NATIONAL FOREST POLICY REVIEW



INDONESIA

by

S.Y. Chrystanto and Agus Justianto Ministry of Forestry Jakarta, Indonesia

Current situation of forest resources and the forestry sector General

Indonesia is a country comprising more than 17 000 islands, of which 6 000 are inhabited; they are spread out over 5 000 km from the Indian Ocean to the Pacific Ocean at the equator. The total land area of Indonesia, excluding inland water bodies, is about 1.9 million km².

The population of Indonesia is 203.5 million (Statistical Year Book of Indonesia 2000). The distribution of the population between Java, as the main island, and the outer islands is unbalanced. The average population density is 106 persons/km² but in Java it reaches 945 persons/km². Since 1980, the population growth rate has decreased, from 1.98 (1980 to 1990) to 1.35 percent (1990 to 2000). Approximately 60 percent of the people live in rural areas. Population expansion is increasing pressure on all natural resources including forests. At present, the forest area per capita is around 0.6.

Indonesia's GNP per capita was about US\$700 at the end of 1995 (Country Brief IFAP 1997). After the regional economic downturn, the national income per capita declined to about US\$600 in 2000 (Statistical Year Book of Indonesia 2000). In 2000, Indonesian economic growth had a better performance than 1999. The growth rate in 2000 was 4.77 percent, valued at US\$46.7 billion.

Forest resources

In 1999, forests covered about 120.35 million ha or 62.6 percent of Indonesia's total land area. The forest can be classified into four categories, namely: protection forest, conservation forest, production forest, and convertible production forest. The area under forest management is 112.2 million ha consisting of a permanent forest estate divided into protection forest, conservation forest and production forest.

The extent of protection forest is 33.5 million ha or 27.8 percent of the total forestland. Conservation forest accounts for around 20.5 million ha or 17 percent of the forestland. The production forest comprises 58.2 million ha or about 48.4 percent of the forestland. Production forest is further divided into limited production forest and permanent production forest.

Plantation forests, known as Hutan Tanaman Industri (HTI), are established on unproductive forestlands. The private sector and state-owned forestry companies have established about 2.5 million ha of plantation forest. Most plantations are planted with *Acacia* spp., *Albizzia* spp., *Gmelina* spp. and *Eucalyptus* spp. There were 102 units of timber plantation concession holders by July 2001. Timber plantations have been set up to produce wood for pulp and construction purposes.

In addition, there are about 1.9 million ha of teak plantations managed by PT. Perhutani (a state-owned enterprise). The teak plantations have been managed for the last 100 years. Plantation forests outside the forest area account for about 1.3 million ha and are classified as privately owned forest.

The annual rate of deforestation in Indonesia from 1990 to 1998 is estimated at about 1.8 million ha. This figure was calculated based on the time series of satellite images available at the Ministry of Forestry (MOF). Deforestation was caused mainly by illegal logging, forest fires, excessive logging practices, encroachment and the use of land for other purposes.

Protected areas in Indonesia are based on IUCN categories, namely: (1) strict nature reserves (2.4 million ha); (2) national parks (11.3 million ha); (3) natural monuments (0.29 million ha); (4) wildlife sanctuaries (0.35 million ha); (5) hunting parks (0.24 million ha); (6) grand forest parks (0.24 million ha); and (7) protection forest (33.5 million ha).

About 25 percent of the protected areas are located in Java where the human population pressure is very high. Most of Java's protected areas are not connected properly through wildlife corridors.

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¹ FAO's Global Forest Resource Assessment 2000 shows a total forest area of 105 million ha for 2000.

Many are fragmented into small islands that cannot support a viable population of endangered species.

Forest production

From 1967 to 1990, the forest industry grew rapidly in Indonesia. The industry played an important role in accelerating Indonesia's economic development. Currently, the forest industries consist of sawmills (1 618 units), plywood mills (107 units), pulp mills (six units) and others (50 units). Small- to medium-scale illegal enterprises are excluded from these figures. Wood-based industries mainly produce panels such as plywood, medium density fibreboards, particleboards, door components, pulp and other wooden products. The species used as raw material are all found in Indonesia, including teak.

Based on its operational capacity, the Indonesian wood-based industry requires approximately 37.4 million m³ of roundwood per year. Meanwhile, the officially recorded average annual domestic log production has been around 22.5 million m³ over the last five years. The production of roundwood has been declining in line with the potential of the forest. In 2000, official roundwood production was only 13.8 million m³, which created an imbalance between the supply and demand for wood-based industry in Indonesia.²

The annual roundwood exports for the last two years were 230 400 m³, and imports amounted to 743 m³ (Forestry Statistics of Indonesia 2000). During the last three years, annual plywood exports were 4.7 million m³. The export of woodwork in 2000 was 1.2 million m³; blockboards accounted for 534 950 m³.

