

A NATURALIST IN Karbi Anglong

by

ANWARUDDIN CHOUDHURY

*With photographs, line drawings
& maps by the author*



Gibbon Books

To my grandparents



Cover: A wild tusker in Nambor forests (photograph by the author)

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Preface to the Second Edition

First published 16 years back, this book on Karbi Anglong was due for revision. A lot of changes took place during the last decade and more, and many of the recommendations laid down in the book have been implemented. The first edition contained some spelling and grammatical mistakes as proof reading could not be done properly. In this edition, an attempt has been made to correct those. The first edition is out of print; the hardback copies were exhausted a long back, while a few paperbacks continued until recently. With many suggestions implemented, the first edition had had its worth.

I believe in originality, at least in such works. So I kept the original chapters and illustrations almost as they were, with only the corrections done. The additional information and updates have been added in the main text as boxes. A few new illustrations were added but almost all the earlier ones were retained. Two new chapters have been added in addition to a comprehensive bibliography. The bibliography has been added to give the readers scope to read further about Karbi Anglong.

I wish to thank Mrs Emily Chowdhary, then Development Commissioner for Hill Areas of Assam for encouragement and providing me with scope to work further in Karbi Anglong while I was working in the same department as the Project Coordinator of IJDP (Integrated *Jhumiya* Development Programme); Mohd. Taher, Professor Emeritus of Gauhati University who was also my Ph.D guide for his continued encouragement; Arup Ballav Goswami of Silonijan for keeping me updated on eastern Karbi Anglong; Padmeswar Gogoi of Golaghat; Anil Kumar Goswami of WWF-India's Guwahati Office; Mrs Anne Wright, Chairperson of The Rhino Foundation for nature in North East India; Ashok Kumar of Wildlife Protection Society of India (now with Wildlife Trust of India) for providing assistance during preparation of the revised proposal for a tiger reserve; Bikash Brahma, Conservator of Forests; Amal Sharma, Divisional Forest Officer at Hamren; S. Thiek, former Secretary to the Autonomous Council; Jayasree Daulaguphu, Secretary to the Autonomous Council; Arabinda Talukdar (Range Officer) of Ouguri, Ratul Talukdar, Hakim and Hashim (last three of The Rhino Foundation for nature in North East India).

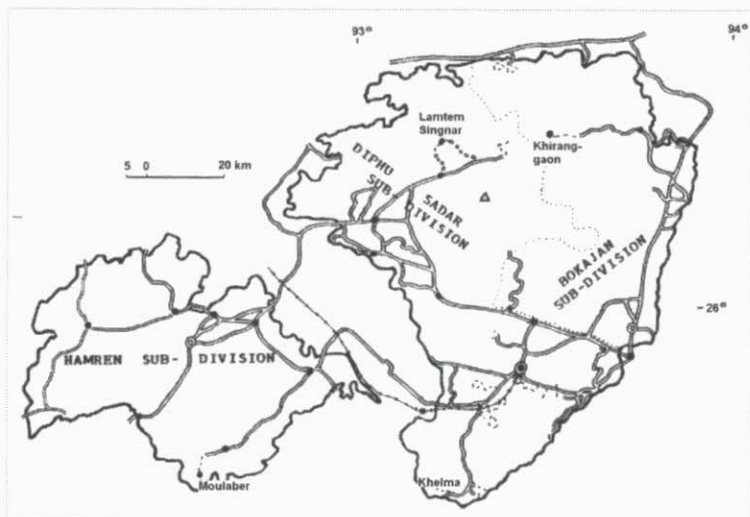
Special thanks to Jatin Sharma, Divisional Forest Officer for his support in bringing out this edition. Special thanks too to Will Duckworth for his critical review of the manuscript and valuable comments.

For their support and encouragement, I thank my late parents, and my wife, other relatives, friends and other well-wishers.

It is hoped that this revised second edition would be of use and interest to a broad section of readers including general tourists, government officials, wildlife enthusiasts, students, researchers, planners, conservation bodies and above all encourage the young people in Karbi Anglong to work for environmental conservation.

25 October 2008

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Assam, India



'My travels' in Karbi Anglong; motor vehicle (—); rail (—+—),
foot (----) and elephant-back (.....).

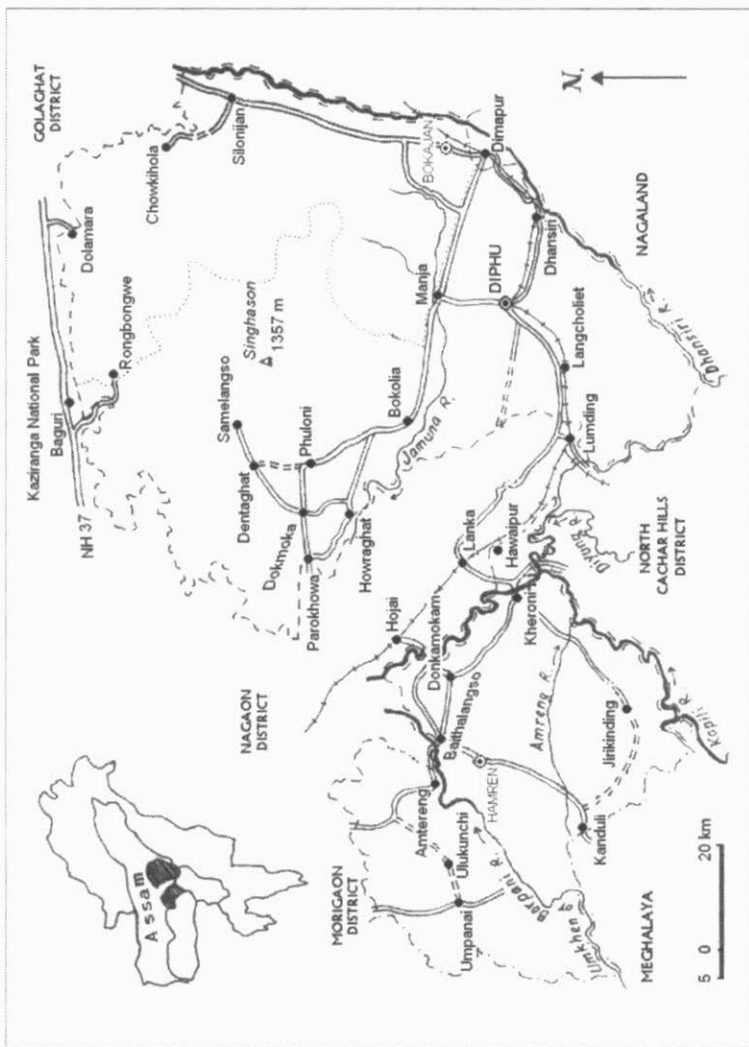


Introduction

When I planned to be in the district of Karbi Anglong for a short sojourn, I had in my mind its unexplored wilderness with rich flora and fauna. I arrived at Diphu, the district Headquarters in April 1991 with a very poor knowledge of this rich and diverse district. However, when I left Diphu in June 1992, I could, at least, claim to be one who had penetrated deep into the heartland of Karbi Anglong.

During my stay of more than a year, I visited almost every nook and corner of the district, including some remote areas such as Lamtem Singnar, Khiranggaon, Moulabier and Khelma. Many of the tours were official, with nothing to do with nature and wildlife, but I did not lose any opportunity to document those wonders with my pen and the *Canon* SLR camera, which I always carried with me.

The scenic beauty with lush green forest and picturesque waterfalls, the lovely hot-springs, and the rich and diverse wildlife delight one. But the real joy lies in sharing such experience with others. Despite all its richness, hardly any



Map of Karbi Anglong showing important places (●), rivers (—), roads (—) and railway (—).

information was available on the wildlife and jungles of Karbi Anglong. No literature, not even a good article, was available except for a passing reference of the Garampani Wildlife Sanctuary in E.P. Gee's book *The Wild Life of India* (1964).

The district of Karbi Anglong holds a central geographical location in Assam and extends from 25°32' to 26°37' N and 92°09' to 93°53' E. With its 10,330 square kilometres, it is the largest district of Assam. Formerly known as the Mikir Hills district, it came into existence in 1951. Prior to that, it formed parts of Sibsagar, Nagaon, United Khasi & Jaintia Hills and also Naga Hills districts.

The area is mostly rugged and hilly being part of an Archaean plateau. The district consists of two disjunct parts, the East and the West Karbi Plateaus. The West Karbi Plateau is contiguous with the Meghalaya Plateau. Three small plains are there, formed by the main rivers of the district, namely, the Kopili, the Dhansiri and the Jamuna (an important tributary of the Kopili). The climate of the area is of tropical monsoon type, generally with a cool dry winter, and a hot wet summer. The temperature ranges from 7°C (winter minimum; occasionally down to <4°C on Singhason) to 34°C (summer maximum; occasionally up to >37°C), and the rainfall from about 800 mm in Diphu-Kheroni area to 2800 mm in the northern slopes. The mountain wall of the Meghalaya Plateau and Barail Range has made Diphu-Kheroni area a zone of rain-shadow, receiving the lowest rainfall in the whole of North-East India. About 45 per cent of the total area of the district is under tree-forest.

Karbi Anglong is inhabited by more than half a million people, most of them belonging to different hill tribes.

The Karbis are the most numerous of the hill tribes. Notable among others include the Dimasa Kacharis, Jaintias (others call them Khasis), Rengma Nagas, Kukis, and the Chakmas. There are also plains tribes like Bodo Kacharis, Tiwas (Lalungs), and the Tai-speaking Mans.

There are three administrative divisions, called the sub-divisions. Two in eastern Karbi Anglong – Diphu Sadar and Bokajan, and one in western part – Hamren. Most of the development works are looked after by an Autonomous District Council elected by the people.

Hilly areas like Karbi Anglong have fragile ecosystem, and development in the form of expansion of agriculture and settlement in the hill slopes have already signaled a grim future. Time has come to preserve the forests and wildlife. But unless the native people derive direct material benefit from such preservation, it would be a very difficult task to motivate them. Solution to such problems rests with tourism based on wildlife, scenic beauty, trekking and adventure sports like rock climbing, rafting and sport

Population of Karbi Anglong was 812,000 (0.81 millions) in 2001 census. It was only 378,000 (0.38 millions) in 1971 census (*Source: Census of India, 2001*).

The Autonomous District Council is now called the Autonomous Council (created as per the provisions of the 6th Schedule of the Constitution of India).

There is a proposal for upgrading Hamren sub-division into a district.

fishing, for which Karbi Anglong has more than enough potential. This will ensure added revenue, thus giving benefit to the local population as well as the government.

The aim of this book is to provide an introduction to the rich and varied natural features and wildlife of Karbi Anglong for a broad readership by presenting some of the results of my field study. It is designated to open doors and to engage adventurers, trekkers, mountaineers, bird-watchers, and also ordinary tourists to explore the little-known wild treasures of Karbi Anglong.

* * *

I had received tremendous support during my 'expeditions' in Karbi Anglong; which, however, cannot be acknowledged in a few words. Administrators, foresters, villagers, friends and relatives all helped me up to their possible extent, and I thank them all collectively.

I wish to thank Anil Kumar Sachan (Deputy Commissioner), Joya Terangpi, Honmilli Teronpi, Jayasree Daulaguphu (Tueena), and Mrs. Anjali Kathar (all Magistrates), Dr. Pratima Devi, Sushanta Roy, A. Jalil Barbhuiyan and Paras Bhattacharya for their support and encouragement.

I am also grateful to Tarini Barman (then Assistant Settlement Officer at Phuloni), S. Ahmed (Divisional Forest Officer, Hamren), Havildar Keshab Das and Nur Hussain for their help during various field trips. R. M. Dubey, Divisional Forest Officer (Karbi Anglong West Division) not only helped me during my trip to the remote and virtually inaccessible Khelma area but also absorbed Sarsing Rongphar, an expert tracker, in the Forest Departm-

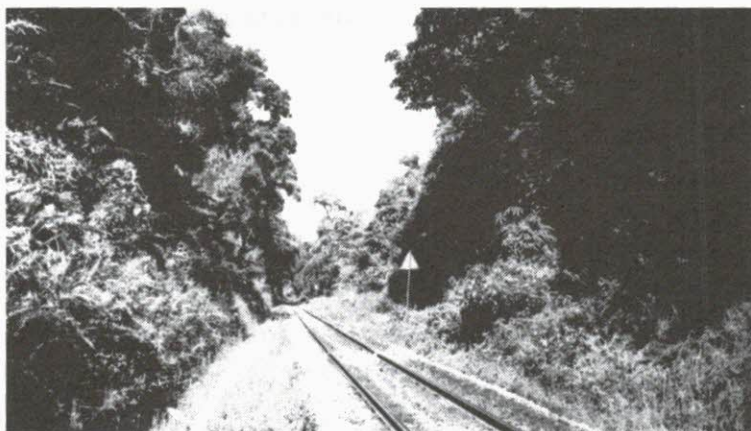
ent at my request. My suggestions were that, Sarsing's field experience should be utilised by the department, and secondly, since his occupation was hunting, this would save some wild animals from certain death. Further information on Sarsing is there in *Chapter 6* (and 'end notes').

I further wish to acknowledge the valuable suggestions of Prof. Amaresh Datta, formerly of Dibrugarh University, and Dipak Kumar Goswami, Additional Deputy Commissioner of Tinsukia. The Assam Science, Technology & Environment Council (ASTECC) provided some funds for a primate survey, which helped me greatly in the field and deserves special mention. Lastly, I am grateful to Mohd. Hussain Khan of Tinsukia for helping during printing stage.

