*. Paper to Second Biennial International Conference of the Borneo Research Council, Kota Kinabalu, July 1992.

Deegan, J.L. 1973. Change among the Lun Bawang, a Borneo people. Ph.D. dissertation, University of Washington. University Microfilms International, Ann Arbor, Michigan.

Deegan, J.L. 1974. Community fragmentation among the Lun Bawang. Sarawak Museum Journal 22: 229-247.

Devung, G.S. 1993. *Kelompok Suku Dayak Kenyah di Sungai Alan: suatu kasus perubahan kebudayaan*: report. P and K, Samarinda, Indonesia.

Devung, G.S. 1996. *Praktik dan pranata tradisional pemanfaatan dan pengelolaan Sumber Daya Hutan di Daerah Sungai Bahau, Kalimantan Timur*. Magister Thesis. Program Studi Antropologi, Program Pasca Sarjana Universitas Indonesia, Jakarta.

Devung, G.S. 1997. *Adat dan kelestarian alam di Daerah Sungai Bahau Kawasan Taman Nasional Kayan Mentarang*. Pusat Kebudayaan dan Alam Kalimantan, Samarinda. 81p.

Devung, G.S. and Michael, S.E. 1990. *Potensi adat Masyarakat Dayak Bahau untuk Pengembangan Program Kepariwisataan dan Pembangunan Daerah*. Paper to Seminar Adat Dayak Se-Kabupaten Kutai, Tenggarong, 9-11 November 1990.

Devung, G.S. and Rudy A.K. 1998. *Sistem pemilikan tanah tradisional pada Masyarakat Adat Di Kawasan Taman Nasional Kayan Mentarang*. Pusat Kebudayaan dan Alam Kalimantan, Samarinda, Indonesia. 46p.

Devung, G.S. *et al*. 1984-85. *Penelitian Suku Terasing Kenyah Kalimantan Timur (Kelompok Suku Dayak Kenyah di Sungai Alan. Suatu Kasus Perubahan Kebudayaan)*: report. P dan K, Direktorat Sejarah dan Nilai Tradisional, Proyek Inventarisasi dan Dokumentasi Kebudayaan Daerah, Jakarta. 199p.

Dhani Subroto. 1996. *Sistem pengelolaan Hutan Lindung Tradisional Tana ulen oleh Masyarakat Kenyah di Desa Batu Majang, Kecamatan Long Bagun, Kabupaten Kutai*: report. Fakultas Kehutanan, Universitas Mulawarman, Samarinda, Indonesia.

Didin Suryadin 1994. *Aktivitas di sekitar kawasan konservasi Kayan Mentarang dan permasalahaanya*: part(s) of a report (including 'Pemungutan kayu gaharu di dalam dan sekitar ... Kayan Mentarang'). WWF-Kayan Mentarang, Samarinda, Indonesia.

Dixon, A., Roditi, H. and Siverman, L. 1991. From forest to market. A feasibility study of the development of selected non timber forest product from Borneo for the U.S. Market. Volume I: The report. Project Borneo, Cambridge, Massachussetts.

Dollop Mamung. 1998. *Kamus Punan-Indonesia*. Bah Ngguh Punan Tufu. Kamus Bahasa Punan Tubu. Pusat Kebudayaan dan Alam Kalimantan, Samarinda, Indonesia. 232p.

Dove, M.R. 1980. The swamp rice swiddens of the Kantu' of West Kalimantan, Indonesia. *In*: Furtado, J.I. (ed.) Tropical ecology and development, 953-956. International Society of Tropical Ecology, Kuala Lumpur.

Dove, M.R. 1983. Forest preference in swidden agriculture. Tropical Ecology 24: 122-142.

Dove, M.R. 1985a. The agroecological mythology of the Javanese and the political economy of Indonesia. Indonesia 39: 1-36.

Dove, M.R. 1985b. Swidden agriculture in Indonesia: the subsistence strategies of the Kalimantan Kantu. Mouton, Berlin. 515p.

Dove, M.R. 1985c. The Kantu' system of land tenure: the evolution of tribal land rights in Borneo. *In*: Appell, G.N. (ed.). Modernization and the emergence of a landless peasantry, 159-182. Studies in Third World Societies, Publication No. 33. College of William and Mary, Williamsburg, Virginia.

Dove, M.R. (ed.) 1985. *Peranan Kebudayaan Tradisional Indonesia dalam Modernisasi*. Yayasan Obor Indonesia,Jakarta.

Dove, M.R. 1988 *Sistem Perladangan di Indonesia: suatu studi kasus dari Kalimantan Barat*. Gadjah Mada University Press, Yogyakarta, Indonesia.

Dove, M.R. (ed.) 1988. The real and imagined role of culture in development. Case studies from Indonesia. University of Hawaii Press, Honolulu.

Dove, M.R. 1989. The transition from stone to steel in the prehistoric swidden agricultural technology of the Kantu' of Kalimantan, Indonesia. *In*: Harris, D.R. and Hillman, G.C. (eds.) Foraging and farming: the evolution of plant exploitation, 667-677. One World Archaeology 13. Unwin Hyman, London.

Dove, M.R. 1992. Foresters' beliefs about farmers: a priority for social science research in social forestry. Agroforestry Systems 17: 13-41.

Dove, M.R. 1993a. Uncertainty, humility, and adaptation in the tropical forest: the agricultural augury of the Kantu. Ethnology 32: 145-167.

Dove, M.R. 1993b. A revisionist view of tropical deforestation and development. Environmental Conservation 20 : 17-25.

Dove, M.R. and Kammen, D. 1997. The epistemology of sustainable resource use: managing forest products, swiddens, and high-yielding variety crops. Human Organization, 56: 91-101.

Dove, M.R. and Tri Nugroho. 1994. Review of 'Culture and Conservation' 1991-1994: a sub-project funded by the Ford Foundation, World Wide Fund for Nature, Kayan Mentarang Nature Reserve Project in Kalimantan, Indonesia: review report.

Dransfield, J. 1977. Dryland sago palms. *In*: Tan Koonlin (ed.) Sago-76: papers of the First International Sago Symposium, 77-83. University of Malaya Press, Kuala Lumpur.

Dransfield, J. 1979. A manual of the rattans of Malay Peninsula. Forestry Record 29. (Forestry Department, West Malaysia).

Dunn, F.L. 1975. Rain-forest collectors and traders: a study of resource utilization in modern and ancient Malaya. Monograph No. 5. Royal Asiatic Society, Malaysian Branch, Kuala Lumpur.

Dyson, L. 1995. *Sejarah perladangan di Long Pua': studi tentang interaksi manusia dengan lingkungan hutan*: report. Culture and Conservation, WWF/IP, Jakarta.

Edmunds, D. and Wollenberg, E. 2001. A strategic approach to multistakeholder negotiations. Development and Change, 32 (2): 231-253.

Eghenter, C. 1995. Knowledge, action, and planning: a study of long-distance migrations among the Kayan and Kenyah of East Kalimantan, Indonesia. Ph.D. dissertation, Rutgers University.

Eghenter, C. 1997a. Social forestry in a conservation area: developing community-based management in the Kayan Mentarang National Park. Paper to Lokakarya Pengelolaan Hutan Berbasiskan Masyarakat di Kalimantan Timur, Samarinda, September 1997.

Eghenter, C. 1997b. Can research promote conservation and participation? Assessing the role of anthropological research in a conservation and development project in Borneo. Paper to American Anthropological Association Annual Meeting, Washington DC, November 1997.

Eghenter, C. 1997c. Cultural dimensions of forest management in and around the Kayan Mentarang Conservation Area, East Kalimantan, Indonesia: final report. Culture and Conservation, WWF/IP, Jakarta, November 1997.

Eghenter, C. 1999. Migrants' practical reasonings: the social, political, and environmental determinants of long-distance migrations among the Kayan and Kenyah of the interior of Borneo. Sojourn 14: 1-33.

Eghenter, C. 2000. What is tana ulen good for? Considerations on indigenous forest management, conservation, and research in the interior of Indonesian Borneo. Human Ecology 28: 331-357.

Eghenter, C. 2001 Social, environmental, and legal dimensions of *adat* and its role in conservation areas. A case study from East Kalimantan, Indonesia, conference paper, *Resource Tenure, Forest Management, and Conflict Resolution: Perspectives from Borneo and New Guinea*, Canberra, Australian National University, 9-11 April 2001.

Eghenter, C. In Press. Research strategies, conservation objectives, and community participation: the third phase of the Culture and Conservation Program, Kayan Mentarang Project, WWF/IP. *In*: King, V.T. (ed.) Rural development and social science research: cases from Borneo. Borneo Research Council, Williamsburg, Virginia.

Eghenter, C. In Press. Long-distance migrations in the interior of Borneo: a continuing tradition? *In*: Eghenter, C. and Sellato, B. (eds.) Culture and conservation in Borneo. UNESCO, Paris.

Eghenter, C. and Sellato, B. 1999. *Pendahuluan*. *In*: Eghenter, C. and Sellato, B. (eds.) Kebudayaan dan pelestarian alam: penelitian interdisipliner di pedalaman Kalimantan, 7-58. PHPA/The Ford Foundation/WWF, Jakarta.

