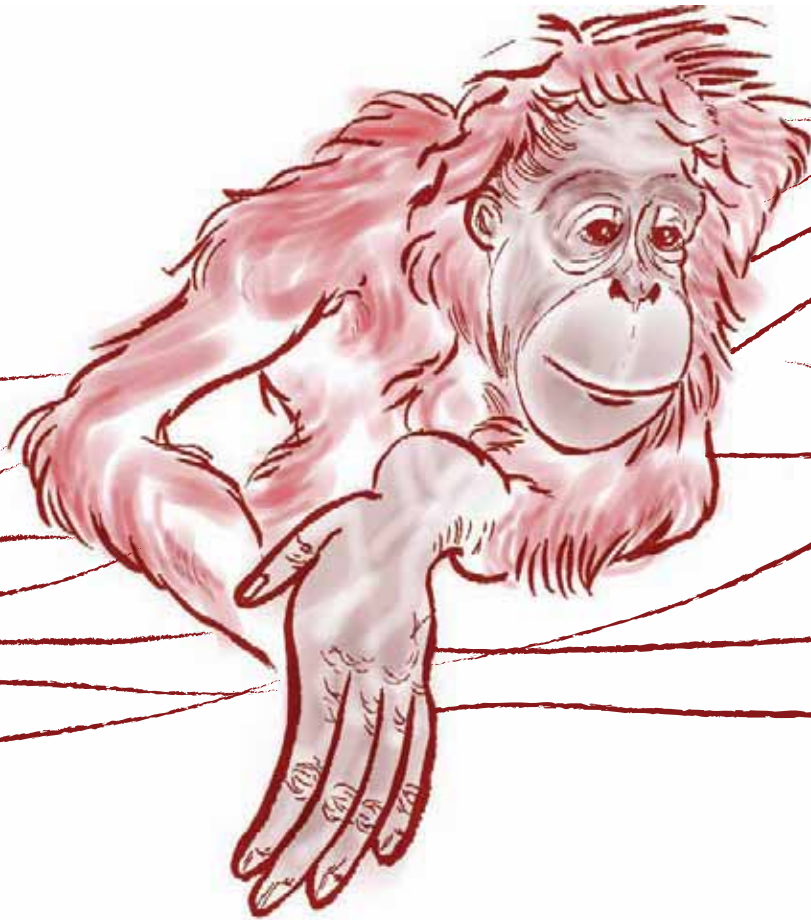


**Case study:
Sabah forest ownership**

Case study from Malaysia

By
Su Mei Toh
and
Kevin T. Grace

Global Forestry Services Inc.
Kuala Lumpur



Summary

This case study looks at various topics related to forest tenureship in the state of Sabah, Malaysia and the implications on the livelihoods of local communities. It includes reviews of landownership and forest tenure systems, land laws, rights issues, community development and poverty in Sabah.

Land tenure and property rights

Land matters in Sabah are controlled by the state government, and claims to landownership have to be approved and registered by the state. Today's land laws are the legacy of laws introduced during the United Kingdom colonial administration, which assumed custody of all land not owned or not continually cultivated by communities. Sabah's Land Ordinance provides some protection for indigenous customary rights, stipulating strict conditions that must be met in order to claim customary land. Property rights fall into three categories: *state property rights*, which cover forest reserves; *private property rights*, which cover land that has been alienated by the state for development, as well as individual indigenous titles; and *communal property rights*, which cover indigenous reserves and the communal titles to customary land that communities apply for. It is not known how much land has been granted to communities under indigenous titles, community titles and indigenous reserves.

Communities tend to have only limited understanding of their indigenous rights as provided in the Land Ordinance, and many communities have not formally registered their traditional claims. This, compounded by gazette exercises that failed to consult forest communities properly, has resulted in communities losing their customary rights to land when it is gazetted as forest reserve or other protected areas or when it is alienated for development projects. Existing legislation, including indigenous customary rights law, provides some protection to community resources and territory, but the state land laws are generally seen as too rigid and limited, with insufficient recognition of customary laws or Adat.

Sabah forestry and SFMLA

Forest resources in Sabah have been seriously depleted through uncontrolled timber exploitation over the last 30 years, and more recently through large-scale conversion to other uses, especially oil-palm plantations. Sabah's forest policy was restructured in 1997 to address these problems, and the current forest policy and licensing system focus on a total forest management approach rather than just timber harvesting. The policy includes provisions for sustainable forest management (SFM), controlled harvesting, reforestation, the multi-use of forest lands and community development projects.

Short-term timber harvesting licences were phased out to make way for Sustainable Forest Management Licence Agreements (SFMLAs), which provide long-term tenure of 100 years and cover areas that average 100 000 ha each. So far, 12 SFMLAs have been awarded to private sector companies and a quasi-government organization (Yayasan Sabah), covering a total of more than 2 million ha of mostly logged-over forest land. The Sabah Forestry Department (SFD) manages several forest management units (FMUs) and is responsible for approving forest management plans.

Privatization of the state's forest resources is aimed at reducing the state's budget deficits and allowing the state to focus on monitoring and policy-making for consistency and sustainability, while the private sector handles management. However, not all SFMLA licensees have expertise in SFM, and the low quality of forest stock means that the revenues from timber extraction are minimal while the administrative costs of meeting SFMLA objectives are high. Pressure to make land profitable has resulted in growing demand to convert degraded forest to commercial agriculture, especially oil-palm, which is Sabah's main export commodity and enjoys good returns.

After eight years of operation, the SFMLA system does not seem to have improved forest management significantly in most FMUs. Several licences have been revoked because of non-compliance with requirements. However, best practices in forest management have emerged from SFD-managed FMUs, such as Deramakot, which has been certified by the Forest Stewardship Council (FSC). This indicates that in the absence of a strong regulatory environment and suitable financial incentives for licence holders, the certification process is key to achieving good forest management in Sabah.

Communities in forest reserves

It is estimated that up to 25 000 people live in forest reserves and an undocumented number on the fringes of reserves, where they put similar pressures on the forest. SFD started to implement a community forestry programme in 1984 to deal with so-called illegal settlement and cultivation in forest reserves and to improve the livelihoods of forest communities. However, this programme has not significantly improved community livelihoods since its inception. Early projects focused on infrastructure rather than socio-economic development, and were carried out inconsistently, leading to poor results. Early projects also tended to be non-participatory, and a socially acceptable mechanism for co-management with communities has yet to be developed.

However, the community forestry programme has succeeded in paving the way for other government extension agencies to reach indigenous villages. More recent projects stress the importance of community participation and ownership of programmes. Agroforestry (rubber, fruit trees, etc.) is encouraged as a livelihood option for communities and a means of reforesting degraded areas.

SFMLA requires that land within forest reserves be set aside for communities and that community forestry projects be developed. To formalize the presence of communities in forest reserves, SFD has recently introduced the use of Occupation Permits (OPs), which cost 250 ringgits (\$M) (US\$68) per hectare per year. Although the community participates in deciding the duration of and total area covered by the permit, the final decision remains with SFD. SFD's formal acknowledgement of forest communities and their traditional claims to land is a positive development, which can be traced to the requirements of the certification process.

Livelihoods and poverty

Many rural communities are chronically poor, with few or no income-generating opportunities. Sabah has one of the highest incidences of poverty in Malaysia. The livelihoods of indigenous communities are a mix of subsistence agriculture, small-scale livestock rearing, collection of forest products and, where accessible or possible, cash cropping. Livelihood strategies are very diverse, depending on many factors such as traditional and cultural values, access to markets and towns, availability of secure land tenure and opportunities for wage labour.

