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Wildlife Management in West Bengal [1947-1997]: The First Fifty Years

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Wildlife management in the country has moved full circle from an initial concern for periodic restocking of forests with game to provide sport to licensed hunters, to conservation and protection of particularly endangered species, to outright ban on any kind of wildlife, in the interests of biodiversity preservation. The paper examines this rich and varied history, tracing the roots and the evolution of the concept of specialised wildlife management in West Bengal.

The Beginnings & the Impact of Partition

The dawning of independence for India brought with it partition for the province of Bengal. The consequences were a large influx of refugees on the one hand, and the loss of a vast tract of forests to the newly-formed East Pakistan, later Bangladesh. Although scientific management of forests had started in Bengal in the 1860s, for the reorganised state of West Bengal this marked a new beginning in the field of forestry and wildlife management in the light of the entirely changed scenario, new constraints, new policies and the entirely different expectations from a free and democratic country. Over the fifty years since Independence, wildlife management in West Bengal has covered a long distance. This is an appropriate time to look back and review performance and to underscore major achievements as well as failures. The present paper therefore chronicles major events that have occurred in the field of wildlife management in West Bengal between 1947 and 1997, seeking to highlight some of the issues that might aid objective assessment of the overall performance of wildlife managers in the State.

Table 1. Bird & Mammal Species of Bengal Forest Tracts
Transferred during Partition

	Species	Habitat
MAMMALS	Binturong Malayan Sun Bear Hispid Hare Slow Loris	Chittagong Hill Tract -do- Madhupur (Dhaka) & Mymensingh Chittagong Hill Tract
	Hoolock Gibbon Crab-eating Macaque	-do-
BIRDS	White-winged Woodcock Burmese Peafowl Grey Peacock Pheasant Black-breasted Kalij Pheasa White-cheeked Hill Partridge	Pablakhali Chittagong Hill Tract -do- nt -do-

West Bengal lost about 22,000 sq.km. of forests to East Pakistan in 1947. This constituted about 65 percent of

the forest cover of undivided Bengal. The lost forest area contained some of the best habitats for wildlife that were located in forests of the Sunderbans, Chittagong and Tippera. Many important species of wild animals and birds existed only in the forests that were transferred, and hence were lost by West Bengal along with the forests in question. A few examples of these have been tabulated in Table 1.

The New Commencement: Wildlife Management circa 1947

While the West Bengal Forest Department lost in terms of these forests and these important species, it started its reconstituted existence with a committed and highly professional team of forest officers and subordinate staff, and also received the larger share of the inheritance left by the British in the form of protected areas, institutions and the infrastructure that had developed over the colonial years.

a) The Protected Areas:

By way of these, West Bengal inherited all the three game sanctuaries set up by the British in West Bengal. These were, namely

Jaldapara Sanctuary in Jalpaiguri District:	36 sq.miles (93.24 sq.km.)
Chapramari Sanctuary in Jalpaiguri District:	3 sq.miles (7.77 sq.km.)
Senchal Sanctuary in Darjeeling District:	15 sq.miles (38.85 sq.km.)

It is interesting also to note that in addition to the above protected areas, certain other temporary game sanctuaries had also been created in the same districts of Bengal prior to Independence, and several others were actively being contemplated, evidence for which is found in the records of the time indicating the widening interest in game (wildlife) preservation as also reflecting a shrinkage in available habitats. Details of these are listed next.

Table 2. Temporary Game Sanctuaries in pre-Independence Bengal

Sanctuary	Area	Forest Division/District	Period of Protection
Bhutri	8 sq.miles (20.72 sq.k	Buxa/Jalpaiguri District	4.9.1935 to 30.9.1938
Pana	5 sq.miles (12.95 sq.	-do-	-do-
Gaburbas	ra 15 sq.mile (38.85 sq.	s -do-	-do-
Mongpong		es Kalimpong/Darjeeling	1937-38 to 1945-46

Proposals were also in the pipeline before Independence to set up the following sanctuaries:

Gorumara in Jalpaiguri District:	2000 acres (810ha)
Lothian Island in 24-Parganas District:	9389 acres (3803ha)