Eghenter, C. and Sellato, B. (eds.) 1999. *Kebudayaan dan pelestarian alam: penelitian interdisipliner di pedalaman Kalimantan*. PHPA/The Ford Foundation/WWF, Jakarta.

Eghenter, C. and Sellato, B. (eds.) In Press. Culture and conservation in Borneo. UNESCO, Paris.

Ellen, R.F. 1979. Sago subsistence and the trade in spices: a provisional model of ecological succession and imbalance in Moluccan history. *In*: Burnham, P.C. and Ellen, R.F. (eds.) Social and ecological systems, 43-74. Association of Social Anthropologists Monographs 18. Academic Press, London/New York/San Francisco.

Ellen, R.F. and Harris, H. 1997. Concepts of indigenous environmental knowledge in scientific and development studies literature. A critical assessment. European Commission DG VIII, AFTP Working Paper No. 2, October 1997. 16p.

Elshout, J.M. 1926. *De Kenja-Dajaks uit het Apokajan gebied*. Nijhoff, 's-Gravenhage, Netherlands.

Eng, P. van der. 1998. Cassava in Indonesia: a historical re-appraisal of an enigmatic food crop. Southeast Asian Studies 36 : 3-31.

Evers, P.J. 1995. Preliminary policy and legal questions about recognizing traditional land in Indonesia. Ekonesia 3: 1-23.

Fasihuddin B. Ahmad. 1993. Medicinal plants used by Kadayan community in Sarawak. Sarawak Museum Journal 44: 45-57.

Fischer, L.S. and Gramberg, H. 1910. *Tochten naar Boven-Boeoloengan en de Apo-Kajan (Zuider- en Ooster-afdeeling van Borneo)*. TNAG 27: 263-306.

Fitzpatrick, D. 1997. Disputes and pluralism in modern Indonesian land law The Yale Journal of International Law 22: 171-212.

Foster, G.M. 1962. Traditional cultures and the impact of technological change. Harper and Row, New York.

Fox, J. (ed.) 1995. Society and non-timber forest products in tropical Asia. Occasional Papers, Environment Series, No. 19. East-West Center, Honolulu. 144p.

Fox, J.J. (ed.) 1992. The heritage of traditional agriculture among the western Austronesians. Australian National University, Canberra.

Franz, J. Frhr. Von. 1988. Population development in East Kalimantan 1971-1987. Technical Report No. 88-10. Technical Cooperation for Area Development (TAD), Samarinda, Indonesia. 144p.

Freeman, J.D. 1955. Iban agriculture: a report on the shifting cultivation of hill rice by the Iban of Sarawak. HMSO, London.

Freeman, J.D. 1970. Report on the Iban. London School of Economics, Monographs on Social Anthropology, No. 41. Athlone Press, New York. 317p.

Fried, S. 1992. Notes on traditional land and natural resource ownership and usufruct rights in the Bahau River area: report toWWF, October 1992.

Fujisaka, S. 1986. Pioneer shifting cultivation, farmer knowledge, and an upland ecosystem: co-evolution and systems sustainability in Calminoe, Philippines. Philippine Quarterly of Culture and Society 14: 137-164.

Gallop, A. The. 1995. Malay sources for the history of the sultanate of Brunei in the early nineteenth century: some letters from the reign of sultan Muhammad Kanzul Alam. *In*: King, V.T. and Horton, A.V.M. (eds.) From Buckfast to Borneo: essays presented to father Robert Nicholl on the 85th anniversary of his birth, 27 March 1995, 207-35. Centre for South-East Asian Studies, University of Hull, Hull, England.

Galvin, A.D. 1975. Tribal authority among the Kenyahs. Sarawak Museum Journal, 23 (44 N.S): 91-94.

Genderen Stort, P. van. 1916. *Nederlandsch-Tidoengsch-Tinggalan-Dajaksche Woordenlijst*. VBGKW 61: 1-100.

Gomez-Gonzales, Irma C. 1999. Indigenous Management of Forest Resources in East Kalimantan, Indonesia: The Role of Secondary Forests. MSc Thesis Tropical Forestry. Unpublished report. Wageningen Agricultural University.

Gooszen, H. 1999. A demographic history of the Indonesian Archipelago 1880-1942. KITLV Press, Leiden, Netherlands.

Grossmann, C.M. 1992. Use, cultivation, marketing and processing of tengkawang and other agroforestry- and non-timber forest products in the Sanggau District. Report, Social Forestry Development Project West Kalimantan, GTZ, Sanggau, December 1992. 41p.

Guerreiro, A.J. 1992. Some aspects of change among the Baluy Kayan. Sarawak Museum Journal 43: 47-105.

Guerreiro, A.J. 1993. Towards a redefinition of the role of adat in central Borneo. *In*: Sutlive, V.H. Jr. (ed.) Change and development in Borneo, 129-148. Borneo Research Council, Williamsburg.

Guerreiro, A.J. 1996. The fabric of *adat*: language and dispute settlement in Kayan-Kajang longhouse communities (Sarawak, Malaysia). Paper to Fourth Biennial Conference of the Borneo Research Council, Bandar Seri Begawan, June 1996. 20p.

Guerreiro, A.J. and Sellato, B. 1984. Traditional migration in Borneo: the Kenyah case. Borneo Research Bulletin 16: 12-28; 76-81.

Gun Kila. 1949. *Sebuah cerita mengenai perjalanan hidup Suku Kenyah Apau Kayan pada umumnya, khususnya Lepo' Tau dan Lepo' Timai*. MS, disusun ulang oleh Ului Tanyit (1969) dan Lencau Ingkong (1988).

Haar Bzn., B. ter. 1980. *Asas-asas dan susunan hukum adat* Diterjemahkan oleh K. Ng. Soebakti Poesponoto. 5th ed. Pradnya Paramita, Jakarta.[English ed. Adat Law in Indonesia, 1948; original ed. in Dutch].

Hall, K.R. 1995. Upstream and downstream networking in seventeenth century Banjarmasin. *In*: King, V.T. and Horton, A.V.M. (eds.) From Buckfast to Borneo: essays presented to father Robert Nicholl on the 85th anniversary of his birth, 27 March 1995, 489-504. Centre for South-East Asian Studies, University of Hull, Hull, England.

Hang Nyipa. 1956. Migrations of the Kayan people. Sarawak Museum Journal 7 (7): 82-88.

Harrisson, T. 1959a. World within. A Borneo story. Cresset Press, London. 349p.

Harrisson, T. 1959b. The Kelabits and Muruts. *In*: Harrisson, T. (ed.) The peoples of Sarawak, 57-71. Government Printing Office, Kuching.

Harrisson, T. 1967. Ethnological notes on the Muruts of the Sapulut River, Sabah. JMBRAS 40: 111-129.

Headland, T. 1997. Revisionism in ecological anthropology. Current Anthropology. 38: 605-630.

Heist, Miriam van. 2000. Participatory mapping of village territories, Malinau, East Kalimantan, January-December 2000. Some lessons in 'Adaptive Use and Management of Geographic Data'. A report. CIFOR, Bogor, Indonesia.

Helliwell, C. 1992. Evolution and ethnicity: a note on rice cultivation practices in Borneo. *In*: Fox, J.J. (ed.) The heritage of traditional agriculture among the Western Austronesians, 7-20. Occasional Paper. Department of Anthropology, Australian National University, Canberra.

Henoch Merang. 1970. *Sejarah Apo Kayan*. Akademi Pemerintahan Dalam Negeri, Samarinda, Indonesia.

Heyne, K. 1927. *De nuttige planten van Nederlandsch-Indië*. Departement van Landbouw, Nijverheid en Handel, Buitenzorg. 3 vols.

Hildebrand, H.K. 1982. *Die Wildbeutergruppen Borneos*. Münchner Ethnologische Abhandlungen, Vol. 2, Institut für Völkerkunde und Afrikanistik, Münchner Universitätsschriften. Minerva Publikation, München.

Hladik, C.M. *et al.* (eds.) 1993. Tropical forests, people and food. biocultural interactions and applications to development. Man and the Biosphere Series, No. 13. UNESCO, Paris and Parthenon, London.

Hoffman, C.F. 1985. *Punan liar di Kalimantan: alasan ekonomi*. *In*: Dove, M.R. (ed.), Peranan kebudayaan tradisional Indonesia dalam modernisasi, 123-162. Yayasan Obor, Jakarta.

Hong, E. 1987. Natives of Sarawak: survival in Borneo's vanishing forest. Institut Masyarakat Malaysia, Pulau Pinang, Indonesia. 259p.

Horner, S. and Schulte-Tenckhoff, I. 1995. *Le Bon Sauvage, nouvelle donne*. *In*: Ecologie contre nature. Développement et politiques d'ingérence, 21-39. PUF, Paris and Nouveaux Cahiers de l'IUED, Genève.

Hose, C., and McDougall, W. 1966 (1912) The pagan tribes of Borneo. McMillan, London. 2 vol.

