MOVING BEYOND RHETORIC: THE NEED FOR PARTICIPATORY FOREST MANAGEMENT WITH THE JAKUN OF SOUTH-EAST PAHANG, MALAYSIA

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GILL SK, ROSS WH & PANYA O. 2009. Moving beyond rhetoric: the need for participatory forest management with the Jakun of South-East Pahang, Malaysia. Centralized forest management is widely regarded as the catalyst for large-scale forest degradation and the loss of access, use and management rights of forest dependent communities. Forest dependent communities are often regarded as impediments to conservation and left out in sustainable forest management initiatives. This paper is a critique of the effects of centralization and alternative livelihood projects under the guise of conservation in a Jakun community of South-East Pahang, Malaysia. This case study revealed that economic pragmatism takes precedence over conservation in light of decreased autonomy over their traditional resources and rapid socio-economic changes which not only severely impedes their means to secure basic needs, but also their ability and desire to utilize forest resources in a sustainable manner. Therefore, there is an increasing need for local peoples to be involved in the management of their resources to maintain ecological integrity and to meet their subsistence needs. The findings justify the need for forest management units in South-East Pahang to develop a framework that addresses the rights of the Jakun to access, use and manage natural resources, which is a vital precondition for social justice to seek a common ground for sustainable forest management.

Keywords: Alternative livelihood, centralization, co-management, conservation, Orang Asli, sustainable forest management

GILL SK, ROSS WH & PANYA O. 2009. Bukan sekadar retorik: keperluan pengurusan hutan secara penyertaan dengan masyarakat Jakun di Pahang Tenggara, Malaysia. Pengurusan hutan secara berpusat sering dikaitkan dengan kemusnahan hutan secara besar-besaran dan kehilangan hak untuk masuk, mengguna dan mengurus hutan oleh masyarakat yang bergantung kepada hutan. Masyarakat ini kerap dianggap sebagai penghalang kepada usaha pemuliharaan. Mereka kerap diketepikan dalam inisiatif pengurusan hutan secara mampan. Kertas kerja ini mengkritik pengurusan hutan secara berpusat dan projek pendapatan alternatif untuk masyarakat Orang Asli Jakun yang diwujud kononnya untuk program pemuliharaan hutan di Pahang Tenggara, Malaysia. Kajian kes ini mendapati bahawa masyarakat Jakun lebih mengutamakan keperluan ekonomi daripada pemuliharaan hutan. Kekurangan autonomi masyarakat Jakun terhadap sumber tradisional serta perubahan sosio-ekonomi yang cepat bukan sahaja menghalang kebolehan mereka memperoleh keperluan asas hidup, malah mengurangkan kebolehan dan kecenderungan mereka untuk menggunakan sumber hutan secara mampan. Oleh itu, masyarakat tempatan perlu dilibatkan dalam pengurusan sumber hutan untuk menjamin integriti ekologi dan keperluan asas mereka. Hasil kajian ini memberi justifikasi tentang perlunya diadakan unit pengurusan di Pahang Tenggara untuk membangunkan satu rangka kerja yang mengkaji hak untuk masuk, mengguna dan mengurus sumber asli oleh masyarakat Jakun. Usaha ini bukan sahaja baik dari segi keadilan sosial tetapi juga pengurusan hutan secara mampan.

INTRODUCTION

Governments from the onset of nation-states have usurped forest management and use rights from traditional forest dependent societies as they perceive these societies as being opportunistic non-conservationists, thus dismissing their competency to manage their forests on a sustainable basis. Centralized control imposes strict regulations that prohibit the use of forest produce, including wildlife (Agrawal & Ostrom 2008). Local communities depend on the forests for fuelwood, fodder, non-timber forest products (NTFP) and construction timber (Mitchell 1997). One of the immediate impacts of forest centralization is the loss of local control over forest resources and the reduced role of local institutions in managing forests. This has had a direct bearing on community forest practices after centralization policies were enacted. Forest dependent communities, devoid of any legal capacity to protect the resource encroach upon

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the protected forests to make up for the loss of use rights and incentives to manage their forests (Webb 2008).

One of the main debates during the XII World Forestry Congress was to change the objectives of forestry from conservation/timber production to poverty reduction (Mayers & Vermeulen 2002). It was argued that despite its huge potential, forestry profession has obstructed forests to contribute to the livelihood of forest dependent peoples (Mayers & Vermeulen 2002). Nevertheless, there are evidences throughout the world, especially in Nepal and India which demonstrate that providing long-term access, transferring control rights over forests to the forest dependent peoples in endeavours such as community forestry, or at least, co-management of forests with these peoples are a politically feasible and cost-effective means to alleviate poverty among forest dependent rural people and at the same time, a proven means to effectively conserve forest resources (Arnold 2001, Shrestha & Khadka 2004).

Centralization of forests based on the authoritarian model, i.e. government-controlled forests provides no guarantee that biodiversity objectives can be met. For example, the forest cover in South-East Pahang, Malaysia, i.e. the study area, has declined by 59% from its original form (peat swamp forest) in 40 years since deforestation occurred in the region, i.e. from 230 600 to about 95 000 ha (UNDP/GEF 2007). There is much literature to support the assertion that total centralization of forest management is not a sustainable solution for the majority of community-accessed forests in Asia (Webb 2008).

Therefore, there is a new realization among governments that conservation objectives are not exclusively dependent on government ownership and management of forest resources (Korten & Klauss 1990, Cernea 1991, Chambers 1993, MTCC 2002, Fisher 2003, Kanel 2004, Niraula 2004, Luintel *et al.* 2004, Dhungana & Dahal 2004, Shrestha & Sharma 2004, Singh 2004, Agrawal & Ostrom 2008). Nepal formally recognized local community participation, i.e. community forestry, as a national forest management strategy way back in 1976 (Gautam & Shivakoti 2008). One of the most progressive countries in participatory community forestry, Nepal has demonstrated that forests can and have been well managed by local communities (Kijtewachakul *et al.* 2008, Nagendra *et al.* 2008). Studies have shown that forest cover and the overall biological condition of the forests have improved where community forestry and leasehold forestry programmes have been implemented (Gautam & Shivakoti 2008). In India, prolonged conflict between the state and local peoples and the realization that the government is unable to maintain the desired level of forest cover single-handedly compelled the government to involve forest dependent communities in its Joint Forest Management (JFM) programme in 1990 (Ghate & Mehra 2008). Countries in South-East Asia like Indonesia and Vietnam are reversing the centralized forest policies to allocate forests back to the peoples. In Vietnam for example, radical policy reformation has taken place to involve local people in forest management (Ngo & Webb 2008). The paradigm shift in forestry policies across Asia has resulted in large areas of forest allocation to local communities, mostly degraded forests. According to Burch (2008), forests owned by communities doubled between 1985 and 2000 and now account for 22% of all forest land.