ANWARUDDIN CHOUDHURY
MA, PhD

25th October 1993

Camp: Bordoloi Nagar, Tinsukia



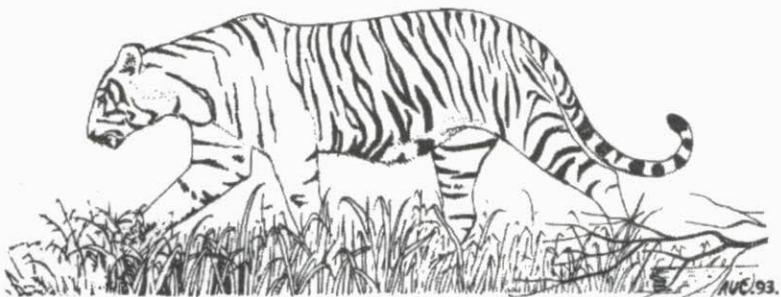
One of my regular transect was along the rail track from Langchoilet station to halfway towards Nailalung station.

Chapter One

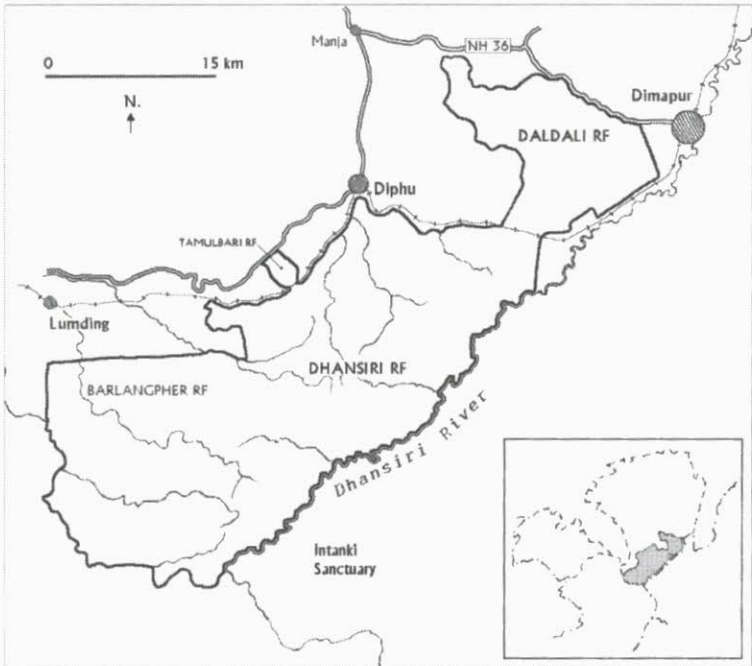


Dhansiri : Of Tigers and Gibbons

Diphu, the Headquarters of Karbi Anglong district, is a growing township with a commanding view of a lush greenery. The main railway to Upper Assam passes through here. The native tribes, chiefly the Karbis, and also the Dimasa Kacharis, from the surrounding villages congregate at the *bazaar* and bring their wares. The women are dressed in colourful printed cloth. The younger men in jeans throng the streets. It is a happy crowd of the Karbi, Dimasa, Assamese, Bengali and the Nepali with a sprinkling of Kukis and the Rengma Naga.



Tiger



The proposed Dhansiri Tiger Reserve (**▭**).

Diphu town is known for its scenic beauty and good motor able roads. But it is not known to most visitors, not even to many of the inhabitants of the town, that a large and wildlife-rich wilderness is just a few minutes walk from the town!

The lush greenery that spreads from Diphu to the border of Nagaland is the DHANSIRI Reserved Forest, home of a rich and varied form of wildlife. First established in 1915 as a reserved forest, some more area was added to it in 1923 and 1939; it covers an area of about 770 square kilometres, one of the largest in Assam. But the wilderness extends over a thousand square kilometres and also includes the

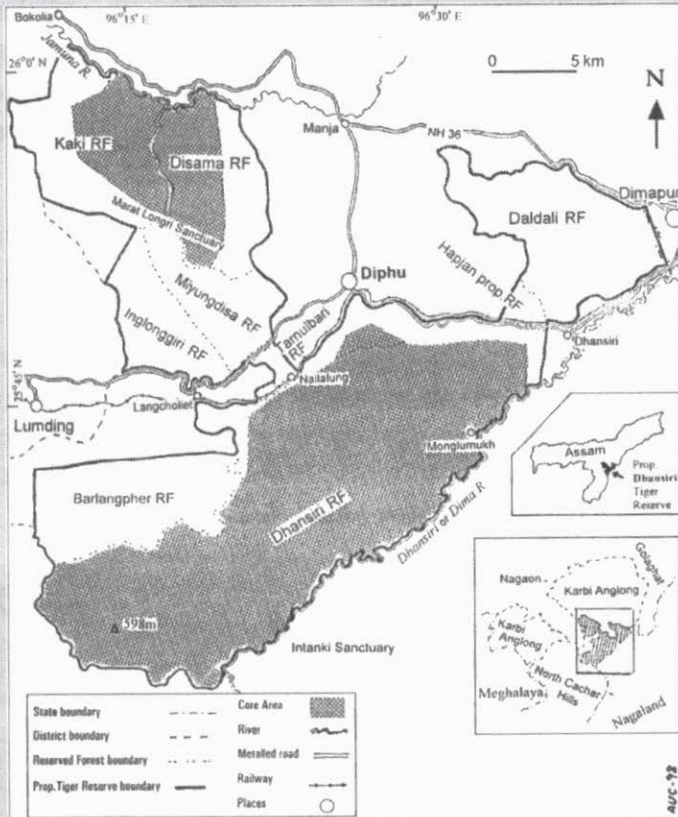
On 22nd May 1992, a local Karbi of Langcholiet brought a small turtle to me. I kept it for a few days before releasing it back to its wild home in the Dhansiri Reserved Forest. It was identified as a keeled box turtle (*Pyxidea mouhotii*), a rare reptile with a few known locality records in India. Its yellowish-brown carapace was moderately elevated and flat-topped. There were three conspicuous keels on its shell. Heavily scaled limbs resembling those of a 'dragon' were noteworthy. While in captivity, it relished cockroaches. Other reptiles found in the area and also commonly seen were the monitor lizards (*Varanus* spp) and various snakes such as the rock python and the king cobra (*Ophiophagus hannah*).

There is often little wildlife actually to be seen in tropical evergreen and semi-evergreen forests, even when there is a lot there. Most animals are nocturnal and shy. However, in Dhansiri, the story was slightly different, and with stricter protection, it would be a completely different one. One would be able to approach and observe the gibbons, tigers, and elephants at short range and have the fascinating glimpse of the animals' home life.



Keeled box turtle

Revised proposal for Dhansiri Tiger Reserve: The original proposal for a tiger reserve was revised by me in 1998. Major change in the revised document was inclusion of Disama, Kaki, Inglonggiri and Miyungdisa Reserved Forests, which were proposed as Marat Longri Wildlife Sanctuary. Ashok Kumar, Delhi-based conservationist had discussion with Project Tiger authorities but nothing came out. Then the Chief Wildlife Warden of Assam also wrote to Project Tiger authorities in 2003 (vide No.WL/FG.35/Dhansiri-Dibru Saikhowa TR, dated 23/10/2003). I laid stress on preservation of a large tract of good habitat rather than focusing on the number of tigers.



Proposed Dhansiri Tiger Reserve (revised)

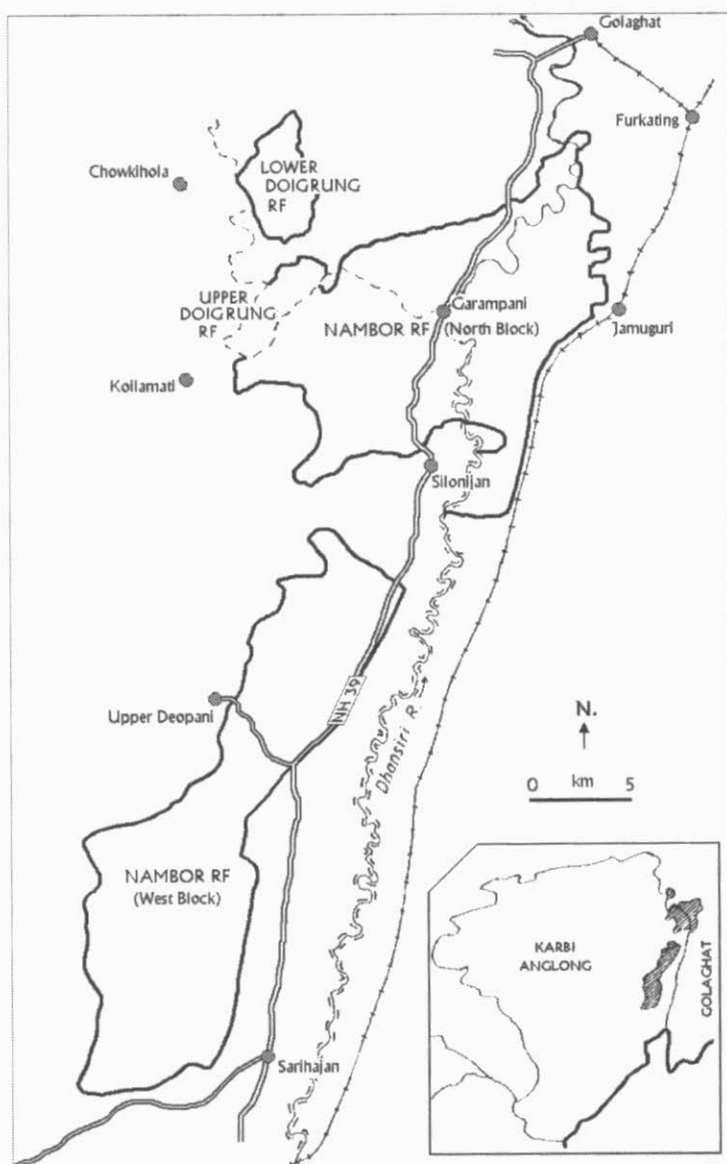
Chapter Two



Nambor : The Abode of Wild Elephants

The wild elephants of Garampani are not shy creatures. They patrol the National highway (NH) 39 which passes through the area in search of food driving the motorists' berserk with fear and thrill. When I first went to Garampani, I could not see any elephant save some fresh heaps of dung. Finally, on 21st December 1991, I saw an elephant stopping vehicles just outside the boundary of Karbi Anglong district, in Golaghat area, but well inside the Nambor (north block) Reserved Forest. It was a memorable sight: a full-grown majestic bull was confronting a Maruti Gypsy with purposeful nonchalance! Only after the driver lowered the glass and paid his toll in the form of food did the gigantic barrier withdraw. Meanwhile, on the other side of the elephant a caravan had formed – drivers wondering who had the right of way!

The GARAMPANI Wildlife Sanctuary of Karbi Anglong covers an area of only 6 square kilometres of semi-evergreen forest centering around a couple of hot springs



Nambor and Doigrung Reserved Forests. District boundary is shown by broken lines.

or *garam paanis*. It is the smallest sanctuary* in Assam and draws a few hundred domestic tourists each year, mostly in the form of picnickers. The sanctuary is part of the Nambor (north block) Reserved Forest (157 square kilometres, of which 54 square kilometres is in Karbi Anglong; the remaining area is in Golaghat district), which forms part of a well-known elephant-range that previously extended from Kaziranga National Park to Nagaland. But with the opening up of large tracts for cultivation, the existing habitat faces fragmentation. The wild elephants, which migrate long distances through their traditional routes, are in grave danger.

The pachyderms of Garampani and Nambor forests had caught national attention for their unusual behaviour. A large number of visitors are now attracted to see this 'elephant phenomenon' of seeking food from passing vehicles.

It is difficult to say when the elephants in Nambor developed such a habit. But there is little doubt that it was a fairly old one, and may have been in vogue since the



* Deepor Beel Bird Sanctuary created in 1996 is the smallest now with an area of 4.14 square kilometres.

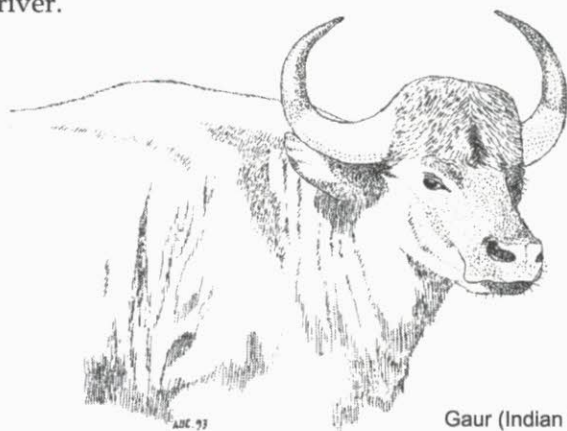
1970s. So far as the specific record goes, on 14th March 1982, one Forest Ranger saw a herd of 18 elephants stopping a truck carrying sugarcane and pulling out the canes before vanishing into the forests. The phenomenon has continued till now, especially during the harvesting season of sugarcane (November to April), when these are carried to the sugar mills at Barua Bamungaon near Golaghat, through the Nambor forests. The locals including the truck drivers are familiar with the phenomenon.

My visits to Nambor gave me unforgettable glimpses of the wild pachyderms in action. Once I observed a tusker tearing off the tarpaulin cover of a truck and then feeding on rice. On another occasion I saw a tusker stretching its trunk through the window of a passenger bus and pulling out anything that could be reached save the humans. Then there were a lone *muckna* and a female, both preferring the Golaghat portion of the reserve. The female was very interesting; it charged at any light vehicle but retreated with the approach of truck and bus. Many over-enthusiasts often put the bananas and other fruits right up to the trunk-tip of the animals. Misunderstanding between humans and animals had resulted in at least two casualties of the former.

In one such case, a 74 year old man died at a local hospital after being injured by a wild tusker. The story was that this old man was heavily drunk and was cycling through the forest. One more person, reportedly related to him, was also cycling. When they encountered the tusker, the younger man gave some banana and quietly pushed off, but the old man stayed back even after offering some

more bananas. He then started praying to the tusker as the 'Lord Ganesha' who in turn pulled his bag which was tied to the bicycle. In the process the old man fell flat on the ground and the indifferent tusker trod on a side of his chest damaging some rib bones. He died the very next day. The tusker neither trampled him dead deliberately nor did he pull apart his limbs as is usually done by elephants, especially rogues.