The lack of available land is one of the greatest challenges facing communities, especially those with no legal claim to their customary land within forest reserves. These communities are restricted from clearing additional land for their own use or cash cropping, which effectively limits their livelihood options. An analysis of case studies suggests that the determining factor in improving rural livelihoods may be access to land rather than access to forest resources. There is also little evidence that forestry *per se* has a role in poverty alleviation; other factors – such as secure land tenure, commercial agricultural production, and proximity to transport infrastructure and markets – would seem to be far more important.

Meeting SFMLA requirements for community development through a combination of occupation permits and agroforestry projects could improve land tenure security and the livelihoods of communities in forest reserves, but this approach is still at its very early stages of development.

Conclusion

Although SFD is on the right path with its prescriptions and emphasis on SFM, there is no clear evidence that this has brought benefits to forests or community livelihoods. The main obstacle may be financial, but there is also a lack of vision among the private enterprises and the state. Currently, best practices in forest management can only be seen in SFD-managed FMUs that have either already been certified or are undergoing the certification process.

The state must find ways of making long-term forest management an economically attractive option compared with alternative land uses such as oil-palm that destroy both forest and community lands. Licensees and local communities need to be aware of the value of SFM and forest rehabilitation. The focus on agroforestry in community forestry projects bodes well, and should be encouraged as part of a policy that encourages diversity of land use and promotes livelihoods for indigenous communities. The state must also review its relevant policies and be open to innovative solutions that provide more equitable outcomes for communities with traditional claims to land.

Introduction

OBJECTIVE

The objective of this study is to improve understanding of the relationship between forest resource tenure and forest management, and the implications for the livelihoods of rural forest-dependent communities in the state of Sabah, Malaysia. It forms part of FAO's regional study of trends in forest ownership, forest resources tenure and institutional arrangements in Asia and of how these affect forest management and poverty levels in selected countries.

In accordance with the objectives of the FAO study, this Sabah case study includes a quantitative and qualitative analysis of forest tenure, access to forest resources, management agreements, institutional and other informal arrangements, and the position of indigenous communities. Along with other case studies from the region, it aims to:

- identify the trends in institutional arrangements and management agreements, and their contributions to sustainable forest management (SFM), local livelihoods and poverty reduction;
- identify the possible influences of forest ownership and forest management systems on forest law compliance and the monitoring and evaluation of forest use;
- compile detailed data on forest ownership and management arrangements in the region;
- contribute to an overview of ownership and management arrangements in the region.

The outcome of the FAO study will be a better understanding of how rights and responsibilities are linked to ownership, use and management type for forest resources in Asia, and of how these rights and responsibilities are respected and exercised. This information will inform forest policy development and implementation, and help to address the roles of forests in poverty reduction in the region.

METHODOLOGY

The authors sought quantitative data on forest ownership and management agreements from the Sabah Forestry Department (SFD). They also carried out a literature review of available reports and studies, and held consultations with relevant state government departments, non-governmental organizations (NGOs), consultants and other individuals. In addition, they attended a community stakeholder workshop in the town of Telupid at which the views and perspectives of three village communities (Kg. Mangkuwagu, Kg. Saguon and Kg. Tampasak) in the Mangkuwagu Forest Reserve were obtained. Valuable insight to the case study was provided by Global Forestry Services (M), which has long experience of working in forestry management issues in Sabah.

STUDY APPROACH

The main focus of this case study is the management of forest reserve land, mainly Class II Production Forests. As forest and land tenure issues are inseparable in Sabah, the study also incorporates discussion of land rights, especially customary rights.

During research, it emerged that facts and figures for certain components of the study were difficult to obtain. In addition, the Sustainable Forest Management Licence Agreement (SFMLA) is still a relatively new approach to forest management, and few studies of its impacts have been carried out. Because of the limited time available for research, the study leans towards qualitative information and perspectives from government and non-governmental sources.

The formal and legal context

LAND AREA AND OWNERSHIP IN SABAH

As in the rest of Malaysia, in Sabah the state government controls all land matters and owns most of the land, including forest land, for which there are no registered and approved claims. Claims to land ownership or tenureship have to be approved and registered by government mechanisms. Formal tenures are always related to land, and not to forest or mineral resources.

Sabah's land laws are a legacy of similar laws introduced by the United Kingdom colonial administration, which assumed custody of all land not owned or under continual cultivation by communities. Today, property rights in Sabah fall into the following three categories:

- **State property rights.** Land under this category is known as "state land"; forest reserves are also considered state property.
- **Private property rights.** These apply where the state has alienated land for development. Usually, this means oil-palm or other tree plantations owned by private sector companies or individuals. The Land Ordinance, Part IV provides private ownership rights for individuals (indigenous title) and communal property rights (communal title) for community ownership.
- **Communal property rights.** Communities can also gain communal property rights through applying for an indigenous reserve. This differs from communal title in that the community cannot transfer these rights to other parties. There are also restrictions on land use, and a Board of Trustees must be established to manage the indigenous reserve. Although communal property rights are enshrined by law, only a very small area is currently gazetted under them.

As details on land area under these categories are not available, the study can only provide data on land under forest reserves and national parks. The total land area under these two categories is approximately 3 864 000 ha, or 52.5 percent of the total land area of Sabah (7 362 000 ha). As well as the forest reserves, other state land is forested. The area of this land is not known, but most of it is earmarked for development projects (alienated), particularly agriculture such as oil-palm plantations. In 2003, the area under oil-palm cultivation was 1 076 000 ha, or 87 percent of the total 1 255 000 ha under agricultural cultivation.

STATE PROPERTY

Forest reserves

Forest reserves are classed into seven categories (Table 1), and most of them are under the jurisdiction of SFD. There are 3 594 515 ha of forest reserves in Sabah (48.8 percent of the total land area), 2 685 119 ha (75 percent) of which are in Class II Commercial Forest for production purposes. Class III Forest Reserves, or domestic forest reserves, were established mainly to provide forest areas for local communities to hunt, fish and collect minor forest produce for their own domestic use, subject to permits. The area in this class is 7 355 ha, only 0.2 percent of the total forest reserve area.

Class IV Forest Reserves, or amenity forest reserves, were established mainly to provide recreational opportunities for the general public. The total area in this class is 20 767 ha, 0.6 percent of the total forest reserve area.

Four classes may be regarded as protected areas: Class I Protection Forests, the main function of which is to safeguard water supplies, soil fertility and environmental quality; Class V Mangroves; Class VI Virgin Jungle Reserves, which comprise 50 relatively small areas intended to provide undisturbed forest for research purposes and the preservation of gene pools; and Class VII Wildlife

Reserves, which are for the protection of wildlife and are managed by the Sabah Wildlife Department.

A forest reserve is gazetted under the provisions of the Forest Enactment of 1968, which requires notices to be posted to forest communities to allow for objections. It is widely known that this requirement was often not properly observed in the past, and many communities were not aware that their customary land had been included in a reserve until logging activities started (according to information from the Partnership of Community Organizations [PACOS]). The future of indigenous communities whose lands have become part of forest reserves or protected areas depends on the government agencies tasked with managing these forest lands, e.g., SFD for forest reserves and the Sabah Parks Authority for national parks.

TABLE 1
Forest reserve classes and areas

Class		Size (ha)	%
I	Protection	342 216	9.5
II	Commercial	2 685 119	74.7
III	Domestic	7 350	0.2
IV	Amenity	20 767	0.6
V	Mangrove	316 024	8.8
VI	Virgin Jungle	90 386	2.5
VII	Wildlife Reserve	132 653	3.7
Total		3 594 515	100

Source: Sabah Wildlife Department: www.sabah.gov.my/jhl/.

Forest management units and SFMLA

Prior to 1997, several types of licence for commercial timber harvesting were issued by SFD. These included:

- timber licence agreements, valid for 21 to 25 years (no longer issued);
- special licences, valid for five years (no longer issued);
- Form 1 Licences, valid for one to three years (the only type of licence that is still issued by SFD).

