

NATURE AND NATION

*Forests and Development
in Peninsular Malaysia*



Jeyamalar Kathirithamby-Wells

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Preface and Acknowledgements

‘*T*he most immediate obstacle to the growth of a pan-Malayan way of thinking on the part of the inhabitants was, perhaps, geographical limitation,’ suggested B. Simandjuntak writing on Malayan federalism in 1969. ‘Mountain ranges clad with dense tropical jungle, and swampy plains, tended to inhibit popular movements.’¹ Development, accelerated in the last half century, has almost entirely eliminated this supposed physical barrier that stood in the way of social integration. Yet the political and cultural plurality that dominated the Malayan mentality before Independence lives on intact. Perceptions of tropical forests, in the meantime, have changed profoundly. The emergence of environmental discourse during the last quarter of the twentieth century has generated a new social ethos. Indeed, far from standing in the way of integration, nature as common heritage offers a unique focus for national interaction, transcending ethnic divisions.

The elusive pan-Malaysian identity as this study suggests, might be sought not in commonplace notions of material development but precisely in society’s changing but abiding interactions with the natural environment. The evidence rests on two critical themes, first, the enduring importance of the forest to Malaysian development and, second, the articulation of this reality through the rise and co-evolution of tropical ecology and the global conservation movement. The composite nature of a ‘total’ history of human-forest relations in the moist tropics has proved both daunting and challenging to represent. The wide chronological and thematic spectrum that the project spans has involved the study not only of historical sources but extensive literature on biology, ecology, forestry and conservation. Much of this, in the form of original manuscripts and rare scientific reports, remains scattered among institutional and departmental libraries in Malaysia. A treasure trove at risk of further dispersal and loss, it adds hugely to Malaysian historiography. The exploration of human-environmental relations through these sources, apart from contextualizing Malaysia within the development of global science and environmentalism, lends insights into social processes significant to nation building, conventionally overlooked.

The nature of the project attracted the interest of foresters and forest ecologists, who readily offered their knowledge and experience. Throughout the research phase, I was particularly fortunate to have had the help and advice of

John Wyatt-Smith and Tim Whitmore, who contributed extensively to the development of forest ecology and conservation in Peninsular Malaysia. Both read and criticized drafts of the manuscript but, sadly, neither lived to see the book completed. Peter Burgess has been equally generous in sharing his great store of forestry knowledge and recollection of important times in the Peninsula. He, too, gave of his time generously, read draft chapters with patience and commented meticulously. This notwithstanding, differences in interpretation of particular issues and policies are strictly my own responsibility. Precarious as it was for a non-specialist to tread the path of forest science, exploring the ground where the interests of the natural and the human sciences converge was a necessary risk for better understanding human-forest relations.

At various times the project had the generous support of the British Council (Kuala Lumpur), the British Academy and the Chevening Scholarships Programme under the British High Commissioner's Research Award scheme (Kuala Lumpur). The Geography Department and the South Asian Studies Centre, Cambridge University, generously extended their facilities to me. Ideas took shape at the Netherlands Institute for Advanced Study in the Humanities and Social Sciences (NIAS), Wassenaar, where a Fellowship provided material support and as warm and congenial an environment as any researcher might wish.

In the course of my research I have accumulated debts of gratitude to various institutions and individuals for help with research materials: at Cambridge University, Terry Barringer and Rachel Rowe (Smuts Librarian), successively in charge of the University Library Royal Commonwealth Society Collection; Lionel Carter and Kevin Greenbank, South Asian Studies Centre Library; Jane Robinson, Geography Department Library; and Richard Savage, Plant Science Library. Mary Cordiner at the IUCN Library, Cambridge answered various queries. At the archives of the Royal Botanic Gardens, Kew, Kate Pickard and Mandy Ingram lightened the task of locating relevant material. At Oxford, I am indebted to staff of the Plant Science Library and especially Roger Mills who stepped out of his way to respond to urgent inquiries. In Malaysia I am indebted to the staff of the Arkib Negara; the University of Malaya Library, especially R. Selvarajah of the Law Faculty; the Forest Department Headquarters, Kuala Lumpur; and the Forest Research Institute (FRIM), Kepong. Noor Liza Ahmad Zahari of WWF Malaysia, well versed in Malaysian conservation literature, was enormously helpful. In the Netherlands, Dinny Young at NIAS, Wassenaar; and in Washington D.C., the staff of the World Bank Secretariat Library brought relevant material to my attention.

