

Part 3:

Regional Considerations

Problems of National Parks and Reserves in Indonesia and Emerging Countries

by

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SUMMARY

For some regions in Indonesia the only way to ensure the preservation of both wildlife and wilderness is in a strict nature reserve which is absolutely protected. The author gives reasons why nature reserves should be thus protected and lists the many rare and interesting Indonesian animals and plants that are threatened species. Since 1964 the Directorate of Forestry has embarked on a new program in the field of nature conservation with particular emphasis on the integration of tourism within reserves. It seeks close co-operation with other national and international agencies for the better protection and management of nature reserves and wildlife.

INTRODUCTION

In accordance with the Nature Protection Act of 1941, Government Gazette No. 167, any area can be proclaimed a nature reserve or park in order to conserve wildlife, forests, natural features etc. At this time in Indonesia we have 117 regions in this category (66 in Java, 29 in Sumatra, 14 in Kalimantan and Celebes, and 8 in other islands) totalling 3 million hectares or about 2½ per cent of the total forestland in our country.

Although these reserves are located in different islands throughout Indonesia, this has not insured that our natural resources – animals and plants – are appreciated yet by all the people. According to our experience, the forestlands are shrinking because of the practice of shifting cultivation, and most of the big animals outside the nature reserves are victims of illegal hunters. The reports that many people in Sumatra still catch orang-utans and kill elephants outside the game reserves are deplored. For some regions in Indonesia the only way to ensure the preservation of both wildlife and wilderness is in a strict nature reserve which is absolutely protected.

PRESERVATION OF WILDLIFE IN INDONESIA

The following points should be stressed in trying to focus public attention on the preservation of wildlife in Indonesia and other emerging countries:

1. Flora, fauna, natural features and geological formations should be protected against disturbance and destruction.
2. Biological sciences need to obtain a real picture of a natural forest, soil structure, wildlife etc. which is essential for forestry, agriculture, animal husbandry, etc.
3. Natural areas are useful for the education of the public and particularly for students in biology, geology, ecology, etc.

4. Animals such as wild oxen, deer, barking deer, wild buffalo, pig, and game birds breeding in a game reserve may migrate to a hunting area and thus provide a major source of food.
5. Nature reserves providing for watershed management will prevent erosion and landslides.
6. These areas will invite tourism and recreation since they are usually in picturesque and attractive regions.

We in Indonesia have the good fortune to harbor many important, rare, and interesting species for example:

1. Animals
 - (a) Both the Sumatra rhinoceros and Java Rhinoceros (Löser Game Reserve and Ujung Kulon).
 - (b) The orang-utan in North Sumatra and Central/West Kalimantan.
 - (c) The elephant and tapir in South Sumatra.
 - (d) The giant monitor (Komodo dragon) in the islands of Komodo, Padar and Rintjah.
 - (e) The bird of paradise and crown pigeon of South Moluccas and West Irian.
 - (f) The wild ox and Java tiger in 'Ujung Kulon' Reserve and 'Baluran' Nature Park.
 - (g) The dwarf buffalo and hogdeer in North and Central Celebes.
 - (h) The white starling of Bali and the black cockatoo (Cacatus) of Coram.
2. Plants
 - (a) The big flowers *Rafflesia* in Sumatra, Kalimantan and Java.
 - (b) *Amorphophallus titasum* and *Rauwolfia* species in Sumatra and Java.
 - (c) All kinds of orchids s.o. the *Vanda*, *Dendrobium*, *Ronanthora* and other species.
 - (d) The flora of the lowland forest of Ujung Kulon.

All of the above, both plants and animals, are threatened species and only strict nature reserves, like Ujung Kulon, can act as a sanctuary for the safeguarding of the few remaining individuals.

GOVERNMENTAL ORGANIZATION

In Indonesia the two bodies entrusted by the government with nature conservation are

1. the Directorate of Forestry and its Nature Conservation and Wildlife Management Division and
2. the National Institute for biological research (Botanic Garden).