Forest lands in Sabah are divided into 27 forest management units (FMUs) that comprise both state land and commercial forest reserves. FMUs are essentially administrative districts that have been delineated according to their management history, relationship to administrative districts, natural boundaries, etc. (Mannan and Yahya, 1997). The division into units is primarily for operational convenience and provides “a framework for changes that may be required in the future during the implementation of SFM in each unit” (Mannan and Yahya, 1997). FMUs average 100 000 ha in area and each is the administrative boundary of a District Forest Office. In September 1997, the timber licence agreement and the special licence were replaced by SFMLAs, which are valid for 100 years. So far, 12 SFMLAs have been awarded to private enterprises and a government social organization (Yayasan Sabah), covering a total of more than 2 million ha (Table 2).

In addition, long-term licences have also been issued for three large areas that are not directly under SFMLAs and are meant for conversion to plantation (shown in italics in the last three rows of Table 2). Sabah Forest Industries has been planting *Acacia mangium* for chipwood, and KTS started to plant a small area of rubber trees as plantation wood but stopped because of financial issues. Benta Wawasan is registered as a separate organization, but is actually managed by Yayasan Sabah; it has been using subcontractor companies to clear large areas within its licensed area.

As well as SFMLAs, SFD also issues Form 1 Licences for timber harvesting in forest reserves and on state and alienated land. Depending on the size of the area, these licences may be issued for a period of one to five years. In the last five years, 134 Form 1 Licences have been issued, covering a

total of 154 540 ha. The annual number of licences and area covered have declined substantially over this period, from 55 licences for 49 272 ha in 2000 to just five licences for 3 427 ha in 2005.

TABLE 2
SFMLA licence holders and area

SFMLA licence no.	Organization	FMU no(s).	Area (ha)
SFMLA 01/97	Idris Hydraulic	8, 13	234 552
SFMLA 02/97 (cancelled)	Bugaya Forests	25	119 695
SFMLA 03/97	Bornion Timber	11	108 993
SFMLA 04/97	Sapulut Forest Development	14	95 300
SFMLA 05/97	North Borneo Timber Corp	2	94 227
SFMLA 06/97	Timberwell	3	71 293
SFMLA 07/97	TSH Resources	4	123 385
SFMLA 08/97	Anika Desiran	5	101 161
SFMLA 09/97	Yayasan Sabah	15, 16, 20, 21, 22, 23, 24, 26	599 828
SFMLA 11/97	Lembaga Tabung Haji	18	10 117
SFMLA 12/97	Total Degree	18	4 047
SFMLA 13/97 (cancelled)	Support Axis	18	6 070
JP(SLK)125/93(CO)	KTS Plantation	19	57 240
JP(KSG)107/96(CO)	Sabah Forest Industries	7	276 623
JP(TKA)122/96(CO)	Benta Wawasan	21, 22, 23, 24, 26	106 310
Total			2 008 841

Role of SFD

With this change in licensing arrangements, the responsibility for SFM is shared between SFD and the private sector. The licensee posts a \$M5 million bond on award of the SFMLA. SFD trains the licensee's personnel, provides guidance and pursues continuous improvement of the technologies and skills needed for SFM. This framework emphasizes self-regulation by the licensee, and provides for third-party certification, while SFD has a more administrative role in supporting the implementation of SFM. In addition, SFD also manages 331 814 ha of forest lands, which include Deramakot Forest Reserve, Trus Madi, Tangkulap-Pinangah Forest Reserve and FMU 25 (formally held by Bugaya Forest).

SFD staff monitor the SFMLA companies regarding their performance according to their forest management plans. These plans are approved by SFD and include silviculture, rehabilitation and the use of reduced-impact logging systems in areas approved for harvesting. SFD rescinded SFMLA 02/97 in 2005 for non-compliance with the conditions of the agreement. It did this without calling for an independent third-party evaluation of the company's operations, but it now uses third-party specialists to audit companies that are perceived as not complying, and maintains its option of revoking the agreement and taking back management of the FMU.

Community forestry

Under SFMLA, licence holders are required to address community issues and are responsible for implementing community forestry (CF) projects within their respective FMUs, if there are communities living within their forest boundaries. They address CF in their forest management plans, and the responsibility for planning and implementation remains with the licensees. To date, eight SFMLA holders have identified a total of approximately 33 654 ha within their FMUs to be set aside for CF projects, and SFD manages a further 7 000 ha within its FMUs for CF projects. In total, approximately 40 654 ha, a mere 1.5 percent of the total area under FMUs, has been set aside for CF, and not all of this is necessarily being implemented.

SFD introduced CF in 1984 to deal with problems of illegal settlement and cultivation in forest reserves (Martin, 2004). It was also used to satisfy Section 41 of the Forest Enactment of 1968 and Rule 8 of the Forest Rules of 1969, which permitted local inhabitants to take forest produce for the construction of dwelling places, fuelwood, fencing, etc. (Martin, 2004). However, CF did not develop fully into a state-wide programme to improve communities' livelihoods until 1997, when the then Social Forestry Section of the Management and Control Division of SFD drew up guidelines

for improving the planning and implementation of CF extension programmes, which became the responsibility of the District Forest Offices (Sinajin, 1997). Currently, the Forest Management Plan and Social Forestry Unit is responsible for overseeing CF programmes. Such programmes have to address livelihood issues, as well as contributing to infrastructural development in local villages.

In 1989, SFD created a trust called the Community Forestry Cess Fund, which was collected from timber companies at the rate of \$M0.83/m³ on all logs exported or processed and was used to finance CF projects. The CF concept is limited in terms of both area covered and incentives to promote SFM and contribute to poverty alleviation. This issue is discussed in more detail in the section on Forest tenure systems and communities.

Other state land

Forest land on state land is not officially protected, and the state has the right to alienate such land for development. Timber harvesting on state land requires a Form 1 Licence issued by SFD. This licence is issued concurrent with the validity of a Temporary Occupation Licence, which is issued by the Land and Surveys Department. As the land is destined for agricultural development at a later stage, the licence does not impose a minimum felling diameter. Only royalty, premium and cess for CF development projects are imposed through fees to the state. In the five years from 2000 to 2005, 46 Form 1 Licences covering a total area of 46 530 ha of state land were issued for timber harvesting. When the licensed land area exceeds 500 ha, an environmental impact assessment is required.

Protected areas

The Sabah Parks Enactment of 1984 gazetted three terrestrial national parks – Mount Kinabalu, Crocker Range and the Tawau Hills – which are under the authority of Sabah Parks. These areas contain important highland forest ecosystems and facilitate tourism, especially Kinabalu Park. They cover a total area of 243 216 ha.

As with the gazettment of forest reserves, the rights of communities living within the boundaries of national parks are extinguished. The frequency with which this occurs across the state is an indication of the fragility of local communities' rights in Sabah. The Parks Enactment does not provide legal rights for indigenous people to remain in the protected area, but each park manages the issue of communities separately. In the Crocker Range National Park, for example, Sabah Parks allows communities to remain in their traditional areas and is working with them to designate traditional use zones within the park area, which will be addressed in the park's management plan. In other parks, some villages have been relocated outside park boundaries.

PRIVATE PROPERTY

Indigenous customary land

In Sabah, communities' rights to their traditional land have not been respected, nor have communities been consulted when forest reserves and other protected areas are gazetted, or when the state alienates land to logging and oil-palm concerns. The land and traditional areas that indigenous communities considered their own have fallen under the control of various state departments.

The laws concerning land tenure and landownership in Sabah are characterized by legal pluralism. Two main institutions determine landownership and tenure rules for indigenous communities in Sabah: the Sabah Land Ordinance, and indigenous customary law, or Adat, which is a comprehensive system of traditional rules for a whole range of issues for the organization of communal life. Adat includes systems for inheritance, access to land, land clearance techniques, what can be cultivated, etc.