A conference hosted by the Nordic Institute of Asian Studies, Copenhagen, on Asian perceptions of nature encouraged me to broaden the scope of my study. Aspects of my research benefited from presentations at seminars and conferences, in Leiden, Wassenaar, Bangkok, Cambridge, Kuala Lumpur, New Haven and London. The many contacts that resulted provided insight and facilitated my research in various ways. I thank especially: Chris Bayly, Richard

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The Library of Cambridge University permitted the use of illustrations from the Royal Commonwealth Society Collection. The Royal Asiatic Society and the Singapore History Museum, National Heritage Board, provided images from the William Farquhar Collection of Natural History Drawings. Wendy Whitmore generously allowed me access to Tim Whitmore's extensive photographic collection. For other illustrations I thank Wetland International Asia Pacific, Kuala Lumpur; the Library of the Botanic Gardens, Aberdeen; and Gordon Smith, Ken Rubeli, the Earl of Cranbrook and Henry Barlow. Scott Maloney and Ian Agnew of Cambridge University assisted with graphics. I am especially grateful to Mariam Jutta for her diligence and cooperation in producing the botanical drawings at short notice. At NIAS Press, Gerald Jackson, Editor in Chief, devoted much time to the publication of this monograph, including the preparation of maps, graphs and tables, all with patience and good humour.

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The enthusiasm of my husband, David Wells, for the project and his critical comments and insights added much to my endeavour. For errors of fact or interpretation I alone remain responsible.

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Clare Hall, Cambridge

NOTE

- 1 B. Simandjuntak, *Malayan Federalism: A Study of Federal Problems in a Plural Society*, Oxford University Press: Kuala Lumpur, 1969, p. 2.



Glossary

MALAY TERMS

<i>alam</i>	world, universe
<i>alam semula jadi</i>	literally 'the world in its original state' or nature
<i>asli</i>	original, aboriginal, genuine
<i>bakau</i>	mangrove
<i>balai</i>	meeting place, audience hall
<i>belukar</i>	secondary forest, scrub
<i>bendahara</i>	prime minister; finance minister
<i>bendang</i>	see <i>sawah</i>
<i>bomoh/ dukun</i>	medicine-man, magician
<i>buah</i>	fruit
<i>bumiputera</i>	literally 'son of the soil', a term officially used for Malays and all indigenous people
<i>damar</i>	resin
<i>dato, datuk</i>	title traditionally borne by non-royal chief; title conferred in modern times in recognition of services to the nation
<i>dukun</i>	see <i>bomoh</i>
<i>dusun</i>	orchard
<i>gembala</i>	mahout
<i>getah</i>	latex, rubber
<i>gunung</i>	mountain
<i>hantu</i>	evil spirit, ghost
<i>harimau akuan/jadi-jadian</i>	were-tiger (cf. werewolf)
<i>hilir</i>	downriver
<i>hulu/ulu</i>	upriver
<i>hutan</i>	forest
<i>hutan rimba</i>	primary forest, primeval forest
<i>jadi-jadian</i>	see <i>harimau akuan</i>

<i>jenang</i>	assistant or representative of a chief or ruler
<i>jerat</i>	noose, snare
<i>kampung</i>	village
<i>kayu</i>	wood, timber
<i>kerabat di-raja</i>	royalty
<i>keramat</i>	objects and people worshipped for their perceived magical powers
<i>kongsi</i>	a partnership or Chinese business group
<i>ladang</i>	swidden
<i>lalang</i>	the grass <i>Imperata cylindrica</i>
<i>maju</i>	progress
<i>mandur</i>	overseer
<i>menebang</i>	to cut down
<i>minyak</i>	oil
<i>mukim</i>	district
<i>negeri</i>	state
<i>orang kaya</i>	literally 'rich man'; title borne by nobility and chiefs
<i>palung</i>	Wooden structure with sluice boxes for collecting tin ore
<i>panglung</i>	Chinese log-extraction system
<i>pantang</i>	taboo
<i>pantun</i>	improvised quatrain with inner assonance
<i>pawang</i>	shaman, magician
<i>penghulu</i>	village head
<i>pengkalan</i>	river jetty
<i>pikul</i>	weight equivalent to 60 kg
<i>pokok</i>	tree, plant
<i>raja muda</i>	heir to the throne
<i>relau</i>	furnace for smelting tin
<i>rimba</i>	primary forest, jungle
<i>Rukunegara</i>	articles of faith of the nation
<i>sakai</i>	term originally used for aborigines in general, now considered pejorative and replaced by the term Orang Asli.
<i>sawah</i>	paddy field: wet-rice cultivation
<i>semangat</i>	vital force, energy, spirit of life
<i>sungai</i>	river
<i>tauke, taukeh</i>	towkay, Chinese businessman, shopkeeper

