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Trends in Indonesian Forest Policy

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Abstract : The focus of Indonesian forestry has shifted considerably since the beginning of the 1960s as the sector has developed from a largely non-commercial operation into one of the most important components of the economy, supporting national development and foreign exchange earnings in the three decades since the early seventies. However, rapid development of timber-based industries on the one hand and a lack of effort in securing regeneration of logged-over areas on the other, has resulted in forest degradation in many parts of Indonesia's major islands where commercial timber trees are available. Changes in land use policy to accommodate human resettlement, agriculture and the development of estate crop plantations, which for the most part have been short-lived, have also contributed to deforestation and land degradation. Furthermore, forest fires, illegal logging and the subsequent illicit trade have become major issues which need to be addressed not only by the forestry sector itself, but also by related parties at various levels.

Along with the country's economic restructuring, the forestry sector has also undergone reform. In reviewing the structure of the sector so as to better address the various problems it faces, the Ministry of Forestry has identified five priority areas as the focus of its programme of activities for the period from 2001 to 2004. Over the next twenty years forest policy will be directed towards rehabilitation of degraded forest land and conservation of the remaining forest. This paper describes and analyses the policy trends within Indonesian forestry over the last three decades with a particular emphasis on the changing role of forests and the forestry sector in national development and the impact this has had on the sustainability of the forest resource. The analysis makes specific reference to protected area management (both conservation forests and protection forests), as governed by regulations separate from those that apply to production forests. The latest developments in forest policy formulation involving multi-stakeholder participation under the National Forest Programme (NFP) framework are explained and analysed. The various mechanisms which strengthen local participation, including the potential role of the NFP framework, are also discussed.

Key words : policy, forest, degradation, rehabilitation, conservation, planning, framework, participatory, stakeholders.

1 Introduction

Indonesia is an archipelago consisting of about 17,000 islands, with a forest area of 120.3 million hectares covering more than sixty per cent of the country's land area (see Box 1). From an ecosystem point of view, Indonesia can be classified into seven vegetation zones ranging from beach forest, peat forest, mangroves, low land tropical rain forest and savanna, to montane and alpine forest. Whilst Indonesia occupies an area equivalent to only 1.3 per cent of the total land area of the earth, the nation's biodiversity accounts for at least 10 per cent of all plant species, 12 per cent of all mammals, 16 per cent of reptile and amphibian species, 17 per cent of all bird species and 25 per cent of the world's fish species.

Traditionally, forests represented a resource upon which many Indonesian people depended for their subsistence and customary activities. More recently, along with a shift in the direction of national development during 1970s, forests have also generated employment as well as business opportunities. Out of a total population of about 206.6 million, an estimated 36 million people rely on the forestry sector for their livelihoods either formally (e.g. industry) or informally (e.g. forest-fringe communities) (MoF 2002).

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2 Overview of forests and forestry in Indonesia

2-1 General forestry issues

From a forestry development point of view, two distinct forms of resource management can be discerned in Indonesia. The forests of Java on the one hand consist predominantly of teak plantation, whilst the natural forests of the outer islands are more diverse with the predominant commercial species varying between regions. Thus, for example, Dipterocarp species predominate in Kalimantan and Sumatra, *Diospyros* species predominate in Sulawesi, *Eucalyptus* in the Moluccas, and *Pometia, Agathis* and *Araucaria* species in Irian Jaya.

Teak plantation forestry in Java was established under Dutch colonial rule and implemented through a participatory system termed 'taungya', which involved local communities in forest management. Later on, these forests were managed by Perum Perhutani, a state-owned enterprise with control over a forest area of about 1.8 million hectares. Sustainable management principles have long been practiced in this forest area, and mechanisms to involve local communities in forest activities have continuously improved to adjust to the latest developments and to meet the changing demands of stake-

Box 1

Forest land categorisation in Indonesia:
(a) Production forest (58.26 million ha)
(b) Protection forest (33.5 million ha)
(c) Conservation forest (20.5 million ha)
(d) Convertible forest (8.01 million ha)

Source: The Ministry of Forestry (2000)
(b) and (c) are also termed *protected areas*

Table 1 Development sectors supported by goods and services provided by forests.

Sectors receiving goods and services from forest	**Role of forests and forestry**
Agriculture	Allocation of forest land for agricultural purposes; provision of services in the form of watershed protection, erosion control, maintenance of soil fertility and provision of genetic resources
Resettlement	Allocation of forest land for resettlement programmes; incorporating both human settlements and agricultural land
Industries	Supply of water and raw materials; both timber and non-timber forest products
Mining	Forest areas to be opened for mine exploration and exploitation
Energy/power generation	Water power/energy, geothermal energy
Public works	Road construction through forest land; water supply for check dam
Public health	Clean water supply; pharmaceutical materials
Tourism and other environmental services	Natural beauty; amenity; biodiversity

holders. However, as compared to the plantation resources of Java, the differences in the area and characteristics of the biodiversity, natural rain forests of theouter islands necessitate a very different approach to forest management.

