National park establishment in developing countries: between legislation and reality in India and Indonesia

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ABSTRACT Modern national parks (NPs) born in the USA cannot be introduced wholly to developing countries, on assumption that institutional arrangements have been applied on the proposed areas. Therefore, procedures to create a NP become an important matter. Kerala State in India and Java Island in Indonesia were selected for the conditions that fulfilled the assumption. The focus of this study is the differences of legislative measures and local responses on the establishment of NPs. Results show that differences in legislative measures caused increment in reserved forest areas in India, while Indonesia is losing its forest areas. However, both countries rarely finalized the NPs’ establishment procedures, because NPs have been established from already existing forest areas by changing the previous status and function. NPs were established even in highly populated region of the countries in order to protect and conserve the ecosystems as well as to support local people’s livelihood. Adoption of ecodevelopment initiatives and zoning systems in the management plans became the gateway and the solutions for better NPs management in Kerala and Java, respectively. Settlement of rights and establishment of legal basis of NPs in the early stage with transparency is required to make every effort for NP administration and management effective.

Keywords: national park, local people, demarcation, India, Indonesia

INTRODUCTION

The concept of a modern national park (hereafter called NP) has established itself throughout the world since the first establishment in USA in 1872. The legal status of land designated as a protected area is a critical preliminary consideration, and the legislation should provide clear procedures for acquisition, compensation and, as appropriate, expropriation (MacKinnon et al. 1986/1993). When a protected area, for example a NP, would be established in an unoccupied public area in the nineteenth century in USA, Canada or Australia, the status of the land and utilization therein became less critical and its establishment could start immediately. On the contrary, European countries were facing problems in establishing NPs due to population density and unavailability of extensive public area. It was impossible for the then governments to acquire those private lands, considering the cost for compensation. Compromises between already existing land use and acquisition of the area were: (1) establishment of “natural parks”, in which agriculture and forestry, hunting, and fishing can still be pursued but urbanization and industrialization are barred (Harroy, 1974), and (2) inclusion of private land into NP by zoning system (Yoneda, 2005). This caused late establishment of NPs in their colonial countries.

After the World War II, most of the developing countries applied the concept of NP, which was accelerated after the general assembly of IUCN in New Delhi in 1969 (Harroy, 1974). However, NPs were often established on national land by changing the previous status or functions into NP, which can be assumed to result in increased restrictions to local people dependent on the resources. We focused on this moment and clarified what sort of institutional arrangements on land and resource utilizations existed before the establishment of a NP and how those were modified at establishment of the NP.

From the list of developing countries, Kerala State of India and Java Island in Indonesia (hereafter called Java) were purposively selected based on the following reasons. Forest administration and management systems were established in most parts of India and particularly in Java of Indonesia during the colonial period. Both belong to humid tropics and have high population density: 819 persons per km² (Census of India, 2001) and 918 persons...
per km² (Statistics Indonesia, 2000a), respectively. Both regions have newly established NPs, and most importantly similarity in forest infrastructures, which are defined here as the whole of soft infrastructures such as demarcation, mapping, planning, and organization, and hard infrastructures such as roads, buildings, and equipment. Both have developed direct management system by the government and applied the so-called scientific forestry (Stebbing, 1922).

On the other hand, it was pointed out that the demarcation processes had not yet been completed and published in the gazette even in these regions, which can be regarded to have relatively advanced forest infrastructures. In regard to India, Kothari et al. (1989) stated “a protected area is legally not a national park until the final notification has been issued”, and only 21 of 52 NPs in India have completed their legal procedures. Such, or even a worse situation was also pointed out on Indonesia, where many of the NPs were neither officially legalized, nor clearly demarcated both on maps and on the ground, and different development interests were often overlapped (Soekmadi, 2002). Therefore, in addition to our first objective to examine legal changes by establishment of a NP, we aimed to find underlying causes behind the deficiencies through comparison between legal procedures and actual conditions.

**METHODS**

To simplify the frameworks, land use is categorized only to forest and non-forest areas. The term forest comprehends both forest land and resources. The legality of a protected area in this study means the legal status of an area as a protected area under the law in force. Our overall assumptions are: (1) the procedures under the law in force do not request settlement of rights when the previous status of the area concerned is national forest, (2) management as a protected area precedes completion of legal procedures, and (3) deficiency in (1) and (2) forms common background of conflicts between protected areas and local people.