Hoskins, J. 1996. Introduction: headhunting as practice and as trope. *In*: Hoskins, J. (ed.) Headhunting and the social imagination in Southeast Asia, 1-49. Stanford University Press, Stanford.

Hudson, A.B. 1978. Linguistic relations among Bornean peoples with special reference to Sarawak: an interim report. *In*: Sarawak. Linguistics and development problems, 1-44. Studies in Third World Societies, Publication No. 3. College of William and Mary, Williamsburg, Virginia.

Hunt, J. 1837. Sketch of Borneo or Pulo Kalamantan [...]. *In*: Moor, J.H. (ed.) Notices of the Indian Archipelago, and adjacent countries, 12-30. n.p., Singapore.

Hutterer, K.L. 1983. The natural and cultural history of Southeast Asian agriculture: ecological and evolutionary considerations. Anthropos 78: 169-212.

Iman Sudiyat. 1981. *Hukum adat*. Sketsa azas. Liberty, Yogyakarta. 200p.

Iman Sudiyat. 1982. *Asas-asas hukum adat - bekal pengantar*. Liberty, Yogyakarta.

Ingerson, A.E. 1997. Comment on T. Headland's Revisionism in ecological anthropology. Current Anthropology 38: 615-616.

Ipoi Datan. 1989. A brief ethnography of the Lun Bawang of Sarawak. Sarawak Museum Journal 40, Special Issue No. 4, Part III: 143-156.

Irwin, G. 1955. Nineteenth century Borneo: a study in diplomatic rivalry. Moore, Singapore.

Iskandar Zulkarnean *et al.* 1995. *Pesona dan Tantangan Bulungan*. Pemda Tingkat II Bulungan, Tanjung Selor. Indonesia. 156p.

Jackson, J.C. 1970. Chinese in the West Borneo gold fields: a study in cultural geography. Occasional Papers in Geography, No. 15. University of Hull, Hull, England.

Jacob Dungau Sagan. 1989. The Kenyah of Sarawak. Sarawak Museum Journal 40, Special Issue No. 4, Part III: 119-141.

Jacobus E. Frans L.,S. 1995. *Hak milik adat atas tanah pada masyarakat Suku Bangsa Dayak Kenyah di Kecamatan Long Pujungan:* report. Culture and Conservation, WWF and PHPA, Jakarta. 40p.

Janowski, M.R.H. 1993. The symbolic significance of food from the forest among the Kelabit of Sarawak, East Malaysia. *In*: Hladik, C.M. *et al.* (eds.) Tropical forests, people and food. Biocultural interactions and applications to development, 651-660. Man and the Biosphere Series, No. 13. UNESCO, Paris and Parthenon, London.

Jayl Langub. 1984. Economic activities of the people of Ba Kelalan: an overview. Sarawak Gazette 110: 3-17.

Jessup, T.C. 1981. Why do Apo Kayan shifting cultivators move? Borneo Research Bulletin 13: 16-32.

Jessup, T.C. 1991. *Keberlangsungan (persistensi) dan perubahan dalam kebiasaan berladang di Apau Kayan, Kalimantan Timur*. Report, KMCP, WWF and PHPA, Jakarta.

Jessup, T.C. 1992. Persistence and change in the practice of shifting cultivation in the Apo Kayan, East Kalimantan, Indonesia. *In*: Fox, J.J. (ed.) The heritage of traditional agriculture among the western Austronesians, 21-32. Research School of Pacific Studies (Comparative Austronesian Project) and Department of Anthropology, Australian National University, Canberra.

Jessup, T.C. 1993. The Kayan Mentarang Nature Reserve: Nature Conservation by and for the People in East Kalimantan. Conservation Indonesia 9(3): 16-22.

Jessup, T.C. n.d. 1. Preliminary report on migration and trading. MS.

Jessup, T.C. n.d. 2. Appendix to notes on migration and settlement. MS.

Jessup, T.C. and Mackie, C. 1984. A response to Guerreiro and Sellato on Kenyah migration. Borneo Research Bulletin, 16: 81-84.

Jessup, T.C. and Peluso, N.L. 1986. Minor forest product as common property resources in East Kalimantan, Indonesia. *In*: Proceedings of the Conference on Common Property Resources

Management, April 21-26, 1985, 505-531. National Academy Press, Washington, D.C.

Jessup, T.C. and Sellato, B. 1990. Field project in oral tradition and social forestry in East Kalimantan, Indonesia. A proposal to the Ford Foundation by the World Wide Fund for Nature. Project proposal, WWF/IP, Jakarta, October 1990.

Jessup, T.C. and Sellato, B. 1992. Culture and conservation in East Kalimantan. Proposal for 1993 (Phase 2) to the Ford Foundation by the World Wide Fund for Nature Indonesia Programme. Project proposal, WWF/IP, Jakarta, November 1992.

Jessup, T.C. and Sellato, B. 1993. Culture and conservation in East Kalimantan, Report on the First Phase of Training and Field Work, 1991-1992, in the Kayan Mentarang Nature Reserve and Vicinity. Report, WWF/IP, Jakarta, February 1993.

Jessup, T.C. and Sellato, B. 1994. Culture and conservation in East Kalimantan: Phase III. Dissemination and review of results from 1991 to 1994. A proposal to the Ford Foundation from the World Wide Fund for Nature Indonesia Programme. Project proposal, WWF/IP, Jakarta, July 1994.

Jessup, T.C. and Sellato, B. 1995. Cultural dimensions of forest management in and around the Kayan Mentarang Conservation Area, East Kalimantan, Indonesia. A proposal to the Ford Foundation from the World Wide Fund for Nature Indonesia Programme. Project proposal, WWF/IP, Jakarta, July 1995.

Jiuhardi, Drs. and Trivena, Dra. 1990. *Adat Suku Dayak Kenyah*. Paper to Seminar Adat Dayak se-Kabupaten Kutai, Tenggarong, 9-11 November 1990.

Jong, W. de. 1993. Wise use of forest resources in Kalimantan: a potential for development. Tropenbos Newsletter 5: 1-4.

Jongejans, J. 1922. *Uit Dajakland*. Meulenhoff, Amsterdam. 290p.

Juliansyah *et al.* 1992/1993. *Laporan penelitian studi tentang sosio-demografi penduduk provinsi Kalimantan Timur*: report. Pusat Penelitian, Universitas Mulawarman, Samarinda, Indonesia. 45p.

Kanyan, C. 1995. *Pola penguasaan hak atas tanah pada masyarakat Leppo' Ké di Apau Ping*: report. Culture and Consevation, WWF and PHPA, Jakarta. 30p.

Karina Arifin. 1994. Archaeological remains in the Kayan Mentarang area, East Kalimantan. Paper to Indo-Pacific Prehistoric Association Meeting, Chiangmai, Thailand. 4p.

Karina Arifin. 1995. *Etnoarkeologi di Kayan Mentarang: hasil survei arkeologi dan etnografi: report*. Culture and Consevation , WWF and PHPA, Jakarta. 116p.

Kartawinata, K. *et al*. 1984. The impact of development on interactions between people and forests in East Kalimantan: a comparison of two areas of Kenyah Dayak settlement. The Environmentalist, Vol. 4, Supplement No. 7.

Kaskija, L. 1992a. An ethnic sketch of the Malinau-Tubu area, with particular reference to Punan, Merap and Tebilun. MS. Field report. 13p.

Kaskija, L. 1992b. *Sejarah Suku Merap*. MS. Field report. Yogyakarta, 33p.

Kaskija, L. 1998. The Punan of Borneo: cultural fluidity and persistency in a forest people. *In*: Hornborg, A. and Kurkiala, M. (eds.) Voices of the land: identity and ecology in the margins, 321-361. Lund Studies in Human Ecology, No. 1. Lund University Press, Lund.

Kaskija, L. 2000. Punan Malinau and the Bulungan Research Forest: report, June 2000. CIFOR, Bogor, Indonesia.

Kaskija, L. In Press. Stuck at the bottom: opportunity structures and Punan Malinau identity. *In*: Sellato, B. and Sercombe, P. (eds.).The nomads of Borneo today. Resilience and change among forest hunter-gatherers.

Kaur, Amarjit. 1998. A history of forestry in Sarawak. Modern Asian Studies 32: 117-147.

Kedit, P.M. 1982. An ecological survey of the Penan. Sarawak Museum Journal 30: 225-279.

Keppel, H. 1846. The expedition to Borneo of H.M.S. Dido for the suppresion of piracy: with extracts from the journal of James Brooke, esq. of Sarawak, (now her majesty's commissioner and consul-general to the sultan and independent chiefs of Borneo). Chapman and Hall, London.2 vols.

King, V.T. 1976. Migration, warfare, and culture contact in Borneo; a critique of ecological analysis. Oceania 46: 306-327.

King, V.T. 1978. Revitalization movements in Kalimantan. Indonesia Circle 17: 14-27.