Annual sawnwood production over the last five years averaged 2.8 million m³. Production in 2000 reached 3 million m³. Most sawnwood is produced for domestic consumption. The annual amount of exported sawnwood was only 9 873 m³ and imports during the last two years averaged 1 258 m³.

The annual rate of pulpwood production was 4.38 million m³. Pulp exports in 2000 were 613 323 m³. Paper exports in 2000 amounted to 379 820 m³. The pulp industry has been growing rapidly since 1987. Since 2000, the pulp producers are required to use only plantation-grown wood as raw material.

Current and emerging issues, trends, and critical problems

Most pressing current problems and emerging issues

In order to develop a National Forest Statement on sustainable forest management (SFM), a number of key issues are being identified and proposed to facilitate a consultation process with stakeholders at all levels (local/sub-national/national).

Forest resource inventory and land-use planning

To estimate the "baseline resource" for forestry development in the future and for reviewing the past and current forest policy, the MOF is conducting a re-assessment of forest resources. Some progress on assessing forest cover has been made, but some crucial information for decision-making is still lacking (e.g. reliable information on growth and yield of tropical tree species and the status of non-timber forest products). Land-use allocation based on harmonization between the TGHK (forest land-use plan by consensus) and the RTRWP (provincial spatial planning) may need further consultation with district governments to minimize land-use conflicts among different authorities and stakeholders.

Forest-based industry and trade

Indonesia's current forest-based industry is dominated by large- and medium-scale plywood and sawmill industries. Most downstream enterprises are small and medium in size. Wood-based pulp

² However, unofficial figures for log production are up to four times higher.

and paper industries are expected to be major industries in the future. Presently, processed forest products are mainly for export and a small reserve is for domestic consumption. The regional economic downturn depressed product prices; excess capacity and overcapitalization have been serious constraints for the existing forest-based industries because of an imbalance between supply and demand. The production capacity of the primary wood industries and the demand for raw materials has been increasing to a level that cannot be met by the supply of logs from natural resources. This has been caused by (a) inadequate government regulations; (b) aggressive expansion of wood-based industries; (c) local governments issuing licenses for wood harvesting rights; (d) uncontrolled and illegal industrial units. Therefore, the production capacity of the wood-based industries is substantially above the allowable cut of the natural forests.

Indonesian wood processors have low bargaining power with buyers, owing to quality problems and frequent late deliveries, among other reasons. In addition, many buyers are familiar with the Indonesian cost structure and therefore they may determine the selling price. Existing plywood mills were designed to process large diameter logs, which have become scarcer in recent years.

Strengthening of social forestry approaches for the benefit of the communities

For more than two decades the forestry sector has played an important role in the economic development of Indonesia. The forests are extremely rich in biodiversity; they have a major role in maintaining water and soil conditions, they sequester carbon, and provide a wide range of goods and services to local communities.

Forests have been administered in Indonesia since colonial times and forestry has attempted to balance the technical requirements of forest management with societal needs. Some forestry programs that provide opportunities for community participation have been implemented. As the public is increasingly aware of the problems associated with forestry, the participation has to be improved and broadened. People's participation is a crucial aspect in deciding how forestry in Indonesia's decentralization era can be managed on a sustainable basis, and in a transparent and equitable manner.

Currently, there is strong pressure to reform forest management to generate greater community benefits. The pressure is increasing because in the past forests were viewed as a *cash machine* to finance *national development* while local communities received only few tangible benefits. In this situation, social forestry has a major role in providing opportunities for the communities to manage forest resources sustainably in partnership with the government.

Combating deforestation and land degradation

Forest degradation in the last 20 years has affected over 57 million ha of state forestland and non-state forestland. The degradation is caused mainly by weak law enforcement, poor control of forest concession systems, shifting cultivation, forest conversion, fires and inadequate public awareness of watershed protection needs, as well as the limitations of the reforestation program. It is recognized that the government lacks appropriate means to control the degradation. The approaches to forest and land rehabilitation have to become more strategic, comprehensive and locally oriented; stakeholder involvement, empowering rural people and watershed management are important.

Biodiversity, conservation and ecotourism

Indonesia is the world's most biologically diverse country. Many sectors of the economy depend on the biodiversity. However, biodiversity has been eroded and many natural habitats are too small to sustain viable populations, especially of rare and endangered species. Ecotourism has not yet generated sufficient direct revenue for local governments and local communities. The current protected areas and buffer zone management have not provided significant opportunities for local communities and other stakeholders. In addition, there are many overlapping and conflicting land claims within protected areas due to unclear boundaries and the weak commitment of the stakeholders to biodiversity conservation.