Currently there are six categories of protected areas defined by IUCN (1994) based on management objectives. These categories were expected to function as a universal standard, but by legislation each country had already established its own categories of protected areas with different nomenclature from the one by IUCN. Therefore, we first reviewed the legal definition and classification of forests and protected areas, and administrative management bodies of forests in India and Indonesia paying attention to the difference from the one by IUCN. Next the initial process to create NPs based on legislation was elucidated and institutional arrangements existing before NPs establishment were identified, and then compared with its actual implementation in

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**Fig. 1. Disparity between legal framework and actual conditions of protected areas.**

Note: Marine/aquatic areas are not included in this framework
selected study sites. To elucidate on-going process, three newly established NPs were selected from Kerala, namely Mathikettan Shola NP, Pambadum Shola NP, and Anamudi Shola NP, and Gunung Merapi NP, Gunung Merbabu NP, and Gunung Ciremai NP from Java. As the names show, all of these NPs are located in mountainous areas.

Field surveys were conducted from August to September 2005 in India and from January to February 2006 in Indonesia. Primary information on NP establishment and management was obtained through interviews with key informants, the head, or a person delegated by the head, of each institution, both at the central and the local level. Interviews at the central level on the global protected area management and legal structures were conducted at: Wildlife Division, Ministry of Environment and Forests (MoEF), India, and Directorate of Area Conservation, and Bureau of Law and Organization, Ministry of Forestry (MoF), Indonesia. Interviews at the local level on the circumstantial process and progress of NP establishment were conducted: in India at Munnar Wildlife Division of KFD, and in Indonesia at Yogyakarta Provincial Forestry Office, Natural Resources Conservation Office (Balai Konservasi Sumberdaya Alam, hereafter called NRCO) of West Java II in Ciamis, NRCO of Central Java in Semarang, NRCO of Yogyakarta in Yogyakarta, and Forest Area Consolidation Office (Balai Pemantapan Kawasan Hutan) in Yogyakarta.

**STUDY SITES**

**Study sites in India**

Kerala State is located in the southwestern tip of India. It covers an area of 3,886,300 ha and is divided into 14 administrative districts. Forest area of Kerala was 1,126,800 ha in 2003, 28.99% of the total area (Forest Survey of India, 2005). This forest area is managed by KFD and divided into 23 forest divisions and 12 wildlife divisions.

Mathikettan Shola NP (1,282 ha), Pambadum Shola NP (132 ha), and Anamudi Shola NP (750 ha) are newly established NPs, administratively located in Idukki district (Fig. 2) and managed by Munnar Wildlife Division of KFD. These areas were proposed as NPs because of their unique shola ecosystem, few of the remaining tropical montane forests in the world. According to Nair and Khanduri (2001), it was Schimper in 1903 that first incorporated the term shola into the forest types of higher altitudes of Nilgiris and Pulneys where the climate is more of temperate nature. Shola is characterized as stunted tree patches associated with vast expanse of grasslands in high altitude mountainous terrain, basis of sustainability of the water regime of the

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**Fig. 2. Study sites in Kerala, India.**

Sources: Ministry of Environment & Forests [MoEF], 2001; Kerala Forest & Wildlife Department, 2004 (unpublished); Menon et al. 2005a; 2005b; 2005c
area and endemism. The other reason of declaring those areas as NPs was encroachment, particularly serious in Mathikettan Shola area.

**Study sites in Indonesia**

Java is the most populated island in Indonesia. It covers 13,218,600 ha of area and is administratively divided into one special capital city district (Jakarta), one provincial level-special region (Yogyakarta), and four provinces (Banten, West Java, Central Java and East Java) (Statistics Indonesia, 2000a; 2000b). Based on forest and aquatic area designation (*Penunjukkan Kawasan Hutan dan Perairan*) for each province, the total forest area in Java is 3,289,263 ha, or 24.88 % of the total land area (MoF, 2004). There are 79 strict nature reserves, 9 wildlife sanctuaries, 13 NPs, 6 grand forest parks, 26 nature recreation parks and 1 hunting park (Directorate General of Forest Protection and Nature Conservation, 2006).