These two working in co-operation deserve great credit for safeguarding the one-horned rhino in Ujung Kulon. Without their efforts the rhino would probably be extinct.

The Directorate of Forestry with the assistance and close co-operation of other agencies concerned (Police Service, Civil Service, Botanic Garden, Information Service, Customs etc.) tries to accomplish its task in the field of nature conservation by:

1. Disseminating information throughout the country by means of manuals, posters, pictures, pamphlets.
2. Enforcing the existing laws and regulations and punishing any violations.
3. Encouraging conservation education in the schools and for the general public.

With the establishment of the Ministry of Forestry in June 1964, and a forestry conference in December a new policy and work program in the field of nature conservation was drawn up to include the following:

1. The importance of reserves.
2. Management of natural resources.
3. The function of reserves for the public.
4. Integration of reserves with tourism.
5. Nature conservation as a means of our people's revolution.

Starting in 1965 the Directorate of Forestry has been working hard to develop some tourist areas for both native and foreign visitors, within some of the reserves (three in Java, including 'Pangandaran' near Bandung and 'Baluran' in East Java; two in Sumatra, and one each in Bali and Komodo) without injury to the plant and animal life.

NON-GOVERNMENTAL CO-OPERATION

The Directorate keeps in close touch with foreign associations such as the IUCN in Morges and the Pacific Science Association in Hawaii as well as the Naturalist's Society in Bogor.

I take this opportunity to express my gratitude to those agencies and persons, especially the IUCN, Dr. H.J. Coolidge, and Dr. and Mrs. Talbot, who were so kind to arrange my participation in the 8th General Assembly of the IUCN in Nairobi in 1963, during which I had the opportunity to visit many national parks in East Africa.

The many suggestions of the Talbots in late 1964 became a great contribution to the better protection and management of our national parks, nature reserves and wildlife.

Thus, in co-operation with organizations at home and abroad our Directorate seeks to find the best ways of tackling problems, and establishing the basic principles of preservation and the management techniques for our nature parks and equivalent reserves.

LIST OF NATURE RESERVES IN INDONESIA

No.	Name of nature reserve	Total area in hectares	Classification ¹	Particulars
1	2	3	4	5
WEST JAVA				
1	Angke	15	1, 2, 4	birds incl. water-fowl.
2	Artjadomas	2	1, 8	
3	Dungus Iwul	9	1, 4, 8	
4	Gebungan	2	1, 4, 7	
5	Getas	-	1, 8	tree.
6	Gumung Djagat	126	1, 4, 8	
7	Gutji	2	1, 6, 7	mineral spring.
8	High plateau Dieng	85	7, 9	
9	Janlappa	32	1, 4	dipterocarpus.
10	Junghuhn	2.5	8	
11	Karang Bolong	0.5	1, 2	bird nests.
12	Keling	60	1, 7	
13	Koorders monument (Pandjalu)	16	7, 8, 9	
14	Malabar	6	1, 4, 7	
15	Moga	1	1, 7	waterfall.
16	Nusa Kambangan	77	1, 4, 5	<i>Rafflesia palma</i> , <i>Pisonia sylvestres</i> .
17	Pagerwunung Darupono	30	1, 4, 9	natural teak forest.
18	Panaitan	17,500	1, 4, 6	wilderness.
19	Panandjung - Pangan-daran	457	2, 4, 5, 7, 9	wild ox, <i>Rafflesia</i> .
20	Papandajan	844	6, 9	crater.
21	Peson Subah	10	1, 4	lowland forest.
22	Pringombo	58	6, 8	
23	Pulau Bokort	18	1, 2, 4	waterfowl.
24	Pulau Dua	8	1, 2	waterfowl, pelicans.
25	Pulau Rambut	20	1, 2, 4	white and black ibis.
26	Rantja Danau	2,500	1, 2, 4	waterfowl, xeriphyl plants.
27	Sekapung	2	6, 7	
28	Sukawajana	32	4, 7, 9	
29	Takokak	50	1, 4	mountain flora.
30	Tangkubanprahu	22	6, 7, 9	
31	Tangkubanprahu (P. Ratu)	33	6, 7	