Prior to the 1970s there was no large-scale forest activity in the outer islands, and the forest resource in these regions was not considered an important source of national revenue. Since then, however, the direct contribution that the forestry sector has made to national development as well as the role it has played in supporting the growth of related sectors - including, for example, agriculture, resettlement, mining and other industries, energy generation, public works, public health and tourism - has been substantial. Forestry has become the second largest contributor to foreign exchange earnings since the early 1990s, after oil and gas production. The role of forests and forestry as a main support for the development of various other sectors is further illustrated in Table 1. Unfortunately, however, there is presently no formal reciprocal mechanism to guarantee the sustainable provision of goods and services derived from forests.

2-2 Specific issue : Indonesia's conservation forests

The conservation forests of Indonesia are of considerable importance not only within Indonesia itself but throughout the world for their high diversity of flora and fauna and their global natural value. Conservation forests account for approximately 17 per cent of Indonesia's total forest area, and together with protection forests form a total protected area of 54 million

Box 2

Relevant legal instruments in forest conservation management

(a) Act No. 4/1982, regarding basic provisions for the management of the living environment.
(b) Act No. 5/1990, regarding conservation of living resources and their ecosystems, and its explanation in the form of Government Regulations (PP):
- PP No. 13/1994 deals with hunting procedures,
- PP No. 18/1994 deals with ecotourism.

(c) Act No. 5/1994, regarding ratification of the Convention on Biological Diversity.
(d) Presidential Decree No. 43/1978, regarding ratification of the Convention on International Trade in Endangered Species (CITES) of Wild Fauna and Flora.
(e) Presidential Decree No. 48/1991, regarding ratification of the Convention on Wetlands of International Importance Especially as Waterfowl Habitat

Example of Planning Frameworks for forest conservation management

(a) The Indonesian Biodiversity Action Plan (1993), comprising strategies for action under four main categories:
- *In-situ* conservation in terrestrial parks and protected areas
- *In-situ* conservation outside protected area network
- Coastal and marine conservation
- *Ex-situ* conservation

The Action Plan is now in the process of revision.
(b) Spatial conservation planning frameworks, e.g. seven major bio-geographical zones.

Designation of Specific Protected Areas Status of International Importance

(a) Biosphere Reserves designated by UNESCO: Gunung Leuser, Tanjung Putting, Lore Lindu, Komodo, Siberut (Taitaibatti), Cibodas (Gede-Pangrango),
(b) World Heritage sites: Ujung Kulon National Park, Komodo National Park, and Lorentz National Park.

hectares, or roughly 45 per cent of the total forest area.

The Forestry Act of 1999 (UU No. 41/1999) defines conservation forest as a forest area with certain characteristics, whose primary function is the conservation of biological diversity - flora and fauna - and the ecosystems of which it forms a part. Conservation forests are divided into three different categories according to their main function, namely, sanctuary reserves, nature conservation areas, and hunting areas. Under the Conservation of Living Resources and their Ecosystems Act (UU No. 5/1990), sanctuary reserves are classified into strict nature reserves and wildlife sanctuaries, and nature conservation areas are sub-divided into national parks, grand forest parks and nature recreation parks.

In integrating the demands for both conservation of biodiversity and social development, the national park system of management is perhaps one of the most strategic approaches to protected area management. This is especially the case in a developing country such as Indonesia, where a large proportion of the population is dependent on forest resources for their livelihood, and as such a specific framework that addresses the requirements of nature conservation and livelihood sustenance must be in place for effective resource management. The increasing importance of Indonesia's national parks system can be seen from the continuous increase in the number of national parks from three in 1980, to 40 in 2000. These 40 National Parks cover an area of approximately 14.7 million hectares or about 72 per cent of the total conservation forest area and 27 per cent of the total protected forest area. In terms of the management of this resource, at least three zones are differentiated in national parks, namely, core zones where no human activity that may modify its natural integrity is permitted ; utilization zones where recreation centres and tourist destination development are allowed ; and other zones which, according to their function and condition, may be assigned as wilderness zones, traditional zones, rehabilitation zones, and so on. In addition, areas lying outside national park boundaries may be assigned buffer zone status, where human activity and resource utilization are permitted. In areas where local people are dependent on the resources available in the National Parks, community-based management systems have been introduced.

Considering the inherent characteristics of conservation forests, the government has taken various measures to secure them by law (see Box 2). Several legal instruments have been put into effect, and various planning frameworks have been developed through national initiatives as well as cooperation with international partners. The government has also recognized the value of a

number of Indonesia's protected areas that are of particular global importance, as shown by the support it has given in the designation of biosphere reserves by UNESCO.

Despite the volume of criticism expressed regarding the management of Indonesia's conservation forests and protected areas in general, as well as the problems associated with their management, it is also recognized that Indonesia is one among very few developing countries that has a workable planning framework for forest conservation (see Jepson and Whittaker 2001).