Gunung Merapi NP (6,410 ha), Gunung Merbabu NP (5,725 ha), and Gunung Ciremai NP (15,500 ha) are also new NPs in Java (Fig. 3). As the word *gunung* (mountain) shows, each NP consists of a volcano or mountain range with some mountain peaks and surrounding roots. Gunung Merapi NP stretches over Sleman District in Yogyakarta Special Province, and three districts in Central Java Province: Boyolali, Klaten and Magelang. Gunung Merbabu NP is located in Boyolali, Magelang and Semarang districts of Central Java Province, and Gunung Ciremai NP in Kuningan and Majalengka districts of West Java Province. All of the NPs in Indonesia, including designated marine areas, are managed by MoF.

**RESULTS**

**Legal structures**

*Legislation and administration systems on forests and protected areas in India*

India is categorized to semi-federal polity and the territory consists of autonomous states and union territories. Power of the central government is delegated to the states, with some exceptions such as defense and monetary. The matters that lie beyond a state such as wildlife, forests, water resources, and higher education are managed both by the central and state governments, as per the Constitution. Forest resources are subject to the control of the MoEF, and managed by each state government. There are four central acts that regulate forest resources administration and management: Elephant Preservation Act (1879), Indian Forest Act (1927), Wildlife (Protection) Act (1972), and Forest (Conservation) Act (1980). Each state establishes its own state acts without discrepancies from the central acts.

The Indian Forest Act is a replacement of the Forest Act (1878) and its amendments. It consolidates the legal status of forests, the duty leviable on forest produce, rules on the transit of forest produce, and the authority of foresters. Forest area is categorized to reserved forest, protected forest, and village forest. It should be noted that protected forests in the Indian Forest Act does not mean protected areas as per the guidelines of IUCN (1994) and the Convention on Biological Diversity. It is a tentative legal status of a forest which should be upgraded to a reserved forest when the procedure is
completed (Ribbentrop, 1900/1989; Stebbing, 1922). A village forest is a category of reserved forest whose management can be transferred to a local community. It derives from a community or a private forest that the owner wanted protected and then it is first declared as reserved forest, before being transferred back to the community (Ribbentrop, 1900/1989). In 2003, 98.5% of forests in Kerala were demarcated as reserved forests, 1.5% as protected, and no village forests (Forest Survey of India, 2005).

The protected areas are regulated in the Wildlife (Protection) Act (1972) and its amendments as the habitat of wild animals, birds and plants. There are four categories of protected areas: wildlife sanctuaries, NPs, conservation reserves, and community reserves. The sanctuaries are established from reserved forests, or other areas such as territorial waters, other government land or private land. The conservation reserves are declared on government land adjacent to sanctuaries and NPs, while the community reserves are established on private or community land which has not yet been comprised in other categories, and the individual or community concerned has to conserve voluntarily the wildlife and its habitat. While the government owns sanctuaries, NPs, and conservation reserves, designation of a community reserve does not affect the land tenure and land use patterns within the reserve concerned. Only activities that may disturb wildlife and the habitats are terminated. Details of NPs are explained in the following section.

Each state government manages forest resources and protected areas in the state. Under the responsible department, forest divisions manage reserved forests, together with local communities, where Joint Forest Management (JFM) committees are available. While wildlife divisions manage the sanctuaries and the NPs, and as members of Conservation/Community Reserve Management Committees, forest/wildlife divisions collaboratively managed adjacent conservation reserves and community reserves (Table 1). In Kerala, KFD is in charge of forest and wildlife issues and there are 11 wildlife divisions that manage 12 sanctuaries and 6 NPs, and one special wildlife division manages Agasthyavanam Biological Park. The jurisdiction of a division is divided into subordinate administrative units such as ranges, sections, and beats.

**National park establishment in India**
The Wildlife (Protection) Act (1972) Section 35 (1) stated that “whenever it appears to the State Government that an area, whether within a sanctuary or not, is, by reason of its ecological, faunal, floral, geomorphological association or importance, needed to be constituted as a National Park for the purpose of protecting, propagating or developing wildlife therein or its environment, it may, by notification, declare its intention to constitute such area as a National Park”. Further, the Act mentioned that the NP can be declared either by the state government (Section 35) or by the central government (Section 38). NPs declared before enactment of the Wildlife (Protection) Act in 1972 are deemed to be declared as NP by this Act (Section 60).