King, V.T. (ed.) 1978. Essays on Borneo societies. Monographs on South-East Asia, No. 7. Oxford University Press, Oxford:

Kiyono, Y. and Hastaniah. 1996. Forest conversion and the role of slash-and-burn agriculture in lowland Kalimantan. Borneo Research Bulletin 27: 70-76.

Kleymeyer, C. 1994. Cultural traditions and community-based conservation. *In*: Western, D., Wright, R.M. and Strum, S. (eds.) Natural connections: perspectives in community-based conservation, 323-346. Island Press, Washington, D.C.

Knapen, H. 1997a. Epidemics, droughts and other uncertainties in Southeast Borneo during the eighteenth and nineteenth centuries. *In*: Boomgaard, P., Colombijn, F. and Henley, D. (eds.) Paper landscapes; explorations in the environmental history of Indonesia, 121-52., KITLV Verhandelingen 178. KITLV Press, Leiden, Netherlands.

Knapen, H. 1997b. Archival sources for the colonial history of Kalimantan in Jakarta. Borneo Research Bulletin 28: 109-116.

Knapen, H. 1998. Forests of fortune? The environmental history of Southeast Borneo, 1600-1880. Unpublished Ph.D. dissertation, Leiden University.

Koesnoe, Moh., S.H. 1988. *Beberapa masalah adat yang berhubungan dengan pembebasan hak atas tanah*. Paper to Seminar Hukum Adat, Fakultas Hukum, Universitas Tanjungpura, Pontianak, 12-14.

Konradus, B. 1995. *Jaringan pemasaran hasil hutan di kawasan sungai Bahau Kecamatan Long Pujungan*: report. Culture and Conservation, WWF/IP, Jakarta.

Konradus, B. 1999 *Jaringan pemasaran gaharu, pengelolaan hutan, dan dampak sosiologis, ekonomis, dan ekologisnya di kawasan Sungai Bahau*. *In*: Eghenter, C. and Sellato, B. (eds.) Kebudayaan dan pelestarian alam: penelitian interdisipliner di pedalaman Kalimantan, 181-200. PHPA/The Ford Foundation/WWF, Jakarta.

Kottak, C.P. 1995. Participatory development: rhetoric and reality. Paper to AAA Annual Meeting, Washington, November 1995.

Lah Jau Uyo. 1989. Kayan people of Sarawak. Sarawak Museum Journal 40: 57-87.

Lahjie, A.M., and Seibert, B. 1988. *Prosiding seminar agroforestry untuk pengembangan daerah pedesaan di Kalimantan Timur*. Fakultas Kehutanan Universitas Mulawarman and GTZ, Samarinda, Indonesia.

Lawrence, D.C., Leighton, M. and Peart, D.R. 1995. Availability and extraction of forest products in managed and primary forest around a Dayak village in West Kalimantan, Indonesia. Conservation Biology 9: 76-88.

Leaman, D.J., Razali Yusuf and Sangat-Roemantyo, H. 1991. Kenyah Dayak forest medicines. World Wide Fund for Nature Indonesia Programme, Jakarta.

LeBar, F.M. 1972. *Kelabitic Murut. In*: LeBar, F.M. (ed.) Ethnic groups of insular Southeast Asia. Volume 1: Indonesia, Andaman Islands, and Madagascar, 158-163. HRAF Press, New Haven.

Lewis, R. 1987. *Ringkasan sejarah gereja kemah injil Indonesia 1928-1987*. Kalam Hidup, Bandung.112p.

Liman Lawai. 1995. *Sejarah suku-suku Kenyah di Apau Kayan, dengan perhatian khusus pada sejarah dan struktur masyarakat suku Kenyah Leppo' Tau*: report. Culture and Conservation, WWF/IP, Jakarta. 86p.

Lindblad, J.T. 1988. Between Dayak and Dutch. The economic history of Southeast Kalimantan, 1880-1942. KITLV, No. 134. Foris, Verhand. Dordrecht, Netherlands. 282p.

MacKinnon, K. *et al.* 1996. The ecology of Kalimantan. Periplus Editions, Hongkong. 802p.

Magenda, B. 1991. East Kalimantan. The decline of a commercial aristocracy. Cornell Modern Indonesia Project, Monograph Series, No. 70. Southeast Asia Program, Cornell University, Ithaca, New York. 113p.

Mallinckrodt, J. 1928. *Het adatrecht van Borneo*. Dubbeldeman, Leiden, Netherlands. 2 vols.

Marryat, F.S. 1848. Borneo and the East Indian Archipelago. Longman, Brown, Green and Longman, London.

Marten, Gerald G. (ed.) 1986. Traditional agriculture in Southeast Asia. A human ecology perspective. Westview Press, Boulder and London.

Martin Lenjau. 1995. *Keragaman kerajinan tangan dari rotan serta kegunaannya di Desa Long Alango*: report. Culture and Conservation, WWF/IP, Jakarta. 60p.

Maxwell, A.R. 1996. Headtaking and the consolidation of political power in the early Brunei state. *In*: Hoskins, J. (ed.) Headhunting and the social imagination in Southeast Asia, 90-126. Stanford University Press, Stanford.

McNeely, J., and Pitt, D. (eds.) 1985. Culture and conservation: the human dimension in environmental planning. Croom Helm, London.

Mering Ngo, T.H.G. 1988. *Luma' Umaa': Suatu kajian sistem perladangan ulang alik orang Kayan di Desa Padua, Kecamatan Putussibau, Kabupaten Kapuas Hulu, Propinsi Kalimantan Barat*. S1 thesis, Jurusan Antropologi, Universitas Indonesia.

Mering Ngo, T.H.G. 1989. *Antara pemilik dan pemanfaat: kisah penguasaan lahan orang Kayan di Kalimantan Barat*. Prisma 4: 73-86.

Mering Ngo, T.H.G. 1991. Ambiguity in property rights: lesson from the Kayan of Kalimantan, Antropologi Indonesia 49: 79-89.

Metcalf, P. 1975. The distribution of secondary treatment of the dead in central north Borneo. Borneo Research Bulletin 7: 54-59.

Metcalf, P. 1983. Warfare and community size in nineteenth century Borneo. Borneo Research Bulletin 15: 26-30.

Moh. Noor *et al.* 1981. *Cerita Rakyat Daerah Kalimantan Timur*. Proyek Penerbitan Buku Sastra Indonesia dan Daerah, Dep. Pendidikan dan Kebudayaan, Jakarta. 117p.

Momberg, F. 1992. Indigenous knowledge systems-potentials for social forestry development. Resource Management of Land-Dayaks in West Kalimantan. Institute for Geography, Frie Universiteit Berlin, Berlin.

Momberg, F., Puri, R.K. and Jessup, T.C. 1995. Gaharu rush in the Kayan Mentarang: supporting local tenure for conservation. MS.

Momberg, F., Puri, R.K., and T. Jessup. 1997. Extractivism and extractive reserves in the Kayan Mentarang Nature Reserve: Is gaharu a sustainably manageable resource? *In*: Sørensen, K.W. and Morris, B. (eds.) People and plants of Kayan Mentarang, 165-180. WWF and UNESCO, London.

Morgan, S.H. 1968. Iban aggressive expansion: some background factors. Sarawak Museum Journal 16 (32-33): 141-185.

Mubyarto. 1992. *Mencari model penanganan terpadu kebijaksanaan pemukiman perambah hutan*. LP2IS, FISIP Universitas Indonesia, Jakarta.

Mubyarto *et al.* 1991a. *Kajian sosial ekonomi desa-desa di perbatasan Kalimantan Timur*. Aditya Media, Yogyakarta, Indonesia.

Mubyarto *et al.* 1991b. Prosiding Seminar Nasional Pengembangan Perekonomian Rakyat Kalimantan di Pontianak. Yayasan Agro Ekonomika, Jakarta.

Mubyarto, Sulistiyo, and San Afri Awang. (eds.) 1992. *Perekonomian rakyat Kalimantan*. Aditya Media, Yogyakarta, Indonesia.

Myrna Safitri. 1995. *Hak dan akses masyarakat lokal pada sumberdaya hutan: kajian peraturan perundang-undangan Indonesia*. Ekonesia 3: 43-59.

Needham, R. 1972. Punan-penan. *In*: LeBar, F.M. (ed.) Ethnic groups of insular Southeast Asia. Vol.1: Indonesia, Andaman Islands and Madagascar. Human Relations Area Files Press, New Haven.

Ngindra, F. 1995. *Pemenuhan kebutuhan makanan pada suku Kenyah Bakung:* report. Culture and Conservation, WWF/IP, Jakarta. 43p.

Nicholl, R. 1979. Brunei and camphor. Brunei Museum Journal 4(3): 52-74.

Nicolaisen, I. 1986. Pride and progress: Kajang response to economic change. Sarawak Museum Journal 36: 75-116.

Nicolaisen, J. 1976a. The Penan of Sarawak: further notes on the neo-evolutionary concept of hunters. Folk 18: 205-236.

Nicolaisen, J. 1976b. The Penan of the Seventh Division of Sarawak: past present and future. Sarawak Museum Journal 24: 34-61.