While formal forest policy reformation has begun in Southeast Asian countries, participatory forest management in Malaysia is still in its infancy. However, there are some very encouraging developments in the local conservation scenario which may pave the way for formal policy change to devolve forest management rights to forest dependent communities. One such initiative was proposed under the United Nations Development Programme (UNDP)—Global Environment Facility (GEF) Peat Swamp Forest (PSF) Project which spearheaded a multi-stakeholder process between 2002 and 2008 to encourage the conservation and sustainable use of the South-East Pahang Peat Swamp Forests (SEPPSF) (Figure 1). The PSF Project produced an Integrated Management Plan (IMP) which presents both technical and social actions that are needed for sustainable management of the SEPPSF complex (UNDP/GEF 2007). The IMP has recognized co-management as one of its management interventions with the forest dependent Jakun. This is in response to past studies on the Jakun in the SEPPSF which have called for a more participatory approach in conservation by uplifting the socio-economic status of the Jakun, with particular emphasis on shared responsibility among all stakeholders (Kamal *et al.* 2006). However, the IMP stops short

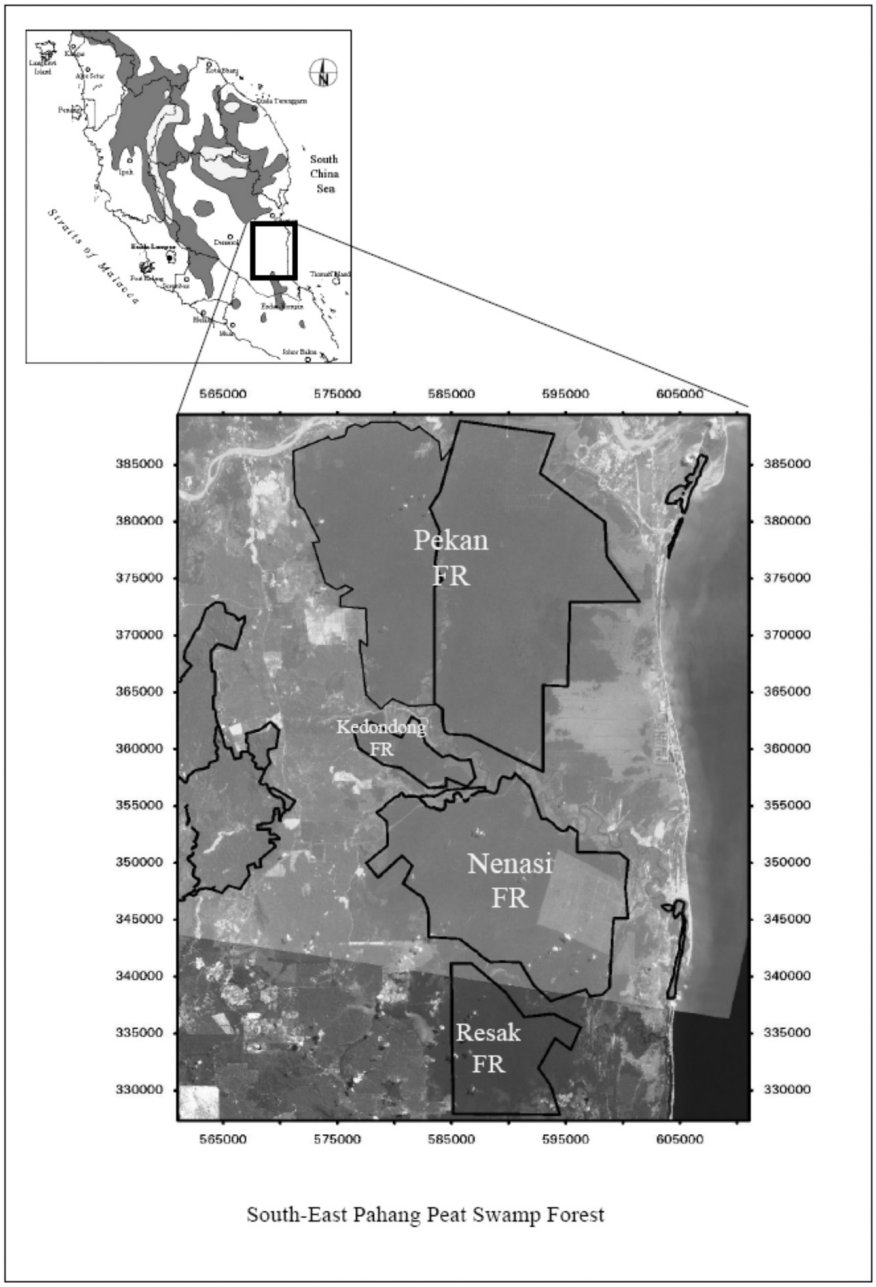

Figure 1 The South-East Pahang Peat Swamp Forests, Malaysia. Source: UNDP/GEF (2007).

of providing a framework for actual implementation of co-management, revealing instead its limitations by calling for the investigation of the potential for co-management in the proposed potential sites (UNDP/GEF 2007).

This paper responds to the gaps outlined in the IMP by identifying a model site for full co-management of the 1 km buffer zones and 400 m riverine reserves with the local Jakun communities, i.e. in Kampung (Kg.) Simpai (see Figure 2). Instead of focusing on investigating the 'potential for co-management', this paper attempts to highlight the need for co-management by analysing the socio-economy of the Simpai community, past and present as well as the effectiveness of alternative livelihood options which were part of the UNDP/GEF conservation intervention in South-East Pahang. The results of this study justify the need for co-management of forest areas as proposed in the IMP which will provide the much needed management rights of forest areas that will not only help meet the basic needs of the Jakun, but also achieve conservation goals in the region.