The Land Ordinance provides a degree of protection for indigenous customary rights through the codification of aspects of the Adat laws. However, Adat is inherently complex and Adat land use is changeable over time and according to circumstances – factors that a codified law such as that for indigenous customary rights cannot capture. The provisions for indigenous customary rights apply to:

- land that is possessed by indigenous customary tenure;

- land that is planted with at least 20 fruit trees per acre;
- land that is planted with fruit trees, sago, rattan and other plants of economic value;
- land that has been cultivated or built on within the past three years;
- grazing land stocked with cattle or horses;
- burial grounds and shrines;
- rights of way for people and animals.

There are serious shortcomings to these provisions. Indigenous customary rights apply only to land that is in active use; Adat does not recognize land lying under fallow or set aside. Indigenous customary rights are formally recognized when a community registers a claim at the district land office, and although they are not issued as titles, rights claims should last forever. Each family is allowed to register no more than 15 ha as indigenous land, but collectively communities traditionally reserve far more under Adat, and for future uses (D. Lasimbang, personal communication). The total area of land claimed under indigenous customary rights has not been calculated, but is believed to be insignificant. Use of the indigenous customary rights provision is problematic, and discussion of this is elaborated in other parts of this study.

Private (alienated) land

State land earmarked for development can be alienated and held in private ownership by corporations and individuals. The owner of the alienated land is required to supply a certified copy of the land title to SFD for issuance of a Form 1 Licence for timber harvesting. As alienated land is meant to be clear-felled for development purposes, no minimum felling diameter is imposed. The licence holder has only to pay the state a royalty and cess for CF development projects on logs extracted from alienated land. If the land area exceeds 500 ha, it is subject to environmental impact assessment. Between 2000 and 2005, 26 Form 1 Licences were issued for timber harvesting on private alienated land, covering a total area of 30 302 ha.

Changes and trends

Historically, Sabah is rich in forest resources, but over the last 20 years the emphasis on developing the state's economy has led to significant and drastic changes in the landscape. Historically, forest resources were logged on the basis of market demand for just a few known species, mostly for the European market. As the state developed, easily accessible forest land was harvested and cleared for conversion to agriculture. The main crop now covering Sabah is oil-palm, which provides a significant source of income to the state and is the main export product. The value of forest land is considered as a one-off payment from logging, while oil-palm yields a continuous income from the third year after planting for about 25 years.

TRENDS IN FOREST MANAGEMENT

When Sabah's state-wide forest inventory was first completed in 1972, the resulting maps clearly showed the availability of timber resources throughout the state. Inadvertently, these encouraged the timber industry to increase logging rates to such an extent that during the 1970s the revenue from timber royalties accounted for 80 to 90 percent of the state's budget, amounting to \$M1.1 billion in 1979, for example. Meanwhile, the de-reservation of forest reserves continued throughout the 1970s and early 1980s. The period of intensive logging in Sabah, which started in the 1950s, reached its peak at this period. A second inventory in the late 1980s showed where the remaining good forests were, and the cycle of exploitation was repeated.

In the words of the director of SFD (paraphrased from Mannan and Yahya, 1997), the following are some of the key factors that have caused "massive depletion of forests":

- harvesting beyond the forest's ability to regenerate;
- not allowing forests to recuperate after logging through premature "re-entry" or "re-logging";
- damage to residual stands because of bad logging practices;
- abandonment of silviculture and forest rehabilitation;
- revenue priority overruling environmental limits;
- political changes and instability;
- the forestry profession's inability to exert influence on powerful groups.

It has been estimated that the area of primary forest cover dwindled from 2.8 million ha to about 300 000 ha between 1975 and 1995 (Mannan and Yahya, 1997). During the same period, the area of disturbed forests nearly doubled, from 1.4 million to 2.5 million ha. Total forest cover decreased from 5.5 million ha (or 75 percent of Sabah's total land area) in 1975 to 4.3 million ha (58 percent of total area) in 1995. By far the most drastic change was in the primary forests of Class II Production Forest, which dropped from 98 percent of cover in 1970 to a mere 15 percent in 1996 (Mannan and Yahya, 1997).

The first major change in forest laws occurred in 1984, when the Forest Enactment of 1968 was revised. Forest reserves were divided into seven classes, all existing forest reserves were regazetted to include the new classes of forest, and new reserves were gazetted (for example, Deramakot Forest Reserve became Deramakot Forest Reserve, Class 2 Production Forest). With this change, forest reserves could no longer be reclassified within SFD; any changes to the classification of forest reserves, especially those in Class II Commercial Forest, required the approval of the State Cabinet and the Governor of Sabah.

The repeated logging of the past has devastated much of Sabah's forest area. The timber that survived in these areas was considered to be of poor quality and not good for export or local

markets. As the availability of valuable hardwood species declined, so did the rate of logging, but this did not stop forest lands from being depleted further. The development of oil-palm plantations began in earnest, especially in the late 1980s and early 1990s. Many of the private owners of these plantations come from Peninsular Malaysia seeking the cheaper, abundantly available land in Sabah. Degraded forests were degazetted and cleared to make way for plantations, and the rate of conversion to oil-palm was extremely high. In 1995, there was an estimated 629 431 ha of oil-palm, which had risen to 1 076 775 ha⁵⁸ by 2003, when it accounted for 86 percent of the total 1 255 361 ha of cultivated land in Sabah. This was an increase of 71 percent in eight years.

In 1997, several changes occurred. The continued deterioration of Sabah's forest was evidence that the 1984 changes to the Forest Enactment had been insufficient to protect forest resources and improve forest management. State policy was amended to replace short-term with long-term licences (i.e., SFMLAs) in order to encourage better management of forests. The objective is now to conserve the remaining forest lands and manage them sustainably in order to improve long-term timber productivity and environmental protection. Conditions for the licences are based on a model forest project in Deramakot Forest Reserve, which is managed by SFD within FMU 19 and has been certified as "well managed" in meeting the principles and criteria of the Forest Stewardship Council (FSC).

TRENDS IN COMMUNITY INVOLVEMENT

The main threats facing local communities in Malaysia include those shared by others worldwide: poverty, land rights issues, and the loss of cultural heritage through assimilation and exposure to modern capitalism and commercialism. In Malaysia, the major concern relates to the lack of recognition and protection of indigenous rights to land and natural resources, which are vital for the survival and development of communities. Other concerns relate to indigenous communities' rights to traditional ways of life and to determine what kind of development they want, and their rights and access to education and other basic facilities. The traditional lands of indigenous communities are often exploited or alienated to development projects (e.g., logging or oil-palm) or protected areas.

The growing recognition of indigenous rights at the international level has also helped increase awareness among communities and NGOs in Malaysia, especially regarding sensitive land rights issues. However, progress has been slow, hampered by bureaucratic and institutional obstructions and the remoteness of some of these communities, which makes outreach work difficult. Nonetheless, in tandem with international trends, social issues – especially traditional use rights (as opposed to land rights) – are starting to be addressed within the state's forest management.

Community forestry

An estimated 20 000 to 25 000 people live within forest reserves, and an unaccounted number on the fringes of forest reserves, where they put similar pressures on the forest. Most of these people are chronically poor, with little access to basic facilities and amenities, and many still practise shifting or rudimentary cultivation methods to meet subsistence needs. SFD considers the forests within the vicinity of these populations as under threat of further encroachment and degradation. The department's CF programme was directed to the impoverished villages that were affected by logging activities in the 1970s and 1980s, which had left them more destitute by degrading the forests. In the mid-1980s, demands for community control over resources started to be made, and SFD found willing communities to engage in community projects, the first of which started in 1984, in Kg Minusoh in the Kinabatangan Division.