Nieuwenhuis, A.W. 1900. *In centraal Borneo: reis van Pontianak naar Samarinda*. Brill, Leiden, Netherlands. 2 vols.

Nieuwenhuis, A.W. 1901. *Mededeelingen over het vervolg der Commissiereis naar Centraal-Borneo*. TNAG 18: 1013-1073.

Nieuwenhuis, A.W. 1904-1907. *Quer durch Borneo*. Brill, Leiden, Netherlands. 2 vols.

Njau Anau. 1995. *Sejarah suku Kenyah Leppo' Ké dan Nyibun di Kecamatan Long Pujungan*: report. Culture and Conservation, WWF/IP, Jakarta. 46p.

Njau Anau. 1998. *Sejarah Leppo' Ké dan Ngibun Apau Ping Kecamatan Long Pujungan*. Pusat Kebudayaan dan Alam Kalimantan, Samarinda, Indonesia. 45p.

Njau Anau, Iwan, R., van Heist, M., Limberg, G., Sudana, M., dan Wollenberg, E. 2001. *Pemetaan desa partisipatif dan penyelesaian konflik batas: studi kasus desa-desa daerah aliran Sungai Malinau*. Draft Report. CIFOR, Bogor, Indonesia.

Njau Anau. 1999. *Laporan studi pengamatan partisipatif di Desa Langap, Paya Sturan, Tanjung Nanga, Long Jalan, Nunuk Tanah Kibang, Long Rat, Setarap dan Setulang, Kecamatan Malinau, Kabupaten Bulungan Mei, Juni dan Agustus 1999*. Unpublished Report to CIFOR. 81 p.

O'Brien, T. 1998. Bulungan Biodiversity Survey: Preliminary Results. Wildlife Conservation Society, report.

Okushima, M. 1999. Wet rice cultivation among the Kayanic peoples of East Kalimantan : Some possible factors explaining their preference for dry rice cultivation, Borneo Research Bulletin, 30: 74-104.

Padoch, C. 1982. Migration and its alternatives among the Iban of Sarawak. Verhandelingen van het KITLV, No. 98. Nijhoff, The Hague. 126p.

Padoch, C. 1983. Agricultural practices of the Kerayan Lun Dayeh. Borneo Research Bulletin 15: 33-38.

Padoch, C. 1988. Agriculture in interior Borneo: shifting cultivation and alternatives. Expedition 1: 18-28.

Padoch, C. 1995. Creating the forest: Dayak resource management in West Kalimantan. *In*: Fox, J. (ed.). Society and non-timber forest products in tropical Asia, 3-12. Occasional Papers, Environment Series, No. 19. East-West Center, Honolulu.

Padoch, C. and Peluso, N. (eds.) 1996. Borneo in transition. People, forests, conservation and development. Oxford University Press, Kuala Lumpur. 291p.

Parlindungan, A.P., S.H. 1989. *Pembebasan tanah menurut versi U.U.P.A. dalam pembangunan daerah dan nasional.* Paper to Seminar Peranan Hukum Adat, Fakultas Hukum, Universitas Tanjungpura, Pontianak, 12-14 December 1989.

Parlindungan, A.P., S.H. 1991. *Komentar atas Undang-undang Pokok Agraria.* Mandar Maju. Bandung, Indonesia.

Parnwell, M.J.G. and King, V.T. 1998. Environmental changes and population movements: the Iban of Sarawak. *In*: King, V.T. (ed.) Environmental challenges in South-East Asia, 137-68. Man and Nature in Asia Series 2. Curzon, Richmond.

Pearce, K.G. 1989. Utilization of palms in Sarawak. Malayan Naturalist 43: 68-91.

Peluso, N.L. 1980. The ones who stayed behind: the ins and outs of temporary migration for trade and employment among the Apo

Kayan Kenyah. Paper to Lokakarya Resettlement Penduduk, Samarinda, April 1980. 11p.

Peluso, N. 1983. Markets and merchants: the forest product trade of East Kalimantan in historical perspective. Unpublished M.A. thesis, Cornell University.

Peluso, N. 1992. Rich forests, poor people. Resource control and resistance in Java. University of California Press, Berkeley.

Peluso, N. 1995a. Extraction interactions: logging tropical timber in West Kalimantan, Indonesia. *In*: Fox, J. (ed.) Society and non-timber forest products in tropical Asia, 73-96. Occasional Papers, Environment Series, No. 19. East-West Center, Honolulu.

Peluso, N. 1995b. Whose woods are these? Counter-mapping forest territories in Kalimantan, Indonesia. Antipode 27: 383-406.

Persoon, G. 1998. Isolated groups or indigenous peoples. Indonesia and the international discourse. BKI 154: 281-304.

Pfeffer, P. 1990. (1963). *Bivouacs à Bornéo*. Flammarion, Paris. 252p.

Philip Ngau Jalong. 1989. The Ngurek. Sarawak Museum Journal 40 (61), Special Issue No. 4, Part III, p 157-168.

Piazzini, G. 1960. The children of Lilith - a French exploration into the up-river country of Borneo. Translated by P. Green. Hodder and Stoughton, London. 192p.

Poffenberger, M. (ed.) 1990. Keepers of the forest: land management alternatives in Southeast Asia. Kumarian Press, West Hartford, Connecticut. 289p.

Pollard, F.H. 1933. The Muruts of Sarawak. Sarawak Museum Journal 4: 137-155.

Pollard, F.H. 1935. Some comparative notes on Muruts and Kelabits. Sarawak Museum Journal 4: 223-228.

Potter, L. 1988. Indigenes and colonisers: Dutch forest policy is South and East Borneo (Kalimantan), 1900 to 1950. *In*: Dargavel, J., Dixon, K. and Semple, N. (eds.) Changing tropical forests: historical perspectives on today's challenges in Asia, Australasia and Oceania, 127-153. Centre for Resource and Environmental Studies, Australian National University, Canberra.

Potter, L. 1997. A forest product out of control: gutta percha in Indonesia and the wider Malay world, 1845-1915. *In*: Boomgaard, P., Colombijn, F. and Henley, D. (eds.) Paper landscapes: explorations in the environmental history of Indonesia, 281-308. KITLV Press, KITLV Verhandelingen, Leiden, Netherlands. 178p.

Potter, L. and Ali Hasymi. 1989. South Kalimantan: the Banjarese Heartland. *In*: Hill, H. (ed.) Unity and diversity. Regional economic development in Indonesia since 1970, 473-499. Oxford University Press, Singapore.

Prentice, D.J. 1970. The linguistic situation in northern Borneo. *In*: Wurm, S.A. and Laycock, D.C. (eds.) Pacific linguistic studies, 369-408. Pacific Linguistics, Series C, No. 13. Australian National University, Canberra.

Prentice, D.J. 1971. The Murut languages of Sabah. Pacific Linguistics, Series C no 18. Australian National University, Canberra. 311p.

Pringle, R. 1970. Rajahs and rebels: the Ibans of Sarawak under Brooke Rule, 1841-1941. Macmillan, London.

Puri, R.K. 1992. Mammals and hunting on the Lurah River: recommendations for management of faunal resources in the Cagar Alam Kayan-Mentarang: preliminary report to Project Kayan-Mentarang, WWF Indonesia Programme, Jakarta, Indonesia.

Puri, R.K. 1993. The role of anthropology in enhancing cooperation between local people and protected area projects: a case study from East Kalimantan, Indonesia. Paper to AAA Annual Meeting, Washington, D.C.

Puri, R.K. 1995. Penan Benalui knowledge and use of tree palms. MS. 58p.

Puri, R.K. 1996. Hunting knowledge of the Penan Benalui of East Kalimantan, Indonesia. Ph.D. dissertation, Department of Anthropology, University of Hawaii.

Puri, R.K. 1997. Penan Benalui knowledge and use of tree palms. *In*: Sørensen, K.W. and Morris, B. (eds.) People and plants of Kayan Mentarang, 195-226. WWF and UNESCO, London.

Puri, R.K. 1998a. Assessment of the biodiversity of the Bulungan Research Forest in East Kalimantan: an introduction to the ethnoecology of the Punan Tubu: report to CIFOR, 20 Sept. 1998.

Puri, R.K. 1998b. An emerging NTFP market and its future prospects: the case of the fruit 'mata kucing' (*Dimocarpus longan*) in East Kalimantan: report to CIFOR, January 1998. 30p. CIFOR, Bogor, Indonesia.

Puri, R.K. 2001. Bulungan ethnobiology handbook. CIFOR, Bogor Indonesia.

Puri, R.K., Damus, D. and Sirait, M. 1991. Report survey Ulu Bahau untuk Proyek Cagar Alam Kayan Mentarang: report to KMCP, WWF and PHPA, Jakarta.

Radermacher, J.C.M. 1780. *Beschryving van het eiland Borneo, voor zooverre het zelve, tot nu toe, bekend is*. Verhandelingen van het Bataviaasch Genootschap 2: 107-148.

Ras, J.J. 1968. *Hikajat Bandjar*. Bibliotheca Indonesica, No. 1. Martinus Nijhoff, The Hague.