<i>temenggung</i>	minister traditionally in charge of defence, internal security and affairs of the palace
<i>tengku/tungku</i>	title for Malay princes
<i>tengku mahkota</i>	crown prince
<i>tongkang</i>	barge, vessel for transporting cargo between ship and shore
<i>tungku</i>	see <i>tengku</i>
<i>ubi</i>	edible root or underground stem
<i>ulu</i>	see <i>hulu</i>
<i>Yang Dipertuan Agung</i>	title borne by the constitutional head of state in Malaya/Malaysia

MALAY NAMES FOR FLORA AND PLANT PRODUCTS

<i>akar laka</i>	(<i>Dalbergia parviflora</i>)
<i>asam gelugur</i>	(from <i>Garcinia atroviridis</i>)
<i>bakau</i>	(<i>Rhizophora</i> spp.)
<i>bakau kurap, belukap</i>	(<i>Rhizophora mucronata</i>)
<i>bakau minyak</i>	(<i>Rhizophora apiculata</i>)
<i>balau</i>	(<i>Shorea</i> spp.)
<i>berembang</i>	(<i>Sonneratia caseolaris</i>)
<i>bertam</i>	(<i>Eugeissona tristis</i>)
<i>bintangur batu, penaga laut</i>	red poon (<i>Calophyllum inophyllum</i> and <i>C. lanigerum</i>)
<i>bulu pusi, penawar jambi</i>	(<i>Cibotium barometz</i>)
<i>cengal, penak</i>	(<i>Neobalanocarpus heimii</i>)
<i>damar laut merah</i>	(<i>Shorea kunstleri</i>)
<i>damar minyak</i>	(<i>Agathis borneensis</i>)
<i>durian</i>	(<i>Durio</i> spp.)
<i>gaharu/ karas</i>	eaglewood (from <i>Aquilaria malaccensis</i>)
<i>gambir</i>	gambier (from <i>Uncaria gambir</i>)
<i>gelam</i>	paperbark (<i>Melaleuca cajuputi</i>)
<i>getah perca</i>	gutta-percha (from <i>Palaquium gutta</i>)
<i>getah rambung</i>	(from <i>Ficus elastica</i>)
<i>getah sondek</i>	(from <i>Palaquium maingayi</i>)
<i>getah taban merah</i>	(from <i>Palaquium gutta</i>)

getah taban putih	(from <i>Palaquium obovatum</i>)
giam	(<i>Hopea nutans</i>)
jelutung	jelutung (from <i>Dyera costulata</i>)
jernang	rattan (from <i>Daemonorops didymophylla</i>)
kapur	camphor (from <i>Dryobalanops aromatica</i>)
kayu arang	ebony (<i>Diospyros maingayi</i>)
kedondong	(<i>Canarium</i> spp.)
kelat	(<i>Eugenia</i> spp.)
kelubi/asam paya	(<i>Eleiodoxa conferta</i>)
kempas	(<i>Koompassia malaccensis</i>)
kemuning	(<i>Murraya paniculata</i>)
kepung	(<i>Shorea macroptera</i> and <i>S. ovalis</i>)
keranji	(<i>Dialium</i> spp.)
keruing	(<i>Dipterocarpus</i> spp.)
kesumba keling	annatto (from <i>Bixa orellana</i>)
kesumba	safflower, false saffron (from <i>Carthamus tinctorius</i>)
kubin, telinga gajah	(<i>Macaranga gigantea</i>)
kulim	(<i>Scorodocarpus borneensis</i>)
kumus	(<i>Shorea</i> spp.)
alang	(<i>Imperata cylindrica</i>)
leban	(<i>Vitex</i> spp.)
mata kucing	(<i>Hopea</i> spp.)
mengkuang	screw-palm (<i>Pandanus</i> spp.)
meranti	(<i>Shorea</i> spp.)
merbau	(<i>Intsia palembanica</i>)
neram	(<i>Dipterocarpus oblongifolius</i>)
nibung	(<i>Oncosperma tigillarium</i>)
nipah	nipa (<i>Nypa fruticans</i>)
palas	(<i>Licuala</i> spp.)
pandan	see mengkuang
penak	see cengal
penawar jambi	see bulu pusi
pendarahan	(<i>Myristica</i> spp.)
perah	(<i>Elateriospermum tapos</i>)
petai	(<i>Parkia</i> spp.)