Wild elephants looking for banana is a new phenomenon, which started some time in 1990. This has resulted in a number of temporary fruit-stalls coming up at Thorajan and Silonijan. This new phenomenon was preceded by the ghastly killing of a tusker by some unknown VIP from Nagaland. Elephants in a herd came to the site of the killing and for quite some time chased and even attacked vehicles. Many people believe that this new phenomenon had its root in that incident as many elephants spent hours after hour on the highway leading to accidental offering of banana by some panic-stricken truck or bus driver.



Gaur (Indian 'bison')

To overcome this problem, a meeting was held at Bokajan in May 1991, in which officials from the district administration of Karbi Anglong and Golaghat, forest officials and wildlife specialists had participated. It was decided to, (i) enforce a convoy system for the vehicles; (ii) drive away the elephants into the forest with the help of *koonkies*, and (iii) prohibit offering of food by promulgating orders under section 144 of the Criminal Procedure Code (Cr. P.C.). The last two decisions were partly implemented and for quite some time the elephants did not appear on the highway, except for routine crossing-over. But the same phenomenon started again in the month of December.

The causes behind the phenomenon are many. The lure of easy availability of food worsened recently when each and every vehicle plying on this busy highway started offering food. Wild elephants as a motoring hazard are a common phenomenon in many parts of North-East India. This is mainly because of the unplanned, haphazard development of the road network through the forests. While in some cases it was inevitable, in a number of cases like the road-laying in Garampani, it was avoidable.

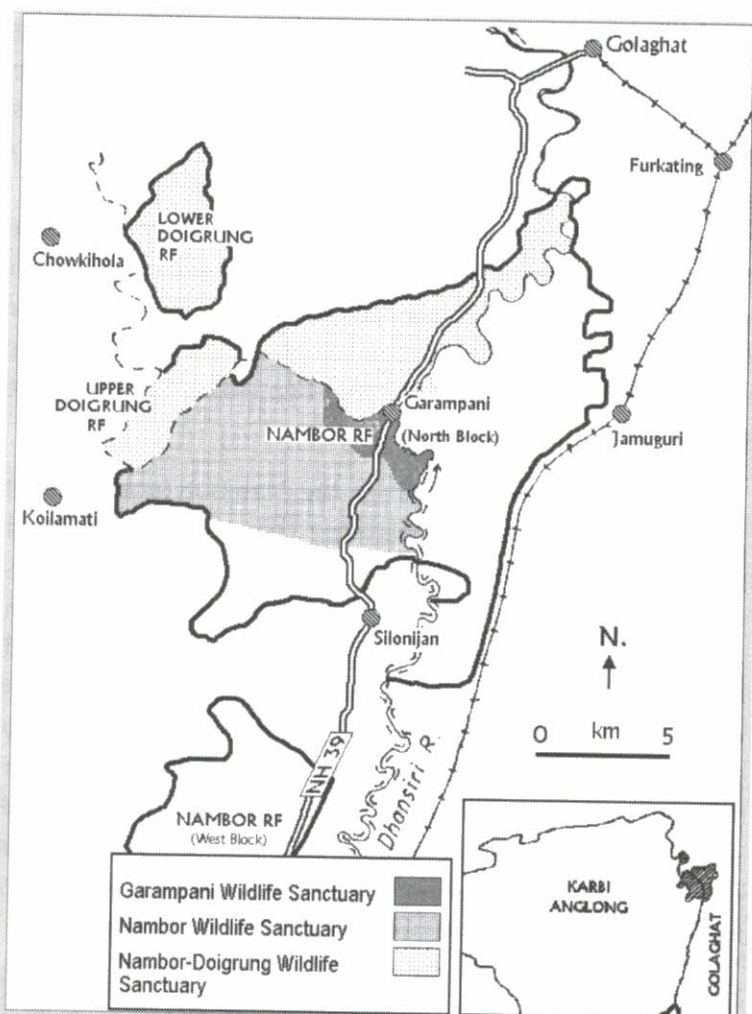
But some other factors, too, have disturbed the elephants. These include the massive deforestation coupled with encroachment, which have posed real danger to the survival of the pachyderms as well as other wildlife. The whole area on the eastern bank of the Dhansiri River in Golaghat district is cleared in such a way that it hardly looks like a part of any reserved forest. Most of the encroachers are of recent origin, some 5 or 6 years old. Similarly, in parts of Karbi Anglong portion also there are encroachments.

The Nambor (north block) Reserved Forest is fast turning into an island surrounded by cultivations and villages. The only outlet of the elephants and also of other wildlife is through Koilamati area, which may also stop due to clearings and encroachment in the near future.

It has been proposed that the Garampani Wildlife Sanctuary be upgraded to a national park and extended to cover 198 square kilometres including the whole of Nambor (north block) Reserved Forest; Upper, and Lower Doigrung Reserved Forests (latter two entirely in Golaghat district).

About 3 kilometres south of the Nambor (north block) Reserved Forest lies the Nambor (west block) Reserved Forest, covering an area of 166 square kilometres. Together, the two reserved forests form a large elephant-range. In 1982 the Forest Department undertook a census of wild elephants in the area and found 211 animals. The latest census carried out in March 1993 puts the figure at 180. The population is fluctuating and varies from anywhere near 150 to 300. Like the proposed Dhansiri Tiger Reserve, the rolling country with low gradient in Nambor forests makes an excellent elephant-habitat. Semi-evergreen forest, similar to that found in Garampani, covers the terrain.



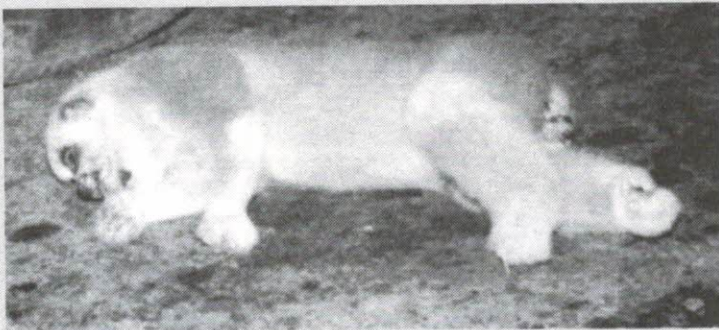


Sanctuaries: On the basis of these recommendations (p. 35), two new wildlife sanctuaries were created covering bulk of the area proposed as extension of Garampani Wildlife Sanctuary in the year 2000 and 2003. The total area under protected area network is 140 square kilometres (for details, see Chapter 8).

Death on the highway:

The National Highway 39 which passes through the Nambor forests has not only facilitated poachers from Nagaland and elsewhere but also become a death trap for many animals. The slow loris is the worst sufferer. At least five carcasses were seen between late 1998 and 2000 (Arup Ballav Goswami, *pers. comm.*) indicating well about the possible total casualty over the years. There are also instances of a gaur calf, several small carnivores such as civets and various species of snakes being crushed by speeding vehicles. Probably many more were injured to die later inside the jungle away from human sight whose number would never be known!

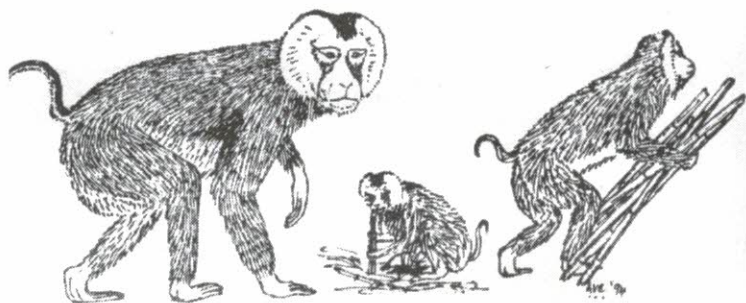
I once stationed myself near the National Highway 39 inside Nambor forests to census the frequency of vehicle movement and found that it was one vehicle per minute (31 vehicles, half of them trucks, per 30 minutes duration; in 1991). Today it must be more than that.



A slow loris crushed to death by speeding vehicle in Nambor forests.

Photo: by Arup Ballav Goswami

Throughout winter, especially during the harvesting season of sugarcane, a rare primate, the pig-tailed macaque of Nambor (north block) Reserved Forest develops a 'friendship' with the elephants. Chiefly arboreal, these monkeys do not hesitate to come down to the ground and frequent the National Highway 39 in search of sugarcane left over by the pachyderms. The pig-tailed macaque, with its brownish body and lion-like mane, especially conspicuous in adult males, is among the most impressive primates of our area. It carries its short tail half-erect (and hence the name 'pig-tail'). The males are much larger than the females. The pig-tailed macaque lives in large groups, usually above 20 with one dominant adult male as the leader. In India, it is found only in the North-East, south of the Brahmaputra River. Outside, its range extends south-east to Indonesia. In February and March 1992, I watched two groups of pig-tailed macaques by the side of the National Highway 39 feeding on sugarcane, pulling the bark and chewing.



Pig-tailed macaques feeding and carrying sugarcanes

Other wildlife of the Nambor forests include the tiger, leopard, clouded leopard, dhole (wild dog), gaur (Indian 'bison'), sambar, muntjac (barking deer), wild pig, otters, capped langur, Rhesus monkey, slow loris, hoolock gibbon and the stump-tailed, and the Assamese macaques. Nambor (north block) Reserved Forest is one of the best places to see the gaur, especially near Thoramukh inside Golaghat district.

The National Highway 39 which passes through the Nambor (north block) Reserved Forest and Garampani Wildlife Sanctuary is a busy road and is a permanent disturbance to the wildlife of the area. It should be diverted through the existing Borpathar – Jamuguri – Oating – Golaghat road, which is not only viable but will also pass through a densely populated area. This diversion will not require construction of new road, only the development of existing local roads. Moreover, the diversion will also reduce poaching by the Nagas to some extent. The National Highway 39 connects Dimapur, the commercial capital of Nagaland with Upper Assam as well as northern Nagaland. Thus a large number of Nagas, who usually carry guns, pass through Garampani and many of them indulge in poaching. As recently as the first quarter of 1993, three tuskers were gunned down by suspected Naga poachers in the Nambor (north block) Reserved Forest.

Like the tiger, the wild elephant is also a key indicator of ecological balance and any conservation measure to protect it would invariably help all other life forms to flourish.

End of 'Elephant phenomenon': Stopping of vehicles by wild elephants for food is no longer seen. Three tuskers, which probably included the semi-habituated ones, were killed by poachers from Nagaland in 1993. After the shoot-out, other semi-habituated elephants were too scared to stop vehicles searching for food. The sugar mill at Barua Bamungaon, Golaghat was also closed around the same time although sporadically functioned till mid-nineties. Thus the transportation of sugarcane came to a halt. The farmers also have changed their crops as there was no market for their sugarcane. Along with the 'elephant phenomenon', the seasonal association of pig-tailed macaques with the pachyderms also ceased as there is no sugarcane left over to feast on. The make shift fruit stalls that came up at Silonijan and Thorajan were also closed down.

However, elephants on the highway either crossing over or blocking vehicles for some time are still witnessed in the Nambor forests.



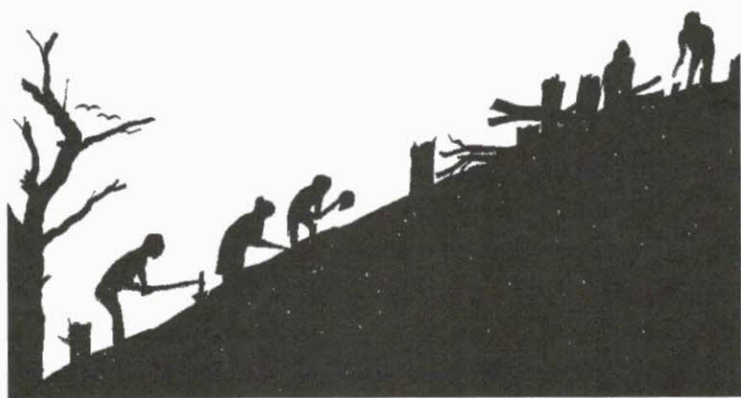
A wild tusker taking 'toll' in the form of sugarcane from a truck in Garampani Wildlife Sanctuary, 1991.

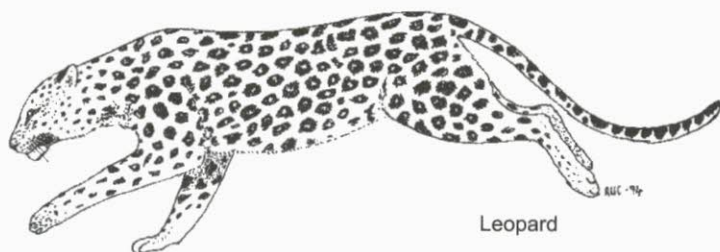
Chapter Three



Life in The Highlands

The guide was waiting for me at Nihang Langso, from where I was to trek to Haru Lauri Anglong, a 730 metres high peak, inside MIKIR HILLS Reserved Forest. We crossed the Chamdhara *Nadi*, upper reaches of the Kaliyoni River near Chaprasi Rongphar village, the north-eastern end of a 'montane valley'. It was a pleasant little valley, some 15 square kilometres in area at an elevation of about 200 metres surrounded by hills on all sides. Called the Langlokso valley, it is inhabited by the





Karbi tribe. Formerly called the Mikirs, they are agriculturists, and in areas like this valley, they practice sedentary cultivation. In the hilly area, they are *jhumiyas*, i.e., practitioner of *jhum* or slash-and-burn shifting cultivation. *Jhum* is a part of tradition and culture of many a hill tribe. After felling and burning the forest trees, they plant hill rice, maize, banana, etc. Each year more and more forest is cleared, and in many cases villages are moved – the never-ending cycle of *jhum*. The harmful effect of such cultivation is felt now; with growing human population the cycle has come down from more than a decade to a couple of years only. The soil, which supports luxuriant plant life, is soon exhausted by such short-cycle *jhum*. Continuous heavy rain in over-used *jhum* has resulted in complete removal of top soil and exposure of rocks in this Archaean Karbi Plateau.