In the 1980s and 1990s, the CF concept and projects were criticized for focusing only on village infrastructure projects, such as provision of wooden houses, roads, water and electricity supply, and not paying enough attention to improving the socio-economic status of communities. Poor planning and implementation were blamed. To-date, the socio-economic or ecological benefits of CF projects have not been evaluated, even though approximately \$M40 million from the

⁵⁸ An Institute for Development Studies report (IDS, 2005) states that Sabah has the highest oil-palm planted area in Malaysia, with 1.2 million ha in 2004.

Community Forestry Cess Fund has been spent since 1984. According to SFD, the main benefit has been in paving the way for other government agencies to bring development to the villages. However, such government development itself also faces problems, particularly a lack of funds and insufficient cooperation among participating government agencies. As a result, planned livelihood activities such as bamboo and rattan planting, fish rearing and paddy cultivation failed to take off, and further CF projects have tended to concentrate on the “safe” side, i.e., infrastructure development. SFD’s own analysis of the problems highlights weaknesses in the early concepts, planning and implementation of CF programmes. These include:

- insufficient cooperation and coordination among different government extension agencies;
- low prioritization, commitment and support for CF projects among government agencies;
- lack of community participation: communities were not involved from the beginning of planning and decision-making for projects, and they were insufficiently informed about the aims and objectives of projects;
- cultural differences between extension personnel and communities, which created communication gaps;
- lack of cohesiveness and internal problems within resettled villages, e.g., land and boundary disputes, lack of ownership of the project, and dependency on government handouts.

SFD has introduced more participatory methods of planning and implementing community projects and, in light of past problems, no longer encourages community resettlement projects. The current trend is to help communities to obtain formal tenure of their traditional lands⁵⁹ and to assist and support community-led projects to improve community livelihoods, in partnership with other government and non-governmental organizations. SFD is pursuing this in the FMUs under its management, which will be presented as models for the CF projects required by SFMLA.

ECONOMIC INDICATORS AND POVERTY IN SABAH

Sabah still lags behind other Malaysian states in terms of per capita gross domestic product (GDP) and growth, despite its wealth of natural resources, immense revenues from logging over the last 40 years and current lucrative export commodities. It is currently the third poorest state in Malaysia, after Kelantan and Terengganu (*Borneo Post*, 24 July 2005). In 1990, 34 percent of Sabah households had incomes below the poverty line (EPU, 2004), rising to 39 percent in rural areas.

Palm-oil⁶⁰ products and crude petroleum are the dominant export commodities. Together, they made up almost 60 percent of Sabah’s total export revenue in 2004. Tourism, the fastest growing sector of the economy, is the fourth largest foreign exchange earner, after these two and plywood (IDS, 2005).

Despite positive growth in Sabah,⁶¹ which is based heavily on commercial agriculture and forest resources therefore suggesting high levels of agricultural employment, the wealth generated has largely by-passed the state’s chronically poor, i.e., the rural indigenous communities. Many poor communities still lack basic necessities and services (Table 3). In addition to their isolation from the benefits of state development programmes, these communities also generally receive only very low wages from logging and plantation companies. Villagers prefer to work on their own plots (paddy, fruit trees, and some rubber and oil-palm) or home gardens for subsistence.

⁵⁹ Ownership is not an option within forest reserves and protected areas; see the subsection on Legal tenures in forest reserves for further discussion of Occupation Permits (OPs) for indigenous communities.

⁶⁰ Oil-palm is the most lucrative agricultural commodity: palm-oil products (palm-oil and palm kernel oil) was Sabah’s largest export revenue earner in 2004, with an estimated value of \$M7 602 490 000, or 37.6 percent of total exports. This was expected to reach \$M8 448 010 000 in 2004 (IDS, 2005). The current world price of palm-oil is \$M1 350 per tonne; the cost of producing 1 tonne of oil is \$M800 in Peninsular Malaysia (*The Star*, 12 August 2005, p. 4), and thought to be less in Sabah.

⁶¹ Real GDP of 6.3 percent in 2003 was projected to expand to between 6.5 and 7.0 percent in 2004 and then to steady to about 6.0 percent for 2005.

Observations from the Telupid workshop indicate that some communities are in conditions of absolute poverty. The concerns aired by the villages reflect a generally felt lack of basic government support: inadequately staffed schools, unaffordable school fees, malnourishment, diseases (particularly malaria and diarrhoea), lack of medicines, lack of land for subsistence agriculture, and polluted water sources from nearby oil-palm plantations and mills. Many subsistence communities have no external income, and access to basic services such as education requires money. Entrenched poverty in forest communities is also caused by the lack of land and financial resources needed to cultivate economic crops. This is particularly true of communities in forest reserves that do not have any kind of recognized land tenure.

TABLE 3

Poor households' access to basic utilities and services in Sabah

Utility and services	% of poor households with access
Electricity	47%
Piped water	20%
Educational facilities (receiving textbook assistance)*	85%
Health care (facilities within 5 km of household)	35%

* This apparently high percentage masks the fact that many local people cannot afford school fees, and the teachers assigned to rural schools sometimes fail to turn up.

Source: Sabah Department of Statistics.

Poverty and land policy

The high occurrence of poverty among rural indigenous communities may also be linked to Sabah's ambiguous land policy. Indigenous land applications can take decades to process, while private companies and government agencies can easily obtain Temporary Occupation Licences on state land, and are able to "evict natives quite easily" (Doolittle, 2004). Consequently, many indigenous farmers work on land that they do not legally own (IDS, 1987; Martin, 2004). The number and areas of indigenous titles in Sabah are not known.

One reason for the long wait while land applications are processed under the Land Ordinance is because "it typically took as long as ten years to get the land ... surveyed" (Long *et al.*, 2003). However, land applications can be expedited by those who can afford to hire private surveyors. This has been cited as a major factor for the success of one application where there are many applications for one piece of land, and it means that indigenous farmers can easily lose their claims to outsiders and companies.

However, indigenous titles do not guarantee security; the Land Acquisition Ordinance contains 14 different enactments that provide for the compulsory acquisition of land by the government without a preacquisition hearing (Doolittle, 2001).

State policies also make it easy for corporations to acquire indigenous lands through provisions that grant "indigenous" status to corporations, which can then be entered into the land register as preserving the status of indigenous lands, even though their large-scale development projects do not benefit the community directly (Doolittle, 2001). In short, land policies in Sabah favour large-scale land development projects over subsistence uses, and private over communal ownership, which puts indigenous communities at a disadvantage. According to Doolittle (2001), "transparency, democracy and accountability are completely lacking from these government policies".

Forest management under SFMLA

Forest management is just beginning in Sabah with the SFMLA system. Under the previous timber harvesting licence system companies were permitted to extract all commercial timber (greater than 50 cm diameter) from the licensed area for a period of between one and 20 years. Under short-term licences, companies focused on immediate economic gains from timber extraction without regard to the value or environmental conditions of the residual forest stand. Forest resources were not managed, but merely extracted without regard to the sustainability of resources for future generations or as future sources of revenue for the state. According to SFD, 93 percent of Class II Forest Reserves are now logged-over and classified as secondary forests. Indiscriminate logging under short-term licences has left most secondary residual stands in very poor condition.

To address the situation and protect future timber resources, in 1989, SFD initiated a long-term project on the Deramakot Forest Reserve (55 000 ha) – a logged-over Class II Production Forest Reserve – in a joint collaborative programme with the German Agency for Technical Cooperation (GTZ). This was the first forest to be managed under SFM principles. In 1997, Deramakot became Malaysia's first certified forest and a learning model for SFM in Sabah and Malaysia.