3 Forest Concession Holding (HPH[1]) System

3-1 Contribution of the forestry sector to national development

In the late 1960s, national development policy shifted towards export-oriented economic growth underpinned by natural resource exploitation. As such, the forestry sector has since played a crucial role in national development throughout the three decades since the early 1970s following the introduction of HPH, a system for the allocation of forest concessions. Between 1993 and 1994, the contribution of the forestry sector to foreign exchange earnings increased from US$3 billion to US$4.2 billion, placing the sector second in rank after oil and gas. The sector also made a significant contribution to the creation of employment, with between 3-4 million man-years of employment in forest management and industry generated per year in the 1980s and 1990s (Djakaria and Nasendi 1997). The development of the forestry sector also played a role in the reduction of poverty from 60 per cent in 1970 to 11 per cent in 1996 (World Bank 2000), and the increase in the average income per capita from US$80 in 1967 to US$1000 in 1995 (Djakaria and Nasendi 1997).

3-2 Timber-based industries : the demand for raw materials and the supply capacity of the forests

Along with the change of economic policy at the national level, certain adjustments were also made within the forestry sector. In order to increase the added value of timber, the government encouraged the development of timber-based industries and imposed a log export ban in 1985 to ensure the supply of logs to the industry, and thereafter an export ban on rough sawn timber in 1992.

The timber industries experienced rapid development for more than 10 years starting from the early 1980s, relying heavily on natural forest to supply the raw materials. For example, the plywood industry increased its total production capacity from 1.99 million m^3 per year in 1980 to 13 million m^3 per year in 1995, with an increase from 29 to 117 mills in operation over the same period (Paribotro 1997). NRMP-USAID (2000) reported that the total log intake of the timber industries in 1996 reached 48.2 million m^3, with 48.9 per cent accounted for by plywood mills, 31.1 per cent by pulp mills and the remaining 20 per cent by sawmills. For almost two decades, the forestry sector accounted for an average of 16 per cent of the foreign exchange earned per year (Djakaria and Nasendi 1997).

Unfortunately, rapid development in the industry sector has not been balanced by an improvement in regeneration capacity of the forest resource. MOFEC (2000) stated that the sustainable production capacity of the natural forests was only 25.36 million m^3 per year, resulting in a deficit of some 32.88 million m^3 between supply and demand. The large discrepancy between demand for logs and the supply capacity of the forest has brought about illegal logging and illegal trade, increasing the total degraded forest area to about 30 million hectares by 2000.

3-3 Lessons learnt from the implementation of HPH system

From the point of view of national development, the forestry sector has contributed to the economy in various ways, through the boosting of foreign exchange earnings, the creation of business and employment opportunities and the reduction of poverty in remote areas. However, despite these positive contributions towards the national development programme, the negative impact of this boom on the remaining forest resource and the environment in general has been overwhelming. Timber-oriented forest utilization as a major component of growth-oriented economic development has proved to be a failure in terms of the maintenance of a sustainable supply of logs from the natural forest.

A selection cutting system (TPI) was introduced at the beginning of the implementation of HPH in order to ensure the sustainable production of timber. Formal procedures for implementing TPI/TPTI[2] to encourage sustainable practices in natural forests were established, as were voluntary measures, such as guidelines for the appliance of reduced impact logging (RIL) techniques, and criteria and indicators (C & I) for SFM[3] were also introduced to ensure that the HPH system be carried out in a sustainable manner. However, a lack of law enforcement, monitoring and evaluation and an absence of any incentive scheme for good performance, are among the driving factors behind many of the problems currently faced by the forestry sector.

As revealed by MoF data (2001), the continuation of unsustainable practices for more than twenty years under the HPH era has been the major contributor to the rapid rate of deforestation in Indonesia. Of the 23.9 million hectares of degraded forest distributed across six major islands[4], roughly 60 per cent is production forest

[1] HPH : Hak Pengusahaan Hutan

[2] TPI/TPTI : Tebang Pilih Indonesia (Indonesian Selection Cutting)/Tebang Pilih Tanam Indonesia (Indonesian Selection Cutting and Planting).

[3] SFM : Sustainable Forest Management

Table 2 Area of degraded forest land in each of the six major islands.

Island	Percentage forest cover	Forest area in need of rehabilitation (million ha)
Java	42.3	1.32
Sumatra	36.9	8.36
Kalimantan	18.2	6.42
Sulawesi	21.3	2.42
Irian Jaya	12.6	3.91
Maluku	3.2	0.14
Total	-	23.9

Source: The Agency of Forest Planning/BAPLAN, MoF (2001)

area where HPH permits were granted.

4 Forest land use and land use change policy and their impacts

Based on respective differences in land use, Indonesian forests can be categorized into protection forests, with the forest serving a basic life support function such as watershed protection, maintenance of soil fertility or the prevention of floods, erosion and salinity ; production forests where the primary function of the forest is timber production ; conservation forests where the main function is the conservation of biological diversity and ecosystems ; and convertible forest land.