After an hour of hiking through bamboo-covered steep slopes, we reached the crest of a ridge, on the western side of which lies Haru Lauri Anglong. The main bamboo species on the hill-slope was the 'kako' (*Dendrocalamus hamiltonii*). Interestingly, about half of the visible bamboos was flowering, a phenomenon that occurs once in a hundred years' time. Usually such flowering is followed by

population explosion of rats. While hiking, I came upon a hoolock gibbon feeding on the tender leaf-buds of bamboo. One more gibbon was there in a nearby tree. In fact, in bamboo forests an important food of these apes consists of the tender buds of the bamboo leaves and also the shoots. Even other primates like the macaque and langurs relish these.

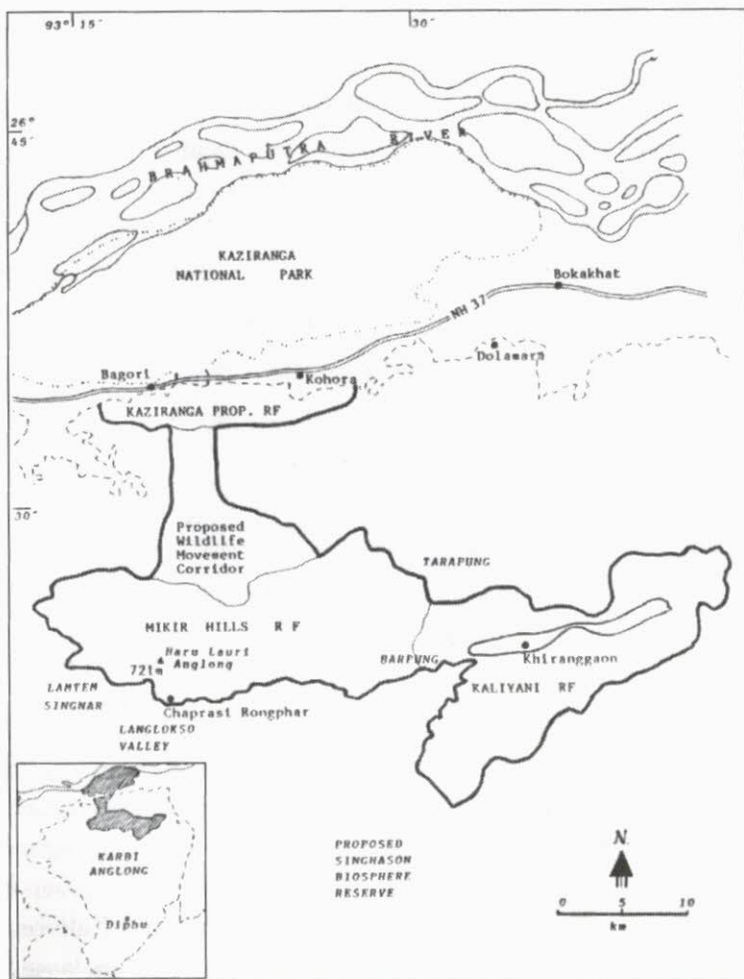
An old elephant trail ran along the crest. We followed the track and reached the peak. Because of dense vegetation, a full panoramic view of the Langlokso valley was not possible. I examined the trail and found hoof marks of gaur, pugmarks of tiger and droppings of dholes (wild dogs).



Himalayan black bear

I had heard of the wildlife in the Mikir Hills Reserved Forest – an area not easily approachable. I planned to survey this area for a few days. The Mikir Hills Reserved Forest is 209 square kilometres in area, which encompasses rich semi-evergreen forest with equally rich and diverse wildlife. To the east and contiguous with it is the Kaliyoni Reserved Forest, also 209 square kilometres. The unclassified forests of the north link these forests with the world

famous Kaziranga National Park. In fact, a large number of wildlife including the greater one-horned rhinoceros (*Rhinoceros unicornis*) move to the northern slopes of the Karbi Plateau when the national park reels under flood



The proposed North Karbi Anglong National Park (□).

water of the Brahmaputra River. For large herds of wild elephants, the whole area is an inseparable single unit. They descend to the plains of Kaziranga for the winter only to be back to the highlands during rainy season. However, with opening up of forests in the northern slopes of the Karbi Plateau by *jhum*, a large number of elephants started staying back in the national park throughout the year. This is not a good sign and will create ecological problems in the near future.

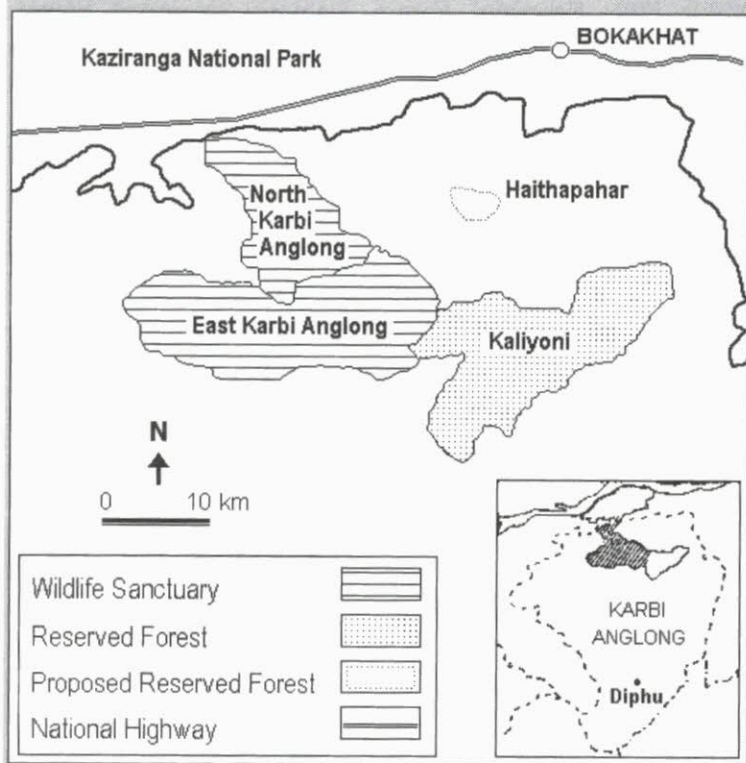
An area of about 505 square kilometres comprising the Mikir Hills Reserved Forest, Kaliyoni Reserved Forest, Kaziranga proposed Reserved Forest (34 square kilometres; inside Karbi Anglong) and about 60 square kilometres of unclassified forests to act as corridor between the Mikir Hills Reserved Forest and the Kaziranga National Park, has been proposed as NORTH KARBI ANGLONG National Park. About 10 square kilometres of the Kaliyoni Reserved Forest, from Borjan in the east to Borlangso in the west has been excluded as some Rengma Nagas and also Karbis have settled there since 1945-50. This national park would be a veritable refuge for many of the wildlife of Kaziranga, especially during the floods.



White-winged Wood Ducks

Sanctuaries: On the basis of this recommendation, two new wildlife sanctuaries were created covering bulk of the area proposed as North Karbi Anglong National Park in the year 2000. The entire Mikir Hills Reserved Forest was notified as EAST KARBI ANGLONG Wildlife Sanctuary (221.8 square kilometres) while the unclassified forests towards north as NORTH KARBI ANGLONG Wildlife Sanctuary (96 square kilometres). The word 'NORTH' was mistakenly omitted during notification but was added through a corrigendum in 2003 (see Appendix 7).

For details, see Chapter 8.



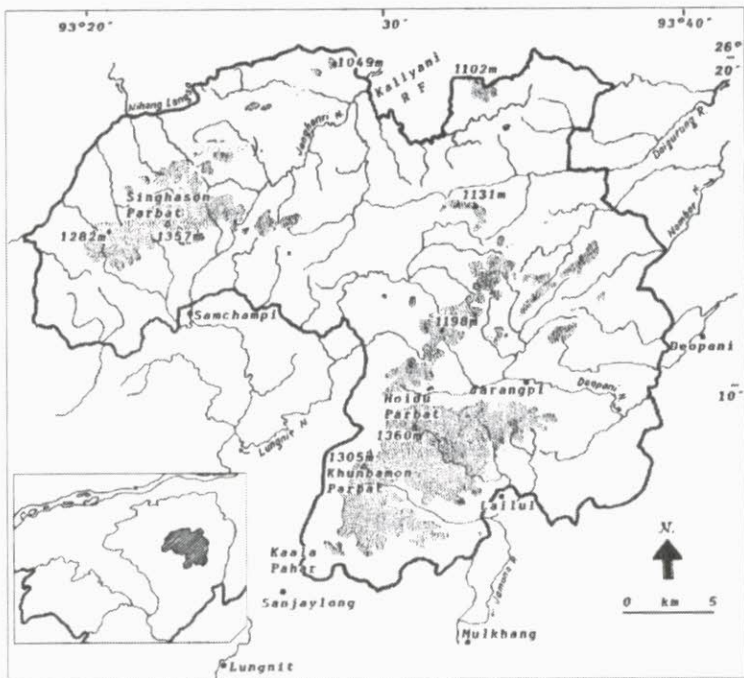
Elephant signs were abundant as we trekked towards north-east from Haru Lauri Anglong. There were piles of dung, some only a few hours old. Our movement was silent, as the pachyderms might have been there not too far away. We descended to a hill-stream with crystal clear water, called the Borlangso. There is another Borlangso in the Kaliyoni Reserved Forest and both often tend to confuse an outsider. Very near there was a waterfall, more than 40 metres high. But very dense vegetation made it impossible to have a glimpse of the falls save for the gushing sound of the water.

The large number of waterfalls has made the Mikir Hills Reserved Forest one of the loveliest areas in Karbi Anglong. One fall is about 60 metres high. Then there are a number of salt licks, springs and hot springs, all favourite haunts of a large number of wild animals including the elephant and gaur. With very little human disturbance, there is no ground to delay the declaration of the area as a national park. The delay is simply encouraging more and more settlers to the beautiful spots with great potentials like Borpung and Tarapung. With abundant unclassed forests all around, there should be little difficulty in relocating some hamlets for the greater interest.

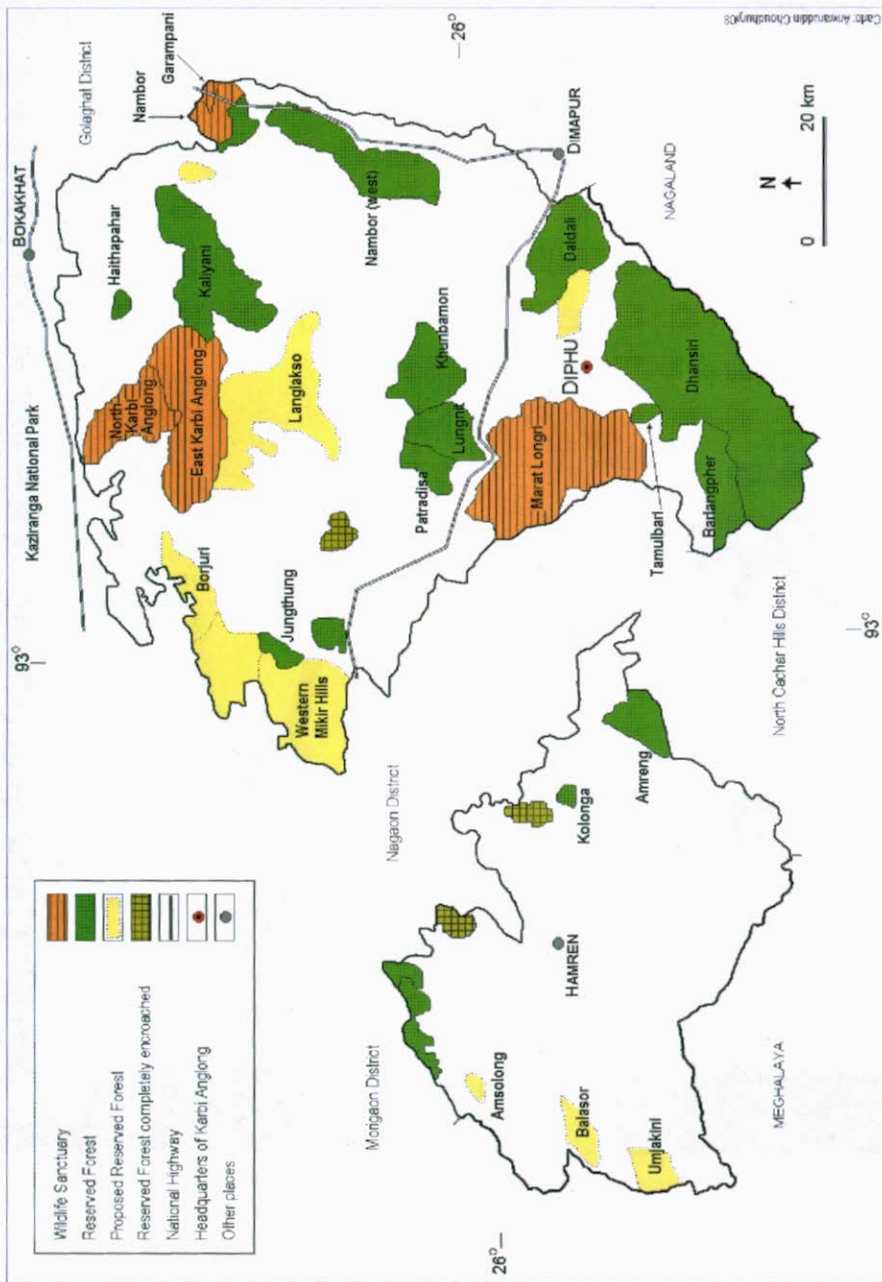
Hills south of the Langlokso valley are higher than those in the north and rise to above a thousand metre. The highest point visible from the valley, at 1357 metres, is Singhason parbat, the second highest peak of the Karbi Plateau. In fact, the whole region south of Langlokso is known by the name 'Singhason'. The highest peak of the area is an unnamed one and is 1360 metres high above

mean sea level. Henceforth, it may be called Mt. *Hoidu* or *Hoidu* parbat. Hoidu means the hoolock gibbon in local Karbi language. The loud call of this ape dominates the morning scenario of the whole area. One higher peak, Khunbamon parbat is 1305 metres high. The whole mountainous area is densely forested.