Keen to expand the model to the rest of Sabah, the state officially initiated the expansion of SFM to all FMUs with the issuance of SFMLAs in 1997. The inclusion of the private sector in managing FMUs was a response to the large costs and resources involved in SFM implementation, which the state was unable to provide. Partnership with the private sector was therefore seen as the best way of implementing SFM more effectively and quickly. The awarding of long-term 100-year SFMLA licences to private companies is to provide security of management tenure so that the companies will manage forests as a sustainable resource. An “intergenerational” contract was seen as essential for the successful implementation of SFM.

The state also requires that companies tendering for SFMLAs have experience in forestry and demonstrate the necessary financial stability to invest in forest silviculture and rehabilitation within the secondary logged-over forest areas. Companies need to place a \$M5 million performance bond as part of the SFMLA, and must demonstrate compliance to terms and conditions that contain specific requirements on management and silviculture. Companies that do not demonstrate such compliance may have their agreements cancelled by SFD, and lose their bonds.

OPERATIONS

SFMLA includes a number of management prescriptions and long-term management planning that are designed to follow the Deramakot Forest model. These address the following elements, which are critical to SFD:

- “total” forest management, encompassing sustainable and environment-friendly harvesting, forest rehabilitation, silviculture, training, etc.;
- safeguards against non-compliance;
- provisions for capturing forest rents;
- preparation of a management plan before operations are allowed;
- third-party assessment of compliance or non-compliance;
- employment of trained personnel including foresters and field staff;
- licensee's sole responsibility for financing all SFM costs;
- performance bond guarantees;
- security of tenure and legal protection;
- forest protection by the licensee.

One major change from the previous licensing system is that under SFMLA, each FMU is required to have a ten-year management plan, and the forest is zoned into different classifications: production, protection/conservation, community forestry, and research. Areas delineated for protection are normally based on topography and aim to protect steep slopes of more than 25 degrees and permanent streams. Some lowland forest is conserved to protect habitat for animals, such as elephants in part of FMU 19. Under SFMLA, companies are required to conduct environmental and social assessments as part of the forest management planning system. They must also submit annual work plans and comprehensive harvest plans for each logging block, based on reduced-impact logging systems. These major planning elements form the basis for forest management, which was lacking under the previous short-term licensing system. SFD is responsible for approving all management and operational plans, as well as monitoring the activities of licence holders.

SFMLA and associated requirements therefore provide the basis for forest management, but there are still deficiencies in implementation of the system. Independent evaluation of forest management under SFMLA has not been well developed, with only ad hoc evaluations being contracted. At present, the progress that companies have made is critically and independently assessed only when a company applies for certification or assistance in meeting the standards.

Capacities

Most of the companies that were awarded the earlier SFMLAs were logging companies with little management expertise, so SFD had to support them in the development of long-term forest management plans. In addition, most SFD staff were accustomed to working under the simple short-term logging licensing system, which only focused on timber extraction. They were therefore more used to monitoring logging activities, especially the measurements and movement of logs extracted from the forest. The current SFMLA requirements are much broader, encompassing resource, environment and social elements that are unfamiliar to many field staff members.

State forestry personnel have limited capacity in professional forestry. There are too few professional foresters on the field staff to monitor harvest planning and current logging activities. For example, in the Tongod District Office, which covers more than 400 000 ha, there are only 33 forestry officers and 25 rangers – this means one ranger to every 40 000 ha. According to the office, there is also only one vehicle for every 60 000 ha.

The companies with SFMLAs are based on logging activities that do not require professional foresters, so their staff and contractors do not understand how to manage forest for the long term, according to the requirements in SFMLA or for certification.

Another severe restraint is the capital required to manage and rehabilitate the vast areas of logged-over forest lands that are poorly stocked because of previous logging. Owing to the poor state of much forest land within the FMUs, licence holders do not obtain good yields, so they generate little revenue relative to the expenditure required to rehabilitate the forest for future production. As the Deramakot experience shows, SFM in Sabah needs capital and human resources that are not readily available locally.

Conversion threat

Most FMUs were previously logged under short-term logging licences, and the quality of the residual forest resources varies, with many areas that could be considered degraded. At present, there is no standard or system to evaluate degraded forest land in Sabah. Because significant portions of many FMUs have poor-quality forest stands, licence holders are putting pressure on SFD to allow plantation development – as provided for in SFMLA – on areas of less than 15 degree slope that account for less than 15 percent of the licensed area. However, some of the areas for which licence holders apply for plantation development may not fall within the poorly stocked forest areas. There is significant pressure from many sectors to convert forest land to oil-palm as a higher-value land use; this creates a dilemma for SFD, which is now focusing on maintaining existing natural forest lands and improving management for long-term sustainable resources.

EFFECTIVENESS OF SFMLA ON FOREST MANAGEMENT

The SFMLA changes have not been smooth. Even with multiple checks and long tenure, several licence holders have not complied, resulting in the revocation of licences.

The 100-year tenure of SFMLAs should provide the stability for companies to make long-term investments in developing forest resources, but this is not happening. Local companies still look for the short-term profits that conventional logging systems provide, and do not fully understand the long-term economics of forest management. Through establishing SFMLA and enforcing the terms of the agreement, Sabah has set up a mechanism to provide long-term sustainable management if companies can obtain sufficient areas of quality forest to generate cash flow while reinvesting in silviculture and rehabilitation. If there is no positive cash flow from logging, the FMU licensee will need to use external investment to support the forest enterprise.

The current state of forest management in Sabah demonstrates that much work still needs to be done to extend the Deramakot Forest model into other FMUs. The Deramakot experience shows that a successful shift to SFM requires a long process of learning and capacity building, which is part of the certification process. Apart from close scrutiny, which is also part of the certification process, Deramakot also enjoyed good technical assistance, committed forest managers and political endorsement – conditions that are difficult to replicate in the scaling-up of the SFM model. In particular, scaling-up requires a change in the mindset of licence holders and forest managers and a significant buy-in into the SFM concept, and these have been slow to surface, even eight years after SFMLA was introduced.

Sabah's political support of the move towards long-term forest licensing is also unclear. Some parties question the state's motive for privatizing more than 2 million ha of commercial forest reserves to a handful of companies with no track record or technical expertise in forest management. There are also strong political interests in maintaining the short-term timber harvest licensing system. These factors, coupled with limited financial capacity, poor technical expertise, poor residual stands and a weak regulatory environment, have contributed to the unsteady extension of SFM to other FMUs.

This does not mean that there has been no progress at all in Sabah's forest management. SFD is applying the Deramakot Forest model in the other FMUs that it manages, and is seeking certification for these. At the same time, certification is a valuable process that will help the department to build its capacity and expertise for SFM.

It is emerging that the third-party verification of forest management is one of the key factors in ensuring SFM prescriptions are adhered to. However, if licence holders are to seek such verification, they need to be convinced of the benefits, especially the economic viability, of SFM. SFD is well placed to communicate these with examples from Deramakot, which is said to enjoy a price premium of 30 percent more on its logs compared with average prices in Sabah. More should be done to engage SFMLA holders and especially to highlight the role of sustainable timber trade networks that link responsible timber producers with global buyers and manufacturers who are willing to pay premium prices.

Forest tenure systems and indigenous communities

TENURE ISSUES

As already mentioned, the process of gazetting forest reserves caused many indigenous communities to lose control over their traditional lands. Under the Forest Enactment of 1968, the state had the right to evict forest communities from forest reserves on which the communities are seen as “encroachers”. In the past, although many indigenous forest communities were left alone by the authorities, community claims on forest lands were disregarded and logging companies encroached and logged traditional lands.

Forest management under SFMLA requires that social elements are included in management planning. With this, community and land tenure issues are finally formally addressed within Sabah’s forestry framework.