<table>
<thead>
<tr>
<th>Table 1. Administrative organizations of forests and protected areas in a state in India.</th>
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<tbody>
<tr>
<td><strong>Category</strong></td>
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<tr>
<td>Forest areas</td>
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<tr>
<td>Reserved forests</td>
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<td>Protected forests</td>
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<td>Village forests</td>
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<tr>
<td>Protected areas</td>
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<td>Sanctuaries</td>
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<td>National parks</td>
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<tr>
<td>Conservation reserves</td>
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<tr>
<td>Community reserves</td>
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</tbody>
</table>

Notes: JFM= Joint Forest Management; MoEF= Ministry of Environment and Forest; NGO= Non-Governmental Organization
Sources: Field survey, 2005; Indian Forest Act, 1927; Wildlife (Protection) Act, 1972
Based on the definition and sections related to NP in the Wildlife (Protection) Act, 1972, the characteristics of NPs are similar to sanctuaries, but with one difference that no rights can continue in NPs. It can be concluded that NPs in India relate to the characteristics of the first category of protected areas defined by IUCN, Strict Nature Reserve.

Fig. 4 is the summary of NP establishment procedures stated in Section 35 and 38 of the Wildlife (Protection) Act, 1972 that include the provisions stated in the Section 19 to 26A, except Section 24 (2c). The procedures start from declaration of intention to constitute an area as a NP with the first notification. This notification is published in the state gazette. If the area will be declared by the central government, the state government leases or transfers the area under its control to the central government before the first notification.

**Legislation and administration systems on forests and protected areas in Indonesia**

The legal structure in Indonesia from the highest to lowest is: the Constitution, the resolutions of People Consultative Assembly (ketetapan MPR), the acts (undang-undang), the government regulations substituting acts (peraturan pemerintah pengganti undang-undang), the government regulations (peraturan pemerintah), the presidential regulations (peraturan presiden), and the regional regulations (peraturan daerah). Unlike in India, the acts in Indonesia do not explain in details so that lower legislation measures such as government regulations and subordinate legislation in the governmental bodies, such as the presidential decrees (keputusan presiden), the ministerial regulation (peraturan menteri), the ministerial decrees (keputusan menteri), and the department circulars (surat edaran) are instrumental to clear the intention and to implement the act concerned.

Article 33 (3) of the Constitution states “the land and the waters as well as the natural richness therein are to be controlled by the State to be exploited to the greatest benefit of the people” (“Certified translation”, 2003). It means the State (hereafter called nation, to differentiate with “state” in India) owns and controls the natural resources, including forests. In connection with this, two acts are enforced, namely Act No. 41 of 1999 on Forestry (hereafter called the Forestry Act), which is replacing Act No. 5 of 1967 on Basic Forestry Law, and Act No. 5 of 1990 on Conservation of Living Resources and Their Ecosystems (hereafter called the Conservation Act).

The Forestry Act categorizes forests based on the ownership and the functions. There are two categories of ownership, namely national forest (hutan negara),
a forest located on lands bearing no title, and literally right forest (hutan hak), a forest located on land under particular ownership. According to the Elucidation of the Forestry Act, right forests are generally known as private forests (hutan rakyat). Irrespective of the ownership status, the Forestry Act defines three categories of forest function: conservation (konservasi), protection (lindung), and production (produksi). Based on the functions, the national forest area is then categorized into conservation forest (hutan konservasi), protection forest (hutan lindung), and production forest (hutan produksi). Under subordinate regulations, the production forest is categorized into fixed (hutan produksi tetap), limited (hutan produksi terbatas) and convertible (hutan produksi yang dapat dikonversi), based on the utilization (MoF, 2006). The last category is the only forest areas that can be de-designated for non-forestry purposes, such as transmigration projects, mining, and agricultural plantations. The Forestry Act also regulates globally on affirmation processes of forest area (pengukuhan kawasan hutan). The details on affirmation as well as de-designation processes are determined in subordinate legislation.

The Conservation Act regulates nature conservation, which areas are categorized to sanctuary reserves (kawasan suaka alam) and nature conservation areas (kawasan pelestarian alam). The sanctuary reserves consist of strict nature reserves (cagar alam), and wildlife sanctuaries (suaka margasatwa). The nature conservation areas consist of NPs (taman nasional), nature recreation parks (taman rekreasi alam) and grand forest parks (taman hutan raya). In the framework of international conservation activities such as Man and Biosphere Program, UNESCO, the strict nature reserves and other particular areas can be established as biosphere reserves (cagar biosfir).