At the time of Independence, the shooting of spotted deer, gaur and wild buffalo was prohibited in the districts of Darjeeling and Jalpaiguri.

b) Establishment:

Except for one Deputy Ranger and the ten forest guards sanctioned for Jaldapara Sanctuary, no other staff existed in 1947 exclusively for wildlife-related duties. However, hunting and fishing rights over reserved and protected forest in North Bengal outside the sanctuaries were leased out to the following game associations:

- i) the Darjeeling Shooting and Fishing Club
- ii) the Tista-Torsa Game Association
- iii) the Torsa-Sankosh Fishing and Shooting Association.

These associations, which had first come into existence in 1926, controlled the issuance of hunting and fishing permits, advised the District Administration on the issuance of gun licences, and engaged guards for enforcing hunting and fishing regulations. Thus in 1947, one head forest guard and 19 forest guards were engaged by these game associations in North Bengal.

c) Legal Instruments:

The following laws were in force in West Bengal in 1947 for the purpose of protection and management of wildlife and forests:

- i) the Elephant Preservation Act, 1879 [Act VI of 1879], as amended in its application to Bengal, by Bengal Act V of 1932.
- ii) the Bengal Rhinoceros Preservation Act, 1932 [Bengal Act VIII of 1932]
- iii) the Wild Birds & Animals Act, 1912 [Act VIII of 1912]
- iv) the Indian Forest Act, 1927 [Act XVI of 1927]
- v) the Bengal Private Forest Act, 1945 [Bengal Act XI of 1945]
- vi) the Indian Fisheries Act

A number of rules and orders had been issued under these Acts to regulate hunting and fishing in forest and non-forest areas.

d) Specialised Wildlife Institutions:

In 1947, Calcutta Zoo and the Bengal Natural History Museum in Darjeeling were the premier institutions dealing with wildlife and natural history then in existence, although neither of these were under the control of the State Forest Department. Two other large scientific organisations of the Government of India, namely the Zoological Survey of India [ZSI] and the Botanical Survey of India [BSI] also had headquarters located in Calcutta.

e) Financial Support:

Over the financial year 1947-48, the State Government spent Rs. 7394 towards the protection of wildlife. The expenditure was in the form of staff-salaries and construction of two forest guards' quarters in the Jaldapara Sanctuary. The three game associations in North Bengal jointly incurred further expenditure of Rs. 18517, mainly on protection staff.

The Contemporary Situation: Wildlife Management circa 1997

The annexure to the present paper presents the sequence of major events that have marked management of wildlife in West Bengal since 1947. The list provides some idea of the journey made and the milestones crossed over the last 50 years. Currently, the wildlife management scenario as it stands may be summed up as follows:

a) Protected Areas:

There are now 4 National Parks and 15 Wildlife Sanctuaries in West Bengal as detailed below:

NATIONAL PARKS

Singalila National Park in Darjeeling District:	78.60 sq.km.
Neora Valley National Park in Darjeeling District	88.00 sq.km.
Gorumara National Park in Jalpaiguri District:	79.45 sq.km.
Sunderbans National Park in South &	1330.10 sq.km.
North 24-Parganas District	

WILDLIFE SANCTUARIES

MILDELLE OVIACIOVIVIER	
Senchal Wildlife Sanctuary in Darjeeling District	38.88 sq.km.
Jorepokhri Wildlife Sanctuary in Darjeeling District	0.04 sq.km.
Mahananda (Mahanadi) Wildlife Sanctuary in Darjeeling District	127.22 sq.km.
Jaldapara Wildlife Sanctuary in Jalpaiguri District	216.51 sq.km.
Chapramari Wildlife Sanctuary in Jalpaiguri District	9.49 sq.km.
Buxa Wildlife Sanctuary in Jalpaiguri District	369.00 sq.km.
Sajnekhali Wildlife Sanctuary in South 24-Parganas District	362.40 sq.km.
Halliday Island Wildlife Sanctuary in South 24-Parganas District	5.95 sq.km.
Lothian Island Wildlife Sanctuary in South 24-Parganas District	38.00 sq.km.
Bibhuti Bhushan Wildlife Sanctuary in North 24-Parganas District	0.64 sq.km.
Narendrapur Wildlife Sanctuary in North 24-Parganas District	0.10 sq.km.
Bethuadahari Wildlife Sanctuary in Nadia District	0.67 sq.km.
Ramnabagan Wildlife Sanctuary in Burdwan District	0.14 sq.km.
Ballavpur Wildlife Sanctuary in Birbhum District	2.00 sq.km.
Raiganj Kulik Bird Sanctuary in North Dinajpur District	1.30 sq.km