Land tenure

Land tenure is a key issue involving many sectors and interest groups. There is a symbiotic relationship between forests and indigenous people. Traditional land tenure affects land availability, on the other hand, land tenure arrangements vary from place to place. Under the Basic Agrarian Law of 1960, the government assumed the right to re-allocate underutilized lands for public benefit. It may use this power to acquire and redistribute land for development purposes. Land-use conflicts related to forestry often result in the displacement and alienation of rural communities with devastating effects on the forest resources. Therefore, tenurial arrangements should minimize irreversible effects on and inappropriate use of land.

Exclusive legal rights to forest resources can be assigned by the government to individuals or community groups. The legal basis for local communities to manage land and forests according to their own needs and for their own benefit, can be found in Forestry Law No. 41/1999 for example. Tenure right for forest dwellers includes recognition of the rights of the indigenous people and their communities. People's participation is a crucial aspect in deciding how forestry in Indonesia's decentralization era can be managed on a sustainable basis, and in a transparent and equitable manner.

Combating illegal logging and illegal trade

Illegal logging and illegal trade have contributed substantially to the depletion of Indonesia's forest resources and caused social, economic and cultural problems. Illegal logging and illegal trade are the result of various human interactions in managing forest resources. Therefore, integrated approaches and the involvement of all stakeholders and concerned parties are essential in combating illegal logging and illegal trade.

Forest fire prevention

Forest fires have been a persistent problem in Indonesia. The devastating forest fires of 1997 have caused many transboundary impacts and put Indonesia in a very difficult position internationally. In addition, this extensive event has caused tremendous losses to Indonesia – and the world – associated with foregone forest resources, degraded ecological services and loss of invaluable biodiversity. Many efforts have been made to address the issue of forest fires. However, forest fires are a complex problem that involves various factors and actors. Therefore, a more holistic and comprehensive effort aimed at the underlying causes is urgently required.

International responsibilities

Indonesia has ratified or adopted a number of international agreements both legally and non-legally binding related to forestry (e.g. the Convention on Biological Diversity; the Convention on Wetlands of International Importance especially as Waterfowl Habitat [Ramsar Convention]; the Convention on Climate Change [CCC]; the Convention on Biological Diversity [CBD]; the Convention to Combat Desertification [CCD]; the Convention on International Trade in Endangered Species [CITES]; the Kyoto Protocol; and Agenda 21). Such agreements, however, have not been implemented in an integrated manner and the benefits from participating in such processes as well as the contribution of Indonesia towards global sustainable development efforts are often difficult to measure.

Management of production forests

As a consequence of the timber-oriented management of production forest, the natural forest resources of Indonesia have been undervalued; forest degradation continues as the demand for logs has increased far beyond the sustainable capacity of the forest to meet it. To ensure a continuous flow of forest products and services without reducing the forest benefits for local people and the environment, management of production forest must be implemented in accordance with the principles of sustainability.

Strategies to manage production forest on the basis of SFM should include improving the TPTI (selection cutting and planting) system and its implementation; promoting environmentally sound forest practices both for natural forest harvesting and plantation activities; promoting timber certification; development of forest plantations and rehabilitation of unproductive/degraded forest land; promoting non-timber forest products and services; improving the livelihoods of and empowering forest dwellers; and implementation of a forest management unit system.

Implications of international conventions/initiatives for the national forest policies

Indonesia has been committed to the objectives of international organizations such as UNEP, ITTO, FAO and UNESCO; to the declarations of the World Forestry Congress; to the World Conservation Strategy; to the UNCED Forest Principles and Agenda 21; and to the statements of the Intergovernmental Panel on Forests and the Intergovernmental Forum on Forests. Indonesia formulated a Forestry Action Plan in 1991 (which was not fully implemented); it has established the Indonesian Ecolabel Institute (LEI); and set up a coordination body – the Consultative Group on Indonesian Forestry (CGIF). Following UNCED, Indonesia issued many decrees and guidelines on SFM and C&I (ITTO 2001).

It has been stated officially that the government will use the National Forest Programme (NFP) to develop a new forest management paradigm. However, this has yet to happen. The NFP is a comprehensive policy framework for management, conservation and sustainable development of all types of forests, based on a set of specific principles and elements. It comprises a broad intersectoral approach to forest development at all stages, including the formulation of policies, strategies and plans of action, as well as their implementation, monitoring and evaluation. It should be implemented in the context of location-specific socio-economic, cultural, political and environmental situations and should be integrated into the country's sustainable development strategies and wider programs for sustainable land use, in accordance with the results of UNCED, especially Chapters 10 to 15 of Agenda 21, and the Forest Principles (Figure 1).