Ray, S.H. 1913. The languages of Borneo. Sarawak Museum Journal 1 (4), 196p.

Redford, K.H. 1991. The ecologically noble savage. Cultural Survival Quarterly 15: 46-48.

Redford, K.H. and Padoch, C. (eds.) 1992. Conservation of neotropical forests. Working from traditional resource use. Columbia University Press, New York.

Reid, A. 1988-1993. Southeast Asia in the Age of Commerce 1450-1680. Vol. I: The lands below the winds. Vol. II: Expansion and crisis. Yale University Press, New Haven and London.

Rhee, S. 2000. De facto decentralization and community conflicts over natural resources in East Kalimantan, Indonesia: Historical roots and implications for community forestry. Paper presented at the conference 'Political Ecology of Tropical Forests in Southeast Asia: Historical Perspectives,' Osaka, Japan, November 28-30, 2000.

Roodenburg, W.P. 1935. *Memorie van overgave van de onderafdeling Apau Kajan*. MS.

Roth, H.L. 1968 (1896). The natives of Sarawak and British North Borneo. University of Malaya Press, Singapore. 2 vols.

Rousseau, J. (ed.) 1974. The peoples of Central Borneo. Sarawak Museum Journal, Special Issue No. 22.

Rousseau, J. 1979. Kayan stratification. Man 14: 215-236.

Rousseau, J. 1988. Central Borneo: a bibliography. Special Monograph. Sarawak Museum Journal. Sarawak Museum, Kuching.

Rousseau, J. 1989. Central Borneo and its relations with coastal Malay sultanates. *In*: Skalnik, P. (ed.) Outwitting the state, . 41-50. Transaction Publishers, New Brunswick.

Rousseau, J. 1990. Central Borneo - ethnic identity and social life in a stratified society. Clarendon Press, Oxford. 380p.

Rudes, R.R. 1965. A general description of peoples and places on the Kajan River of East Kalimantan, Indonesia. Unpublished MS, July 1965. 57p.

Saccheri, I. and Walker, D. 1991. Subsistence and environment of a highland Kenyah community. Sarawak Museum Journal 42: 193-249.

Saleh Adiwinata, S.H. 1983. *Pengertian hukum adat menurut Undang-undang Pokok Agraria*. Penerbit Alumni, Bandung, Indonesia.

Samuel ST Padan and Yusup Bit Laway. 1999. *Laporan survey kawasan desa di hulu DAS Malinau, Kecamatan Malinau (19 Pebruari s/d 4 Maret 1999)*: report to CIFOR, WWF-Kayan Mentarang, and PLASMA, Tanjung Selor, March 1999.

Sather, C. 1971. Traditional states of Borneo and the southern Philippines: introduction. Borneo Research Bulletin 3: 45-51.

Sather, C. 1972. Tidong. *In*: LeBar, F.M. (ed.) Ethnic groups of insular Southeast Asia. Vol. 1: Indonesia, Andaman Islands, and Madagascar, 167-168. HRAF Press, New Haven.

Sather, C. 1990. Trees and tree tenure in Paku Iban society: the management of secondary forest resources in a long-established Iban community. Borneo Review 1: 16-40.

Sather, C. 1995. Sea nomads and rainforest hunter-gatherers: foraging adaptations in the Indo-Malaysian archipelago. *In*: Bellwood, P., Fox, J.J. and Tryon, D. (eds.) The Austronesians: historical and comparative perspectives, 229-268. Department of Anthropology, Australian National University, Canberra.

Saunders, G. 1994. A history of Brunei. Oxford University Press, Kuala Lumpur.

Scheffelaar, P.C.J. 1931. *Memorie van overgave van de onderafd.* Apau Kajan. MS. 44p.

Schneeberger, W.F. 1979. Contributions to the ethnology of Central Northeast Borneo (parts of Kalimantan, Sarawak and Sabah). Studia Ethnologica Bernensia, No. 2. The University of Bern, Institute of Ethnology, Bern. 143p.

Seavoy, R.E. 1973. The transition to continuous rice cultivation in Kalimantan. Annals of the Association of American Geographers 63: 218-225.

Sellato, B. 1987. *Note préliminaire sur les sociétés 'à maison' à Bornéo*. and *Maisons et organisation sociale en Asie du Sud-Es*t. *In*: Macdonald, C. (ed.) De la Hutte au Palais, Sociétés à Maison en Asie du Sud-est Insulaire, 15-44, 195-207. Editions du CNRS, Paris.

Sellato, B. 1990. Report on a sociological survey [in the middle Mahakam River area], unpubl. consultancy report, Samarinda, P.T. Kelian Equatorial Mining, February 1990, 49p.

Sellato, B. 1992. Cultural community-development projects in Kayan Mentarang. Repopulation and ethno-cultural identity: two major factors in community-development projects and nature conservation: report to WWF/IP, Jakarta.

Sellato, B. 1993a. The Punan question and the reconstruction of Borneo's culture history. *In*: Sutlive, V.H. Jr. (ed.) Change and development in Borneo, 47-81. Proceeding Series. Borneo Research Council, Williamsburg, Virginia.

Sellato, B. 1993b. Myth, history, and modern cultural identity among hunter-gatherers: a Borneo case. Journal of Southeast Asian Studies 24: 18-43.

Sellato, B. 1994a. Collective memory and nomadism: ethno-historical investigations in Borneo. Indonesia 57: 155-174. (First published in French as 'Mémoire collective et nomadisme'. Archipel 27: 85-108, 1984).

Sellato, B. 1994b. Social organization, residence patterns, and ethnolinguistic boundaries in East Kalimantan. Paper to Third Biennial International Conference of the Borneo Research Council, Pontianak, Kalimantan, Indonesia, July 1994.

Sellato, B. 1994c. *Forêts tropicales et sociétés traditionnelles à Bornéo: vers une histoire régionale 'en continu' de l'environnement et des systèmes de subsistance*. Ecologie Humaine 12: 3-22. (Reprinted in Cahiers d'Outre-Mer 51: 421-440, 1998.)

Sellato, B. 1994d. Nomads of the Borneo rainforest. The economics, politics, and ideology of settling down. University of Hawaii Press, Honolulu. 272p. (1st ed.: Nomades et sédentarisation à Bornéo - histoire économique et sociale. Editions de L'EHESS, Paris. 1989. 293p.)

Sellato, B. 1995a. Four upstream Kenyah settlements in a changing world, Long Pujungan District: a preliminary social and demographic survey: report to Culture and Conservation, WWF/IP, Jakarta. 38p.

Sellato, B. 1995b. The Ngorek: a survey of lithic and megalithic traditions in the Bahau area, East Kalimantan, and an interdisciplinary sketch of regional history: report to Culture and Conservation, WWF/IP, Jakarta. 93p.

Sellato, B. 1995c. The Kenyah dialects of Long Pujungan District, a provisional assessment: report to Culture and Conservation, WWF/IP, Jakarta. 29p.

Sellato, B. 1997. Agricultural practices, social organization, settlement patterns, and ethnogenetic processes in East Kalimantan. *In*: Sørensen, K.W. and Morris, B. (eds.) People and plants of Kayan Mentarang, 27-57. WWF and UNESCO, London.

Sellato, B. 1998a. *Les peuples traditionnels, les ONG, la manipulation de l'image des interactions entre société et milieu naturel, et le rôle du chercheur*.

Paper to Tenth Colloquium of the Société d'Ecologie Humaine, Marseilles, France, November 1998.

Sellato, B. 1998b. *Metoda penggalian sejarah sosial ekonomi dan hukum di pedalaman Kalimantan* [Methods for social, economic, and legal history in interior Borneo]. Workshop, CIFOR (Center for International Forestry Research, Bogor) and CSF (Center for Social Forestry, Mulawarman University), Samarinda, November 1998.

Sellato, B. 1999. *L'ethnologue entre l'écologiste et le bon sauvage. De l'usage de la recherche en sciences humaines pour la praxis des ONGs et le développement durable. In*: Bahuchet, S., Bley, D., Pagezy, H. and Vernazza-Licht, N. (eds.) L'Homme et la forêt tropicale. Travaux de la Société d'Ecologie Humaine.: Editions de Bergier, Chateauneuf-de-Grasse.

Sellato, B. 2000a. Forests for subsistence or for trade? The economic pragmatism of Borneo's traditional pe.oples, between sustainable management and extractivist practices. Paper, Environmental Change in Native and Colonial Histories of Borneo: Lessons from the Past, Prospects for the Future, Leiden, The Netherlands, August 2000.

Sellato, B. 2000b. Forest, resources, and people in Bulungan. Elements for a history of settlement, trade, and social dynamics in Borneo, 1880-2000: report to CIFOR, March 2000.

Sellato, B. In Press a. Social organization, residence patterns, and ethnolinguistic processes of group formation: the Kenyah and Putuk of East Kalimantan. *In*: Martin, P.W. (ed.) Language issues in Borneo. Borneo Research Council, Williamsburg, Virginia.