<i>piai</i>	(<i>Acrostichum aureum</i>)
<i>rami</i>	(<i>Boehmeria nivea</i>)
<i>rambung</i>	(<i>Ficus elastica</i>)
<i>resak</i>	(<i>Vatica</i> and <i>Cotylelobium</i> spp.)
<i>resam</i>	(<i>Gleichenia linearis</i>)
<i>rotan manau</i>	rattan (<i>Calamus ornatus</i> , <i>Calamus manan</i>)
<i>rumbia</i>	sago palm (<i>Metroxylon sagu</i>)
<i>sagu</i>	(from <i>Metroxylon sagu</i>)
<i>sepang</i>	sappan (<i>Caesalpinia sappan</i>)
<i>seraya</i>	(<i>Shorea curtisii</i>)
<i>sondek</i>	see <i>getah sondek</i>
<i>taban</i>	(<i>Palaquium</i> spp.)
<i>taban merah</i>	(<i>Palaquium gutta</i>)
<i>tembusu</i>	(<i>Fagraea</i> spp.)
<i>tongkat ali</i>	(<i>Eurycoma longifolia</i>)
<i>tualang</i>	(<i>Koompassia excelsa</i>)
<i>tuba</i>	(<i>Derris</i> spp.)
<i>tumu</i>	(<i>Bruguiera gymnorrhiza</i>)

MALAY NAMES FOR FAUNA AND ANIMAL PRODUCTS

<i>ayam hutan</i>	junglefowl (<i>Gallus gallus</i>)
<i>babi hutan</i>	wild pig (<i>Sus scrofa</i>)
<i>badak berendam</i>	Sumatran rhinoceros (<i>Dicerorhinus sumatrensis</i>)
<i>badak cipan</i>	Malayan tapir (<i>Tapirus indicus</i>)
<i>badak raya</i>	Javan rhinoceros (<i>Rhinoceros sondaicus</i>)
<i>banting</i>	banteng (<i>Bos javanicus</i>)
<i>barau-barau</i>	straw-headed bulbul (<i>Pycnonotus zeylanicus</i>)
<i>belibis</i>	lesser whistling duck (<i>Dendrocygna javanica</i>)
<i>benturung</i>	bearcat (<i>Arctictis binturong</i>)
<i>beruang</i>	sun bear (<i>Helarctos malayanus</i>)
<i>berkuk</i>	large green pigeon (<i>Treron capellei</i>)
<i>cecadu gua</i>	cave fruit bat (<i>Eonycteris spelaea</i>)
<i>embalau</i>	stick-lac (from <i>Laccifer lacca</i>)

<i>gajah</i>	elephant (<i>Elephas maximus</i>)
<i>guliga</i>	bezoar
<i>harimau</i>	tiger (<i>Panthera tigris</i>)
<i>kambing gurun</i>	serow (<i>Capricornis sumatraensis</i>)
<i>kelip-kelip</i>	firefly (<i>Pteroptyx</i> spp.)
<i>keluang</i>	Malayan flying fox (<i>Pteropus vampyrus</i>)
<i>kijang</i>	barking deer, Indian muntjac (<i>Muntiacus muntjak</i>)
<i>kuang</i>	argus pheasant (<i>Argusianus argus</i>)
<i>merak</i>	green peafowl (<i>Pavo muticus</i>)
<i>merbuk balam</i>	zebra dove (<i>Geopelia striata</i>)
<i>murai kampung</i>	magpie robin (<i>Copsychus saularis</i>)
<i>musang</i>	civet (<i>Viverridae</i>)
<i>musang pulut</i>	toddy cat (<i>Paradoxurus hermaphroditus</i>)
<i>pelanduk, kancil</i>	lesser mouse deer (<i>Tragulus javanicus</i>)
<i>pipit padi</i>	munia (<i>Lonchura</i> spp.)
<i>punai</i>	green pigeon (<i>Treron</i> spp.)
<i>punai tanah</i>	emerald dove (<i>Chalcophaps indica</i>)
<i>rusa</i>	sambar, sambhur (<i>Cervus unicolor</i>)
<i>seladang</i>	gaur (<i>Bos gaurus</i>)
<i>tiong air</i>	moorhen (<i>Gallinula chloropus</i>)