No.	Name of nature reserve	Total area in hectares	Classification ¹	Particulars
1	2	3	4	5
32	Telagabodas	265	6	
33	Telagapatengan	150	9	
34	Telaga Randjang	-	1, 6, 7	mountain lakes.
35	Telagawarna	23	7, 9	
36	Tjadasmalang	2	1, 4, 7	
37	Tjibanteng	447	1, 2	birds, wild ox.
38	Tjibodas	1, 040	1, 4, 5, 6, 7, 9	birds, black leopard.
39	Tjigenteng-Tjipandji	10	1, 4	mountain flora.
40	Tjikepuh	10, 000	3	birds, wild ox, sea turtles, deer.
41	Tjimungkat	56	1, 4, 5	birds, owls, hawks.
42	Tjurug Bengkawah	-	1, 7	waterfall.
43	Udjung Kulon	37, 500	1, 2, 4, 5, 6, 7	Javan rhino, wild ox, tiger, black leopard, <i>Pavo muticus</i> , lowland forest.
44	Ulolanang Ketjubung	71	1, 4	Dipterocarpaceae.
45	Widjaja Kusuma	0.5	1, 4	<i>Pisonia sylvestres</i> .
E A S T J A V A				
46	Ardjuno Lalidjiwo	580	1, 2, 4	
47	Baluran	25, 000	2, 7	wild ox, wild buffalo, deer, black leopard.
48	Bawean	15	2	Bawean deer.
49	Banjuwangi Selatan	62, 000	2, 4, 5	wild ox, deer, sea turtles, wilderness.
50	Besowo Gadungan	7	1, 4, 7	
51	Gua Nglirip	3	6	limestone caves.
52	Gunung Abang	50	1, 4	
53	Gunung Baung	200	1, 4, 7	
54	Gunung Pitjis	22	1, 4, 7	
55	Gunung Sigogar	200	1, 4, 7	Quercus.
56	High plateau Yang	15, 000	2	leopard, deer.
57	Kawah Idjen	2, 560	1, 4, 6, 7	
58	Laut Pasir Tnegger	5, 240	6, 7, 9	caldera.
59	Manggis Gadungan	12	1, 4, 7	
60	Nusa Barung	6, 100	1, 2, 4, 5	deer and birds.
61	Pantjur Idjen	9	1, 4	
62	Pulau Sempu	877	1, 2, 4	
63	Ranu Darungan	380	1, 4, 5	

No.	Name of nature reserve	Total area in hectares	Classification ¹	Particulars
1	2	3	4	5
64	Ranu Kumbolo	1,340	1, 7	
65	Ranu Pani Regulo	96	1, 4, 7	
66	Saobi, Kangean	430	2, 5	Megapodius and birds.
67	Sungei Kolbu	9	1, 4	
68	Tjeding	2	1, 6, 7	
S U M A T R A				
69	Baringin Sati	0.1	8	<i>Ficus benjamina</i> .
70	Batang Palupuh	3.5	1, 4	<i>Rafflesia arnoldi</i> .
71	Batu Gadjah	1	6	
72	Batu Ginurit	1	8	
73	Bengkulu	71	1, 4	<i>Rafflesia arnoldi</i> .
74	Berbak	190,000	1, 2, 4	<i>Dicerorhinus sumatraensis</i> .
75	Bungamas Kikim	1	1, 8	archaeology.
76	Despatah	0.3	1, 4	<i>Rafflesia arnoldi</i> .
77	Dolok Saut	39	4	
78	Dolok Tinggiradja	167	1, 6, 7	
79	Dusun Besar	12	1, 4, 5	<i>Vanda hookeri</i> , fowl.
80	Gedung Wani	-	1, 2	elephant, deer.
81	Gua Ulu Tiangko	1	8	prehistory, archaeology.
82	G. Rakata, P. Sertung	2,500	1, 6	
83	Kluet	20,000	2, 4	orang utans.
84	Lau Debu-debu	7	1, 6	sulphuric mud.
85	Lembah Anai	211	1, 7	
86	Lembah Harau	298	4, 5, 6, 7, 9	butterflies.
87	Mount Indrapura	125,000	1, 4, 5	mountain goats.
88	Mount Loser	416,000	2, 5	<u>Sumatran rhino</u> , orang-utan, mountain goat, elephant, birds.
89	Mount Wilhelmina (Longkat)	200,000	1, 2	orang-utans, tapir, mountain goat, elephant.
90	Rimbo Pantii	3,500	1, 4, 5	
91	Serbojadi	300	1, 2, 4	orang-utans, <i>Rafflesia</i> .
92	Sibolangit	115	1, 4, 7	