Even though Indonesia has adopted decentralization policy since 2000, forestry sector is still under the control of the central government and its subordinate local branches (Table 2). Particular matters regarding the grand forest parks, protection forests, permanent and limited production forests, boundary demarcation, extension, and social forestry activities were decentralized to local governments (Government Regulation No. 62, 1998; No. 34 of 2002). Other national forests are controlled by the MoF and its directorate generals through their technical implementation units (unit pelaksana teknis).

Unlike in the areas other than Java (hereafter called outside Java), where overall development as well

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### Table 2. Administrative organizations of forests and protected areas in Indonesia.

<table>
<thead>
<tr>
<th>Category</th>
<th>Administration</th>
<th>Management</th>
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<tbody>
<tr>
<td>Conservation forest</td>
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<td>Sanctuary reserves</td>
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<tr>
<td>Strict nature reserves</td>
<td>Central government</td>
<td>NRCO</td>
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<tr>
<td>Wildlife sanctuaries</td>
<td>Central government</td>
<td>NRCO</td>
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<tr>
<td>Nature conservation areas</td>
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<tr>
<td>National parks</td>
<td>Central government</td>
<td>National Park Office</td>
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<tr>
<td>Grand forest parks</td>
<td>Local government</td>
<td>Provincial/District Forestry Office</td>
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<td>Nature recreation parks</td>
<td>Central government</td>
<td>NRCO</td>
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<tr>
<td>Hunting parks</td>
<td>Central government</td>
<td>NRCO</td>
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<tr>
<td>Protection forest</td>
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<td></td>
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<tr>
<td>Central government</td>
<td>License holders</td>
<td></td>
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<tr>
<td>Local government</td>
<td>Provincial/District Forestry Office</td>
<td>Licenses holders</td>
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<td>Production forest</td>
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<tr>
<td>Permanent production forest</td>
<td>Central government (MoF)</td>
<td>Provincial/District Forestry Office</td>
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<td></td>
<td>Local government</td>
<td>Licenses holders (private)</td>
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<tr>
<td>Limited production forest</td>
<td>Central government (MoF)</td>
<td>Provincial/District Forestry Office</td>
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<td></td>
<td>Local government</td>
<td>License holders (private)</td>
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<tr>
<td>Convertible production forest</td>
<td>Central government (MoF)</td>
<td>Ministry of Forestry</td>
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<td></td>
<td>Local government</td>
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</tbody>
</table>

**Notes:** MoF= Ministry of Forestry; NRCO= Natural Resources Conservation Office. Local government means Provincial or District Forestry Offices. Licenses for protection forest: utilizing areas, environmental services, or non-timber forest product (NTFP). Licenses for production forest: utilizing areas, exploitation of timber, NTFP, or environmental services.

**Sources:** Forestry Act; Conservation Act; Government Regulation No. 62, 1998; No. 34, 2002; Minister of Forestry Decree [Ministerial Decree] No. 107, 2003; No. 394, 2004; Minister of Forestry Regulation [Ministerial Regulation] No.P.13, 2005
as exploitation took place after the implementation of the Basic Forestry Law 1967, forests in Java had been managed separately under the Forest Ordinance for Java and Madura 1927 (Boschordonnantie voor Java en Madoera 1927) with further amendments. The production and protection forests were directly managed originally by the Forest Department (Dinas Kehutanan) of each province, and then the departments have been reorganized to semi-government independent body named Perum Perhutani (hereafter called Perhutani). When the Forestry Act 1999 was enacted, the Forest Ordinance for Java and Madura 1927 was abolished and the region was incorporated to the new act, but the management is still conducted by Perhutani. The conservation forests have been under the control of the MoF as well as in outside Java.