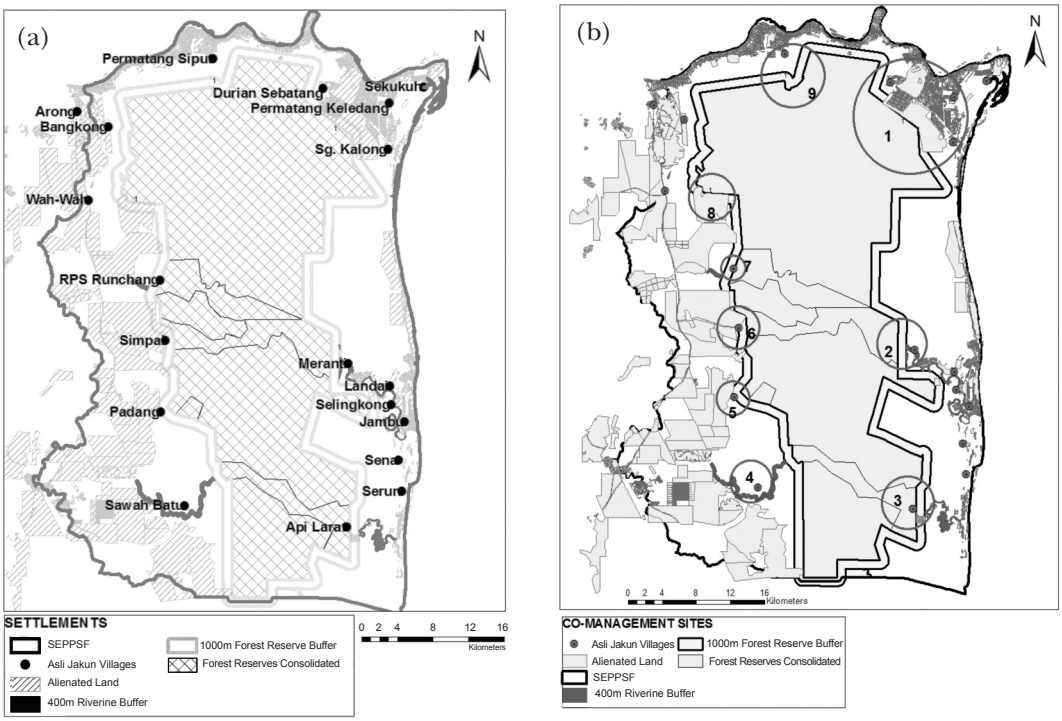

Figure 2 Location of (a) Orang Asli villages and (b) potential areas for co-management as defined in the IMP. Source: Integrated Management Plan, SEPPSF, Pahang (UNDP/GEF 2007).

FOREST POLICY, LEGISLATION AND THE ORANG ASLI

In Malaysia, the Orang Asli, the indigenous peoples of Peninsular Malaysia are forest dependent people who have been severely affected by policies of forest centralization. According to the National Forestry Act, 1984, which explicitly provides for the administration, management and conservation of forests and forestry development in the country, forests are the property of individual states in Malaysia which are to be administered and managed by the state forestry departments. This effectively stripped forest dependent communities of their traditional rights to access, use and manage forested lands which fell under their traditional territories.

Nonetheless, Malaysian laws such as the Protection of Wildlife Act 1972 (Act 76, Section 52) give the Orang Asli some allowance for shooting, killing or taking wild animals and wild birds for their own consumption. The National Forestry Act 1984 (Section 15) provides for taking of forest produce in accordance with 'any other written law', which refers to Section 6(2) (iv) of the Aboriginal Peoples Act (1954, revised 1974) which grants some allowance for the Orang Asli to collect forest produce from a permanent reserved forest or state land. While Malaysia does not curtail the usurfructuary rights of the Orang Asli in accessing the forests and national parks [National Parks Act (Act 226) 1980], the laws do not provide them with the rights to manage forests which are part of their traditional territories. This is one of the main obstacles for initiating any community-based natural resource management initiatives which involve the devolution of forests management rights to forest dependent communities.

However, there are some positive changes in Malaysian forestry which may eventually pave the way for policy reformation involving the management of forested areas by forest dependent communities, through sustainable forest management (SFM). SFM follows the principle of ecosystem management which dictates that forestry issues be managed in a holistic manner which balances the myriad functions, uses and attributes of the forests with economic and social stresses which impinge upon forest resources (UNCED 1992). The Forest Principles adopted in the Rio Summit stresses the need to enable local communities to have an economic stake in forest use, perform economic activities, and achieve and maintain cultural

identity and social organization, as well as adequate levels of livelihood and well-being, through, inter alia, those land tenure arrangements which serve as incentives for the sustainable management of forests (UNCED 1992).

Maintaining social well-being in terms of economic and cultural needs without compromising biodiversity and forest productivity is central to sustainable forest management (Shrestha & Sharma 2004). These requirements have been included in the Forest Stewardship Council (FSC) certification process for assessing forest management practices at the forest management unit (FMU). Principles 2 and 3 of the FSC's Principles and Criteria of Forest Stewardship require that FMUs demonstrate the land tenure and forest use rights of local communities, with particular emphasis on indigenous peoples' control of forest management as outlined in Principle 3 (FSC 2008). In addition to these two principles, Principle 9 requires that forest managers identify any High Conservation Values (HCV) that occur within their individual FMUs, to manage them in order to maintain or enhance the values identified, and to monitor the success of this management (FSC 2008). Forest managers are expected to make rational management decisions that are consistent with the protection of a forest area's critically important environmental and social values such as HCV 5 which are areas fundamental to meeting the basic needs of local communities and HCV 6 which denotes areas critical to local communities' traditional culture (FSC 2008). With regard to indigenous peoples in Malaysia, Principle 3 of the Malaysian Criteria and Indicators for Forest Management Certification (MC&I) stipulates that the legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognized and respected (MTCC 2002). SFM in Malaysia, through the FSC and MC&I is set to alter traditional protection-oriented forest management to optimize benefits for marginalized groups such as indigenous peoples and the rural poor who depend on forests for their basic needs.

MATERIALS AND METHOD

The research setting

The SEPPSF covers an area of approximately 230 600 ha and contains within its ecological and administrative confines the entire remaining virgin mixed PSF in Peninsular Malaysia (UNDP/GEF 2007). It is also home to some 8000 indigenous peoples, predominantly from the Jakun subgroup (Lim *et al.* 1999, Gill 2005, Kamal *et al.* 2006). The SEPPSF consists of 87 045 ha of Permanent Reserved Forests (PRF) (Wetlands International 2003). The reserves comprise four production and protection forest reserves (FR), namely, Pekan FR, Nenasi FR, Resak FR and Kedondong FR.

The study area is located in an indigenous Jakun village on the fringes of the SEPPSF called Kg. Simpai, which is site No. 6 (Figure 2), one of the sites identified for co-management in the IMP. The village is under the administrative boundary of the Bebar Sub-District, in the District of Pekan, in the state of Pahang. Kg. Simpai, which is located next to the Kedondong and Nenasi FRs, consists of 292 households with a population of 1300 people (JHEOA 2005).