Under this system of classification, convertible forest land may be turned over to alternative uses such as transmigration, agriculture, estate crop plantation development, road construction and other public work projects. About 5.45 million hectares of forest has been converted for such purposes and along with the synchronization of TGHK (Forest Land Use by Consensus) and RTRWP (Provincial Spatial Planning), a total of about 8.01 million hectares of forest land has been assigned to this category[5].

Although land use change policy was intended to support the development of other sectors, according to a reassessment carried out by the Ministry of Forestry in 2000, only 41.21 per cent of the 4.5 million hectares approved for conversion to estate crop plantations has been developed as such (MoF 2000). Deforestation in Indonesia has been mainly caused by unsustainable harvesting practices, illegal logging, encroachment, forest fire, as well as abandonment of converted forest land. Hermosilla (2000) suggests, however, that identifying the relative magnitude of each of these contributory factors is a complex matter.

Based on Ministry of Forestry data (MoF, 2001), 23.9 million hectares of degraded forest land are in need of rehabilitation, excluding East and West Nusa Tenggara Provinces which have had uniquely low forest cover for some time. This total area of degraded forest land is distributed over six major islands, as shown in Table 2. Of these 23.9 million hectares, 15.49 million hectares were production forest, while the remaining 8.44 million hectares comprised protection forest and conservation forest.

5 The shift from centralised to decentralised governance and the impacts on the forestry sector

At the global level, the spirit of decentralization in natural resource management has gained considerable support since UNCED[6] in 1992, with a chapter of Agenda 21 emphasizing the need to strengthen the movement towards decentralized governance in balancing the concerns of development and the environment. The spirit of decentralization had already emerged in Indonesia some decades ago as a consequence of mandate UUD 1945[7] Article 18, enlisted under the constitution. However, although these regulations for decentralization have been in place for some time, decentralization as a process had hardly materialised.

Along with democratic reform in the system of government and demand from a large proportion of the Indonesian population for a shift from centralized to decentralized control, district level autonomy was granted under item UU No. 22/1999 in 1999, a component of mandate TAP MPR[8] No. XV/MPR/1998. With the

[4] excluding Nusa-Tenggara.

[5] Total forest area under TGHK was±144 million hectares. Implementation of RTRWP required adjustment of the forest area under TGHK. As a result of synchronization of TGHK and RTRWP, and forest conversion for other uses, convertible forest area has decreased from 30 million hectares in 1994 to 8.44 million hectares in 2000.

[6] UNCED : United Nations Conference on Environment and Development

[7] UUD 1945 : Undang-Undang Dasar 1945/Indonesian constitution

[8] TAP MPR : Ketetapan Majelis Permusyawaratan Rakyat/ The Parliamentary Decision.

commencement of UU No. 22/1999, most development sectors began a move towards decentralization and, under PP No. 25/2000, district level governments were given the authority to regulate and manage their own resources. In the forestry sector, efforts to devolve part of the authority over forest management to district level governments have been implemented since 1994 under Ministry of Forestry decree No. 86/Kpts-II/94. Authority over five components of forest management were granted to district governments, namely, afforestation ; soil and water conservation ; silk moth and bee culture ; private forestry ; and forestry extension. Furthermore, under PP No. 62/1998, management of Taman Hutan Raya (provincial parks) and the gazetting of forest land have been decentralized to provincial governments, and district governments have been granted authority over five additional components of forestry management. These are : management of protection forests ; non-timber forest products ; traditional hunting of unprotected fauna ; forest protection ; and forestry training for local communities.

With regards to the implementation of UU No. 22/1999 and PP No. 25/2000, the biggest challenge to the decentralization process in the forestry sector has been balancing the need for development and an immediate income for communities in decentralized regions, against the need to maintain resource sustainability. Another challenge to the process has been the level of inconsistency between autonomous governments in interpreting UU No. 22/1999 and Forestry Act No. 41/1999. The tendency of autonomous governments to maximize revenue from local resources - called as PAD (Pendapatan Asli Daerah) - and the absence of any government regulations which elaborate on the implementation of UU 41/1999 on the ground, has resulted in various conflicting interpretations. This has brought about a negative impact on the sustainability of the forest resource. In addition, there have been hundreds of cases where the implementation of decrees concerning utilisation of forest resources issued by district governments has resulted in further degradation of forest land.

6 Forestry sector restructuring

Over the past decades, tropical rain forest in Indonesia has declined considerably as a result of unsustainable forest practices. Illegal logging, forest fire and improper implementation of forest land use change the causes for the current problems faced by the forestry sector. According to MoF data (2001), approximately 23.9 million hectares of degraded forest land exist in Indonesia, spread across six major islands, namely, Java, Sumatra, Sulawesi, Kalimantan, Irian Jaya and the Moluccas.