Abbreviations

ACA	Anti-Corruption Agency
Ad. F	Adviser on Forestry
ADO	Assistant District Officer
AN	<i>Arkib Nasional</i> /National Archives, Malaysia
APPEN	Asia-Pacific People's Environmental Network
ASEAN	Association of Southeast Asian Nations
ASPA	<i>Amanah Saham Pahang</i>
BKI	<i>Bijdragen tot de Taal-, Land-en Volkenkunde</i>
CAP	Consumers' Association, Penang
CBD	Convention on Biodiversity
Cd.	Command
CF	Conservator of Forests
CFC	Chlorofluorocarbon
CFDT	Committee on Forest Development in the Tropics
CFJ	Conservator of Forests, Johor
CHOGM	Commonwealth Heads of Government Meeting
CIDA	Canadian International Development Agency
CIFOR	Centre for International Forest Research
CITES	Convention on the International Trade in Endangered Species (of Wild Fauna and Flora)
CO	Colonial Office
CSBD	Country Study on Biological Diversity
CSD	Commission on Sustainable Development
CUP	Cambridge University Press
DANCED	Danish Cooperation for Environment and Development
DF	Director of Forestry
DFO	District Forest Officer
DID	Drainage and Irrigation Department

DO	District Officer
DOE	Department of Environment
DTAM	Dutch Technical Aid Mission
DWNP/JPHL	Department of Wildlife and National Parks/ <i>Jabatan Perlin- dungan Hidupan Liar dan Taman Negara</i> /PERHILITAN
ECE	European Commission for Environment
EIA	Environmental Impact Assessment
ENSO	El Niño Southern Oscillation
EPSM	Environmental Protection Society
EPU	Economic Planning Unit, Prime Minister's Department, Malaysia.
ESCAP	Economic and Social Commission for Asia and the Pacific Region
FELCRA	Federal Land Consolidation and Rehabilitation Authority
FELDA	Federal Land Development Authority
FMS	Federated Malay States
FoE	Friends of the Earth
FRI(M)	Forest Research Institute (Malaysia)
FRRS	Forest Resource Reconnaissance Survey
FS	Federal Secretariat
FSC	Forestry Stewardship Council
Ft. Perak S.	Forestry, Perak South
GATT	General Agreement on Tariffs and Trade
GG	Government Gazette
GIS	Geographical Information System
GTZ	<i>Deutsche Gesellschaft für Technische Zusammenarbeit</i>
ha	hectare
HC	High Commissioner
HCOF	High Commissioner's Office File
HMSO	Her/His Majesty's Stationery Office
IADP	Integrated Agricultural Development Programme
IBRD	International Bank for Reconstruction and Development
ICBP	International Council for Bird Preservation/BirdLife International
ICPN	International Congress for the Protection of Nature
ICSU	International Council of Scientific Unions