An area of about 630 square kilometres has been proposed as SINGHASON Biosphere Reserve under the Man and Biosphere (MAB) programme. This will include about 200 square kilometres of the proposed Langloksa District



The proposed Singhason Biosphere Reserve (**▭**) with areas above 1000 metres elevation (**▨**).



Map of Karbi Anglong showing some general features and the wildlife sanctuaries and reserved forests.

DO NOT KILL

DASA THAI
THAT NO RO
PATHI DERI

মারবেন না
নামাৰিব



SLOW LORIS

Nycticebus coucang

Mu-dima

Nilaji Makhra

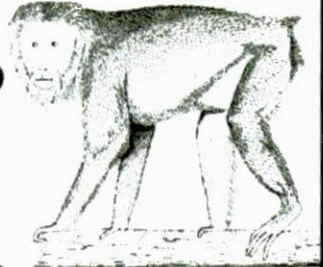
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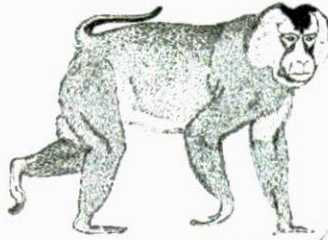
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লাজুকি বান্দৰ



STUMPTAILED MACAQUE

Macaca arctoides



PIG-TAILED MACAQUE

Macaca nemestrina

Peko



RHESUS MONKEY

Macaca mulatta

Makhra

Magusa

Makhhe

Zawng

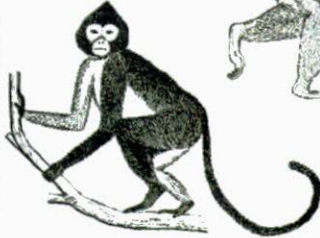
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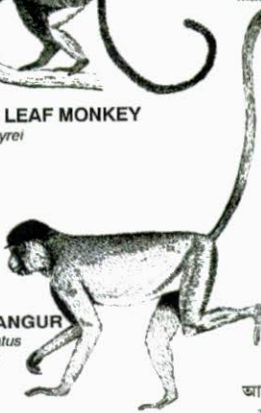
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বান্দৰ



PHAYRE'S LEAF MONKEY

Presbytis phayrei



CAPPED LANGUR

Presbytis pileatus

Golija makhra

Hrangorai

Rangol

Mesang

Tugaw

Andawr

হনুমান



HOOLOCK GIBBON

Hylobates hoolock

Hooloo makhra

Hooloo

Hooroo

Saha

Holdu

Hulang

Hulao

উলুক / উলুমান

হলৌ বান্দৰ

আমাক বাচিবলৈ দিয়ক

আমাদের বাঁচতে দিন

RENG RAPPET NANG

JINGKHE THANG-HI DONG RI

HRING-DAM TLANG SENG EI TIEU

LET US LIVE

Dr. Anwaruddin Choudhury
New Gate No.1 of Nehru Stadium
Jalangi, Gauhati-781007
Assam, India.

A grant from the Assam Science, Technology and
Environment Council enabled printing and free
distribution of this poster.

The poster drawn, designed and produced by me for awareness campaign in Karbi
Anglong in 1991-92.

Council Reserved Forest (part), 40 square kilometres of Khunbamon District Council Reserved Forest (part) and 390 square kilometres of unclassed forests. The Khunbamon District Council Reserved Forest (165 square kilometres) is located towards south and is notified by the local Autonomous District Council as a reserved forest. The Langlokso proposed District Council Reserved Forest (535 square kilometres) lies towards north and north-west of the proposed biosphere reserve.

The District Council reserved forests are usually loosely defined areas and are not notified by the state government. The Singhason Biosphere Reserve would also encompass almost all areas of the East Karbi Plateau above 1000 metres elevation and will protect the vital source of water being the catchments of many important rivers. Recently, the Government of India has announced its intention to preserve all the forests above 1000 metres elevation, and this biosphere reserve will also conform to that directive

For Karbi Anglong, Nagaon and Golaghat districts, the preservation of this area is of utmost importance. Most of the important rivers like the Jamuna, and its tributaries, the Dillai, Lungnit, Patradisa and Horgati have their sources in the proposed biosphere reserve. Other rivers and streams originating from here include the Nihang Langso and the Janghanri, both important tributaries of the Kaliyoni; the Sarihajan, Deopani, Nambor and the Doigrung, all tributaries of the Dhansiri. The source of the Kaliyoni River is towards west of the Mikir Hills Reserved Forest.



Rengma Nagas dancing
(Note: Tail-feathers of Great Pied Hornbill on headgears).



A Kuki girl with a traditional
smoking pipe



Smoking pipes of the
Hmar tribe



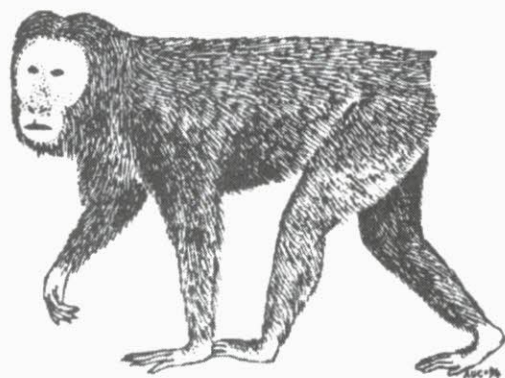
A Karbi man in ceremonial attire
(Note: tail feathers of Racket-tailed
Drongos on head-gear)

A Karbi woman
pounding rice

The Hmar, the Thadou and some other tribes of the southern slopes of this mountainous zone are part of the Kuki-group of tribes. They are entirely *jhumiyas* and practice only the slash-and-burn shifting cultivation. They are also savage killers of wild animals and one can hardly expect any form of wildlife in the forests adjacent to their villages. For them, the flesh of primates is a delicacy. The Kuki tribes are immigrants of fairly recent origin and have migrated from North Cachar Hills district, Nagaland and Manipur. The constant *jhumming* and abandoning in the areas just outside the proposed biosphere reserve have created a landscape consisting of only open grass with a few shrubs, which is virtually devoid of any mammal and bird.

However, the Rengma Nagas who inhabit the eastern part of this mountainous area have their cousins in Nagaland. They may hunt occasionally but are not savage killers. This fact I ascertained while on a visit to Borjan area in Kaliyoni Reserved Forest. I was sitting in the house of a local villager when a Rhesus monkey ventured near his courtyard. Such phenomena are unheard of in the vicinity of any Naga village, be it in North Cachar Hills, Manipur or Nagaland. The Rengmas consider the slow loris as a bad omen and neither kill nor eat its flesh.

The most familiar of the larger mammals in this part is without doubt the elephant. Seasonally their population may vary from a minimum of about 50 to a maximum of 300 in the proposed biosphere reserve. With their population in the proposed North Karbi Anglong National Park the total may fluctuate between 200 and a thousand. During the recent elephant-census carried out in March 1993, some 430 animals were found in the entire Karbi Anglong East Forest Division, which included almost the

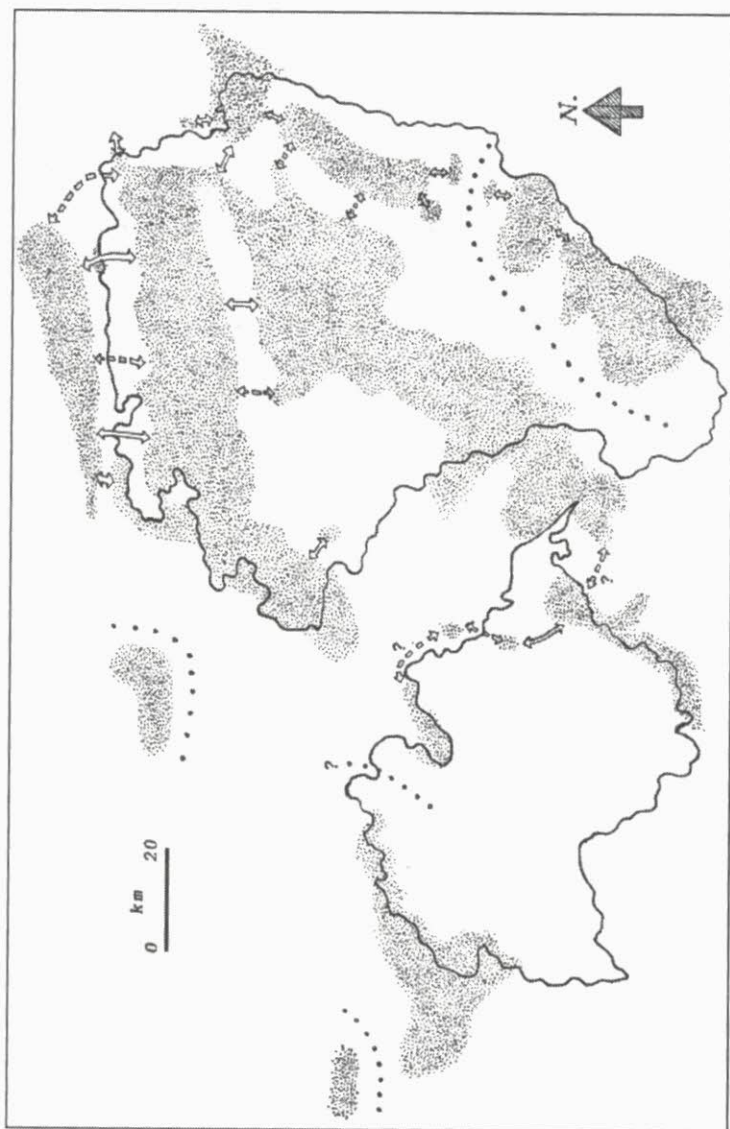


Stump-tailed macaque

entire mountainous area of this part of the district including the Nambor forests. But at the same time about 1600 elephants were counted just across the border in Nagaon, and Golaghat districts including Kaziranga National Park (where a record 1094 were counted). The bulk of these elephants visit Karbi Anglong at some time or other, especially during the rainy season. The pachyderms from the proposed Singhason Biosphere Reserve and the adjacent area regularly move to Disama, and Kaki Reserved Forests through the Lungnit, and Patradisa District Council Reserved Forests, Nambor (west block) Reserved Forest and the proposed North Karbi Anglong National Park through Borpung.

Other notable wild life in the mountainous area were the stump-tailed macaque, Assamese macaque, pig-tailed macaque, Rhesus monkey, capped langur, muntjac, sambar, wild pig, sloth bear, Malayan sun bear, leopard, clouded leopard, lesser cats, and the brown hill tortoise. The serow and the Himalayan black bear are fairly abundant. There are also reports of the goral, another goat-antelope related to the serow.

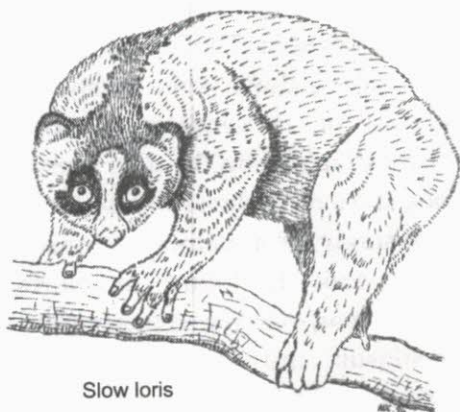
The two proposed reserves in the highlands have a good population of the very rare stump-tailed macaque. These large macaques are chestnut coloured, with shaggy fur, and having a very short 'stubby' tail. Their faces are naked and reddish in colour with small blotches. The fully grown adult males may weight up to 18 kg. Semi-terrestrial, they spend a great deal of time on the ground. In India, the stump-tailed macaque is found only in the north-east,



Distribution of wild elephants in Karbi Anglong and adjacent areas (shaded) with their movement routes, regular (arrow) and irregular (broken arrow). Bold dotted lines indicate separate populations.

south of the Brahmaputra River. Outside, it occurs in Bangladesh (Sylhet and Chittagong areas), Myanmar (Burma), southern China and Indochina. It prefers dense forest.

On 3rd June 1992, I returned to Langlokso. This time my destination was Lamtem Singnar, another valley surrounded by hills, but higher in elevation and smaller than the Langlokso valley. I approached the valley from the south-east on elephant-back from Langlokso valley. But the steep slope made riding very uncomfortable, so, we began hiking followed by the animals. After three hours we reached the valley. The magnificent view of the Chamdhara *Nadi* (upper reaches of the Kaliyoni River) meandering across the valley was worth seeing. Like the valley of Langlokso, Lamtem Singnar is also inhabited by the Karbi tribe, but with little contact with any outsiders. Nearest market is at Samelangso, about six hours walk through dense forest.



Slow loris

Communication with the villagers without the help of interpreters poses some problem for visitors.

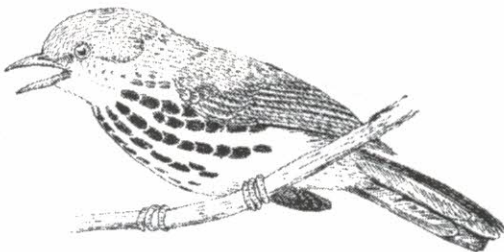
The terrain between Lamtem Singnar in the east and Parkup Pahar in the west is rugged and lower in elevation than Singhason area. The forest canopy is badly broken in most parts because of heavy tree-felling. Arboreal mammals like the primates, especially the slow loris and the hoolock gibbon are the worst sufferers. Isolated or stray animals are often caught by the villagers, rather easily. On 23rd April 1992, while coming from Dentaghat I saw a village-boy playing with a juvenile slow loris. I paid him 16 rupees and brought it to Diphu with the ultimate intention of releasing it back to the jungle. It survived well, sleeping throughout the day, rolled-up like a ball. During night it uttered *sta, sta*. On the first night it also gave a whistle, perhaps called its mother. Unfortunately it died on 14th May.