Kg. Simpai consists of several hamlets, namely, Tapah, Kantan, Gerau, Cokok, So'Ong, Gamoi, Tumon, Guntung, Simpai, Camong, Padang and Kalon (Figure 3). The socio-economy of Kg. Simpai is highly diversified and provides a good model for a study which reflects the general trend of forest dependency, forest behaviour and socio-economic changes of the Jakun peoples in the South-East Pahang region.

Sites identified for co-management

To facilitate the sustainable management of the SEPPSF, the IMP outlined six management zones (Table 1). Nine sites have been identified which require co-management with either commercial plantations or Jakun settlements which are either within the 1 km forest reserve buffer zone (Zone 3), or in the forest reserves adjacent to the 200 m riverine reserves (Zone 4) and along the main river courses (Figure 2). Zones 3 and 4 involve Jakun settlements and areas which are food sources for these local peoples and small scale agriculture (UNDP/GEF 2007). These zones cover approximately 9.8% of the entire SEPPSF complex (Table 1).

Methodology

Field research was employed as the main methodology in this study to observe the lives of

Table 1 SEPPSF zonation

Zone	Description	Area (ha)	Area (%)
1	The forest reserves, Pekan, Kedondong, Nenasi and Resak	84 051	36.4
2	Forest reserve extensions	13 165	5.7
3	Forest reserve buffer (1 km)	20 660	9.0
4	Riverine reserve (200 m on both sides of the Merchong and Bebar river banks, excluding zones 1 and 2)	1770	0.8
5	Degraded and logged stateland peat areas	48 917	21.2
6	Developed/alienated peat land	62 037	26.9
Total		230 600	100.0

Source: UNDP/GEF (2007)

the Jakun community of Kg. Simpai in its natural state. The research was conducted over a period of 15 months. A spatial analysis was conducted using participatory mapping while focus group discussions provided the bulk of the qualitative data. Quantitative data was primarily obtained through the household survey questionnaire. The sampling technique was multistage cluster sampling, a probability sampling technique whereby the sampling frame, which is the cluster (zone) was identified and then members of the cluster (the sample household) were selected using a random selection procedure. The rationale for zonation was to capture differences in terms of proximity to forests (residence) and the resource use patterns of the Simpai Jakun. The number of households surveyed was 100. Triangulation was used to verify the data obtained.

RESULTS AND DISCUSSION

Kg. Simpai is a heterogeneous community with varying socio-economic characteristics. With reference to their scattered residence patterns, this study has attempted to introduce a zonation system whereby the socio-economy and resource-use patterns will be discussed. Of the ten zones, three socio-economic clusters have been identified. Zones A–C has been recognized as sharing the same socio-economic and resource-use characteristics (Figure 3). The same can be said for zones D–G and H–J, which have been identified as distinct zone clusters. The forest dependency of the Simpai Jakun is discussed with particular reference to zonation and zone clusters.

Poverty and socio-economic history

The Millennium Development Goals outlined the eradication of poverty and hunger as its primary goal (MDG 1) (UNDP 2005). Even though Malaysia has managed to reduce poverty by half before the MDG target of 2015, poverty still persists among the Orang Asli of Peninsular Malaysia (UNDP 2005). Poverty is not merely the absence of cash, but the ability to meet basic needs such as food, shelter, clothing and medicine. This study explored the socio-economic history of the Jakun of Kg. Simpai in order to understand the effects of forest centralization and land policies on Jakun forest behaviour as well as the reasons for their prevailing economic hardship. According to Figure 4, the major change in the lives of the Simpai people occurred when they were resettled from their old village at Sangka along the Bebar River to the present village after the great flood in December 1970. The Jakun along the Bebar River (which corresponds to Zone 4 in the IMP) depended on the peat swamp forest ecosystem for their sustenance, tending to their swidden plots which provided the bulk of their carbohydrate source from cassava and paddy as well as other cash crops. They also planted myriad vegetables as well as fruit trees of economic value in the same plot (Lim *et al.* 1999). The Bebar River and its tributaries provided the primary protein source.

Upon resettlement, the villagers continued with swidden agriculture and gathering, mostly in the stateland forest adjacent to the village (Zone 3 in the IMP) or in unused land in the village (see Figure 2b). Major economic