National park establishment in Indonesia

The Conservation Act defines a NP as "a nature conservation area with native ecosystems, managed through a zoning system, and utilized for facilitating research, science, education, breeding enhancement, recreation, and tourism purposes". According to Government Regulation No. 68 (1998), either forest areas or non-forest areas can be designated as a NP if the area fulfills the following criteria:
(1) Large enough to ensure natural ecological processes
(2) Having special and unique natural resources, either plants or animals and their ecosystems as well as natural-intact symptoms of nature
(3) Having one or more intact ecosystems
(4) Having indigenous and natural condition of nature for the promotion of tourism, and
(5) An area which can be divided into core zone, utilization zone, sanctuary zone and other zones that in consideration of rehabilitation purposes, dependency of local people, and in order to support living resources and their ecosystems conservation effort.

Unlike NPs in India, according to the Conservation Act and its subordinate legislation, NPs in Indonesia are accessible to people based on zoning system. People can continue implementing their usufruct rights in certain part of NPs that is setup as utilization zones or traditional utilization zones. After comparing with the IUCN’s characteristics, it can be concluded that NPs in Indonesia

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**Fig. 5. Procedures of establishing a national park in Indonesia.**

imply three categories of protected areas: national park, protected landscape/seascape, and managed resource
protected area.

Fig. 5 is the summary of the procedures in establishing a NP that are arranged in various
legislations, ranging from the acts, and the government
regulations, to their subordinate regulations. When a
proposed NP is not a forest area, the procedures start
from designation. Regardless who actually takes the
initiative in establishing a NP on non-forest area, proposal
of a NP establishment should be made by the local
government concerned (district/city, or province in case
the area stretches over several districts/cities), and their
Local House of Representatives. When it is a forest area,
procedures to change the function of forest area, for
example from a protection to a conservation forest and
from a production to a protection or a conservation forest,
must be conducted before the NP designation based on
the Minister of Forestry Decree (hereafter called the
ministerial decree) No. 70 of 2001 and its amendment,
the ministerial decree No. 48 of 2004. Usually the central
government or NGOs takes the initiative to change the
function to a NP, but the proposal must be completed
with recommendation from district heads, mayors or
governors concerned.

Case Studies

Case studies in Kerala

The status of study sites before declaration as NPs
were reserved forests (Government of Kerala, 2003a;
2003b; 2003c). All of them were notified as NPs under
the initiative of Kerala State Government. When the
field research was conducted in September 2005, the
final notifications of these NPs had not yet been issued
even after almost two years from the first notification.
Interviews with key informants revealed they considered
the procedures would be easily finalized because the
areas of the three NPs had already been demarcated as
reserved forests. Tribal people settled on the fringes
of Anamudi Shola and Pambadum Shola NPs, but their
usufruct rights were settled at the establishment of the
reserved forests.

However, the situation was not simple in Mathikettan
Shola as part of Cardamom Hills Reserve. It was
revealed that in 1958 control over the land in Mathikettan
Shola was under the jurisdiction of Revenue Department
(Karunakaran, 2003), which means the land become
revenue land, while the control over the trees was in
Forest and Wildlife Department. Severe encroachments
occurred and reached a climax in 2001. The

consequences of destruction in Cardamom Hills Reserve
must be the cancellation of leases and resume of the lands
to the government without compensation (Government
of Kerala, 2002a). The control over Mathikettan areas
was transferred again to Forest Department in 2002
under Munnar Forest Division (Government of Kerala,
2002b), probably to prevent further destruction. Before
the transfer, the encroachers have been evicted and
and the cardamom leases were terminated (Government
of Kerala, 2002a). However, the procedures to acquire
the land to return to forest areas again, which include
demarcation process, were not conducted.

Moreover, since the Collector is a busy person with
more important cases, the procedures that must be
done by the Collector in the NP establishment, namely
determining rights, proclamation, inquiry, survey,
demarcation, mapping and acquisition of rights, are rarely
executed. Even these procedures were not implemented,
it was de facto considered to be completed and activities
of positioning forest officers in the parks were in progress.

Interview with Munnar Wildlife Warden revealed
that construction of management plans for three
new NPs were also in progress, which also included
activities for strengthening people’s livelihoods through
ecodevelopment initiatives, in the form of village-based
demarcation forest and home-industries.