The slow loris is the most primitive primate found within our limits. With greyish woolly fur and large rounded eyes, this small creature is among the most appealing I have ever seen. The loris is quadrupedal and a slow climber, coming down very rarely to the ground. While ascending or descending it normally moves headfirst. For roosting during the day, it prefers holes and crevices among trees or in dense bamboo clumps. Usually the loris is seen singly, or in pairs sometimes with a young one. The slow loris is found in North-East India, Bangladesh, Myanmar, extreme southern China, Indochina, the Malay peninsula and the islands of Sumatra, Java, Borneo and Mindanao (Philippines). The Hmar and some

other Kuki tribes consider the fur of the slow loris as an item of extremely high medicinal value.

There is a small reserved forest, called the Jungthung 'Biosphere' Reserved Forest located in the western part of the plateau. But nobody knows whether it is a proposed biosphere reserve under Man and Biosphere (MAB) programme or just a name coined like that. However, this 33 square kilometres reserved forest is a good wildlife area with fauna similar to those of Mikir Hills Reserved Forest and Singhason area. Of course, elephants are rare here. It is a good area to see the serow, particularly on the cliff overlooking the Harina River, just outside the reserved forest boundary.

There is urgent need to teach the local people the value of forest and wildlife for their own benefit. Without forest cover one cannot think of soil and water conservation and without soil and water conservation the lands will become useless and unproductive – the Sahel belt of Africa (just south of the Sahara desert) is a classic example. A more recent example is the great famine of Ethiopia and now in Somalia, where this factor has also played a key role.



Spotted or Puff-throated Babbler

Panimur or Koka : A scenic spot on the border of Karbi Anglong and North Cachar Hills districts, which is marked by the Kopili River. The main attraction is a beautiful waterfall on the main river itself. Both sides of the river are forested. Towards Karbi Anglong, there is the Amreng Reserved Forest – home of wild elephants, hoolock gibbons and an array of birdlife. A large number of domestic tourists, more particularly the picnickers throng the site every winter.

Tiger – crocodile fight: The story of a fight between a tiger and a mugger [marsh crocodile] (*Crocodylus palustris*) near Panimur had once intrigued me to explore the area further. It was Professor D.K. Lahiri Choudhury, a well known elephant-expert who told me the story. He said "the incident referred to was described to me by Lalji (Prakritish Baruah of Gauripur). He was an observer of this unusual event from the other bank of the river where he was then camping on a *mela shikar* operation (*mela shikar* is a method of catching wild elephants for which late Lalji was a known expert). I think I should mention that I have known Kolong River (downstream of Kopili is called by this name in the plains) and the Raja Mayang area since 1946 and I also once camped at the confluence of Kolong and Digaru. I never heard of any mugger in these rivers; but I was not especially looking for such information."

Among the crocodylians, the gharial (*Gavialis gangeticus*) was common all over Assam affecting the rivers. The mugger on the other hand was always rare and was recorded sporadically from different parts. The gharial has become very rare nowadays with occasional sighting of stray individuals; however, there is no recent report of mugger from anywhere in Assam.

Read more about Hamren in Chapter 9.



End Notes

Motivation and awareness among the policemen. Late Khabir Ahmed joined at Diphu as the Superintendent of Police in September 1994. One day he called me up over phone (I was posted at Guwahati) and complimented me as he found that almost all the police stations in Karbi Anglong had my posters on wildlife conservation pasted on their walls and on being asked by him, the officers reported that they are motivated and do check vehicles looking for wildlife products especially those to and from Nagaland. Although by then the posters were fading being 3-5 years old and some of the officers with whom I had interacted were transferred out, the interest continued. Of course, the 'tempo' of 1990s is no longer there but a general awareness has been established [also see plate (last one)].

During my tenure at Diphu, a group of such motivated policemen of Dillai Police Out Post nabbed five hardcore poachers who were from Nagaland on the night of 28th February 1992. As part of my mandate



Arrested poachers from Nagaland with their 'kill' at Dillai Police Out Post on 29th February 1992.

to personally be present and thank/encourage them, I rushed to the spot on the morning of 29th. Although the poachers were nabbed before they could kill any protected species they already had one each of muntjac, large Indian civet and Chinese porcupine (see photo) at the preliminary round of the hunt. Normally they kill these for feeding inside jungle while looking for tiger or elephant.

Interestingly one of the arrested poachers was a senior Government official (an Engineer in Public Works Department). The arms recovered included one each of .22 rifle and .30 carbine, and three 12-bore guns.

Sarsing Rongphar. It was in 1991 that while during my regular transect along the rail track from Langcholiyet station to halfway towards Nailalung station that I noticed two persons with blood-stained backpacks and two dogs. Every week I used to 'encounter' them 2-3 days and they were always hesitant to look up at me. Gradually they conditioned themselves and started to look up and give smile at us. One day I stopped them and told them about my mandate. On hearing that they felt a bit relaxed and opened up - told me a lot about their wild encounters (also see p. 14 and 87). They were Sarsing Rongphar and his companion Buraso Terang. Both of them belonged to Karbi tribe but can speak Assamese.



Sarsing Rongphar (left) with Nur Hussain near Langcholiyet, 1992. Nur was my Bungalow Peon and had accompanied me on every field trip in Karbi Anglong and later in Tinsukia and eastern Arunachal Pradesh.

Sarsing has since left the job of the Forest Department as he found it to be contrary to his rather 'free' lifestyle. Nevertheless he bought a plot of land and started cultivating paddy. As promised to me, he stopped hunting as an 'occupation' but occasionally picks up a porcupine or monitor lizard. I did not meet him for the last more than a decade.

During my tenure in Karbi Anglong I met **Dr Robin Banerjee** at least twice at his residence at Golaghat – not far from the Nambor forests. He was a keen nature lover and spent his spare time on filming wildlife and nature. Dr Banerjee did not write on wildlife but used to show films as part of conservation awareness. He died on 6th August 2003 at the age of 95.



In one of my meetings with Dr Robin Banerjee (right) at Golaghat in 1992.

Golaghat was home to another nature lover, **Edward Pritchard Gee**, who became famous for his best-selling book – *The Wild Life of India*, perhaps best of its kind on India's wildlife. I never met late Gee but during my childhood years in Shillong, he was also in the same town. He used to stay at a house in Upper Shillong. Once in 1967 or 1968, I remember to have seen an English gentleman with a hat coming out of the then Assam Assembly (he went to witness the session from the visitors' gallery) with my grandfather late **Abdul Matlib Mazumdar**, then Assam's Law Minister. Both then traveled in the same car with me sandwiched between them. Gee left Shillong in 1968 itself and died in

England in October. My grandfather late Matlib Mazumdar was a Minister since 1946 and was a known 'game hunter' of Assam. Apparently he was friendly with people involved with wildlife as hunters or as conservationists. Hence, it is **possible** that the Englishman in question was late E.P. Gee. Since my grandfather is also no more (died in 1980) there is no scope to confirm that. It will always remain as an unsolved mystery to me.



E.P. Gee (left). My grandfather Abdul Matlib Mazumdar holding my arms at Shillong in mid 1960s. Gee was also at Shillong at that time.

Photos: *Courtesy*. Bombay Natural History Society (left) and Late Abdun Noor Mazumdar (right)



Glossary

<i>Bazaar</i>	Market place, a group of shops
<i>Beel</i>	Ox-bow lake, depression, a marshy area
<i>Biomass</i>	The total weight of the living components of an ecosystem
<i>Canopy</i>	Top of the forest
<i>Closed forest</i>	Forest with good tree density (contra: degraded forest)
<i>Dao</i>	A cutting tool; a large knife
<i>Ecosystem</i>	A community of plants and animals (including humans) plus their physical environment
<i>Gallery forest</i>	Forest along the river-banks
<i>Gaon-burha</i>	A village headman
<i>Jhum</i>	Slash-and-burn shifting cultivation
<i>Jhumiya</i>	One who practice <i>Jhum</i>
<i>Koonki</i>	A trained female elephant
<i>Langso</i>	A Karbi word meaning a stream
<i>Muckna</i>	A tuskless male elephant
<i>Nadi</i>	A river or stream
<i>Nullah</i>	A stream or rivulet
<i>Shikari</i>	A hunter
<i>VIP</i>	Very Important Person

**Some common abbreviations occasionally used in the text
(in most cases these are given in full)**

DCRF	District Council Reserved Forest
NH	National Highway
PRF	Proposed Reserved Forest
RF	Reserved Forest
SE	South East

Appendix 1

Basic Information for the Tourists

Where to go

How to go

Where to stay

What to see

Diphu Town and Marat Longri Sanctuary

- *Access:* Air, Dimapur – 55 km; Guwahati – 280 km; Rail: Diphu Station on the main metre gauge from Guwahati Road: Guwahati 271 km. Buses, mini buses, taxis.
- *Accommodation:* Tourists Lodge, Circuit House, Dak Bungalow, Forest Inspection Bungalow, Agriculture Guest House, and many Indian-style hotels.
- *Places/features of interest:* Diphu town (for holidaying), Prop. Dhansiri Tiger-Reserve, Dimapur and Intanki National Park.

Garampani and Nambor Sanctuaries

- *Access:* Air: Jorhat – 110 km; Dimapur – 70 km; Guwahati – 290 km, Rail: Golaghat – 30 km Road: Diphu – 110 km; Kaziranga – 65 km.
- *Accommodation:* Forest IB (Karbi Anglong), Forest IB disused), PWD IBs at Silonijan and Japarajan. Circuit House, Dak Bungalow and many Indian-style hotels in Golaghat town.
- *Places/features interest:* Garampani, Nambor and Nambor-Doigrung Wildlife Sanctuaries, Hot Springs, Wild elephants on the highway.

Dhansiri Tiger Reserve (Proposed)

- *Access:* Air: Same as Diphu, Rail: Five more railway stations at the edge, Langcholiet, Nailalung, Daldali, Dhansiri and Rongphar. Road As in Diphu.
- *Accommodation:* As in Diphu. Additional, PWD Inspection Bungalows at Langcholiet and Dhansiri, Forest Inspection Bungalow at Lahorijan (disused). Can be covered from Dimapur, where one tourist Lodge, two western-style hotels (Tragopan and Saramati) and many Indian-style hotels.

- *Places/features of interest:* Wildlife viewing, bird watching, trekking and sight-seeing.

Hamren

- *Access:* Air: Guwahati – 150 km, Rail: Guwahati – 140 km then by road Hojai – 35 km; Jagirod – 80 km. Road: Guwahati – 140 km; Diphu – 150 km, Shillong – 130 km.
- *Accommodation:* Circuit House, Dak Bungalow, Soil conservation Guest House Agriculture Guest House, & two PWD IBs.
- *Places/features of interest:* Hill resort, sight-seeing, bird watching trekking, tribal villages, holidaying, rock climbing, Amtereng and the dam site on the Karbi-Langpi Hydro-electric project.

Jirikinding

- *Access:* Air: Guwahati – 190 km; Dimapur – 180 km. Luming – 6 km, Lanka – 40 km, Road – Guwahati – 190 km; Diphu – 130 km; Kheroni – 3 km.
- *Accommodation:* Forest & PWD IBs at Jirikinding and at Kheroni.
- *Places/features of interest:* Hill station, health resort, sight seeing bird-watching, trekking, tribal villages, holidaying, wildlife viewing in Amreng forests, Panimur waterfall at Koka, Amreng river.

Kanduli

- *Access:* Air : Guwahati – 160 km, Shillong – 120 km. Rail : Guwahati 160 km, Jagiroad – 100 km. Road : Guwahati – 160 km. Hamren– 20 km, Shilong– 100 km, Diphu – 160 km.
- *Accommodation:* PWD Inspection Bungalow. Can also be covered from Hamren.
- *Places/features of interest:* Hill station, health resort, sight seeing bird-watching, trekking, tribal villages, holidaying. Also visit to Shillong and Jowai.

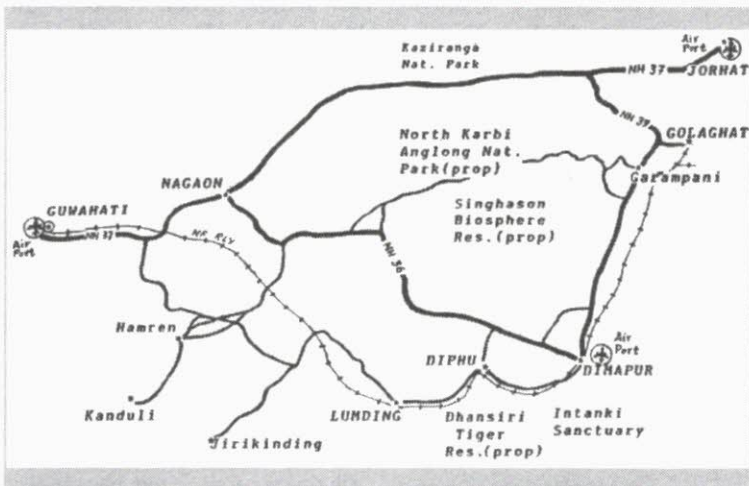
North Karbi Anglong Wildlife Sanctuary

- *Access:* Air : Guwahati – 200 (via Kaziranga), 230 km (via Samenglangso), Tezpur – 60 km; Jorhat – 100 km. Rail : Guwahati, then by road. Road : Diphu – 120 km; Samelangso – 20 km; Garampani – 35 km.
- *Accommodation:* PWD Inspection Bungalows at Chowkihola, Bagori, Dentaghat and Dokmoka: Forest Inspection

- Bungalows at Dolamari, Kohora, Bagori and Dokmoka; two Tourist Lodges and several western-style hotels/resorts at Kohora; Soil Conservation Inspection Bungalow at Kohora Sericulture Inspection Bungalow.
- *Places/features of interest:* Wildlife viewing, hiking, sight-seeing, rafting, water falls, hot springs, tribal villages, panoramic view of Kaziranga National Park, historical ruins at Mahamaya Hills near Dokmoka.