Legal tenure in forest reserves

Informal arrangements are inadequate in the SFM model that SFD has adopted, especially if forest certification is a goal. The first issue that needs to be considered is the status of villages in the forest reserves. SFD has chosen to use a provision in the Forest Rules of 1969 that gives legal status to these indigenous villages. The Permit to Occupy Land in Forest Reserve is included in Rule 20A of the Forest Rules, and found in Form 1X. Such permits are usually sought by licence holders for their forestry operations, such as log landings, logging roads and base camps. The Occupation Permit (OP), as it is known, costs \$M250 (US\$68) per hectare per year. It has never been used to demarcate community boundaries and legalize forest communities. At the time of writing, no community in Sabah’s forest reserves had received an OP, but several applications were being considered. The permits will be issued to the heads of families, while the durations and areas to be occupied are at the discretion of SFD. Long-term tenures are possible: in one village in FMU 17, a duration of 100 years has been agreed. The communities are responsible for paying the rates, and this has been a point of contention for some communities.

There are some obvious drawbacks for communities. While those with a steady stream of income from cash crop agriculture might be able to afford the permit fee, others that depend on subsistence agriculture and forest resources and have few opportunities for income-generating activities might not, especially in remote areas with poor access to markets. Indigenous communities with traditional claims to land find it unreasonable to have to pay for a permit to remain on their ancestral land, particularly when the fees were set with logging operators in mind. In addition, only land that is “in active use” is considered for an OP; fallow land that is part of Adat, for example, is not.

This is a new development in Sabah’s forestry framework, and although the OP will solve the immediate problem of legality and provide communities with a degree of tenure security, it can also be seen as a stop-gap measure that is insufficient to address the inequities faced by indigenous communities with legitimate land claims.

SFD is moving in the right direction by requiring all forest management plans under SFMLA to address community development, but is unable to act further regarding indigenous land claim issues. Further changes will have to be made via the state’s legal mechanisms.

Protected areas and communities

As well as in forest reserves, a significant amount of subsistence activity, or “encroachment”, is also occurring within Sabah’s protected areas. This is partly owing to the lack of legal provisions for communities within the Parks Enactment. In response to this, the Crocker Range National Park management has embarked on a project to recognize access to 800 ha of park area that is claimed

and used by the local communities. The nature of the arrangement, which is based on traditional use zones, is currently being worked out between the communities and park authorities. However, there are concerns that the communities' traditional land and resource systems and knowledge have not been sufficiently studied and documented, thus jeopardizing the end result of a particularly important project, which could set an example for future implementation of traditional use zones in other parks.

Mechanisms are now starting to address community presence in forest reserves and protected areas, although the formalization and implementation of these are still far from ideal. In the case of SFD and Sabah Parks, there is lack of capacity, funding, expertise and mechanisms to tackle the issue of formal tenure. All attempts to formalize arrangements stop short of addressing the crux of indigenous land issues – landownership. Various mechanisms are being developed and implemented to allow indigenous communities to remain on their customary land, but these are characterized by strict limits and land-use restrictions.

LIVELIHOODS

In general, forest communities rely on subsistence farming and forest resources for their daily needs. Households usually clear small areas of land to cultivate hill rice (as a main staple crop), maize, sweet potatoes and other vegetables for subsistence. Most communities also cultivate fruit trees in forest clearings or home gardens. Regarding forest resources, indigenous communities collect fuelwood, hunt wild animals, harvest wild fruits and plants for food, and gather rattan and timber for the construction of dwellings and for crafts. Forest resources are collected for communities' own consumption and/or for sale.

Factors affecting livelihoods

Access to markets is an important factor in determining how much economic activity occurs in a forest community. In many villages located in remote forests with difficult access to market places, there might not be any economic activity at all. In villages with access to markets, the economic base is a more complex agrarian economy.

It is less clear how access to forest resources affects the income generation and food security of indigenous communities in Sabah. Livelihood strategies are a mix of subsistence and commercial activities, depending on the ease of access to markets, opportunities for wage employment in logging and plantations, and access to cultivable land and forest resources. Boxes 1 and 2 provide examples.

BOX 1

Indigenous reserve in Ranau district

A study by Doolittle (2001) on community rights of access in a rural village under indigenous reserve in Ranau district found no direct relationship between wage income and the use of forest resources. Individual households were found to adopt very diverse strategies, although they had similar and secure access to forest resources. Some households were found to have spent 89 percent of a three-month period gathering in the forest, while others spent as little as 4 percent. Similarly, incomes derived from forest resources varied among households, but were found to be generally low (between 0 and 6 percent of average monthly income), while income from gardens was much higher (up to 75 percent). Wage labour also accounted for a large percentage of monthly income, and ranged from \$M201 to \$M1 392. This is not surprising as the study village is located in an area with good opportunities for commercial vegetable farming, and the findings indicate a huge diversity of options in livelihood strategies. The use of forest resources is believed to be determined by cultural values and subsistence needs rather than economic needs.

BOX 2**Mangkuwagu forest reserve in Tongod district**

In three remote villages located within the Mangkuwagu Forest Reserve there is negligible economic activity and villagers are trapped in poverty. Observations at a local community stakeholder workshop in Telupid demonstrated that participants were much more concerned about land tenure than access to forest resources. Concerns regarding the former involved a lack of land for subsistence and commercial agriculture, and the communities' inability to obtain land tenure through legitimate means. Communities are not permitted to clear land within forest reserve areas, even though they may have traditional claims under Adat. They also face difficulties in acquiring state land on which to develop commercial agriculture as they lack finances and do not qualify for credit facilities. Here, households are much more dependent on their home gardens and access to forest resources for daily subsistence.

The differences in these two cases can be traced to three main factors: land tenure, village location, and access to markets. It is impossible to ascertain which factor has the greatest impact on livelihoods without carrying out studies on a much wider scale. Clear and secure land tenure is needed to ensure that villagers are allocated sufficient land for cash cropping, while reliable infrastructure and nearby processing centres and markets are just as vital to complete the link. Although both communities described utilize forest resources, they do so mainly for subsistence purposes. The declining importance of forest resources is partly the result of poor forest conditions and depleted resources. Some communities perceive the value of the land to be much higher than that of forest resources, as land can be used for cash cropping or subsistence farming.

The function of location and access to markets in shaping the livelihoods of indigenous villagers was also shown in a survey on income changes in CF villages. The study (Martin, 2004) showed that while only 38 percent of respondents in Sandakan district sell their goods to the nearest town or weekend market, 67 percent of respondents in Kudat district do so. This was thought to be owing to the shorter distances to markets and better accessibility of Kudat villages, where the terrain is flat and there is good transport infrastructure, compared with Sandakan, which is hilly and remote.

Other external factors can also affect the livelihoods of indigenous communities. For example, in the resettled Kampung Gana in Marudu district – the location of SFD's pioneering CF project – poor planning and administrative delays led to land disputes among villagers and many other problems, with implications on the livelihoods of the community. Delays in delineating individual agricultural lot boundaries and in implementing livelihood or socio-economic projects resulted in such poor conditions that some villagers are reportedly returning to their original lands in the forest reserve to obtain forest resources for subsistence, thereby using the forest as a safety net.

It can be argued that access to roads and markets combined with land access and tenure issues affect the livelihoods of forest-dependent people in Sabah more than access to forest resources *per se* does. It is unclear from this review how such factors would be ranked in importance, but there is evidence that use of forest resources is more of a safety net when other livelihood options fail.

According to SFD, although its CF programme has not yet been successful in implementing socio-economic activities for the recipients, one of its main benefits has been resettlement and improved infrastructure, especially roads, which have opened communities to development from other government and extension agencies. For example, Martin (2004) notes that "extension efforts from the Agriculture Department, Veterinary Department, Fishery Department as well as from agencies like Rural Development Corporation (KPD, Koperasi Pembangunan Desa), Sabah Rubber Industry Board (LIGS, Lembaga Industri Getah Sabah)... had become accelerated in the CFP villages."