IFP	Interim Forest Policy
IIED	International Institute for Environment and Development, London
ISIS	Institute for Strategic and International Studies, Malaysia
ITTA	International Timber Trade Agreement, 1983
ITTO	International Timber Trade Organization
IUCN	The International Union for Conservation (of Nature and Natural Resources)
IUPN	International Union for the Protection of Nature
<i>JFMSM</i>	<i>Journal of the Federated Malay States Museums</i>
JHEOA	<i>Jabatan Hal Ehwal Orang Asli</i> /Department of Orang Asli Affairs
<i>JIA</i>	<i>Journal of the Indian Archipelago</i>
JICA	Japanese International Cooperation Agency
<i>JMBRAS</i>	<i>Journal of the Malayan/Malaysian Branch of the Royal Asiatic Society</i>
<i>JSBRAS</i>	<i>Journal of the Straits Branch of the Royal Asiatic Society</i>
<i>JSEAH</i>	<i>Journal of Southeast Asian History</i>
<i>JSEAS</i>	<i>Journal of Southeast Asian Studies</i>
<i>JSFPE</i>	<i>Journal of the Society for Fauna Protection in the Empire</i>
KADA	Kemubu Agricultural Development Authority, Kedah/Perlis
KESEDAR	Kelantan Selatan Development Authority /South Kelantan Development Authority/
KETENGAH	<i>Lembaga Kemajuan Terengganu Tengah</i> /Central Terengganu Development Authority
KITLV	<i>Koninklijk Instituut voor Taal-, Land- en Volkenkunde</i>
KPK	<i>Kompleks Perkayuan Kelantan</i>
KPKKT	<i>Kumpulan Pengurusan Kayu-Kayan Terengganu</i>
LCC	Land Classification Council
MAB	Man and Biosphere (Programme) Malaysia
MARA	<i>Majlis Amanah Rakyat</i> /Council for Rural Welfare
MARDI	Malayan Agricultural Research and Development Institute
MBRAS	Malayan Branch of the Royal Asiatic Society
MC & I	Malaysian Criteria & Indicators
MCP	Malayan Communist Party
MIDA	Malaysian Industry Development Authority
<i>MNJ</i>	<i>Malayan/Malaysian Nature Journal</i>

MNS	Malayan/Malaysian Nature Society
MOSTE	Ministry of Science, Technology and Environment
MPAJA	Malayan People's Anti-Japanese Army
MTC	Malaysian Timber Council
MTIB	Malaysian Timber Industry Board
MUS	Malayan Uniform System
n.	note
n.p.	not published
n.s.	new series
NCS	National Conservation Strategy
NDC	National Development Council
NDP	New Development Policy
NEP	New Economic Policy
NFA	National Forestry Act
NFC	National Forestry Council
NFP	National Forestry Policy
NGO	non-governmental organization
NLC	National Land Council
NPAC	National Parks Advisory Council
NSCB	National Steering Committee on Biodiversity
<i>NST</i>	<i>New Straits Times</i>
NTCC	National Timber Certification Council
NTFP	Non-Timber Forest Produce
ODA	Overseas Development Authority
OFI	Oxford Forestry Institute
OUP	Oxford University Press
PAS	<i>Parti Islam seMalaysia</i> /Pan-Malayan Islamic Party
PERHILITAN	see DWNP
PFE	Permanent Forest Estate; by definition Permanent Reserved Forest (PRF)
PHDK	<i>Pejabat Hutan Daerah, Kedah Utara - Perlis</i> /District Forest Office, North Kedah - Perlis
Phg	Pahang
PRF	Permanent Reserved Forest
<i>PTP</i>	<i>Penyata Tahunan Perhutanan Malaysia Barat</i> / Annual Report, Forestry, West Malaysia

RCS	Royal Commonwealth Society
RFA	<i>Report on Forest Administration</i>
RFFA	<i>Report on Federal Forest Administration</i>
RGA	Rubber Growers' Association
RHO	Rhodes House, Oxford
RIDA	Rural Industrial Development Authority
RIF	Regeneration Improvement Felling
RRI	Rubber Research Institute
SAM	<i>Sahabat Alam Malaysia</i> /Friends of the Earth, Malaysia
SCOPE	Scientific Commission for Problems of the Environment
SCS	State Conservation Strategy
SEPU/UPEN	State Economic Planning Unit/ <i>Unit Perancangan Ekonomi Negara</i>
SFO	State Forest Officer
SGS	<i>Société Générale de Surveillance</i> Malaysia Sdn. Bhd.
SJSB	<i>Syarikat Jengka Sdn Bhd</i>
SMS	Selective Management System
SPFE	Society for the Protection of Fauna in the Empire
SS	Straits Settlements
TEAM	Timber Exporters Association of Malaysia
TFAP	(International) Tropical Forest Action Plan
TFTAAP	Tropical Forest Timber Agreement and Action Plan
TMP	Third Malaysia Plan
TOL	Temporary Occupation Licence
TPA	Totally Protected Area
TRAFFIC	Trade Records Analysis of Fauna and Flora in Commerce
TVA	Tennessee Valley Authority
UFMS	Unfederated Malay States
UKM	<i>Universiti Kebangsaan Malaysia</i> /National University, Malaysia
UMNO	United Malays National Organization
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Commission on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change