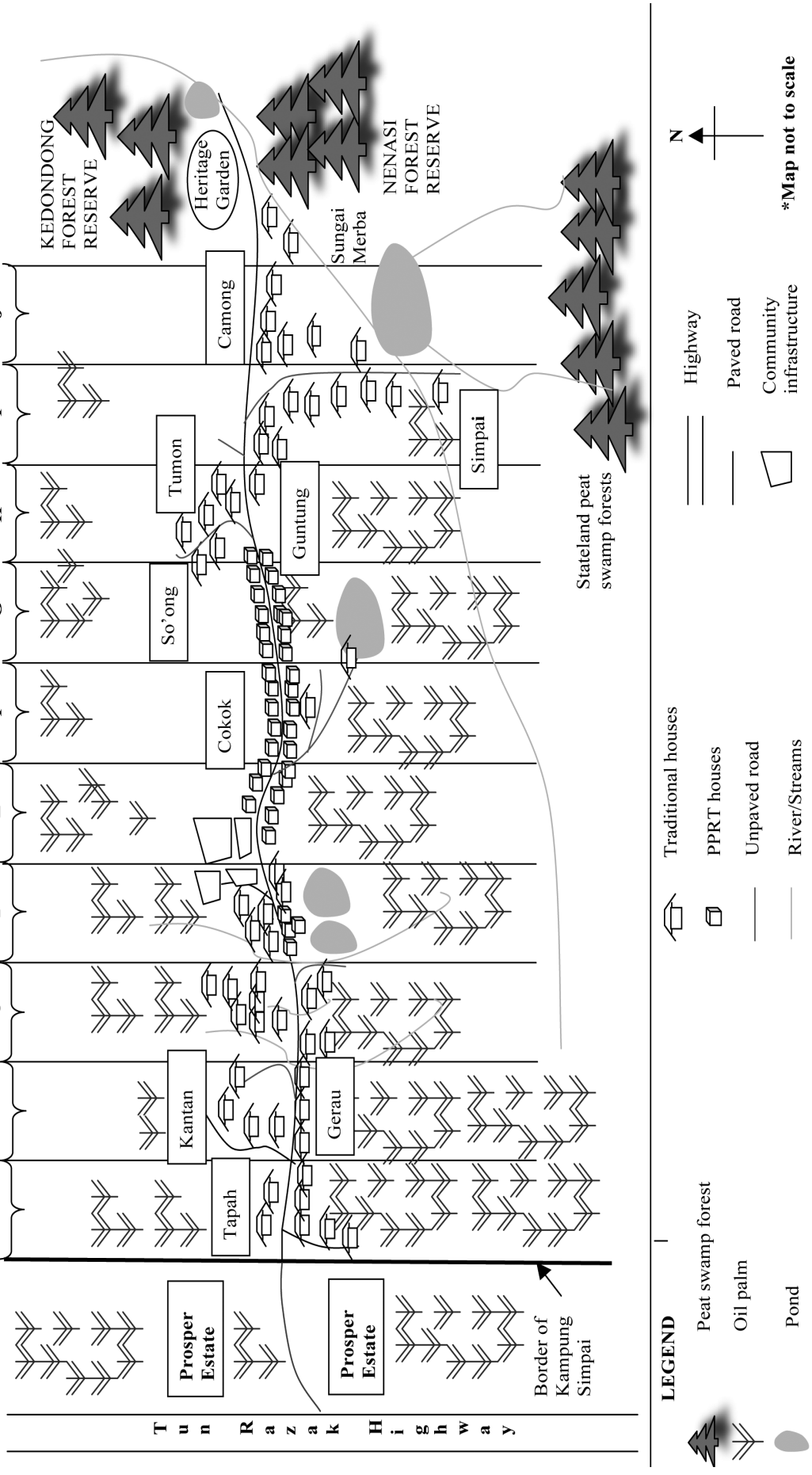

Figure 3 Participatory sketch map of Kg. Simpai

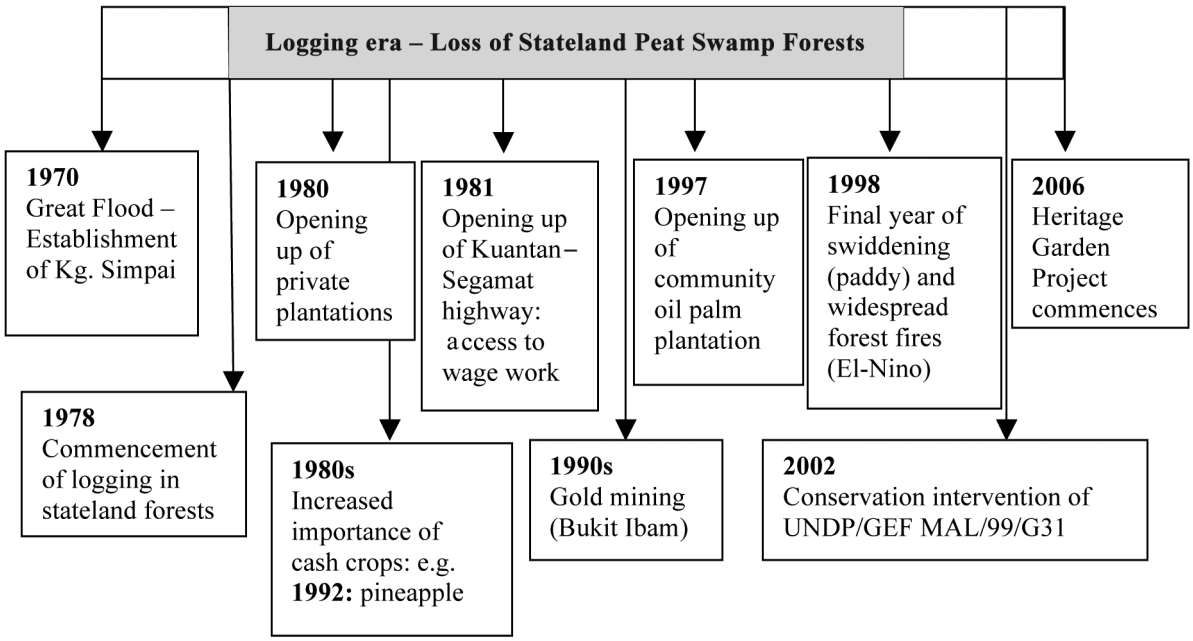

Figure 4 Socio-economic timelines of Kg. Simpai

changes occurred when the Pahang Tenggara Development Authority (DARA) land development scheme commenced in 1972, which developed 1 000 000 ha of the South-East Pahang region involving among others, timber processing, oil palm, rubber as well as the establishment of a township at Bukit Ridan, i.e. Muadzam Shah which is today, the main town which caters to the household and educational needs of the Simpai community (Jomo *et al.* 2004).

Logging

The livelihood patterns of the Simpai Jakun were primarily subsistence based until the advent of logging in these State land forests which altered the mindset of the villagers. The decline of swidden agriculture began in the 1970s, as a result of land scarcity due to deforestation and due to intervention of the Department of Orang Asli Affairs (JHEOA) which was actively encouraging fixed settlement patterns in Malaysia (Lim *et al.* 1999). This decline was further attributed to the attraction of huge sums of cash income from the logging industry, whereby the local men placed less importance on swiddening in favour of logging. The local community began to participate in logging activities during the logging era in the 1980s and 1990s, which extended beyond the Simpai area to other areas such as Nenasi. Some had managed to accumulate enough savings by the 1980s to purchase their own chain saws to venture into logging activities (Lim *et al.* 1999). They could generate income based on the level of production which significantly enhanced their monthly incomes. In a Danish International Development Assistance (DANIDA) study for sustainable forest management in the SEPPSF in 1998, logging was cited as a means for escaping poverty amongst the Jakun (Lim *et al.* 1999). The logging sector offered attractive wages. Able-bodied Jakun male who were employed in the logging industry could earn between RM1000 and RM2000 per month (Lim *et al.* 1999).