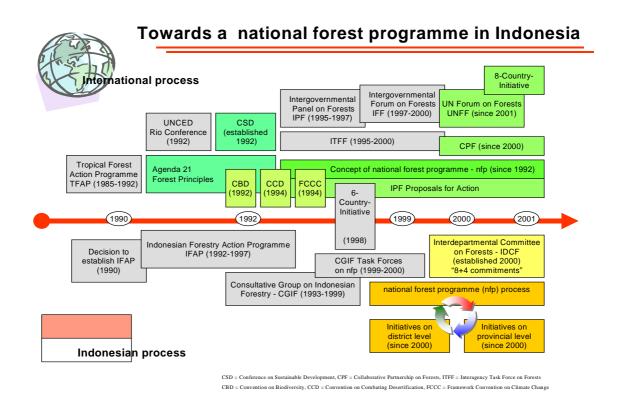


Figure 1. International and national processes related to NFP

The NFP process in Indonesia was initiated by establishing an Inter-Departmental Committee on Forestry (IDCF) through Presidential Decree No. 80/2000. Multi-stakeholder discussions have been held since July 2001 in several provinces (e.g. East Kalimantan, South Sumatera, North Sulawesi, Gorontalo, East Java and West Nusa Tenggara). A number of elements of the NFP have been developed and other elements have been identified. The government is currently drafting a National Forest Statement, being the political expression of Indonesia's commitment to achieving SFM. Furthermore, legislative and institutional reforms have been initiated.

The National Forest Statement should be implemented through an iterative process in the framework of the NFP. The NFP, which has been accepted as the reference framework for SFM, conservation and development of all types of forests, is expected to be effective in dealing with existing environmental problems and in efforts to achieve SFM for sustainable development.

The challenge is to implement the process effectively. The wide range of interests of all the stakeholders as well as knowledge gaps and lack of data on the current status of forest resources are among the factors that need to be tackled in a participatory manner. An appropriate mechanism will be established to ensure transparency in the process and equity in benefit sharing as well as identifying the roles and responsibilities of the stakeholders involved. In addition, considering the diverse backgrounds and interests of the stakeholders in managing forest resources, conflict resolution schemes will need to be developed.

Forest policies

National statement or objective related to forests

In as much as forest policies recognize that the public interest takes precedence over private rights, they are part of the Constitution, which is the supreme law of Indonesia. The imperatives of Indonesian forestry are protection, production and participation. The need for a sustainable and equitable basis for the use of natural resources (including forests) was recognized from the nation's infancy and has been embodied in the Constitution of 1945 and other laws (Table 1).

Table 1. Relevant laws and regulations for the Indonesian forest policy

The 1945 Constitution

Law No. 5 of 1990 concerning Conservation of Living Resources and their Ecosystems

Law No. 24 of 1992 concerning Spatial Planning

Law No. 5 of 1994 concerning the Ratification of the United Nations Convention on Biological Diversity

Law No. 23 of 1997 concerning Environment Management

Law No. 41 of 1999 concerning Forestry (this law replaces Act No. 5 of 1967 on Basic Forestry Law)

Law No. 22 of 1999 concerning Regional Governance

Law No. 25 of 1999 concerning Fiscal Balance Between the Centre and the Regions

Government Regulation No. 33 of 1970 concerning Forest Planning

Government Regulation No. 25 of 2000 concerning Government Authority and Provincial Authority as an Autonomous Region

Government Regulation No. 51 of 1993 concerning Environmental Impact Analysis

Government Regulation No. 28 of 1985 concerning Forest Protection

Government Regulation No. 7 of 1999 concerning Preservation of Flora and Fauna Species

Government Regulation No. 8 of 1999 concerning the Utilization of Species of Flora and Fauna

Government Regulation No. 25 of 2000 concerning Government Authority and Provincial Authority as an Autonomous Region

Government Regulation No. 84 of 2000 concerning Guidelines for Regional Organization

Government Regulation No. 39 of 2001 concerning Execution of De-concentration

Government Regulation No. 4 of 2001 concerning Control of Environmental Degradation and Pollution in Correlation with Forest & Land Fires

Presidential Decree No. 32 of 1990 concerning the Management of Protected Areas

Government Regulation No. 34 of 2002 concerning Forest Compartment and Forest Management Plan, Forest Exploitation and Forest Area Utilization

Government Regulation No. 35 of 2002 concerning Reforestation Funds

With regard to natural (forest) resource management, the most important point of the Constitution is found in Chapter XVI, Article 33, paragraphs 2 and 3, which states: "2) Branches of production, which are important for the State and which affect the life of most people shall be controlled by the State; 3) Land and water and the natural richness therein shall be controlled by the State and shall be made use of for the greatest welfare of the people".