For the next 20 years, forest policy in Indonesia will focus on securing the tropical rain forest through rehabilitation of the degraded forest land and conservation of the remaining forests. As part of a restructuring of policy, the following five issues are identified as the central focus of MoF programes and activities during the period 2001–2004 :

- Illegal logging
- Forest fire
- Timber-based industry restructuring
- Timber plantation development
- Decentralization in forest management

The Ministry of Forestry has also set forth a number of government regulations (PP) under UU No. 41/1999, and other proposed government regulations (RPPs) are currently under negotiation among related parties (for example, RPPs on *Adat* community, forestry planning and forest conservation). The government has recently enacted two PPs, one regarding forest land allocation, forest management planning and forest and forest land use[9] (PP No. 34/2002), and a second regarding a reforestation fund (DR)[10] (PP No. 35/2002). A number of ministerial decrees which elaborate on these acts have yet to be finalized. These ministerial decrees will be the basis for implementation of PP No. 34/2002 and PP No. 35/2002, and will give a clearer direction for how forest policy regulated by the two PPs will enable all relevant stakeholders to address the following five policy issues more appropriately.

Illegal logging and illegal trade has become a serious problem for Indonesian forestry, especially in recent years. Based on timber supply and demand data from 1997 and 1998, roundwood consumption (domestic use and export) was found to be 32.6 million m^3 (approximately 51 per cent) higher than supply derived from legal production plus import (Scotland 2000). It has been estimated that the country has lost revenue of about US $600 million per year as a result of unpaid taxes and levies on this illegal trade (Baird 2001). Other losses brought about by illegal logging, including for example, environmental degradation, social and economic impacts (e.g. the loss of employment opportunities) and a decrease in food and income sources amongst forest fringe communities, have not yet been fully valued.

Forest fires are another challenge that Indonesia is currently facing. Forest fires can be either human-induced or have natural causes. Some regions are particularly sensitive to fire initiation (e.g. Kalimantan's forest area which is rich in coal deposits) while in other regions the causes of forest fire are mainly human activity, usually either as a result of plantation establishment or arson. Forest fires in 1997/1998 affected an area of about 9.7 million hectares, 4.8 million hectares of which was forest land. Based on National Planning and Development Board data (BAPPENAS 1999), total economic losses as a result of forest fires reached US $9.3 billion.

Both the frequent occurence and causes of forest fire in Indonesia have become matters of national concern,

[9] PP No. 34/2002 tentang 'Tata Hutan dan Penyusunan Rencana Pengelolaan Hutan, Pemanfaatan Hutan dan Penggunaan Kawasan Hutan.

[10] PP No. 35/2002 tentang 'Dana Reboisasi'.

which now require concerted inter-departmental action. Various measures have been taken to mitigate against the causes of fire including regulations, the establishment of early warning systems, institutional reform and human resource development. A national coordination team on forest and land fire was established in 1997.

Restructuring of the timber-based industries is deemed necessary to ensure the sustainability of the forest resource, by controlling the demand for logs from domestic sources. The increase in consumption of logs from 3.2 million m^3 in 1967 to 70 million m^3 in 2000, with the majority of the raw material (about 96 per cent in 1998) originating from natural forests, cannot be balanced by production within the remaining forests.

In an effort to restore production capacity and prevent further degradation of natural production forest, a selective moratorium on logging and gradual reduction of annual allowable cut (soft landing policy), will soon to be implemented. Furthermore, in order to improve the management of natural production forests, the Ministry of Forestry has asserted criteria and indicators (C & I) for sustainable management of natural production forest as compulsory measures, since the enactment of ministerial decrees No. 4795/Kpts-II/2002 and 4796/Kpts-II/2002. Decree No. 4795 sets forth the criteria and indicators for sustainable production forests at the management level, while Decree No. 4796 consists of procedures for evaluating sustainable production performance at the management level. This represents a major shift in Indonesian forest policy in order to address problems associated with unsustainable practices in natural forest management. Voluntary measures (e.g. timber certification), whereby private companies implement the C & I of SFM for the purpose of meeting the requirements of timber importing countries, also continue to be applied. That is, the compulsory C & I of SFM are the responsibility of companies to the Ministry of Forestry, while voluntary C & I are a means for forest companies to improve their performance within the international market.

Plantation forest development. As the timber industry has relied on natural forests for its wood supply, the supply capacity of the forest has continuously decreased and now the development of timber plantations needs to be enhanced.

Commercial timber plantation development in outer islands under the industrial plantation forest programme (HTI/Hutan Tanaman Industri) began in the early 1980s. At that time, the total plantation forest (HTI) area was set to reach 6.2 million hectares by the year 2000. However, several factors such as lack of land suitability assessment, limited availability of genetically improved seed, insufficient technical knowledge as well as other experiences of commercial timber plantation development in the outer islands, have together contributed to the low success rate of the HTI programme. Although reliable data on the achievements of the HTI programme is lacking, based on information gathered from a number of HPHTI holders (timber plantation companies), it appears that a total of about 1 million hectares of HTI using fast growing species has been successfully established.