Protected areas in West Bengal in 1997 thus occupied 2748.5 sq.km. (23 percent) of total forest area, compared

to only 140 sq.km. (1.2 percent) in 1947. The total Forest area under the management of the Wildlife Wing is however about 4100 sq.km., which is 34.5 percent of the total forest area under the State Forest Department. There are in addition two tiger reserves in the Sunderbans and at Buxa and one biosphere reserve in the Sunderbans in West Bengal. The State Government has also notified its intention to constitute a National Park over 117.0 sq.km. of the area presently under the Buxa Sanctuary.

b) Establishment:

A separate Wildlife Wing exists within the State Forest Department to look after wildlife management in the state. It is headed by the Chief Wildlife Warden with the rank of Chief Conservator of Forests, and comprises 3 Conservators of Forests, 7 Deputy Conservators of Forests, 15 Assistant Conservators of Forests, 87 Forest Rangers, 202 Deputy Rangers/Foresters, 619 Forest Guards and also a large number of watchers and other supporting staff. Under the Wildlife (Protection) Act, 1972, [denoted WPA 72] Territorial Conservators of Forests and Divisional Forest Officers have also been respectively designated as Deputy Chief Wildlife Wardens and Wildlife Wardens. The Police Department and subordinate forest staff also possess several legal powers under the terms of the Act. It is therefore self-evident that manpower is engaged in protection and management of widlife has multiplied manifold compared to 1947. The game associations no longer exist, but in their place, a large number of NGOs assist forest officials in the preservation of wildlife.

c) Legal Instrument:

At present, the following Acts as well as rules and executive orders issued under them are in force for the protection of wildlife and management of wildlife habitats:

- i) the Wildlife Protection Act, 1972 [Act 53 of 1972]
- ii) the Indian Forest Act, 1927 [Act XVI of 1927]
- iii) the Forest Conservation Act, 1980 [Act 69 of 1980] Wildlife-related offences are also booked by the police under the Indian Penal Code. Illegal import and export of wild animals and their derivatives in contravention of the import-export policy of the Indian Government and the Convention on International Trade in Endangered Species of Wild Fauna and Flora [CITES] is dealth with by the Customs authorities under the terms of the Customs Act, 1962.

Mention should also be made of the West Bengal Wildlife Preservation Act, 1959 [West Bengal Act XXV of 1959] which was enacted in December 1959 but never enforced in absence of rules to be framed thereunder.

d) Specialised Wildlife Institutions:

Calcutta Zoological Park and Padmaja Naidu Himalayan Zoological Park at Darjeeling are currently engaged in ex-situ protection of wildlife and also in captive breeding of endangered wild animals. The Darjeeling Natural History Museum, as well as a number of deer parks and wildlife rescue centres are also run under the management of the State Forest Department. The forest department

also maintains Nature Interpretation Centres at the following locations for the benefit of students and visitors to protected areas:

- i) for the Buxa Tiger Reserve at Rajabhatkhawa
- ii) for Jaldapara Wildlife Sancturay at Madarihat iii) for Gorumara National Park - at Moorti
- iv) for Mahananda Wildlife Sanctuary at Sukna
- v) at Kalimpong
- vi) for the Sunderbans Tiger Reserve at Sajnekhali

Besides the ZSI and BSI, there are now several universities, colleges and NGOs in West Bengal that are engaged in studies that relate to wildlife. The Wildlife Wing of the Forest Department also has its own research units. Services are also procured from the Wildlife Institute of India [WII] at Dehradun, for conducting research on wildlife in the State.

e) Financial Support:

An idea of present levels of financial support available to the Wildlife Wing in the State for the management of Protected Areas and protection of wildlife may be gleaned from the following table.