Cash crops

Centralization of forests is not always in tandem with meeting biodiversity objectives. State Land forests are often converted to other types of land uses aimed at promoting economic growth. Oil palm plantations replaced much of the State land forests near Simpai in 1980 with the establishment of the Simpai Prosper Estate to the west of the village (see Figure 1). Realizing that land was getting scarce, the local community began to utilize the logged-over land and early succession forests (swidden fallow) more intensively for cash crops, i.e. *kebun* instead of *ladang* (swidden),

thus reducing the fallow period. The restrictions imposed on the use of fire and swiddening in forest reserves also proved difficult for the Jakun to continue swidden agriculture. As a result, paddy planting was drastically reduced and almost ceased in Simpai and the rest of South-East Pahang by 1998 (Lim *et al.* 1999). By the early 1990s, cash crops such as pineapple gained more importance as well as rubber (Lim *et al.* 1999). However, the pineapple boom suffered a setback after being infested with disease and by 1995, this crop lost its economic importance in Simpai. At about the same time, the Simpai people were already fully entrenched in the market economy with rubber as the main cash crop together with watermelon, chillies and yam as subsidiary crops. Since land ownership under the Aboriginal Peoples' Act 1952 is not in favour of the Orang Asli as they are merely 'tenants-at-will', they are insecure in terms of land tenure, thus slowly losing control over their ancestral land which includes their *kebun*, *ladang* and *dusun* (orchard) areas. The dwindling natural resource base and land scarcity prompted the Simpai people to be more involved in the market economy in hopes of escaping poverty.

Land conversion for community oil palm scheme (TSK)

Plantations surrounding the SEPPSF belong to either the private sector or the Jakun communities. In Simpai, the village committee, in collaboration with JHEOA and Rubber Industry Smallholders Development Agency (RISDA) initiated a land development scheme for oil palm cultivation, called the Commercial Replanting Scheme (TSK). Oil palm dividends are an important source of income for the Jakun and contribute in part to poverty alleviation (Lim *et al.* 1999). In a perception survey conducted by DANIDA in 1998, 74% of the Jakun surveyed favour conversion of peat swamp forests for oil palm cultivation (Lim *et al.* 1999). In Simpai, 388.5 ha of forested land (stateland peat swamp forests), land undergoing fallow and land planted with rubber trees were converted to oil palm in the village during the first three phases of the scheme (Table 2). A further 200 ha will be converted to oil palm under Phase 4 of the TSK in Simpai in 2008–2009. Their willingness to trade off the peat swamp forests for which they have lived off for generations with oil palm is an indicator of economic duress and desperation to find alternative livelihood opportunities, thus displaying a high degree of economic pragmatism. Moreover, the compromised access, use and management rights of the forests, State land or protected areas have drastically reduced any motivation on the part of the Jakun to conserve the peat swamp forests.

Table 2 Land developed for community oil palm in Kg. Simpai

Phase	Year	Land area (ha)
1	1997	116.5
2	2000	136.0
3	2000	136.0
Total		388.5

Source: JHEOA (2004)

Socio-economy at present

Only 6.1% of the Jakun are engaged in wage employment, either in the private or government sector, most of them men. Many households earn their income in kind as these households are primarily engaged in subsistence activities, i.e. fishing, hunting, gathering, sedentary agriculture, tending to their fruit orchards (Lim *et al.* 1999, Tachimoto 2001, Gomes 2004, Gill 2005). The Jakun do not earn a consistent monthly income. Income patterns are highly sporadic and seasonal, depending on whether there is work for the Jakun (Lim *et al.* 1999). The Jakun seek employment when they really need the cash, otherwise, they would prefer to be self-employed. The low wage employment could be attributed to the general tendency of the Jakun of Simpai, who, just like their Orang Hulu (Jakun of Endau) counterparts shy away from wage employment as they dislike working under another man's control (Tachimoto 2001). Moreover, Tachimoto (2001) noted that Orang Hulu prefer to be collectors in the forest rather than wage labourers because they believe as collectors, as long as they stay out of debt, they will not be compelled to do regular or constant work. On the whole, they tend to think of themselves as free from bondage. Another reason for the low levels of wage employment recorded is that the socio-economic survey only captured

Table 3 Household forest dependency (May 2007)

Frequency	Dependency	Overall (%)	Zone A–C (%)	Zone D–G (%)	Zone H–J (%)
Daily	High	26.3	29.0	17.9	34.5
Weekly	Medium high	40.4	45.2	41.0	34.5
Monthly	Average	27.3	16.1	33.3	31.0
Once in a few months	Low	5.0	6.5	5.1	0.0
Not at all	Not dependent	1.0	3.2	2.7	0.0
Total		100.0	100.0	100.0	100.0

the occupations of those who still reside in the village. Those who have left the village in search of better job opportunities in other areas were discounted. Nonetheless, wage employment is slowly becoming more important among the Jakun as they begin to lose their forest resources (Lim *et al.* 1999). The types of wage employment available near Kg. Simpai are poultry, vegetable and orchard farming, rubber tapping, logging, working as factory workers, contract workers, estate workers or watermelon planting labourers (Lim *et al.* 1999, Gill 2005).

A relatively high unemployment rate of 17% was recorded with women outnumbering men by 12.6%. The high unemployment rate of women is due to the non-recognition of the domestic production role of women as work by the patriarchal Jakun society. Work in the context of the Jakun is generally referred to as wage employment, which predominantly involves males. Therefore, those who claim to be unemployed are actually primarily engaged in subsistence-related activities.

The self-employed (19.3%) are rattan collectors and collectors of resinous incense wood (*gaharu* and *candan*) or other non-timber forest products (NTFP). Others tend to their orchards and agricultural plots or swiddens. About 3% are fishermen, 13% are engaged in farming, 10% collect peat swamp forest produce and 11% collect hill forest produce. It must be borne in mind that the Jakun householders engage in myriad cash-earning activities and do not generally seek long-term employment (Tachimoto 2001, Gomes 2004, Kamal *et al.* 2006). Therefore it is erroneous to homogenize Jakun occupations due to the variety of work which they do. Many of the Jakun are unemployed or cease to engage in productive activities during the rainy season as there are generally few available employment opportunities then, e.g. logging work comes to a halt during the rainy season (Lim *et al.* 1999).

Forest dependency

Despite the increasing importance of cash economy in Simpai, the local community is still dependent on the forests for natural resources to meet their basic and cultural needs. Forest dependency is measured according to household forest utilization frequency. Table 3 shows that 26.3% of the Jakun households utilize the forests everyday while 40.4% households utilize the forests at least once a week. Those dependent on forest resources are not only collectors but include those who are engaged in wage work, who are members of the TSK scheme who receive quarterly dividends and those who are involved in other types of work. Only 1% is not dependent in any way. These values contrast significantly with JHEOA figures which report a dependency of 55% in Simpai (JHEOA 2004). Official figures only take into account absolute dependency when in reality; there are varying degrees of forest dependency. Therefore, the Jakun forest dependency must be understood in terms of its connectivity with other forms of livelihood options, which vary according to season and opportunities.