Under the current circumstances, a large area of degraded forest land exists and enhancement of timber plantations needs to be carried out in line with the long-term policy focus of forest and land rehabilitation. PP No. 35/2002 regulates the use of reforestation funds (DR) for various activities under forest and land rehabilitation. Although there is possibility under PP No. 35/2002 to use DR to finance timber plantations through loans, commercial timber plantation companies need to be encouraged to mobilize alternative funding other than DR.

Decentralization in forest management was basically intended to encourage the sustainable management of forests in the regions, and hence contribute to the development of the autonomous provinces and districts. As a corollary characteristic of a forest resource which requires a landscape level, ecosystem approach to management in order to secure sustainability, the boundaries of an SFM unit are in most cases not compatible with the administrative boundaries set at the district or provincial levels where autonomy has been granted. Therefore, decentralization in the forestry sector needs to be implemented with caution. All stakeholders need to realize the importance of review in the decentralization process in relation to forest resource management, as well as the crucial role that sinergy between autonomous governments and other stakeholders must play.

6-1 Community development

Community development will be embedded into each of these programme elements and other activities that address the five priority areas. There have been various government programmes established which are relevant to community development, as discussed in more detail in a later section of this paper. However, some adjustments are needed to suit the current conditions and stakeholders needs. A number of approaches to community development exist at present, which have been initiated by various parties to address local problems in natural resource management, including forests. Some approaches have showed positive impacts especially in strengthening capacity of local institutions, one example being collaborative forest management in a number of districts where local communities are encouraged to actively participate in all stages of forest management, from planning formulation to product marketing. Relevant aspects of community development are discussed in more detail later in this paper under the section 'strengthening local participation through NFP framework'.

7 Rehabilitation and conservation

As stated earlier, over the next twenty years, forestry

sector policy will be focused on rehabilitation of the degraded forest land and conservation of the remaining forest. Rehabilitation in this context refers to all planting activities as stated under Forestry Act (UU No. 41/1999) Article 41, which is intended to restore, protect, and improve forest function, so that carrying capacity, productivity, and the role of forests as a life support system can be retained. The five priority foci (namely, combating illegal logging, controlling forest fire, timber-based industry restructuring, enhancing timber plantation development, and smoothing decentralization) are part of the Ministry of Forestry long-term programme for securing forest resources for the future. In terms of financial resources for carrying out the programmes and activities to achieve this long-term objective, the reforestation fund (DR) will provide the main source of national funding. The Government has just put into effect PP No. 35/2002, which will regulate the use of the reforestation fund (DR). As a consequence of other policies such as the selective moratorium on logging and soft landing (gradual reduction of annual allowable cut), forestry sector revenue for input into the DR will decline considerably. It is expected that the decrease in revenue will be about 60 per cent. Hence, the financial aspect of management of this long-term policy objective will be a major challenge.

The other long-term policy focus - conservation - should be seen in broad perspective, that is, in a sustainable forest management context. Hence, conservation activities will not only be carried out in protected areas (protection forest and conservation forest), but also in production forest. Forest-based environmental services - a potential role for Indonesian forests which is currently under-valued - demand further attention. The off-set of carbon emissions, watershed protection, biodiversity conservation and eco-tourism are among the environmental services that forests can provide, as has been internationally recognized through the development of environmental measures and mechanisms under various conventions (e.g. UNFCCC/Kyoto Protocol, CBD, CCD)[11]. In Indonesia, PP No. 34/2002 regulates the utilization and development of forest-based environmental services. The challenges here involve inconsistencies between national legislation as operated under international agreements, and the adjustments and other legal measures that are needed in order to optimise the use of resources under various schemes (national or international). Aside from PP No. 34/2002 under Forest Act UU No. 41/1999, a second piece of legislation, UU No. 5/1990, also deals with forest-based environmental services, and in particular the conservation of living resources and their ecosystems. Under the existing regulations and planning frameworks on conservation forest management, forest-based environmental services may be further developed, and there remains much room to improve enabling conditions for such purposes.

8 Role of National Forest Programme (NFP) as a policy framework

8-1 Translating international processes into national and forestry sector development objectives

As a follow up to the IPF/IFF[12] process, it has been recommended that NFP be implemented by member countries. Indonesia has been actively involved in formulating IPF/IFF recommendations for sustainable forest management. Furthermore, Indonesia was among the six countries preparing the *Practitioner's Guide to the Implementation of the IPF Proposals for Action.*

A number of forest related conventions and other international agreements have become the core of the recommendations, which were further translated through the IFF/IPF/UNFF[13] processes. IPF/IFF recommendations consisted of various foci for various forest types and country conditions. It is the sovereign right of each country to translate these international recommendations to suit national conditions and development priorities.

The five-year national development programmes (PROPENAS[14]) concerning the utilization of natural resources emphasized the need to manage or utilize the resources on a sustainable basis. The national programme on natural resource management was further translated to suit the priorities and objectives of forestry sector development.