Table 3. Current Levels of Expenditure on the Wildlife Wing in West Bengal

Expenditure (Rs. in lakhs)

Year	Non-Plan & 7th Plan Committed	Plan [State Plan & CSS]	Total
1992-93	605.32	218.44	823.76
ACCUSES ASS.	664.35	373.48	1037.83
1993-94	734.52	447.71	1182.23
1994-95	883.97	705.20	1589.17
1995-96 1996-97*	917.62	949.48	1867.10

(*Provisional)

Territorial Forest Divisions also usually incur several categories of expenditure from their funds on matters relating to wildlife. Zoological Parks and various research organisations dealing with wildlife in West Bengal also commit considerable amounts of money every year.

The Seventies - The Wildlife Decade

The Seventies might easily be called a watershed for the field of wildlife management, both in West Bengal and in the country. Over the national scenario, we see during this eventful decade such major initiatives as the launching of Project Tiger and the Crocodile Project, enactment of the WPA 72, India's joining the CITES convention and the 42nd Amendment to the Constitution of India. In West Bengal, the Seventies witnessed largescale poaching of rhinos in North Bengal, which exposed the weaknesses of the existing protective machinery. Over subsequent years, the result has been the total revamping over the Protected Areas with the provision of more staff, more weapons, more vehicles, more amenities to field staff, establishment of a wireless network, and other infrastructural developments.

The Seventies also mark the commencement of serious man-elephant conflicts in North Bengal, which has required in large-scale capture of elephants, culling of

several rogue elephants, establishment of wildlife squads and of the system of payment of compensation against depredations caused by major wild animals. This has led also to habitat improvement works both within and outside Protected Areas, and many interesting developments in elephant control methods, including experiments (e.g. use of energised fencing and tiger urine to scare off elephants, translocation of wild elephants), techniques (e.g. chemical immobilisation and radio-collaring), concepts (e.g. the idea of 'elephant corridors') and debates (e.g. on the adverse sex-ratios found among elephants - all of which have been inspired by the phenomenon of wild elephants being on the rampage. The phenomenon continues to provide the most challenging problems to wildlife managers in West Bengal, with elephant depredation having become a problem too in South Bengal. Dr.D.K.Lahiri-Choudhuri's investigative studies on North Bengal elephants over the Seventies were the first of their kind and have inspired several forest officers and research workers in the following years.

The Seventies also saw the extinction of the swamp deer and the wild buffalo in West Bengal, even while two projects were being launched to bring back the tiger and the sal-water crocodile from the brink of extinction by establishing the Sunderbans Tiger Reserve and the Crocodile Breeding Centre at Bhagabatpur. A separate Wildlife Wing of the Forest Department was also constituted under provisions of the WPA 72, which has resulted in greater efficiency in management of Protected Areas, better enforcement of law, and has heightened professionalism among forest officers.

Special Trends & Aspects in Wildlife Management
Certain specific trends, features and areas of thrust can
be identified on careful scrutiny of the annexure to the
present paper, and the other available records discussed
below.

a) Conservation Policy

It might be noticed that wildlife managers in West Bengal have utilised whatever legal opportunity has been availed to them to restrict hunting. Foreclosures of areas and hunting seasons are liberally encountered until the total ban on hunting imposed in 1991 as a result of an amendment in the WPA 72. The approach of increasing the spread of conservation is further reflected in the large expansion of Protected Areas that has been described earlier. Trade in all categories of items relating to wildlife is also discouraged by Government.