No.	Name of nature reserve	Total area in hectares	Classification ¹	Particulars
1	2	3	4	5
93	South Sumatra	356,000	2, 5	<i>Dicerorhinus sumatrensis</i> . wild buffalo, elephant, tapir, gibbon.
94	Tjawang	0.2	1, 4	<i>Rafflesia arnoldi</i> .
95	Way Kambas	130,000	1, 2	<i>Dicerorhinus sumatrensis</i> , elephant.
BORNEO				
96	Kotawaringin	100,000	2	orang-utan, <i>Nasalis larvatus</i> , wild ox.
97	Kutai	306,000	2	orang-utan, <i>Nasalis larvatus</i> .
98	Lo Pat Fun Pi	8	1, 4	
99	Mandor	195	1, 4	<i>Vanda</i> sp.
100	Mount Palung	30,000	2, 7	
101	Padang Luwai	1,000	1, 4, 7	orchids.
102	Sampit	205,000	2	orang-utan, <i>Nasalis larvatus</i> , wild ox.
CELEBES				
103	Batimurung	10	2, 5, 6	<u>rhinoceros</u> .
104	Mas Papaja Radja	160	1, 5	turtles.
105	Mount Lokon	100	1, 6	
106	Mount Tangkoko	4,446	1, 2	hogdeer, anoa, <i>Megacephalon maleo</i> .
	Batuangus			
107	Napobalano	9	1, 4, 7	<i>Cynopilecus niger</i> , <i>Anoa depressicronis</i> .
108	Panua	1,500	1, 5	<i>Megacephalon maleo</i> .
109	Tanggala	123	1, 5, 7	anoa.
BALI				
110	Bukit Batukahu	1,600	4, 6, 7	
111	Sangeh	10	1, 4	holy forest, dip-terocarpus.
112	West Bali	20,000	2, 4	Bali tiger, white starling, deer.

No.	Name of nature reserve	Total area in hectares	Classification ¹	Particulars
1	2	3	4	5
LESSER SUNDA ISLANDS				
113	Komodo Island	30,000	2, 5	<i>Varanus komodoensis</i> , deer.
114	Mt. Rindjani	40,000	4, 5, 6	Photinia, fowl, mineral spring.
115	Padar-Rintjah Island	16,500	2, 5	<i>Varanus komodoensis</i> , deer.
MOLUCCAS				
116	Mount Api	80	2	seabirds.
WEST IRIAN				
117	Mount Lorentz (Trikora)	40,000	1, 2, 4, 5	birds of paradise, crowned pigeon, Nicobar pigeon, black and white cockatoos.
Total = ± 3 million hectares				

¹ The numbers in column 4 indicate the classification of each nature reserve:

- 1 = strict nature reserve
- 2 = animal sanctuary
- 3 = game reserve
- 4 = botanic
- 5 = zoologic
- 6 = geologic
- 7 = aesthetic
- 8 = historic
- 9 = recreation.