EFFECTIVENESS OF SFMLA ON POVERTY ALLEVIATION

The conditions inherent in meeting SFMLA and certification requirements have made social issues a critical part of forest management objectives and programmes. All SFMLA licensees must conduct a social assessment and have a CF programme, while certification requirements include provision of communication and dispute resolution systems, as well as verification of the social benefits that the

company provides to local communities. Social benefits are often poorly defined, and companies will pay them as little attention as possible in order to maintain high profits from logging activities. Third-party verification systems for certification require companies to participate actively with communities to aid development, usually within a defined and agreed social programme as in the communities that border Deramakot Forest.

With the shift towards SFM, the requirements within SFMLA are formalizing land tenure for communities, because land areas within forest reserves are supposed to be set aside for the use of communities. For example, in FMU 17, the OP will include land that is currently under cultivation, as well as forest land earmarked for community agroforestry development. SFD is introducing agroforestry systems both to reforest degraded areas in forest reserves and to develop economic livelihood activities for communities. In such cases, rubber is the preferred commercial crop, as latex can be dried, stored for long periods and sold at any time. The obligation for CF in SFMLA may also be a mechanism for managing community land use within forest reserves. With CF programmes, forest managers can assign strict boundaries for agricultural plots and ensure that only approved tree and cash crops, such as rubber, are cultivated in forest reserves.

To address poverty reduction in Sabah, land tenure and ownership systems need to be studied carefully; looking at forest tenure systems alone is insufficient under present conditions, as previous sections have shown. In the absence of legal land tenure, a range of informal and opportunistic arrangements have flourished within Sabah's gazetted forest areas. These are based on a mix of traditional Adat and modern land-use influences and rules, which are changing the traditional land-use landscape. The impacts of this change are yet to be seen, but will have social, cultural, political and environmental consequences.

As discussed, communities look more to agricultural production and market access to alleviate poverty than to forest resources. Hence, access to land for cultivation is seen to be more urgent than access to forest resources. This trend also requires larger areas of land to be viable, which obviously cannot be met through Sabah's present forest tenure system; this can only be addressed through land laws.

The move towards cash cropping must be seen against a backdrop of other factors that have not encouraged or provided enough incentives for SFM to prevail. These factors include poor quality of forests, poor implementation of CF programmes, lack of long-term secure tenure, and lack of promotion of other non-timber products by the state. There is a pressing need to monitor and evaluate the impacts of community development projects to ensure that efforts are being directed to the right areas.

The impact of these projects on the socio-economic status of participating communities has yet to be evaluated. However, there does not appear to be a direct relationship to poverty alleviation, which seems rather to be related to increased access to support organizations. CF as a concept and programme is still insignificant in the larger picture of forest management in Sabah, and any advantages it can potentially bring in terms of SFM would be piecemeal and contained in the small areas earmarked for communities. Under SFMLA, only a small area of forest land has been set aside for communities; approximately 40 000 ha for the estimated 25 000 people living in forest reserves. SFD has to demonstrate that agroforestry in CF programmes will significantly improve livelihoods and, as several CF projects have only just started, it will be a while before the results are known. The fact that SFMLA holders are responsible for CF programmes also creates concerns, as their motives and capabilities in SFM have been questioned.

Conclusion

Although SFD is on the right path with its prescriptions and emphasis on long-term tenures and SFM through the shift to SFMLAs, forest management has not improved significantly over the past eight years, apart from in the FMUs under SFD management, which are subject to third-party verification assessments. The main obstacle for SFMLA holders may be financial, but there is still a lack of vision among the private enterprises and the state to make SFM achievable.

SFM and SFMLA look likely to lead to better tenure security for communities, if recent developments in the use of OPs are successful and can be scaled up. The combination of improving tenure security within forest reserves (instead of relocating communities) and community agroforestry programmes seems likely to improve the economic livelihoods of indigenous communities in the medium term. These are very new developments, which SFD has carried out in part to fulfil the requirement for certification, but which SFMLA holders have not attempted. Although it is still early, this development by SFD is acknowledged as an important and positive step in addressing social issues in forest management.

One common feature emerges from this discussion: the best practices achieved so far under Sabah's SFM approach to forest management are found in SFD-managed FMUs. This has been possible through the pursuit of SFD certification as an objective. Unless certification becomes a goal for the remaining FMUs, far more needs to be addressed at the policy level for SFM to be possible, e.g., through supporting the forestry industry over agriculture, particularly oil-palm, and creating incentives for CF systems to thrive. Without a change of mindset, suitable incentives and the right regulatory environment, it is unlikely that SFMLA holders can significantly improve the state of Sabah's forests and the livelihoods of indigenous communities in the foreseeable future.

Proposals for the way forward

FOREST MANAGEMENT

Sabah has made significant steps in improving the management of existing forest resources through the establishment of the SFMLA system. Although the concept of SFM is now understood, few companies can afford to manage extensive areas of depleted forest, which require significant investment in silviculture and rehabilitation to become economically viable. The state government must make long-term forest management an economically attractive option compared with alternative land uses such as oil-palm. This requires incentives that may provide direct foreign investment and tax relief to companies that invest in rehabilitating the forest. Other economic incentives, such as carbon trading and other environmental service markets, may help to generate income from forest management. In addition, licensees' weaknesses in "total" forest management capacities must urgently be addressed.

SFMLA holders must invest in building the capacity to manage existing forest resources sustainably while incorporating the environmental and social needs of local communities. Companies need to conduct social assessments to verify the status of communities within the FMU and the extent to which each community uses the various areas within and bordering the FMU. These elements need to be incorporated into management planning, which should provide an appropriate social programme, as well as systems for communication and conflict resolution. Areas that communities are cultivating need to be identified and defined in terms of use rights, whether they are within the FMU or in adjacent state land areas. These activities should be carried out with the full participation of local communities.

Awareness raising and outreach work are important to ensure that both the private sector and local communities understand and support the need for SFM.

SFD should continue to focus on agroforestry within its CF programmes. The department needs to show that agroforestry can work on many levels: community livelihoods, forest rehabilitation and protection, and ecosystem services. The consistency of CF projects must also be assured, and SFD has set minimum guidelines for this, based on its own models for SFMLA holders.

LAND TENURE AND USE RIGHTS

Indigenous communities living within the state forest lands of Sabah must address the concept of land tenure, ownership and use rights. The introduction of OPs is a good start, but considerations for land tenure need to take better account of Adat rather than only areas under continuous cultivation. Other land tenure systems within Sabah's land laws, such as communal titles and indigenous reserve, should also be investigated.

Regarding boundary conflicts, community mapping should be carried out – with the full participation of local communities – to delineate clear boundaries according to traditional uses. Community mapping could also be used to draw up traditional use zones within forest reserves. Social forestry projects should take these into account when planning resources management, to help resolve the conflict between community livelihoods and other forestry or protected area objectives.

FURTHER WORK

To understand the role of forestry and land tenure systems in poverty alleviation in Sabah, more research needs to be done across the state to determine the relationship between forest management and communities' economies. However, it is clear that security for local communities' livelihoods needs to include basic land rights and economic development, as well as forest conservation and rehabilitation. It is recognized that many of the actions recommended lie beyond the scope of forestry authorities alone, and will necessitate a broad-based strategy in which the state of Sabah

provides basic facilities and economic opportunities to indigenous communities while maintaining long-term sustainable management of forest resources.

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ANNEX 1: RELEVANT LEGISLATION**Legislation regarding forest ownership and tenure in Sabah:**

Forest Enactments, 1968
Forest Rules, 1968
Parks Enactment, 1984
Parks (Amendment) Enactment, 1996
Conservation of Environment Enactment, 1996
Land Ordinance, Sabah Cap. 68
Land Acquisition Ordinance, 1950
Local Government Ordinance, 1961
Native Courts Enactment, 1992

ANNEX 2: FORESTRY MAP OF SABAH