Singhason Biosphere Reserve (proposed)

- *Access:* Air: Guwhaati – 250 km; Dimapur – 30 km. Rail : Diphu – 25 km. Road : Guwahati – 240 km (via lungit), Diphu – 25 km (via Lungnit), Dimapur – 30 km (via Dilai)
- *Accommodation:* As in Diphu, Additional, Forest Inspection Bungalow at Dokmoka; PWD Inspection Bungalows at Dentaghat, Dokmoka, and Dilai; Irrigation Rest House at Bokolia
- *Places/features of interest:* Trekking, wildlife viewing, bird-watching, sight-seeing, water falls, rock climbing.



Appendix 2

Reserved Forests in Karbi Anglong with area

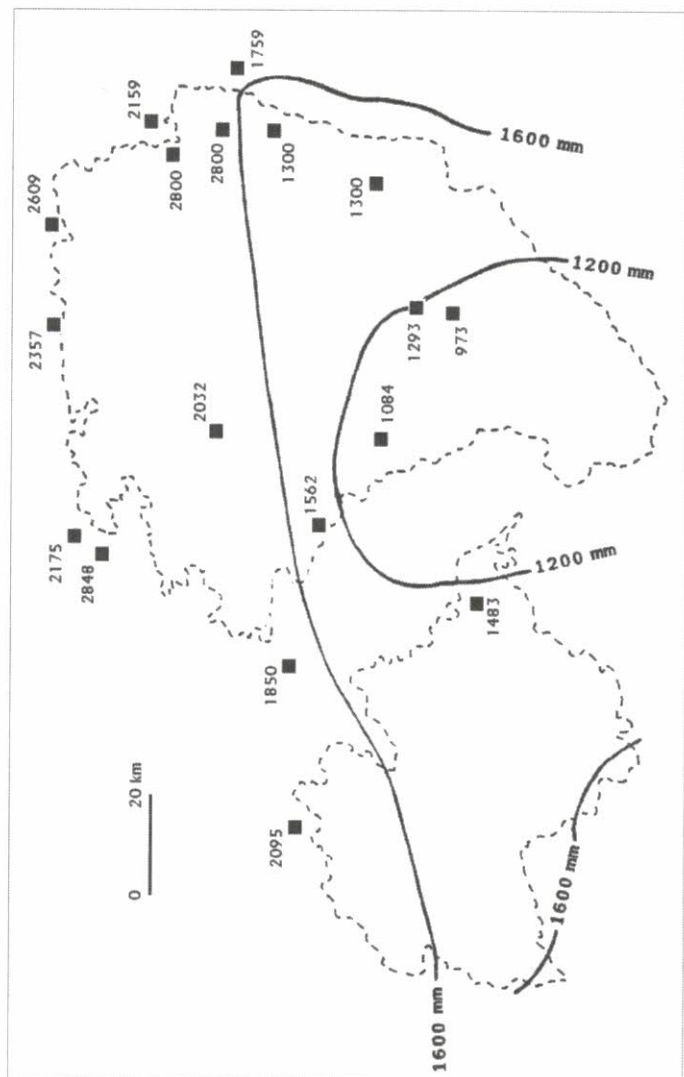
NAME OF THE DIVISION AND RESERVED FOREST	AREA IN SQUARE KILOMETRES
I. KARBI ANGLONG EAST DIVISION	
1. Kaliyoni RF	209
2. Nambor (west block) RF	166
3. Chelabor RF	34*
4. Jungthung RF	33
5. Sildhampur RF	16
6. Nambor (north block) RF	11
II. KARBI ANGLONG WEST DIVISION	
6. Dhansiri RF	770
7. Daldali RF	123
III. HAMREN DIVISION	
8. Amreng RF	57
9. Rongkhong RF	34*
10. Jokota RF	15*
IV. MAJOR DISTRICT COUNCIL RESERVED FORESTS (above 50 km²)	
1. Khunbamon DC RF	166
2. Sarchim /Charchim DC RF	133
2. Lungnit DC RF	118
3. Barlangpher DC RF	77
4. Patradisa DC RF	67
5. Haithapahar DC RF	54
V. MAJOR PROPOSED RESERVED FORESTS (above 100 km²)	
1. Langlokso Proposed RF	535
2. Western Mikir Hills Proposed RF	173
3. Borjuri proposed RF	139

* Entirely under encroachment.

(Source: Forest Department)

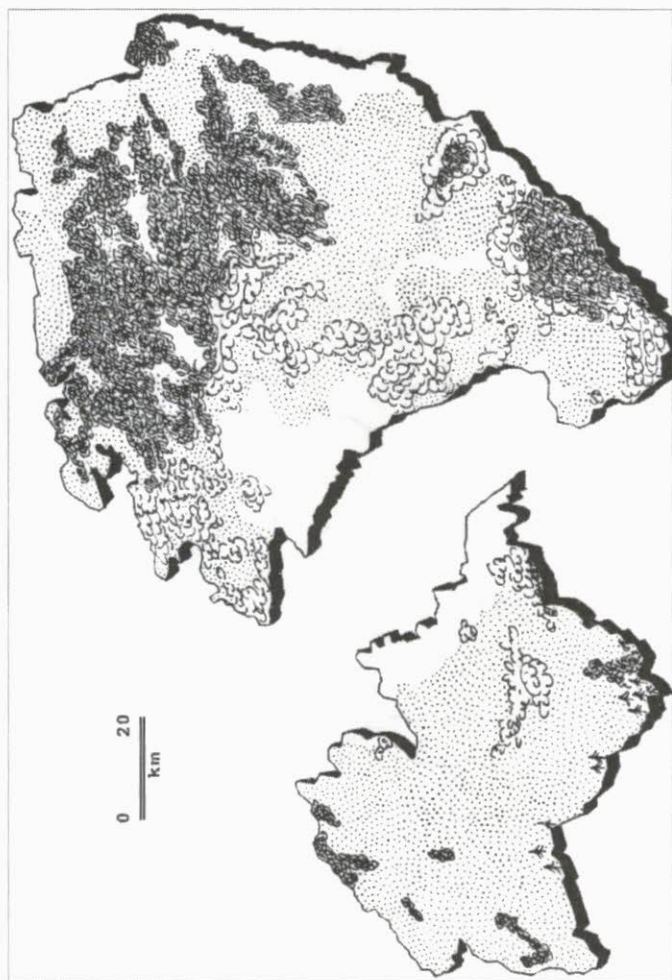
NB: Mikir Hills RF, bulk of Nambor (north block) RF, Kaki RF, Disama RF, Inglongiri DC RF and Miyungdisa DC RF have been declared as wildlife sanctuaries.

Appendix 3



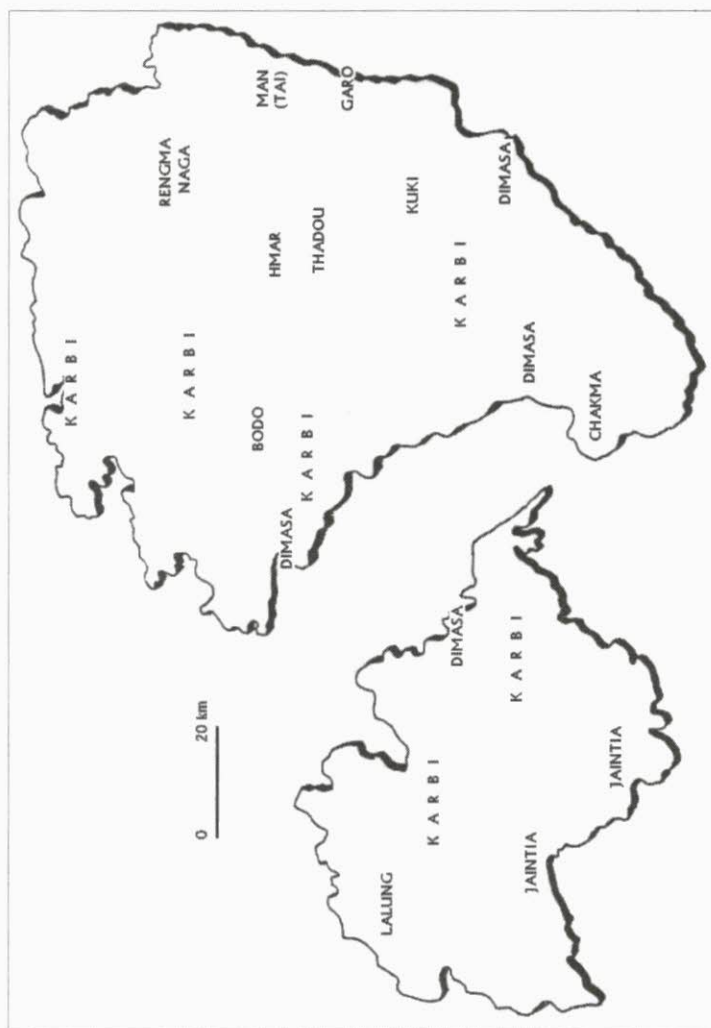
Distribution of rainfall. Black squares are some of the recording stations with five years annual average rainfall (in mm).
(Source: tea gardens, development blocks, etc.).

Appendix 4



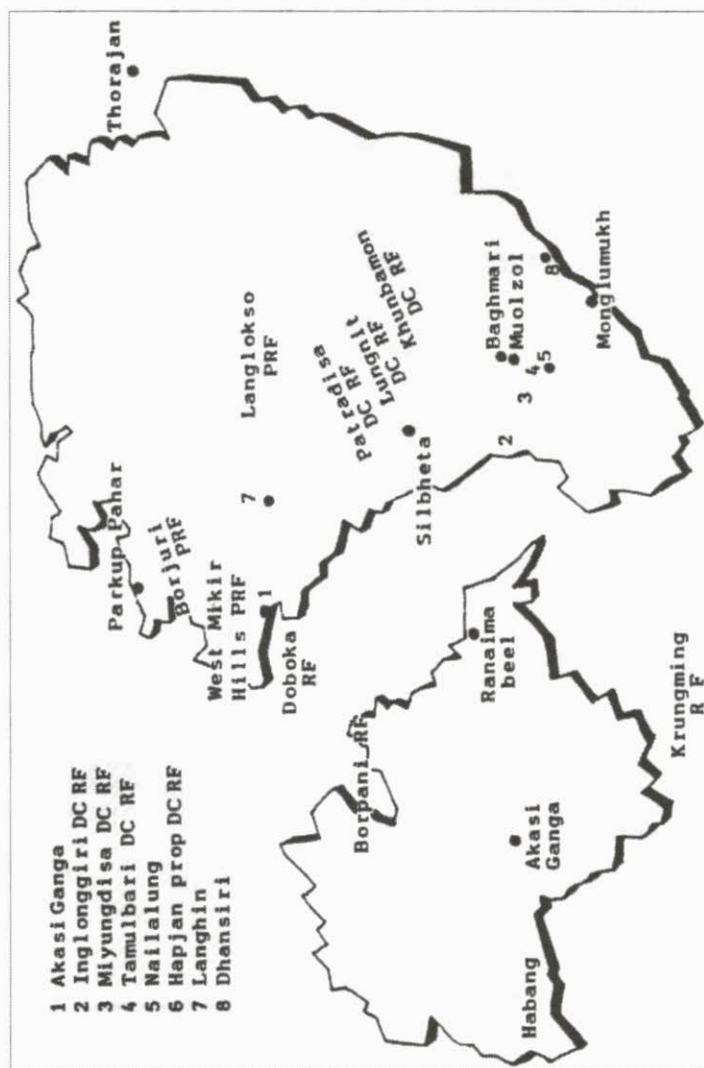
Forest cover with forest type. Tropical semi-evergreen (▨); tropical deciduous (▩); sub-tropical pine (⬆); degraded forest (▧); non-forest, chiefly cultivation (□). (Source: ARSAC, NRSA & own field work).

Appendix 5



Distribution of different tribes

Appendix 6



Map showing places mentioned in the text and may not be shown on other maps.

Appendix 7

Corrigendum issued to insert 'North' in North Karbi
Anglong Wildlife Sanctuary.

পৰীক্ষক নম্ব - ৭৬৮/৮১

Registered No. - 768/97



THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্তৃৱৰ দ্বাৰা প্ৰকাশিত

PUBLISHED BY AUTHORITY

নং 68 দিশপুৰ, শনিবাৰ, 19 এপ্ৰিল, 2003, 29 চ'ত, 1925 (গত)

No. 68 Dispur, Saturday, 19th April, 2003, 29th Chaitra, 1925 (S.E.)

GOVERNMENT OF ASSAM
ORDERS BY THE GOVERNOR
ENVIRONMENT & FOREST DEPARTMENT

764 THE ASSAM GAZETTE, EXTRAORDINARY, APRIL 19, 2003

CORRIGENDUMThe 05th April 2003

NO. FRW- 57/99/87. In the government notification issued vide FRW. 57/ 99/42 dated July 27, 2000, (i) in SCHEDULE -A, in serial no. 4, the word 'North' may be inserted before the sentence 'Karbi Anglong Wildlife Sanctuary'; (ii) in SCHEDULE - B, after column stating with Station serial no. 18, the following column with entries there to shall be inserted, namely :-

Station	Fore bearing		Distance in metres	"
	From	To		
Station No. 19	20	125	28	"

DR. ANWARUDDIN CHOUDHURY
Joint Secretary
to the Government of Assam,
Environment & Forest Dept, Dispur.