Based on this authority, the Government of Indonesia controls, regulates, and manages the nation's forests by the provisions and regulations of Act No. 41 of 1999 concerning "Forestry" (replacement of the Basic Forestry Law of 1967). This law is the primary source of authority and guidance for all forest administration and regulations. It forms the legal basis for forest land-use planning. The Forestry Law enables the forest areas to be classified and delineated according to functions (e.g. protection, production, nature reserves and recreational purposes). This law also accords the government rights to control all forest areas, whether publicly or community owned, and to prepare a Forestry Plan.

Act No. 5 of 1990 concerning "Conservation of Living Resources and their Ecosystems" has provisions for regulating conservation. Conservation areas are differentiated into nature reserves and nature conservation areas.

Current forest policies

Forest management should aim to maintain or restore the full range of forest functions. An important indicator of progress towards meeting this target will be improved livelihoods of forest-dependent people and an increase in the forest services provided to society at large.

The forestry sector was affected adversely by the economic and social crises of 1997 and 1998. For many people, the crisis still lingers. Growing concern about the condition of the forest resources has impelled the government to make a serious effort to tackle the complex problems of forestry development. International commitments, such as the memorandum of understanding between the Government of Indonesia and the Consultative Group on Indonesia (CGI), have become part of forestry policy development. Eight original forestry commitments have been extended subsequently to 12. Five main strategies are addressing the problems in the forestry sector: combating illegal logging; forest fire prevention and suppression; restructuring of forest-based industry; forest plantation development and reforestation; and decentralization of the forestry sector.

Combating illegal logging

Among the illegal practices in forestry, probably the most serious and conspicuous is illegal logging. It involves harvesting of logs in contravention of the laws and regulations specifying where, how and how much to cut; scaling, log classification, transportation and utilization; payments of charges (e.g. royalties, levies, taxes, fees); and measures to ensure SFM and sustainable forest utilization.

Laws (and related regulations) have been designed to prevent overexploitation (beyond the specified annual allowable cut). However, the existence of laws *per se* does not guarantee the prevention of illegal activities. Enforcement needs to be efficient and judicious. There is a tendency to disobey the laws, which will remain a problem as long as inefficient and corrupt systems allow lawbreakers to escape unpunished. In fact, some elements involved in illegal activities have developed a sense of immunity.

Forest fire prevention and suppression

The catastrophic forest fires of 1997 and 1998 caused high economic and environmental costs for Indonesia and neighbouring countries. Fire prevention and suppression require laws that provide for the punishment of those setting fires for land clearing and make *zero-burning* mandatory. The government's current focus is *zero bad-burning*, which takes into account local environmental and socio-economic conditions. Concessionaires and plantation companies are being invited to

sign an agreement not to use fire to clear land. *Fire prevention* is being considered as a better method than suppression. To this end, the government will strengthen early warning systems and encourage community involvement.

Restructuring forest-based industries

The problems and constraints of forest-based industries in Indonesia are complex and multidimensional and involve various, and sometimes conflicting, interests. Too many enterprises were established without having to show that they had secure and long-term raw material sources. The main problem continues to be excessive production capacity and supply shortages (ITTO 2001).

There is a significant gap between industrial capacity and the potential sustainable supply of raw material from natural forests; this has negative impacts for the industries as well as the forest. The government has responded through restructuring, downsizing and closing down some enterprises. The restructuring process should consider supply from both natural resources and forest plantations. In addition, new investments should be encouraged in community-based forest industries.

Forest plantation development and reforestation

The development of forest plantations aims to rehabilitate forests and lands, and to increase production to ease pressure on the natural forests. Forest plantations (which can make a substantial contribution to wood supply if properly managed) are highly inadequate in terms of area, quality and stocking density. The existing industrial timber plantations in Indonesia account for only 2.7 percent (approximately) of the total forest area. The main constraints in the expansion of industrial plantations include the lack of an adequate long-term plan, inadequate site and species selection; poor seed and seedling quality; lack of tree improvement activities; inadequate management prescriptions; and lack of research support (ITTO 2001). There is also a lack of supportive policies and investing in plantation development remains risky and not very profitable.

A new working group on Acceleration of the Development of Plantation Forest has been set up in order to support urgent activities relating to planning and implementation, and to provide investment profiles and linkages with local authorities and representatives.

The Japan International Cooperation Agency (JICA) and the Korean International Cooperation Agency (KOICA) are discussing with MOF ways to embark on new activities relating to the regional, provincial and district development of plantation forests. ITTO has also supported the development of certification for plantation-grown timber, which is spearheaded by the LEI.