b) Governmental Support

The State Government has shown its commitment to the conservation of wildlife resources by providing liberal financial support, by setting up a large establishment for the Wildlife Wing, and by its sacrifice of a huge amount of revenue through conversion of protected forest into Protected Areas. West Bengal was among the first states in India to adopt the WPA 72. It was also one of the pioneering states to issue orders for the provision of compensation against elephant and tiger depredations. Support from the Central Government towards the

improvement of wildlife conservation in West Bengal may be similarly acknowledged. The wildlife in the state has benefited under well-known schemes such as Project Tiger, Project Elephant, the Crocodile Project, the Ecodevelopment Project, etc., sponsored by the Central Government. In fact the commitment of governments to protection of the environment, forests and wildlife has been ensured by inclusion of Article 48A in the Constitution of India through the 42nd amendment. This same amendment transferred forests and wildlife from the State list of the Constitution to the Concurrent list, thereby paving the way for the Central Government to have greater say in all matters relating to wildlife.

d) The Shift to Complete Protection

Prior to 1947, we see the efforts of wildlife managers primarily directed to the protection of individual wildlife species through prohibition of hunting. Closed periods were declared to promote the population of specified areas by "game", to facilitate hunting at a later date. The concept of Game Sanctuaries was somewhat loose and we have the example of the Senchal Game Sanctuary, which was open to the hunting of bears. Even in the Annual Report on Game Preservation in West Bengal for 1953-54, we find the remark "The question of whether bear, leopard and other destructive animals can be shot within the precincts of the Sanctuary has not been finally decided." We also notice that protection of habitats of wild animals was not a priority with wildlife managers even after many years of independence. Commercial exploitation of forests, reforestation with exotic species and raising of monoculture plantations within Protected Areas continued until the early Eighties, when the Forest Conservation Act, 1980, and the public outcry against degradation of the elephant habitat in North Bengal made a break with the past. The adverse impact that would arise from allowing unregulated trade in wild animals was also not fully realised in the early days. Calcutta thus became a prominent centre of the wildlife trade - both legal and illegal. Hardly any protection was afforded to wildlife outside reserved or protected areas.

The position has changed with the coming into force of the WPA 72, and amendments made to it in 1982, 1986 and 1991. All hunting - including capture and injury - of all wild animals (except for vermin specified under Schedule V of the Act) is banned in forest as well as nonforest areas, except for certain specified purposes under due checks and controls. Exploitation of all forms of wildlife and wildlife habitats within Wildlife Sanctuaries and National Parks has also been banned, unless in the interests of wildlife resident therein. Appropriate restrictions or prohibitions also exist with respect to grazing, fishing and the use of firearms and poisonous substances within Protected Areas. The wildlife trade and zoological parks have also been brought under the control of the wildlife authorities. The WPA 72, now also applies to certain endangered plants listed under Schedule VI of the Act. Ecodevelopment works in fringe villages in order to reduce the dependence of the people on the resources of the Protected Areas have now also become an integral

component of wildlife management in West Bengal. It might therefore be concluded the protection being afforded to wildlife today is more complete and more exhaustive than ever before.

e) Scientific Management

Before Independence, the practice of wildlife management in West Bengal comprised direct protection of specified wild animals against poaching, occasional restocking of game by release of certain species of wild animals and birds in selected areas, and capture or killing of certain wild animals that posed a threat to human lives, crops or property. The practice continued for several years even after Independence. Even as late as 1968, an official document published by the State Forest Department admitted that "hardly anything more than protecting [wildlife] from man has so far been done in this country towards wildlife management". [cf.A Guide to Forest Management in West Bengal, 1968]. The Sixties and the Seventies witnessed the establishment of a number of deer parks, particularly in South Bengal. Prior to 1980, management in Protected Areas was mostly in the form of protection works and creation of firelines, glades, water ponds, watchtowers and tourist lodges. Commercial forestry operations were common in most Protected areas. The concept of habitat management entered the management scene during 1953-54, when it was realised for the first time that "the abodes of rhinoceros have through years of fire protection lost their original grassy character and ... resultant tree growth is inimical to the free movement of this pachyderm, which might in consequence seek other less congested areas which lie mostly outside the reserved forests and thus expose itself to danger." [cf.Annual report on Game Preservation in West Bengal, 1953-54]. Controlled burning in Jaldapara Sanctuary and overwood removal operations in Gorumara Sanctuary were carried out for the first time in 1953-54. But it was only in the 1980s that habitat manipulation and improvement became an integral part of Protected area management.