Basically, most of the IPF/IFF recommendation/proposals for action have already been implemented or followed up by the forestry sector. However, as they have been considered as part of the sector's development priorities (and therefore did not necessarily refer to conventions or other international agreements), the efforts have not been recognized internationally. Such national level action includes : a national forest and land use programme ; a watershed management approach for dealing with areas affected by drought ; and the development of criteria and indicators for sustainable forest management (SFM).

8-2 Strengthening local participation through NFP framework

Local participation in forestry was strongly advocated at UNCED (1992). In Indonesia, a number of forestry related programmes, which involve local people, have been in place for some time. The oldest system, known as *taungya,* allows people dependent upon the forest to grow cash crops under young teak stands in the Perum

[11] UNFCCC : United Nations Framework Convention on Climate Change ; CBD : Convention on Biological Diversity ; CCD : Convention to Combat Desertification.

[12] IPF : Inter-governmental Panel on Forestry ; IFF : Inter-governmental Forum on Forestry

[13] UNFF : United Nations Forum on Forestry

[14] PROPENAS : Program Pembangunan Nasional

Box 3

Some examples of active involvement of local communities in forest management.

Kalimantan Model for Social Forestry. A 12-year cooperative Social Forestry Development Project (SFDP) between Indonesia and Germany initiated in 1990. The goal of the SFDP has been to develop an approach to sustainable forest use while improving the living standards of rural local communities. The project emphasizes the active role of local communities as an integral component of the process.

Collaborative Forest Management (PHBM/Pengelolaan Hutan Bersama Masyarakat). Land tenure has been a dominant issue in recent years, along with the decentralisation process in Indonesia. An increasing number of conflicts over land tenure have forced the government and other stakeholders to resolve a framework to address the issue. A number of *collaborative forest management* initiatives, where local communities actively participate in the process from planning formulation, show positive results and seem to be one possible way to deal with such conflicts.

Perhuntani teak plantations of Java, over a period of years. In the outer island, various plans to involve local people in forest activities have been put into practice since the early 1970s when the concession-holding system was initiated. However, the programme was intensified in 1991 in the form of a forest-village community development programme called PMDH. The programme has been conducted by concession-holders in conjunction with target villages surrounding the forest area. In order to further encourage the involvement of local people and small holders, the government has created opportunities for local cooperatives to buy some of the concessionaire's bonds and stocks.

Under Forestry Act No. 41/1999, it is possible for individuals and cooperatives to be granted a license to undertake some forest-based business, such as those involving environmental services and non-timber forest products. Also, under the same act, any large-scale enterprise that is granted a license for a forest-based enterprise should involve local cooperatives. Forest land tenure and resource user rights are also recognized under the Forestry Act, UU No. 41/1999. Furthermore, as a follow up to the Ministry of Forestry Decree, No. 31/Kpts-II/2000 regarding the implementation of community forest-based management, the government has released 26 permits for local community-based forest management programmes, covering an area of about 66,214 hectares, spread across 10 provinces.

The lessons learnt from these various programmes which involve local people include the realisation that the community groups usually have a weak bargaining position, and that this has often been the main hindrance to the programme's development. For this reason, strengthening the capacity of local communities and its institutions must be prioritised if any such programme is to be successful. On this subject, this paper advocates that these issues be brought under the NFP framework. As is well known, a capacity building programme with institutional strengthening is one of the main elements of NFP. The programme for strengthening the capacity of local communities and their institutions should have a strong position within the NFP framework, as the process should be based upon participatory methods involving a wide range of stakeholders at various stages, from policy formulation up to the review of policy implementation. The view that participatory, community-based management programmes be worked into the NFP framework is also based on some experiences of collaborative forest management that have been practiced for several years at the local level. These experiences have revealed the positive impacts of collaborative involvement both in terms of the communities' improved capacity to evaluate the forest resource, as well as the quality of forest management itself (see Box 3).

8-3 NFP process in Indonesia

There have been a number of initiatives designed to encourage multi-stakeholder participation in dealing with various forestry issues in Indonesia. In particular, multi-stakeholder processes which focus on specific local issues of limited scope have been carried out in a number of regions. However, despite the success achieved in most cases, the results cannot be applied to address nation-wide issues. The Ministry of Forestry as the body responsible for forest area management, initiated in 2001 the formation of a working group to the National Forest Programme, following a decree from the minister of forestry. In order to formulate a National Forest Policy Statement (NFS) - which will form the basis for all stakeholders to contribute to sustainable forest management - the working group has identified various issues relating to the forestry sector and undertaken consultation with stakeholders at the various levels.

9 Analysis

Policy trends in Indonesian forestry cannot be separated from trends in national policy since the sector has been one of the major contributors to national eco-

nomic development. The current condition of the forest resource, however, as well as additional pressure from various groups of the community at various levels, demands substantial reform in the forestry sector. In response to this situation, the Ministry of Forestry has identified rehabilitation of degraded forest land and nature conservation as its foci in its attempt to bring about a major restructuring within the sector. Immediate action which targets the five priority issues for improved forest management was initiated in 2001, and will continue for a four year period to support the restructuring efforts.