Decentralization of forest resource management

In Indonesia, decentralization strives to ensure inter-regional equity in the distribution of development resources. The spirit of decentralization in Indonesia is denoted in Act No. 22/1999 on Regional Governance and Act No. 25/1999 on Fiscal Balance between Central Government and Regional Autonomy. Government Regulation No. 25/2000 on Government Authority and Provincial Authority as an Autonomous Region elaborates and clarifies the division of functions between central and provincial governments. As a consequence of Act No. 22/1999 and its Government Regulation No. 25/2000, devolution of forest management must be carried out. The change from a centralized to a decentralized system in managing forest resources requires institutional restructuring and changes in forest policy and planning (Figure 2).

Figure 2. Hierarchy of forest planning

Policy instruments and the implementation process

The forestry sector problems are of an inter-sectoral nature and should be on the agendas of various ministries. For this reason, an Interdepartmental Committee on Forestry (IDCF) was established as a governmental coordinating mechanism. To create a more dynamic IDCF, the active support of the private sector and NGOs is necessary. A multi-stakeholder forum in cooperation with the IDCF should therefore be established taking into account the important role of the provincial and district governments and all concerned parties at these levels, in line with decentralization and regional autonomy. Over the past six months, efforts have been made to revitalize the IDCF. These include regular meetings by IDCF government representatives as well as the broad involvement of NGOs and civil society in IDCF activities.

The balance between the different forest policy instruments has changed in the new policy. Firstly, there is general development in Indonesia towards deregulation and reduced state intervention in the economy. Secondly, the decentralization process in Indonesia has evolved with the greater direct responsibility of local government including special forest taxes. Extension services and the transfer of knowledge and expertise are becoming more important now that the local government and forest owners have greater responsibility than in the past. Subsidies are only used as a policy instrument to promote the conservation of forest environment.

Non-forestry policies affecting the management of forests

Forest conversion is limited to designated areas. However, many forests that have been assigned for conversion to non-forestry purposes have become unproductive secondary forests or bare lands. The MOF is reclaiming these areas for reforestation. The agricultural sector is the main user of convertible forests. Non-forestry sector policies, especially for estate crops and mining, tend to utilize more forest areas for their purposes. For example, the mining sector has awarded hundreds of licenses to investors for exploring mining possibilities in protection and conservation forests. Furthermore, the transmigration program is using millions of hectares of convertible forests.

To avoid further improper land conversion, the MOF has instructed governors and regents to implement a moratorium on natural forest conversion for non-forestry development under Ministerial Decree No. 603/2000. In addition, the government is evaluating ongoing forest conversion. To ensure the implementation of the moratorium on natural forest conversion, the central government is promoting a mutual understanding among central, provincial and district governments. At this juncture, the government is concerned with ensuring that decentralization enhances rather than threatens the goal of SFM, cases in point being poverty alleviation, ecosystem integrity and economic efficiency.

Forest policy formulation Process of forest policy formulation

The formulation and implementation of Indonesian forest policy are based on traditions and experiences. The process of formulating and reforming forest policy includes both formal and informal components. The formal components provide a cohesive structure for the various processes. This is best described by first presenting the various stages of the formal component and subsequently the other activities and measures designed to complete the process.

The initiative to prepare a draft policy document comes from the responsible government minister. The draft that is presented to the minister concerned will be sent to various government agencies, organizations and NGOs for official comments. Following a thorough consideration of the draft, the government decides on a parliamentary bill, in which the different components and features of the future policy are described. The matter is then debated by different parties in the Chamber before a final decision is reached. The parliamentary standing committee responsible might also call upon interested parties to take part in a hearing, in case further clarification is needed, before making a final decision. After parliament has reached a decision regarding regulations and other components of the policy, the matter is returned to the government. Then the government orders the authority responsible for implementation to take appropriate action.

In Indonesia, there is also a tradition of trying to reach a consensus in controversial matters under discussion (e.g. a classification of forestland by consensus of all relevant government ministries and agencies in the provinces to solve conflicts in allocation of forestland for various uses).

Involvement of stakeholders in forest policy formulation

Competition and conflicts are inherent in all kinds of land use and this holds true for forestry. Therefore, one important task for forest policy is to find solutions acceptable to the parties concerned. Conflict management is easier if the different parties are given the opportunity to express their interest during discussions with the prospect of having a real influence on a policy and becoming actively responsible for its implementation. Bearing this in mind, it should be apparent that changes in forest policy are time consuming. It takes time for the people involved to adopt new opinions and to change their attitudes.