Enumeration of wild animals in west Bengal began with the census in Jaldapara Sanctuary in 1964. At present, enumeration of major wild animals in and outside Protected Areas is a regular feature in West Bengal. Systematic management in Protected Areas started in 1981 when the first Management Plans of Jaldapara and Gorumara Sanctuaries came into force. Regular training of young forest officers at the Wildlife Institute of India, Dehradun, started in 1985 and has helped in inducting more scientific and technical inputs into wildlife management in West Bengal. During the eighties, energised fencing and chemical immobilisation techniques were accepted by forest officers as tools essential to the management of wildlife in the State. Treatment of injured wild animals (including elephants, rhinos, tigers, leopards, gaur, etc.) has since become a regular feature. Prophylactic inoculation of livestock living in the vicinity of Protected Areas against communicable diseases is also an integral part of wildlife management now. Zoological parks in West Bengal are

also concentrating their efforts now towards captive-breeding of endangered species such as the snow leopard red panda, etc. Computerised help was available for the first time in 1992 in analysing data from the Tiger Census in the Buxa and Sunderbans Tiger Reserves. Radio-collaring of elephants in 1995 has marked a new phase in usage of modern technology for wildlife management in the State. Wildlife research had been a neglected subject in West Bengal until recently. Since 1993, many important research projects incorporating surveys and studies on the tiger, elephant, leopard, and gaur, and on turtles, insects, wetlands, the wildlife trade, etc. have been initiated by the Wildlife Wing. Wildlife management in West Bengal is thus more scientific than ever before.

f) Man-Animal Conflicts

A feature of common concern to wildlife managers in both pre-Independence and post-Independence eras has been the problems that centre around man-eating tigers and leopards and the marauding elephants who are cropraiders and occasionally also man-killers. As stated earlier, elephant depredations have taken a very serious turn since 1973. Occasional encounters between human beings and the gaur have also been a source for concern. Earlier, prior to 1947 and for many years since, the wildlife managers sought to address the problem simply by killing or capturing the animal culprits, including rogue elephants. But since the Seventies, when the tiger, leopard, gaur and elephant became protected species under WPA 72, the challenges thrown to wildlife managers have become tougher, and for these obvious reasons they have started to think of alternative means of control. Thus in the Sunderbans tiger-attack areas, trials were conducted using electrified human dummies to ward off tigers, and also by getting honey-collectors who were most at risk to wear human face-masks at the back of their heads when entering the island forests so that the tigers became wary about mounting a stealth-attack on them from behind. Experiments were also conducted to prevent tigers from straying by creating freshwater ponds and releasing captive-bred pigs into the tiger reserve area. Experiments on elephant-control have already been described. Frequent use is also made now of tranquilising equipment to aid the capture and translocation of straying tigers, leopards and gaur. To head off direct retribution by victims, the State Government has also instituted the practice of paying cash compensation for deaths or injury caused to human beings or damage to crop or livestock by major wild animals. Protection as well as qualitative improvement of wildlife habitats and corridors to prevent confrontation between man and wild animal has thus acquired a new importance in present management practices. This is because the resolution of man-animal conflicts is the most important objective in wildlife management today.

g) People's Involvement

The practice had existed before Independence and for some years since to appoint influential and well-respected members of society as Honorary Forest Officers, in order to secure their cooperation for the control of offences

Associations in North Bengal counted tea planters, army officers, contractors and other interested shikaris and nature-lovers among their members, whose help was also enlisted by the Forest Department for regulating hunting and fishing, apprehending offenders, advising district administrations on the issuance of firearms licences, and very often also while releasing gamebirds, animals and fish to replenish stock in various shooting blocks and rivers. Similarly the State Wildlife Board set up in 1955 in West Bengal comprised nonofficial as well as official members.