Sellato, B. In Press b. Forests for food, forests for trade, between sustainability and extractivism. The economic pragmatism of traditional peoples and the trade history of northern East Kalimantan *In*: Wadley, R.L. (ed.) Histories of the Borneo environment: economic, political, and social dimensions of transformation.

Sellato, B. In Press c. Punan, territorial patterns and the modern non-timber forest product trade. *In*: Sellato, B. and Sercombe,

P. (eds.) The nomads of Borneo today. resilience and change among forest hunter-gatherers.

Sellato, B. In Press d. Culture, history, politics and the emergence of provincial identities in Kalimantan *In*: Charras, M. (ed.) Beyond the state. Essays on spatial structuration in insular Southeast Asia. CNRS-LASEMA, Paris.

Sellato, B. and Chartier, D. 1998. *La prise en compte des pratiques et usages autochtones: réalité efficiente ou construction occidentale à visée néolibérale. Interférences entre chercheurs et opérateurs/ bailleurs de fonds.* Paper to Second Conference, Dynamiques Sociales et Environnement, Bordeaux, France, September 1998.

Sellato, B. and. Jessup, T.C. 1994. Culture and conservation in East Kalimantan. Report of Interim Activities by the World Wide Fund for Nature Indonesia Programme: report to WWF/IP, Jakarta, December 1994.

Sierevelt, A.M. 1927. *Memorie van overgave van de onderafd*. Apau Kajan. MS. 81p.

Sirait, M.T. 1995. *Rotan, pengelolaannya dan kegunaannya pada masyarakat Desa Long Uli*: report. Culture and Conservation, WWF and PHPA, Jakarta. 48p.

Sirait, M.T. 1997. The diversity of rattan and its uses: An example of natural resources management in Long Uli. *In*: Sørensen, K.W. and Morris, B. (eds.) People and plants of Kayan Mentarang, 181-194. WWF and UNESCO, London.

Sirait, M.T. 1999. *Rotan, pengelolaannya dan kegunaannya pada masyarakat desa Long Uli. In*: Eghenter, C. and Sellato, B. (eds.) Kebudayaan dan pelestarian alam: penelitian interdisipliner di pedalaman Kalimantan, 141-158. PHPA/The Ford Foundation/WWF, Jakarta.

Sirait, M.T. *et al.* 1994. Mapping customary land in East Kalimantan, Indonesia: a tool for forest management. Ambio 23: 411-417.

Sloan, C. 1975. A study of the Punan Busang. III: Punan hunting methods. Malayan Nature Journal 28: 146-151.

Soemarwoto, O. 1991. *Interaksi manusia dan lingkungan: faktor kritis dalam pembangunan berkelanjutan*. Prisma 1: 14-23.

Soenartono Adisoemarto. (ed.) 1978. East Kalimantan. Proceedings of workshop on the Indonesian MAB project No. 1 in East Kalimantan, Samarinda, 23-27 March 1978. Man and the Biosphere. Indonesia. Panitia Program, LIPI and Universitas Mulawarman, n.p, Indonesia. 71p.

Soerjono Soekanto. 1985. *Meninjau hukum adat Indonesia (suatu pengantar untuk mempelajari hukum adat)*. 3rd ed. Rajawali, Jakarta.

Soerjono Soekanto,. Hendro, E.T. and Sarjito, Th. 1984. *Antropologi hukum: Proses pengembangan ilmu hukum adat*. Rajawali, Jakarta.

Soetardjo Kartohadikusumo. 1953. *Desa*. Dian Rakyat, Jakarta.

Sørensen, K.W. and Morris, B. (eds.) 1997. People and plants of Kayan Mentarang. WWF and UNESCO, London.

Soriente, A. 1995. *Situasi kebahasaan di Kecamatan Long Pujungan:* report. Culture and Conservation, WWF/IP, Jakarta. 82p.

Stockdale, M.C. 1992. People and rattan in Upper Bahau Area: report. KMCP, WWF and PHPA, Jakarta.

Strickland, S.S. 1986. Long term development of Kejaman subsistence: an ecological study. Sarawak Museum Journal 36: 117-171.

Sudana, M. 1999a. *Laporan studi pengamatan informasi dasar tentang keadaan hulu Sungai Malinau, Tahap II, Agustus-Nopember 1999*: report. CIFOR. Bogor, Indonesia.

Sudana, M. 1999b. *Pembangunan di Sungai Malinau, konflik dan permasalahannya*. MS. CIFOR. Appendix to Sudana 1999a.

Sudana, M. 2000. *Laporan tim pendamping pemetaan di Desa Gong Solok: Dokumentasi proses*. Unpublished report.

Sudana, M. 2000. *Pemetaan Desa Laban Nyarit dan Punan Mirau: Dokumentasi proses pemetaan partisipatif*. Unpublished report.

Surojo Wignjopuro, S.H. 1982. *Pengantar dan azas-azas hukum adat*. 4th ed. Gunung Agung, Jakarta.

Sutlive, V. Jr. 1978. The Iban of Sarawak. AHM Publishing Corporation. Arlington Heights, Illinois.

Syahirsyah. 1997. Local knowledge in relation to forest resources utilization. *In*: Sørensen, K.W. and Morris, B. (eds.) People and plants of Kayan Mentarang, 101-112.WWF and UNESCO, London.

Tillema, H.F. 1938. *Apo-Kajan; Een filmreis naar en door Centraal-Borneo*. Van Munster, Amsterdam. 267p.

Tillema, H.F. 1989. A journey among the peoples of Central Borneo in word and picture. edited and with an introduction by V.T. King. Oxford University Press, Singapore. 251p.

Tim ACM. 2000. *Laporan monitoring perkembangan desa-desa di hulu Sungai Malinau (Agustus-November 2000)*. Unpublished report.

Tjitradjaja, I. 1993. Differential access to resources and conflict resolution in a forest concession in Irian Jaya. Ekonesia 1: 58-69.

Tulung Anye'. 1989. *Mengenal: Suku Dayak Kenyah menerima pendidikan agama dan perkembangannya*. MS.

Urquhart, I.A.N. 1950. Some notes on jungle Punans in Kapit District. Sarawak Museum Journal 5: 495-533.

Uluk, A.. n.d. *Manfaat dan dampak CIFOR bagi masyarakat di Hulu Sungai Malinau dan sekitarny*a. Unpublished report. CIFOR. Bogor, Indonesia.

Uluk, A. 2000a. *Monitoring Desa Long Loreh (Februari-Maret 2000)*. Unpublished report. CIFOR. Bogor, Indonesia.

Uluk. A. 2000b. *Monitoring Desa Long Loreh (April-Mei 2000)*. Unpublished report. CIFOR. Bogor, Indonesia.

Uluk, A. dan Made Sudana. 2000a. *Monitoring Desa Long Loreh dan sekitarnya periode Juni 2000*. Unpublished report. CIFOR. Bogor, Indonesia.

Uluk, A. dan Made Sudana. 2000b. *Monitoring pembentukan pengurus Kerukunan Keluarga masyarakat Dayak Kenyah (KKDK) Kabupaten Malinau di Desa Long Loreh: Dokumentasi proses*. Unpublished report. CIFOR. Bogor, Indonesia.

Uluk, A., Sudana, M. dan Limberg, G. 2000. *Dampak perusahaan batu bara terhadap perekonomian masyarakat di Loreh*. Unpublished report.

UUPA. 1960. *Undang-undang Pokok Agraria, Republik Indonesia*.

Valkenburg, J.L.C.H. van. 1997. Non-timber forest products of East Kalimantan. Potentials for sustainable forest use. The Tropenbos Foundation, Wageningen. 202p.

Vayda, A.P. 1996. Methods and explanations in the study of human actions and their environmental effects. CIFOR/WWF Special Publication, Bogor.

Vayda, A.P., Colfer, C.J.P. and Brotokusumo, M. 1980. Interactions between people and forests in East Kalimantan. Impact of Science on Society 30: 179-190.

Vollenhoven, C. van. 1918-1933. *Het Adatrecht van Nederlandsch Indië*. Brill, Leiden. 3 vols.

Vries, R. de. 1992. The history of honey and wax production of the giant honeybee (*Apis dorsata*) in Sumatra and Kalimantan, Indonesia. *In*: Traditional beemanagement as a basis for beekeeping development, Bennekom, 75-86. NECTAR, Netherlands.

Wadley, R.L. 1993. Demography and social organization in Borneo. *In*: Sutlive, V.H. Jr. (ed.) Change and development in Borneo, 189-203. Borneo Research Council, Williamsburg.

Wadley, R., Colfer, C. and Hood, I. 1997. Hunting primates and managing forests: the case of Iban forest farmers in Indonesian Borneo. Human Ecology 25: 243-271.

Walchren, E.W.F. van. 1907. *Eene reis naar de Bovenstreken van Boeloengan (midden-Borneo), (12 Nov. 1905 - 11 April 1906)*. TNAG 24: 755-844.

Warren, J.F. 1981. The Sulu Zone 1768-1898. The dynamics of external trade, slavery, and ethnicity in the transformation of a Southeast Asian maritime state. Singapore University Press, Singapore. 390p.