Case studies in Java

The status of study sites before designation as NPs were
protection forests, strict nature reserves, and nature
recreation parks (Ministerial Decree No. 134, 2004; No.
135, 2004; No. 424, 2004). Conflicts were recorded even
before the NPs were designated. In the proposed areas
in Gunung Merapi, sand mining was legally conducted
(Yogyakarta NRCO & Faculty of Forestry Gadjah Mada
University, 2003), which can only be terminated by a
court order or expiration of the licenses. In Gunung
Merbabu, there are several enclaves inside the area and
the inhabitants practiced minor subsistence activities
such as hunting and collecting fodder and firewood (The
Central Java Provincial Forestry Office & PUSPICS
Faculty of Geography, Gadjah Mada University, 2003).
In Gunung Ciremai illegal activities such as encroachment,
logging, and sand mining were observed, but the former
managers did nothing, because encroachment activities
directly affect people’s livelihood. Legal activities
were also observed through Community-Based Forest

personal communication, Sept. 7, 2005
Management that has been implemented since the area was still in the status of production forest managed by Perhutani (Harjadi et al. 2003). NGOs that had facilitated rural livelihood activities often provided communities with discouraging information on NP establishment and made people act against the NP establishment. On the other hand some NGOs whose concern was prevention of forest degradation supported NP establishment. Information from the government side to local people was also insufficient. Realizing the situation, responsible NRCOs, some pro-NP NGOs, and local governments conducted several meetings with local communities to disseminate information, and then the local communities gradually began to understand the function of NP and their roles when NP is firmly established.

By designation of NP, the area becomes a de facto NP and ready to be managed as such, even though the boundary demarcation activities, which include settlements of rights, have not been finalized yet. Management plan of Gunung Merapi NP was ready and under review of the Directorate General of Forest Protection and Nature Conservation. Management plans of the other two NPs were not ready yet, because the Central Java NRCo had not yet completed forest resources inventory in Gunung Merbabu NP\(^4\), and the West Java II NRCo was struggling in accommodating strong enthusiasm of local government, NGOs and people for the implementation of collaborative management in Gunung Ciremai NP\(^5\). However, the procedures to implement NP affirmation, after designation of NP by the Ministry, were in progress. Reconstruction of boundary was being conducted, and the NP affirmation and stipulation were planned in Gunung Merapi and Gunung Merbabu NPs. Procedures in Gunung Ciremai NP got behind by a year, where procedures of boundary demarcation were to be started\(^6\). To this point, it can be concluded that these NPs are not legal yet.

It was reported expanding the extent of NPs in Indonesia, by designating new NPs or by expanding the area of existing NPs, was the aim of donor agencies and also the necessity of executing the Convention on Biological Diversity ("Indonesia establishes", 2004; MoF & WWF Indonesia, n.d.). Interviews with key informants revealed that the idea of changing the function of these forests came officially from the local governments, but directed by the central. Other than ecological reasons on the establishment of these parks, it was revealed that:

1. the local governments seemed powerless to combat growing conflicts between local people and previous managers of the areas on usufruct rights, and
2. the local governments could not afford to provide sufficient funds for protecting and managing unproductive forest areas. Therefore, the local governments proposed these areas as NPs so that they can be managed by the central government under the national budget\(^7\).

### DISCUSSIONS

#### Differences in legislation

Unlike in India, acts and government regulations (hereafter called higher legislation) in Indonesia do not describe in detail and need subordinate regulations to form the details. While the higher legislation should be approved by the House of Representatives and published in the national gazettes, subordinate regulations do not need to take public approval and are not published in the national gazettes, but only published in the national report (Table 3). Therefore the formal process to establish a NP in Indonesia has relatively weak legality and publicity compared to India. At the same time it implies a possibility that details determined by subordinate regulations are easily changed, not properly implemented, or even not implemented.

By the difference in the legislation, especially in how forest areas are established, India gradually gains reserved forest through demarcation process, from unclassed to protected, and at last to reserved forest.

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\(^{4}\) personal communication with key informants in the Yogyakarta Provincial Forestry Office, Jan. 11, 2006 and the West Java II NRCo, Feb. 2, 2006

\(^{5}\) personal communication with key informants in the Yogyakarta NRCo, Jan. 9, 2006, and the Yogyakarta Provincial Forestry Office, Jan. 11, 2006

\(^{6}\) personal communication with key informant in the Yogyakarta NRCo, Jan. 9, 2006

\(^{7}\) personal communication with key informants in the Central Java NRCo, Feb. 15, 2006

\(^{8}\) personal communication with key informants in the West Java II NRCo, Feb. 2, 2006