Over recent years however, the level of people's participation in forest and wildlife management has increased considerably. WPA 72 has provided the scope for appointing Honorary Wildlife Wardens in each district of the State. The Act also authorises the initiation of legal prosecution proceedings in a court of law by any concerned citizen who becomes aware of an offence committed against wildlife. In 1977, Article 51-A concerning the fundamental duties of the citizen which was added to the Constitution of India by the 42nd Amendment has made it the constitutional duty of every citizen to protect and improve the natural environment including forests and wildlife. After 1947 and particularly since the Seventies, many NGOs have actively emerged in the field of nature conservation and it has become an accepted practice for the State Forest Department to involve NGOs in research. publicity, training, wildlife censuses, ecodevelopment activities, etc. Wildlife Week has been observed in the State ever since 1957. Publicity and public awareness programmes relating to wildlife conservation are now regularly conducted by the Forest Department. Over the late-Eighties and early-Nineties, the Government of West Bengal has issued a number of notifications which enunciate its policy of Joint Forest Management [JFM] in the state through constitution of Forest Protection Committees [FPCs]. People living at the fringe of forests are eligible to join the FPCs to extend their help towards the protection of forests and wildlife. In accordance with government orders to the effect, members of the FPCs are entitled to certain benefits in cash or kind obtainable from the forests protected by them. The members are also accorded priority in employment during forestry works. To extend the JFM concept to Protected Areas in the State, the Government notified a resolution [vide G.O.No.3841-For. dated 26 June 1996] on the formation of Ecodevelopment Committees [EDCs] in and around National Parks and Wildlife Sanctuaries. At the beginning of 1997, about 164 FPCs and EDCs comprising some 30 thousand families were engaged in protection of major sanctuaries and national parks in West Bengal. Wildlife management in West Bengal is thus no longer the monopoly of forest officers, with all interested people being given ample opportunity to contribute both to wildlife protection and management.

Anomalies, Unresolved Issues & Incomplete Tasks
A review of records of the last 50 years also indicates
certain anomalies caused by inconsistent policies,

proposals which could not be implemented, problems still seeking solution, and missed opportunities. A few of these are listed below.

From Vermin to Protected Ones

As earlier stated, wildlife managers in West Bengal have generally followed a policy of conservation. However the policy has not been without anomalies and paradoxes. For the greater part of the post-independence era, bears, carnivores and crocodiles did not receive protection and were kept outside the purview of the "closed areas" and 'closed seasons' declared periodically. We have the example, for instance, of bears not being accorded protection even within Senchal Sanctuary, and the result of their ruthless persecution has been the local extinction of bears over many parts of the State. A contradiction also existed in the Forest Department's approach to rhinos until the early Seventies. While on the one hand, all out effort was being made to protect rhinos from poaching. the Forest Department on the other was auctioning rhino horns from its stocks while Calcutta zoo openly sold rhino urine. Thus the Department was unwittingly keeping alive those very superstitions about the rhino that motivated poachers. As far as tigers were concerned, they were treated as vermin in the district of 24-Parganas with bounties being offered for killing them until the early Sixties. However, by the early Seventies, the tiger had become the most protected animal as the Sunderbans Tiger Reserve came into existence. In a similar instance, permits for the hunting of crocodiles had been issued till as recently as 1971-72, although very soon after a breeding centre for the crocodile had to be set up at Bhagabatpur in 1976. This sudden about-turn is also noticed in respect of elephants which, till the Seventies, were being captured or killed with a vengeance in North Bengal on the plea of protecting human life and property. However, since the inclusion of the elephant in Schedule-I of WPA 72 in October 1977, it is now being protected by the wildlife authorities with all their might. Lack of proper appreciation of the ecological role played by various wild animal species, accompanied by absence in the earlier years of a system of regular monitoring of the status of wildlife in the State has been the source of all these contradictions in wildlife management principles.