Consultation through multi-stakeholder participation is expected to be an effective way to reach agreement and commitment among all stakeholders to manage forest resources in a sustainable manner and to contribute to the achievement of sustainable development at all levels (local/subnational/national/global). As forestry was one of the sectors most affected by the economic crisis that began in 1997, to undertake necessary forest policy reforms and to deal with the impact of the economic crisis on the sustainability of forest resources, forest policies should be formulated on the basis of multi-stakeholder consensus.

Active participation of all stakeholders and dialogue are central for effective policy implementation. The agreed forest policies should guide planning and harmonizing inter-sectoral issues at all levels.

Institutional arrangements

There is a growing consensus among the political levels of the government, the NGO community and the broader community, that the forestry sector must transform from the present highly centralized bureaucracy and large-scale commercial forest operations (to the exclusion of other interest groups), to a decentralized system of decision-making and management, focusing on strong participation, access and ownership by forest dwelling and adjacent communities.

The government should initiate a major forestry institutional reform process, utilizing assistance and inputs from community stakeholders and other interest groups. This would help to restructure the mandates, terms of references and establishment of the MOF, provincial and district forest agencies, and other administrative units for forestry management and decision-making.

Human resources are essential for the achievement of forest resource development objectives. There is a need to integrate the activities of village volunteers, NGOs and extension agents at the local level, and to encourage their participation in all stages of forestry activities. A human resource development system for the forestry sector, including education and training for the public and private sectors as well as local communities, is being developed and implemented.

Institutional strengthening is a pivotal factor in forestry sector development and in contributing to the stability of the country. A streamlined structure of institutions and instruments is a vital prerequisite for sectoral development. It has been observed by a number of experts that Indonesia's existing institutions in the forestry sector represent a barrier to necessary changes. The present structure of the forestry organization needs to be adjusted to realize the effective and efficient administration of forest management, and accessibility for stakeholders to forestry-related data and information.

Forestry policy implementation and impacts

Implementation of forestry policy

After the regulations and other components of the policy have been approved by parliament and the government, the government orders the authority responsible for implementation to take appropriate action. The authority for forestry matters – the MOF – has numerous tasks. The application of a new legislation usually leads to new criteria and standards, new technical regulations, new educational material and evaluation tools. This work is carried in close cooperation with other organizations and national bodies and agencies involved. Together with the formal process of policy-making, extensive consultations are carried out employing experience already gained. During these consultations existing material and expertise are sourced.

The MOF, relevant ministries or agencies and provincial and district forest agencies are responsible for the implementation of the forest policies. In important task of the forestry administration is to provide advisory services and information to forest companies, forest-dwellers and other parties. Naturally, the MOF is also responsible for the observance of the law. Furthermore, it performs contractual services for forest companies and charges for these services, which is not usual for other civil service authorities. Among these services are forest management plan approval, boundary marking and planting for forest companies.

Forest policy and the Forestry Act apply to every category of forestland. This means that the forestry administration does not distinguish between different categories of owners.

Impacts and effectiveness of forest policy implementation

The government's willingness to publicly acknowledge problems in forestry is a strength that can be built on. Its willingness to engage in dialogue with donors and civil society is particularly strong at present. Moreover, there is broad agreement among stakeholders on the main directions of necessary policy reforms. The MOF now appears willing to change its forest management paradigm, as demonstrated by the recent appointment of well-qualified, reform-minded staff to

upper management positions. Inter-departmental cooperation on forest management is at last beginning to be realized through the IDCF.

However, there remain serious constraints that are highlighted by the slow pace in achieving some results. Forestry programs do not reflect the application of a new forest management paradigm adequately. The lack of government commitment and political will raises a more generic issue of ownership by other key constituents. There are major problems of overall governance that affect the forestry sector severely, including corruption, weak law enforcement, and a judiciary system urgently needing reform. Parties accused of illegal forestry activities, including government officials, have been prosecuted. To improve effectiveness and efficiency in law enforcement, a mechanism for improving coordination is being reviewed by a diverse group of stakeholders. The IDCF has not yet become a fully operational body, which requires genuine, high-level commitment from all member departments, not just departments with routine responsibility for forestry issues.

In the short term, decentralization weakens forest management central authorities and there is a risk that some districts will emphasize short-term revenue growth at the expense of sustainability. Unequal resource access rights and land tenure conflicts are fundamental problems that are difficult to solve. The legacy of alienating forest communities and resulting mistrust of the government caused by resource allocation policies and past procedures must be eradicated. This will not take place without extraordinary creativity, sensitivity and hard work. Under the current legal and regulatory environment, it is unlikely that any measure to control forest destruction will succeed. In the short run, strong vested interests and economic incentives for deforestation add pressure on forests. To overcome these impediments, capacities at all levels of forestry agencies need to be strengthened. Some existing regulations have also been revised to facilitate decentralization and community access to forest resources.