Appendix 8

Notification of Marat Longri Wildlife Sanctuary.

770 THE ASSAM GAZETTE, EXTRAORDINARY, APRIL 19, 2003

NOTIFICATIONThe 17th April 2003

NO. FRW- 50/99/34. In exercise of the powers conferred under Section 26-A (i) (b) of The Wild Life (Protection) Act 1972 as amended up to date, the Governor of Assam is pleased to declare the land described in the schedules below as a 'Sanctuary' with effect from the date of publication of this notification in the official gazette.

SCHEDULES**A. Location, Area and Name**

District (civil) Karbi Anglong
 Sub-division (civil) Diphu.
 Forest Division Karbi Anglong West.
 Name MARAT LONGRI WILDLIFE SANCTUARY
 Area 451 sq km.

B. Description of the boundary

Reference point: The starting point is on the left bank of the Kakijan near Ramnagar Forest Sub-Beat Office.

<u>Station</u>	<u>Fore bearing</u>	<u>Distance</u>	<u>Remarks</u>
----------------	---------------------	-----------------	----------------

C. Rights and Concessions

The following rights and concessions are allowed in the sanctuary area:

The right of way from 5th KM (on Diphu-Lumding PWD road) to Ramnagar Forest Sub-Beat Office through Longkaljan, and from Kaki to Bokolia.

The villagers residing at the time of notification of Mtyungdisa and Inglongiri Council RPs, now within the sanctuary are permitted to continue to reside therein till such time they may be shifted elsewhere. They are also allowed to (a) cultivate in the areas where it is demarcated by the forest department; (b) occupy a 100 metre belt tilla land around the demarcated paddyfields, (c) graze their cattle and (d) collection of thatch, bamboo, wooden post, etc., for their domestic use and not for any commercial purpose.

D. Main wildlife species

MAMMALS - Chinese pangolin (*Manis pentadactyla*), Slow loris (*Nycticebus coucang*), Pig-tailed macaque (*Macaca nemestrina*), Assamese macaque (*M. assamensis*), Rhesus macaque (*M. mulatta*), Stump-tailed macaque (*M. arctoides*), Capped langur (*Presbytis pileatus*), Hoolock gibbon (*Hylobates hoolock*), Dhole or wild dog (*Cuon alpinus*), Himalayan black bear (*Ursus thibetanus*), Yellow-throated marten (*Martes flavigula*), Hog-badger (*Arctonyx collaris*), Ferret-badger (*Meogale* sp.), Jungle cat (*Felis chaus*), Leopard cat (*F. bengalensis*), Marbled cat (*F. marmorata*), Clouded leopard (*Neofelis nebulosa*), Leopard (*Panthera pardus*), Tiger (*P. tigris*), Elephant (*Elephas maximus*), Wild

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pig (*Sus scrofa*), Sambar (*Cervus unicolor*), Hog deer (*Axis porcinus*), Muntjak (*Muntiacus muntjac*), Gaur or Indian 'bison' (*Bos gaurus*), Serow (*Capricornis sumatraensis*), Malayan giant squirrel (*Ratufa bicolor*), Irrawaddy or Himalayan hoary-bellied squirrel (*Callosciurus pygerythrus*), Hoary bamboo rat (*Rhizomys pruinosus*), Chinese porcupine (*Hystrix brachyura*) and Rufous-tailed hare (*Lepus nigricollis*).

BIRDS - Great Cormorant (*Phalacrocorax carbo*), Darter (*Anhinga melanogaster*), Malay or Tiger Bittern (*Gorsachius melanolophus*), White-winged Wood Duck (*Cairina scutulata*), Blyth's or Jerdon's Baza (*Aviceda jerdoni*), Pied Falconet (*Microhierax melanoleucos*), White-cheeked Partridge (*Arborophila atrogularis*), Mountain Bamboo Partridge (*Bambusicola fytchii*), Kaleej Pheasant (*Lophura leucomelanos*), Grey Peacock-Pheasant (*Polyplectron bicalcaratum*), Green Imperial Pigeon (*Ducula aenea*), Wreathed Hornbill (*Aceros undulatus*), Great Pied Hornbill (*Buceros bicornis*) and Spotted-winged Stare (*Saroglossa spiloptera*).

REPTILES - Asian leaf turtle (*Cyclemis oldhami*), Keeled box turtle (*Pyxidea mouhotii*), Brown hill tortoise (*Manouria emys*), Common monitor (*Varanus bangalensis*), Water monitor (*V. salvator*), Rock python (*Python molurus*), King cobra (*Ophiophagus hannah*), Banded krait (*Bungarus fasciatus*), etc.

DR ANWARUDDIN CHOUDHURY
 Joint Secretary
 to the Government of Assam,
 Environment & Forest Dept., Dispur.

NOTE: The details of boundary description has not been reproduced being too long and contain bearings only.

Appendix 9

Notifications of Elephant Reserves of Karbi Anglong.

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NOTIFICATION

The 17th April 2003

NO. FRW- 44/2002/64. In pursuance of the guidelines of the 'Project Elephant', Government of India, and in view of the consent of the Government of India conveyed vide F. No. 7-2/2000 (PE) dated July 30, 2002, the Governor of Assam is pleased to declare the land described in the schedules below as an 'Elephant Reserve' with effect from the date of publication of this notification in the official gazette.

SCHEDULES

A. Location, Area and Name.

Districts (civil)	Golaghat, Karbi Anglong, Nagaon and Sonitpur.
Sub-divisions (civil)	Bishwanath Charali, Bokajan, Bokakhat, Diphu, Golaghat, Hojai, Kaliabor, Nagaon and Tezpur.
Forest Divisions	Eastern Assam Wildlife, Golaghat, Karbi Anglong East, Nagaon and Nagaon South.
Name	KAZIRANGA -KARBI ANGLONG ELEPHANT RESERVE
Area	3,270 sq km

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B. Boundary / Area description

- Reference point:** The starting point is on the northern head of the Kolia Bhomora bridge over the Brahmaputra River.
- North:** From near the northern head of the Kolia Bhomora bridge over the Brahmaputra River, the boundary runs along the western, northern and eastern boundaries of the Bhomoraguri RF (RF- reserve forest) till it meets the northern high bank of the Brahmaputra River. Thence it joins the northern boundary of the 6th Addition to Kaziranga NP (NP-National Park) and runs eastwards along this boundary up to the north-eastern corner of this addition.
- East:** From the north-eastern corner of the 6th Addition to Kaziranga NP, it runs along its eastern boundary thence along the eastern boundary of Kaziranga NP till it meets the north-eastern corner of the 3rd Addition to Kaziranga NP. Then it runs along the eastern boundary of the 3rd Addition, northern and eastern boundaries of Panbari RF and Dolamara proposed RF; thence it follows the southern and western

boundary of Dolamara proposed RF and western boundaries of Panbari RF and the 3rd Addition and joins the southern boundary of Kaziranga NP. Then it follows west along the southern boundary of Kaziranga NP and its proposed 2nd Addition till the north-eastern corner of North Karbi Anglong WS (WS-Wildlife Sanctuary). Then it runs along the eastern boundary of North Karbi Anglong WS and East Karbi Anglong WS till it meets the northern boundary of Kaliyoni RF. Thence it follows east following northern and eastern boundary of Kaliyoni RF and Kalapahar proposed RF, western, northern and eastern boundary of Upper Daigurung RF and northern and eastern boundary of Nambor (north block) RF till the south-eastern corner of the RF.

South: Thence the boundary runs along the southern notified boundary of Nambor (north block) RF, Nambor WS, again Nambor (north block) RF, western boundary of Kalapahar proposed RF, southern boundary of Kaliyoni RF, eastern, southern and western boundary of Langloko proposed RF. Thence it follows the south-western boundary of East Karbi Anglong WS, southern boundary of Barjuri proposed RF, eastern boundary of Jungthung RF, West Milkir Hills proposed RF and the eastern and southern boundary of Doboka RF up to the south-western corner of the RF.

West: From the south-west corner of Doboka RF, the boundary runs northwards along the north-western boundary of Doboka RF, western boundary of West Milkir Hills proposed RF, Suang RF, northern boundary of Barjuri proposed RF, Diju Valley South RF, again Barjuri proposed RF through the north-western boundary of East Karbi Anglong WS and western boundary of North Karbi Anglong WS till the southern boundary of Kaziranga NP. Thence the boundary runs westwards till the south-western point of Kaziranga NP and also includes the proposed 5th Addition and 4th Addition to

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the park and the whole of Bagser RF. Thence the boundary follows the southern boundary of the 1st Addition to Kaziranga NP and Kukurakata RF till the southern bank of the Brahmaputra River. Then the boundary runs along the south bank, i.e., the southern boundary of the 6th Addition to Kaziranga NP up to the southern head of Kolia Bhomora bridge. Thence it runs northwards along the eastern edge of the bridge up to the northern head of the bridge.

In addition to the area described above, the 'KAZIRANGA-KARBI ANGLONG ELEPHANT RESERVE' also includes four other disjunct areas, the Nambor (west block) RF, Diju Valley North RF, Lower Daigurung RF and Haithapahar District Council RF. There is habitat contiguity with these through unclassed forests except for the Lower Daigurung RF, which is through the bed of the Daigurung River.

DR ANWARUDDIN CHOUDHURY
Joint Secretary
to the Government of Assam,
Environment & Forest Dept., Dispur.

NOTIFICATIONThe 19th April 2003

NO. FRW- 44/2002/70. In pursuance of the guidelines of the 'Project Elephant', Government of India, and in view of the consent of the Government of India conveyed vide F. No. 7-2/00 (PE) dated April 1, 2003, the, the Governor of Assam is pleased to declare the land described in the schedules below as an 'Elephant Reserve' with effect from the date of publication of this notification in the official gazette.

SCHEDULES**A. Location, Area and Name.**

Districts (civil)	Karbi Anglong, Nagaon and North Cachar Hills.
Sub-divisions (civil)	Bokajan, Diphu, Hojai and Maibong.
Forest Divisions	Karbi Anglong East, Karbi Anglong West, Nagaon South and North Cachar Hills.
Name	DHANSIRI -LUNGDIING ELEPHANT RESERVE
Area	2,740 sq km.

B. Boundary / Area description

Reference point: The starting point is the north-western corner of Lumding RF (RF-reserve forest).

North: From the north-western corner of Lumding RF (RF-reserve forest), the boundary runs eastwards along the northern boundary of Lumding RF till it reaches north-western boundary of Inglongiri Council RF (part of Marat Longri WS [WS-Wildlife Sanctuary]). Thence it follows the western boundary of Inglongiri Council RF, then southern, western and northern boundary of Kaki RF, then along the north-western boundary of Disama RF up to the point where it meets the southern boundary of Lungnit Council RF. Then the boundary runs along the south-western boundary of Lungnit Council RF, southern and western boundary of Patradisa Council RF and also includes the Tikok proposed RF. Thereafter, the boundary follows the northern boundary of Lungnit Council RF up to the northernmost tip of Khunbamon Council RF.

- East:** Thence the boundary follows the eastern and southern boundary of Khunbamon Council RF and also includes Jamuna RF and continues along the south-eastern boundary of Lungnit Council RF and eastern boundary of Disama RF and Miyungdisa (part of Marat Longri WS) and Tamulbari Council RFs till it reaches the northern boundary of Dhansiri RF. From this point, it runs along the northern and eastern boundary of Dhansiri RF and western and northern boundaries of Hapjan and Matipung proposed RFs and continues along the northern boundary of Daldali RF and northern, eastern and southern boundaries of Lahorijan proposed RF and then again along the eastern boundary of Daldali RF till it reaches the south-eastern corner of Daldali RF on the Assam-Nagaland interstate boundary.
- South:** From the south-eastern corner of Daldali RF, the boundary runs along the Assam-Nagaland interstate boundary till the trijunction of Nagaland and Karbi Anglong and North Cachar Hills districts of Assam. From this point the boundary follows the western boundary of Dhansiri RF and the western and northern boundary of Barlangpher Council RF and again western and north-western boundary of Dhansiri RF till it reaches the south-western corner of Tamulbari Council RF. Thence the boundary runs along the western boundary of Tamulbari Council RF up to the point where it meets the southern boundary of Miyungdisa Council RF. From here, the boundary follows the southern boundary of Miyungdisa and Inglongiri Council RFs (part of Marat Longri WS) and Lunding RF. Then the boundary runs along the eastern boundary of Langting-Mupa RF up to its southernmost tip.
- West:** From the southernmost tip of Langting-Mupa RF the boundary follows the western boundary of this reserve forest and continued along the western boundary of Lunding RF up to its north-western corner.

The habitat in 'DHANSIRI-LUNGDISA ELEPHANT RESERVE' is contiguous with that in Intanki National Park, Nagaland.

DR ANWARUDDIN CHOUDHURY
Joint Secretary
to the Government of Assam,
Environment & Forest Dept., Dispur.

Appendix 10

Important Bird Areas in Karbi Anglong.

Important Bird Areas (IBAs) are sites of international significance for the conservation of birds and their habitats at the global, regional and sub-regional level. This programme was launched in India by Bombay Natural History Society and BirdLife International and was supported by the Royal Society for Protection of Birds (RSPB), UK in 1999.

A total number of 466 IBAs were identified in India of which highest is in Assam with 46. In Karbi Anglong, there are five areas which have qualified to become IBAs. These are:

Name of the IBA	Site Code	Criteria	Remarks
Dhansiri Reserved Forest	IN-AS-12	A1, A4i	
East and North Karbi Anglong Sanctuaries	IN-AS-16	A1	
Garampani, Nambor and Doigrung	IN-AS-17	A1	Partly in Golaghat district
Habang	IN-AS-19	A4ii	
Lumding-Marat Longri	IN-AS-29	A1	Partly in Nagaon district

For details see Islam and Rahmani (2004).



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