\(^{9}\) personal communication with key informants in the Forest Area Consolidation Office Regional XI Yogyakarta, Feb. 17, 2006

\(^{10}\) personal communication with key informant in Yogyakarta Provincial Forestry Office, Jan. 11, 2006
This process eventually aims at transferring all protected and unclassed forest areas into reserved forest. While in Indonesia, the Constitution has stated that all natural resources including forest resources are owned by the country, which automatically stated that forest areas are the national property unless existence of possession rights are proven. Under subordinate regulations of the Forestry Act, there is a category of convertible production forest. It can be de-designated for non-forestry purposes, such as transmigration projects, mining, and agricultural plantations. Therefore the area of reserved forests in India has ever been increasing, while nominal forest areas in Indonesia are eventually decreasing under various pressures.

In the procedures to establish NPs, both India and Indonesia require settlement of rights to all of the previous status of the area. In India, NPs can be established by changing already existing forest reserves and sanctuaries or other areas, and the settlement of rights must be implemented, because when an area is proposed as a NP, it becomes restricted to people. In Indonesia protection forests, production forests, and other status of protected areas, or non-forest areas can be converted to a NP and become national property, and the settlement of rights also have to be implemented to include or exclude a particular area into the NP and apply zoning system inside it.

### Differences in Forest and Protected Areas Administration Systems

Forest areas have not yet been established as land with boundaries in most parts of outside Java. On the contrary, forest land demarcation has been implemented since the colonial period in Java, and direct management has been applied (Masuda, 1998). Despite the similarity in the sense of infrastructure, some differences in the status of protected areas are found between India and Indonesia (Table 4). In India, one of the protected area categories is Community Reserves where the ownership belongs to communities. In Indonesia, when there is a non-forest area that is proposed to be converted to a protected area, it must be designated first as a forest area and it will become a national property, either by compensation or other arrangements. The state government usually administers and manages protected areas in India, unless NPs and sanctuaries are declared by the Central Government, while in Indonesia, all protected areas are under the jurisdiction of the central government, except the grand forest park.

### Actual Situations in the Establishment of National Parks

Implementation in the field may vary from the policies and legislation aimed for. Generally the discrepancy between the systems and realities are relatively small in industrialized countries, however it is not necessary

<table>
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<td>Mostly national property</td>
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<td>Protected areas</td>
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<td>Ownership</td>
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<td>Forest*</td>
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<td>Process of establishment</td>
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Notes: * = Marine/aquatic areas are not included; ** = applied to NPs and sanctuaries, depending who declared the areas.
to be the same in the developing countries. Such discrepancy is not only derived from the deficit of financial supports but also from various defects that lie in the implementation process.

Following the notion of NP establishment for environmental reasons, change of land and forest resource ownership usually triggers conflicts between the government and the people. Even though a NP is established on already established forest land, it is not just as simple as a level-up of control over the land concerned so that the government can ignore the procedures of law to change the status or functions, the settlement of rights, or transfer the administration from one to another within government institutions. It is common in developing countries that local people utilize forest resources for subsistence, and changes in control affects their livelihood if such dependency on forest resources exists.

From the cases in Kerala and Java, all NPs originated from forest areas. Therefore, NPs in both areas could have firm basis where forest areas have already been established with distinct boundaries. However, in Kerala, the NPs were de facto considered to be established and management activities were started without completion of legislatively determined procedures. It was derived from a firm basis of the previous status, namely reserved forest, and the procedures to establish the NPs were regarded as nominal. While in Java as well as outside Java, the procedures to establish NPs, particularly demarcation of boundaries, are a part of the management plan. It raises a contradiction that a NP can not be established unless the management plan is prepared and implemented. These situations may create conflicts in the future, when people become aware that those NPs have not acquired legal status yet.

At the NP establishment stage, conflicts in Kerala were merely detected, as NPs were established in order to mitigate and prevent further encroachment. Even though resources of NPs in India in general are restricted to people, adoption of ecodevelopment initiatives in the management plan become the gateway for good-relationship between the NPs and people. While in Java, conflicts on the NP establishment were immediately compromised by dissemination of NP information to local communities, about the zoning system and the roles of communities when NPs are established. To make every effort for NP administration and management effective, settlement of rights and establishment of legal basis of NPs in the early stage with transparency is required.

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