A change in the focus of forest policy from production to rehabilitation, together with a selective moratorium on logging and soft landing (a gradual reduction of annual allowable cut), will bring about certain economic consequences, particularly with regard to the supply of raw materials to the timber industry. It also implies a decline in revenue for the forestry sector, which has been heavily dependent on natural forests for its timber production. Further implications of this policy include the decrease in the contribution of the forestry sector to foreign exchange earnings. However, the decrease in revenue caused by the decrease in timber production may be compensated for by the increase in importance of other forest products and services, and it is believed that the total value of the forest resource will increase as its social, economic and environmental values are recognised.

In order to achieve the long-term objectives of rehabilitation and conservation, plantation forest development needs to be enhanced not only to meet industry demand for logs, but also for restoration purposes. Identifying which financial resources may be mobilized to support activities set up to achieve these objectives, is now the most pressing question. With limited reforestation funds (DR) available for the near future, prioritisation of activities to be financed by DR is deemed necessary. The forestry sector needs to have a financing strategy, which will enable it to mobilize various funds from both domestic and international sources, and so map the programmes of activities to potential funding sources. In so doing, it is expected that funding gathered through various mechanisms can be utilized wisely.

In the context of financing strategies for global sustainable forest management, there has been a shift away from those which have concentrated solely on wood-based products, towards a forest-based approach recognising environmental services. The role that forest-based environmental services can play in addressing the challenges of economic development and environmental management, have continuously gained recognition in international processes. Although the accounting methodologies for such services are still in their infancy, the interest of the private sectors in this matter has continuously grown. For example, carbon-trading under both Kyoto Protocol and non-Kyoto Protocol mechanisms have attracted particular interest from the private sector. The attractiveness of these mechanisms is due to the opportunity it creates for Annex I countries to meet part of their obligations under the Kyoto Protocol through CDM[15], as well as the business opportunities in carbon-based projects currently under non-Kyoto mechanisms, which may later be traded in the form of CER[16], or may count towards Annex I countries' obligations under the Kyoto Protocol, although the use of the latter mechanism is still under debate. For the private sector in Indonesia, carbon-based projects will be more attractive if unilateral CDM is accepted.

Business schemes for watershed protection and biodiversity conservation have also emerged in some countries, which could be adopted by Indonesia and modified to suit local conditions. For the forestry sector, such trading and business schemes could contribute towards SFM efforts, conserving biodiversity and improving the management of protected areas, if planned and managed carefully.

Policy which has decentralised resource authority to district level, has had some negative consequences on the sustainability of forest resources. Although from a timber production point of view the economic value of Indonesia's forests varies from those of high commercial potential, to those of only conservation importance, business schemes which capitalise on the services provided by protected areas (protection forest and conservation forest), have yet to be fully explored. For example, conflicts of interest between upstream and downstream regions of neighbouring districts or provinces often exist, but there remains the potential to develop the concept of a compensation mechanism by which upstream regions are reimbursed for the services that are enjoyed by down stream regions. However, for effective implementation of such concepts, legislation would be required.

Given the current condition of the forest resource (i.e. a large degraded area) and that forest-related processes at various levels demand a balance between conservation and development, a long-term policy that focuses on rehabilitation and conservation seems to be the most appropriate one. The policy also comes at a critical time, as Indonesia faces heavy criticism and pressure in relation to its management of production forest, to the extent that international recognition of various aspects of its conservation forest management have been overlooked. The latter includes the designation of some protected areas as biosphere reserves and world heritage sites, as well as a planning framework for conservation forest management that is widely considered a workable framework, despite a certain number of inconsistencies.

The National Forest Programme (NFP) that has been initiated in Indonesia provides a suitable policy frame-

[15] CDM : Clean Development Mechanism
[16] CER : Certified Emission Reduction

work for community development that aspires to community capacity building and institutional strengthening. Under this framework, the community development element of forest management which has to be embedded in every programme set up by the MoF, as discussed earlier in this paper, can be carried out successfully.

10 Concluding Remarks

National development priorities over the last three decades required support from the forestry sector, both in providing forest products and forest land for other uses. The negative consequences of this policy that are currently being faced by the forestry sector require a major shift in policy direction. The long-term policy outlook of rehabilitation and conservation now implemented by the Ministry of Forestry is considered to be the most appropriate. Despite the past failures in management of natural production forest, the management of protected areas, especially conservation forest, already has a planning framework that has been internationally recognised as a workable framework, though with room for further improvement. Lessons learnt in developing a planning framework for conservation forest will be useful in improving the existing planning framework for production forest.

The problem of forest decline in Indonesia is a complex one, driven both by internal factors, as well as external ones such as international trade. Hence, strengthening the efforts of government and other stakeholders remains an urgent need. Furthermore, the support of the international community is necessary, especially in dealing with trans-boundary challenges, such as the illegal import and export of flora and fauna.

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