On a micro level, zone cluster H–J records the highest daily dependency levels amongst the three clusters with 34.5% highly dependent and an equivalent percentage recording a medium high level of dependence (Table 3). Zone clusters A–C and H–J have higher daily forest dependency levels as compared with cluster D–G. Field observations noted that Zones D–G

are economically better off than Zones A–C and H–J. This shows that the Jakun in the relatively affluent zone cluster D–G who are engaged in wage work do not depend on forest resources as much as the other impoverished zones. In other words, the poorer section of society tends to exert more pressure on land and forests (natural resources) due to lack of alternative livelihood opportunities.

Challenges to ecological integrity

The uncontrolled collection (over-harvesting) of NTFP is one of the major threats to the ecological integrity of the SEPPSF (UNDP/GEF 2007). The IMP stated that the dependency on forest resources was not only due to a lack of alternative livelihood options but rather the desire for quick returns. This statement is misleading and gives the impression that all Jakun people act in the same manner, i.e. assuming that the Jakun peoples are a homogenous entity. This is not congruent with the patterns of forest exploitation in Simpai which is still largely subsistence-based. Nonetheless, there are unsustainable practices which are employed by a small fraction of the local community. These practices include over-harvesting of key commercial species, employing illegal fishing methods such as *tuba*, a derris root juice used to paralyse fish and explosives and the use of fire for clearing of land for agriculture. Shifting cultivation has caused the occurrence of fire and degradation of peat as the cultivated areas are left mostly abandoned for extended periods (UNDP/GEF 2007).

Alternative livelihood projects and forest conservation

Development programmes such as that funded by donor agencies pursue conservation goals by introducing alternative livelihood options for local communities with the common rhetoric of decreasing their forest dependency. The gist of this alternative paradigm, referred to as eco-development is reducing or eliminating forest dependency by promoting economic development at the village level (Banerjee 2000). The core focus of social interventions involving the Jakun communities in the SEPPSF were pilot alternative livelihood projects which were identified through consensus with the communities involved. The PSF Project aimed to demonstrate implementation success before the end of the project period (December 2008) to shift economic dependency of the Jakun away from the peat swamp forests (UNDP/GEF 2007). One of the pilot project sites was the Heritage Garden (HG) Project in Kg. Simpai.

The Heritage Garden Project

The idea for the HG Project was mooted by the village head of Kg. Simpai in February 2005 to conserve medicinal plants and plants which provide raw material for handicraft for the community. The HG Project commenced in January 2006. The project obtained its seed funding from EC-UNDP Small Grants Programme for Operations to Promote Tropical Forests (SGP PTF). The HG Project has three main components, namely, a conservation component, income-generation component and a traditional knowledge documentation component. The conservation component is a four-hectare conservation area, which is essentially a community forest, within the Orang Asli reserve area. The primary function of the community forest was to conserve medicinal plants and other plants which are of importance to the Jakun community in Kg. Simpai, with special consideration given to handicraft-makers and healers to extract the resource from the area (see Figure 3).

The income generation component on the other hand, was divided into two, i.e. the cultivation of medicinal plants in a 1 ha zone and handicraft production. The funding period for the HG Project lapsed in August 2007. The HG Project had marginal success in initiating the 4 ha conservation zone and documentation of traditional knowledge but fell short of its objectives in the cultivation of medicinal plants due to equity and power issues within the community.

Handicraft

Handicraft-making, which involves more women, is the most promising aspect of the HG Project. There are three categories of handicraft-making in the village, namely, mat weaving, basketry and metal-based handicraft. The weaving of *Pandanus* leaves is more common than basketry and metal-

based handicraft. The weavers use one of at least eight types of *Pandanus* leaves for their mats, such as *mengkuang buyuk* and *jakas* which are found in the succession forests, *mengkuang peropok, selinsing* and *rasau,* harvested at riverbanks; *pandan duri* and *pandan minyak* which are planted in their home gardens and *mengkuang ladang* which is harvested from the peat swamp forest. Forest resources used for basketry and miscellaneous handicraft are *tunjang basong* (*Lophopetalum multinervium*), *batang cemperai* (*Gnetum gnemon)* and rattan, extracted from the peat swamp forests. Thus, the peat swamp forests play a vital role in ensuring a continued supply of raw materials for handicraft-making.

This study found that the handicraft sector of the HG Project benefits nine households, about only 3% of the entire households in the village. While the handicraft sector is a promising initiative, the number of beneficiaries is small and can hardly be a solution to poverty in the village, though it does at least provide some relief to those who are involved. The income patterns are sporadic as handicraft production is regulated by demand. Moreover, the Simpai cottage industry is not designed for large-scale production as it is limited by time and resource constraints.

The small number of handicraft-makers ensures the availability of raw materials for their trade. However, if there are good returns from the trade, more villagers would start to produce the handicraft and there would obviously be a competition for resources, with potential negative consequences to the resource base. The present team of weavers are already procuring most of their raw material from outside the village boundary, mostly in the adjacent village, Kampung Kalon as the resources are scarce. The Simpai craftsmen and weavers realize the scarcity and thus do not sell raw material to outsiders, not even to government agencies. In April 2006, a government agency in-charge of handicraft approached the villagers on invitation from UNDP/GEF to survey the potential for marketing the Simpai handicraft. Instead of seeing the potential of the craft, the agency saw the potential for raw materials and requested the Jakun to procure raw material for craftsmen in other regions in Pahang. The villagers refused to sell, citing shortage of supply within the community.

The diminishing forest resource base and land conversion pose a serious threat to the supply of raw material to the Simpai community. Handicraft makers assert that most of the resources can be planted and those that are harvested can regenerate within two to three years, provided that one does not cut them in a manner which impedes regeneration. However, the craftsmen and women are unable to plant their own resources, except in a small plot in their home gardens because of land scarcity as the forests from Zones C–G have been converted to oil palm (see Figure 3). Moreover, the craftsmen and women are not utilizing the space allocated for them to harvest plants for handicraft within the HG conservation site as the area is strictly for conservation. This defeats the purpose of a community forest, which should be aimed at promoting sustainable utilization of resources to meet the basic needs and provide income for the local community on a sustainable level. If the local craftsmen and women are given access to the community forests and replanting of key flora used in handicraft-making such as rattan is encouraged, a continuous supply of raw materials can be secured. Strict conservation, even in a small community forest, causes hardship to the community. It would make much more economic sense to allow selected members of the community to access the community forest and entrust the responsibility of managing the community forest to those who derive direct benefit from it.