Weinstock, J.A. 1983. Rattan: Ecological balance in a Borneo rainforest swidden. Economic Botany 37 : 58-68.

Wells, M.P. 1995. Biodiversity conservation and local peoples' development aspirations: new priorities for the 1990s. *In*: Perrings, C.A. *et al.* (eds.) Biodiversity conservation, 319-333. Kluwer Academic, Dordrecht.

Whitmore, T.C. 1985. (1973). Palms of Malaya. Oxford University Press, London.

Whittier, H.L. 1973. Social organization and symbols of social differentiation: an ethnographic study of the Kenyah Dayak of East Kalimantan (Borneo). Ph.D. dissertation, Michigan State University, East Lansing.

Whittier, H.L. 1978a. Concepts of adat and cosmology among the Kenyah Dayak of Borneo. Sarawak Museum Journal 26: 103-113.

Whittier, H.L. 1978b. The Kenyah. *In*: King, V.T. (ed.) Essays on Borneo societies, 92-112. Hull Monographs on South-East Asia, No. 7. Oxford University Press, London.

Whittier, H.L. and Patricia R. 1974. The Apo Kayan area of East Kalimantan. Sarawak Museum Journal 22: 5-15.

Wollenberg, E. 2001. Incentives for gaharu collection in East Kalimantan. Economic Botany 55 (3): 98-110.

Wollenberg, E. and Uluk, A. 1998. *Pemanfaatan hutan dan ekonomi rumah tangga di kawasan Taman Nasional Kayan Mentarang:* report. CIFOR-WWF, 21p.

Wollenberg, E., Nawir, A.S. and Uluk, A. 2001. Income is not enough: The effect of economic incentives on forest product conservation: draft report, CIFOR. Bogor, Indonesia.

Wollenberg, E. 1999. The Social Nature of Forest Boundaries: Entitlement, Identity and Reciprocity among Kenyah Forest Users in East Kalimantan, Indonesia. Paper presented at the 95th meeting of the Association of American Geographers, 23-27 March, 1999, Honolulu Hawaii.

Wong, M. and Manokraman, M. 1985. Proceedings of The Rattan Seminar, 2nd-4th October 1984, Kuala Lumpur, Malaysia,

Kepong. The Rattan Information Centre, Forest Research Institute, Malaysia.

Wortmann, J.R. 1971. The sultanate of Kutai, Kalimantan Timur: a sketch of the traditional political structure. Borneo Research Bulletin 3: 51-55.

Wulffraat, S. & Samsu 2000. An overview of the biodiversity of Kayan Mentarang National Park. WWF Indonesia Kayan Mentarang project, Samarinda.

Wurm, S.A. and Hattori, S. (eds.) 1983. Language atlas of the Pacific area. Part II: Japan area, Taiwan (Formosa), Philippines, Mainland and Insular South-East Asia. Series C, No. 67. The Australian Academy of the Humanities, Canberra and The Japan Academy, Pacific Linguistics, Tokyo.

WWF. 1992. *Hasil field survey*: report, KMCP, WWF and PHPA, Jakarta.

WWF. 1993. *Kondisi alam dan keadaan masyarakat di Kawasan Konservasi Kayan Mentarang, Kalimantan Timur*: report. Kayan Mentarang Conservation Project, WWF/IP, Jakarta.

WWF. 1994. Unpublished maps, Kayan Mentarang Conservation Project, WWF, Jakarta.

WWF. 1995. *Pemungutan gaharu di Apau Kayan: Permasalahan dan konteksnya*: report. KMCP, WWF and PHPA. Jakarta.

WWF. 1996. Conservation management and community development in the Kayan Mentarang Nature Reserve, East Kalimantan, Indonesia. A proposal to the Danish Ministry of Foreign Affairs (Danida): project proposal, WWF/IP and WWF/D, Jakarta.

Yasmi, Yurdi. 2001. *Konflik masyarakat Loreh dengan tambang batu bara: suatu telaah terhadap permasalahan multidimensi di kalangan masyarakat Loreh*. Draft. CIFOR. Bogor, Indonesia.

Annex 1.
Basic Goods, Prices and Subsidies

Like other statistical data, figures relative to prices of basic goods are inconsistent between sources. The 'nine basic goods' (*sembako*, short for *sembilan bahan pokok*) are in fact a set of 9, 10 or 11 categories, now including various fuels and lubricants (BBM, *bahan bakar minyak*), and several types of building materials (*bahan bangunan*), such as cement or metal roofing sheets.

Four items were selected, salt, sugar, kerosene and cooking oil, for which prices were not influenced by local production, as is the case with husked rice or salted fish. Prices given for Bulungan Regency in 1971 and between 1993 and 1997 were(in Rp kg^{-1} for solids and $litre^{-1}$ for liquids; inflation not accounted for):

	1971	1993	1995	1997
sugar	125	1400	1500	2600
salt	100	400	550	800
kerosene	15	400	400	400
cooking oil	125	1200	1600	5300

Prices in Long Pujungan were higher by 100 percent (salt and sugar) to 200 percent (kerosene). In Malinau, they were higher by 30 to 100 percent.

Like all isolated regions since colonial times (the 1910s or 1920s, varying with regions), Long Pujungan has benefited from government-subsidised transport of the *sembako*. In the 1994/95 budget Rp 32 million was allocated to this subsidy, which allowed about 80 t of goods to be transported by private entrepreneurs to the district head village. For 1996/97, the same amount allowed for only 48 t of goods. The subsidy was subsequently raised to Rp 37.5 million for 1997/98, allowing 52 t of goods. These included 2.7 t of salt, 10.3 t of sugar, 18.4 t of kerosene, 15.2 t of gasoline, and other goods, of which 245 kg of tobacco was a crucial item.

From Tanjung Selor, the cost of transport kg^{-1} by boat was estimated (for 1997, *i.e.*, before the economic crisis) at Rp 1250 to Long Pujungan, Rp 1500 to Long Alango, and Rp 1750 to Apau Ping. This compares favourably with costs of transport from Tarakan by air to more isolated regions: Rp 2200-3400 to Long Bawan or Rp 4000 to Long Nawang.

Goods with subsidised transport (*barang subsidi*) were available at Long Pujungan at prices higher by an average 20% than those in Tarakan or Tanjung Selor. Goods with non-subsidised transport were available at prices ranging from about double e.g., salt at Rp 1500, to about five times higher e.g., gasoline at Rp 3600. Prices were even higher in villages further upriver.

In Malinau District, the proximity of Malinau Kota to Tarakan by boat, and of villages like Long Loreh from Malinau Kota by road (since 1996), leads to relatively minor increases in prices.

Post-crisis prices for 1998 in Malinau Kota included sugar at Rp 4500, salt Rp 2000 and cooking oil Rp 8500, while prices for kerosene (Rp 500) and gasoline (Rp 1300) remained under control.

The economic crisis had a direct impact on trade, probably more notable in places like Long Loreh than in Long Pujungan. Long Loreh had four shops in 1990, there were 12 in 1995 of which only four remained in 1998. This booming and subsequent dwindling must be linked to the access to Long Loreh by road (76 km from Malinau Kota). In Long Pujungan, where trade remains in the hands of the very same traders, the owners of a fleet of river boats, the situation has remained much more stable through the crisis period.

The development of land routes also has begun to dramatically alter lifestyles in Long Loreh. It is not surprising that the number of television sets increased from one in 1990 to ten in 1997, or that between 1990 and 1995 long-tail canoe engines increased from 20 to 50, displacing paddle canoes (down from 60 to 43). However, between 1995 and 1997, long-tail engines (*ketinting*) decreased to 43, while bicycles rose from 28 to 78. This is an unmistakable sign of a switch from a traditional river-oriented to a land-oriented structure of the communication and transport network. A similar trend was noted among the Iban of the upper Kapuas in very similar circumstances (Wadley 1993).

Also linked to the opening of the road and the new availability of large quantities of heavy types of goods (not available in bulk in Long Pujungan), like cement, is the emergence of professional categories known as *tukang* or, more recently, *pengrajin*. In traditional Dayak villages, where there was no socio-professional differentiation, the *tukang* were, almost by definition, outsiders with a particular technical expertise. The *pengrajin* category in *desa* Long Loreh alone has increased from ten in 1990 to 22 in 1997. So, with 13 *pegawai*, 14 *pedagang*, and 22 *pengrajin* in 1997, Long Loreh has seen almost 10% of its population and probably over 15% of its households move away from agriculture in twenty years. This fact has to be taken into consideration when examining the cohesiveness, (or lack thereof) of the villagers' collective action.

In the course of the last decade, Borneo's hinterland has been the target of unprecedented NTFP collecting activity. More intensive NTFP use has contributed to unsustainable extractive practices and environmental damage and to deep social and political disruption. This essay examines northern East Kalimantan's NTFP trade networks in historical perspective through the twentieth century. It explains regional patterns in the light of past relationships between tribal interior groups and trading coastal polities and seeks to understand both the economic contribution of NTFPs and the institutions controlling their use.

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