In the long term, democracy and decentralization offer the potential for improved management, as communities begin to feel ownership of and responsibility for the forests. The new minister has re-energized the MOF. Improved morale and a renewed openness to external advice and assistance are evident. The IDCF and its working groups, plus the plans to provide it with a secretariat, are resources to further improve interagency coordination and to advance the long-delayed formulation of a new NFP with full participation by all stakeholders. The MOF itself actively began to develop working relationships with civil society as it developed the Action Plan in 2000 and today it is continuing on this path.

Further delays pose the greatest threat. They will foster continued forest degradation and reduce the number of available management options. There have been frequent changes in leadership at the MOF, and each change has been followed by reassignments of senior staff, which interrupts progress. There is also the risk that another change could bring a return to a management style and organization that is opposed to dialogue with stakeholders and donors. Besides frustrating the efforts to facilitate and support reform, this would cause the NGOs already disillusioned with the IDCF and the NFP process to distance themselves completely. This could immobilize the IDCF. Events external to the sector pose substantial threats (e.g. regional violence or worsening economic conditions accompanied by shortages of funds and increased pressure on natural resources).

Strong demand for timber and other wood products is a major threat to sustainable forest use. Most indebted forest concessionaires are judged to have good recovery prospects because it is claimed that they have commercial timber remaining and valid licenses. However, are these firms truly viable if they practise SFM? Timber on the domestic market is undervalued substantially. To ensure that royalty and revenue payments reflect the maximum that can be collected for the benefit of the Indonesian people, timber values have been recalculated. The government has halted timber harvesting in and adjacent to conservation areas. New licenses will not be issued without more careful consideration and the involvement of local stakeholders to minimize the impacts of harvesting activities. Furthermore, the government has renewed efforts to close all illegal

sawmills and formulated ideas to restructure the wood-processing industry to balance demand with a sustainable supply.

The success of implementation will depend on the appropriateness of the new policies. New policies should address: unbiased enforcement of the law; organized people's participation; the formulation of clear and adequate regulations, guidelines and norms for SFM; designing and installing institutions with required skills and capability; transparency and accountability in policy assessment; democratic and representative institutions; a sense of sharing and objective forthrightness; a fair and equitable system of cooperation; coordination mechanisms; a system for monitoring and control; and conflict resolution.

Several efforts have been implemented, for example, to empower the IDCF to enhance the awareness of decision-makers, political parties and opinion leaders about the role, functions and importance of SFM; and to revise clear and appropriate rules, regulations, codes of practices, guidelines, and related instruments to implement SFM and support forest policy implementation.

Conclusions and recommendations

Indonesia needs to develop and implement a clear forest policy that adequately meets the current challenges and can contribute to environmentally sustainable and equitable growth. The policy needs to address the sector's governance problems, the long-term sustainability of the economic benefits from forest resources, and the negative impacts of past patterns of domestic growth, especially in rural areas. These complex issues can only be dealt with satisfactorily through transparent and participatory consultations with all key stakeholders. Critical aspects that need to be addressed include legitimate rights to land and access to forest resources by local communities, a better information system to monitor the use and changes in forest resources and an effective enforcement mechanism. In short, Indonesia needs to develop a clear and legitimate policy and implementation framework, which civil society can buy into and accept.

Policy aims are achieved through plans and programs. The NFP comprises a broad inter-sectoral approach to forest development at all stages including strategies and plans of action as well as their implementation, monitoring and evaluation. The NFP should be prepared through a participatory, interactive and bottom-up process, duly appreciating the realities on the ground.

There is a need to reform the forest policy formulation owing to the failure to sustain the economic, social and environmental benefits of the forest resources of the country. The recent shift from a centralized authoritarian rule to democratic decentralization in governance provides the opportunity to reform forest management in terms of concepts, practices and institutions to achieve SFM.

Structured implementation and monitoring of policy implementation has not been in place. Linkage of planning and budgeting within the government and between the government and the private sector has been unstructured and unclear. For the future, it is necessary to:

- Formulate and to enhance the monitoring system for policy implementation, budget realization and investment by the government and the private sector, including industries and communities;
- Establish monitoring systems or mechanisms among all parties concerned;
- Improve cooperation throughout the NFP together with stakeholders in support of SFM;
- Formulate "sub-policies" linked organically to the "parent policy"; examples are policies on forest tenure, forest plantations, non-wood forest products and fire management; and
- Complete government regulations related to forestry and other respective sectors immediately.

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