Reflections on alternative livelihood options in Kg. Simpai

Alternative livelihood projects are based on the assumption that when forest dependent people have an alternative source of income, they will not use the forests. The reality is that economic development which will meet the needs of the local people is beyond the scope of forestry projects and the equitable distribution of economic benefits is highly questionable. Moreover, the amount being invested per village is paltry and can just touch the fringe of poverty (Banerjee 2000). At best, these initiatives are not alternative but rather, supplementary livelihood options.

Conservation efforts are generally plagued with issues of equity and the effectiveness of poverty reduction through alternative livelihood initiatives (Kandel & Subedi 2004). Equitable distribution of benefits was not demonstrated in the HG Project. The village elites captured most

of the benefits and tended to make decisions which generally favoured the elites than the poor and marginalised sectors of the village. The poorest could not afford to participate and take leadership responsibility because they were not compensated for their time, which is a common phenomenon in alternative livelihood projects (Pokharel & Niraula 2004). The poor were unable to contribute voluntary labour as prescribed by the HG Project committee. Consequently, villagers lacked a sense of ownership of the Project and associated the Project with the village elites, rather than regard it as a community-owned project, as was originally intended.

Lessons learnt from past conservation projects show that users are motivated to conserve NTFP only if they are able to derive economic benefits from conservation (Luintel *et al.* 2004). The majority of the Simpai villagers could not fathom the essence of conservation which they felt benefits the elites and takes away access to forests which ultimately further entrenches them in the web of poverty. Hence, as demonstrated in the HG Project, eco-development cannot succeed if there is no transfer of rights to access and co-management of forests to local communities (Banerjee 2000).

Reflections on community oil palm scheme in poverty alleviation

The TSK scheme has been lauded as a means to eradicate poverty amongst the Orang Asli (Lim *et al.* 1999). However, half of the villagers who are members of the TSK scheme are dissatisfied with the scheme. Most of them assert that the amount is insufficient to meet basic needs such as household expenditure, school fees and other related expenditure. The villagers propose that the dividends should be according to market prices. The desired amount is RM400 per month as opposed to the current amount of approximately RM233 per month. This is pale in comparison with the estimated amount in the DANIDA survey in 1998. It was reported that an oil palm smallholder could fetch a price of RM1200 for the same land area as the TSK scheme (6 acres of land) (Lim *et al.* 1999). Ten years down the line, with rising inflation rates, household expenditure has sharply increased while the dividends earned are only a quarter of the amount expected, even though the crude oil palm prices are at an all time high.

Other grouses pertain to the land acreage allocated per household which the villagers perceive as inadequate, i.e. 6 acres per family for agriculture and 0.25 acres for home garden and housing. Villagers argue that the land allocated does not take into consideration new households and future generations as the acreage allotted is fixed. Others are critical of the rigid system of monocrop planting whereby all members are forced to allocate their allotted land for oil palm. They argue that they should be given the freedom to choose the type of crop to plant. Others also lament that while they support the scheme, they want to know the boundary of their allotted 6 acres and that they should be given the freedom to alienate the piece of land in times of low market prices of oil palm.

However, interviews with the 34% of the respondents who are satisfied with the scheme assert that the amount is sufficient as a means for supplementary income though they concur that is not meant to replace their existing occupations. This corresponds with the mean monthly income of TSK members that is higher than that of non-TSK members (Table 4). Respondents above the age of 50 years are particularly appreciative of the scheme, saying that since they are unable to harvest rattan or have lost their employability in the logging sector, they are very much dependent on the quarterly TSK dividends. Two single mothers interviewed were also satisfied with the scheme, which contributes significantly to their otherwise meagre monthly income.

In terms of reducing forest dependency of the Jakun, the Pearson's chi-squared test results showed no significant relationship between TSK membership and forest dependency ($p < 0.05$). A similar result was observed for TSK membership and forest utilization frequency, thus indicating that most of the Jakun generally still rely on the forests as their primary livelihood source even though the are members of the TSK scheme. This could be attributed to the sporadic dividend payments and the amount of payouts which do not reflect the market prices.

Table 4 Differences between household incomes of TSK members and non-members (May 2007)

Description	Mean (RM)
Member	629.00
Non-member	397.50

CONCLUSIONS

Forest policy towards centralization in Malaysia has resulted in forest degradation and compromised the access, use and management rights of forest dependent communities. Conservation goals need to take into account community socio-economic pressures and weaknesses in existing forest centralization policies and use that as a starting point to seek solutions for sustainable forest management. Alternative livelihood programmes do not address the root cause of the problem, i.e. land scarcity, access, use and management rights of forest resources. Equity issues also plague alternative livelihood projects which do not benefit those who generally need them the most. Conservation without economic benefit for local communities impedes the conservation process.

Decentralization in forest management, i.e. co-management was identified in the IMP as a viable means not only to minimize impact on the forests, but meet the socio-cultural needs of the local community. This study has shown that Kg. Simpai is a good model for the Pahang Forestry Department to engage as partners in conservation. The people of Kg. Simpai are dependent on forest resources for a major portion of its livelihood and have a common realization that the resources are getting scarce and that there is a need to conserve resources for future use. The exposure to conservation with UNDP/GEF intervention and the active involvement of the local community in documenting their traditional knowledge lends support to the Simpai community as competent agents to manage their resources. To effectively implement co-management, a framework which balances sustainable use and addresses equity as well as basic needs must be developed with community consensus. The commitment of forest managers to co-management will be demonstrated when changes in perception towards communities and work attitudes have taken place which foster better working relationships and partnering with these forest user groups. Pre-conditions of a sustainably managed forest are: if communities themselves participate in decision-making; the forests are able to fulfil the subsistence needs of the community which co-manages the forests and if benefits are equally distributed to the poor and marginalized sectors of the village.

The real challenge in initiating co-management in the SEPPSF lies not in the gaps identified in the IMP, such as the lack of knowledge on the potential of the Jakun to co-manage the SEPPSF with the State, but in providing a legal framework for co-management involving forest dependent communities which should begin with the reformation of policies and laws in Malaysia which allow for the transfer of management rights of selected forest areas to these communities. While our South-East Asian neighbours have begun the legal process to transfer such rights to forest dependent communities, Malaysia is still grappling with piece-meal demonstration sites funded by donor agencies which in the end do not provide a solid foundation for community-based natural resource management. In the final analysis, the implementation of co-management in the SEPPSF is a move in the right direction in promoting community forestry in the country but there is danger of it being nothing more than mere rhetoric if no concrete measures are taken to initiate changes in forest policy and legislation to ensure its actual implementation and long-term success.

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