Tribal Hunting in South Bengal

The poor condition of wildlife in private forests of Southern Bengal first engaged the attention of forest officers in the early Fifties. The annual report on game preservation in West Bengal for 1952-53 records: "It would be harsh but not incorrect to say that the local people... ruined their forests and wiped out the game. At present the Santhals are the worst of human predators. On occasions hundreds of them accompanied by their pariah dogs, and armed with all kids of crude weapons would creep through the forest patches in a long continuous line and destroy everything in front of them. Even the smaller birds and rats are not spared." The same report observes that. "The same forests under private ownership in the [Midnapore] Division having been cut on very short rotations and annually burnt by Santhals

and other aboriginal tribes were depleted of game ... "The forests were soon taken over by the Forest Department under the provisions of the West Bengal Estates Acquisition Act, 1953, but the position did not improve and the annual report for 1955-56 records that..."Annual tribal hunts in the hottest part of the year continue to do considerable damage to forests as well as their 'voiceless denizens'. The key to our success lies in the development of correct attitudes in the people at large." The issue raised was one of the earliest to be taken up by the State Wildlife Board after its constitution in 1955. Even then nothing happened, and ten years later, it was noted in the annual report for 1965-66, that..."tribal hunts of unusual dimension are permitted almost under government blessing every year to accommodate the so called tribal customs. By the nature of this 'Shikhar', nothing is expected to survive and the result can be better imagined than written or seen." There was also a proposal to set up exclusive deer farms to "meet the requirement" of the tribal hunters [cf.Shri A.K.Syangden pers.com.], but the problem continued as before. The annual report for 1972-73 notes that... Adibasi Shikaries of all the districts of the [Southern] Circle kill wildlife - both with bows and arrows and with guns indiscriminately, under the pretext of tribal hunt. All possible steps are being taken to enlighten them through publicity about the after effects... Apparently they could not care less for posterity." Even in 1997 today, the tribal in question remains to be enlightened, as tribal hunting in South Bengal continues unabated. The only difference is that this issue is no longer discussed at meetings of the State Wildlife Advisory Board!

Consolidation of Jaldapara Sanctuary

The trouser-like shape of Jaldapara Sanctuary and the problems of protection of rhinos and other wild animals in the two legs of the southern fringe have engaged the concerns of wildlife managers for a very long time. In 1935-36, the idea was mooted to consolidate the Sanctuary by acquiring the triangular land that is wedged between the two legs of the sanctuary.. The relevant annual report records that ..."The shape of the Jaldapara Rhinoceros Sanctuary, which is in the form of a two-pronged fork with village cultivation in the cleft, is not ideal and as the head of game in the forest increases, interests are bound to clash and a decision will have to be made one way or the other. As this forest area is one of the few remaining in Bengal where the rhinoceros is to be found now and as the khas cultivation area concerned is of poor quality, it would seem that it will be best as soon as possible to reserve the whole block enclosed in the fork. "The proposal was once again revived in 1955-56, and in 1957-58 the matter was reportedly pending with the Deputy Commissioner of Jalpaiguri. The idea of acquisition was also endorsed by the State Wildlife Board. The Rhino Inquiry Committee (1973) again recommended acquisition of the land. A lot of water has flowed down the Torsa since 1935-36, but the proposal remains an elusive dream for the managers of Jaldapara Sanctuary.

Registration of Firearms

Strict checks and controls on issuance of crop-protection

guns in the vicinities of all forests in general and the Protected Areas in particular is necessary to stop their Protected Areas in prose of poaching. Over the period of British rule and also for some years subsequently, Deputy Commissioners of the North Bengal districts used to Commissioners of villages to residents of villages and instance of firearms licences to residents of villages adjoining reserved forests, and often cancelled the gun licences of persons found culpable in the illicit shooting of wild animals. This convention was reportedly ignored in respect of Kalimpong Division in 1957-58. Although special instructions for restricting the future issue of licences for firearms in areas fringing national parks and wildlife sanctuaries were issued by the State Home (Police) Department to the Deputy Commissioners in 1957 at the instance of the State Wildlife Board, neither the convention nor the government orders could sustain themselves beyond a few years. The annual report on wildlife preservation for 1965-66 notes that "Gun licences on the plea of crop protection seem to have been liberally issued but their bonafide use in the protection of crops is doubtful....The firearms and ammunition were generally controlled by the District Authorities, and the forest Officers had no control over them. Gun licences issued by the District Magistrates are almost invariably endorsed for sport...It is essential that whenever any licence for firearms is issued to any one living in the vicinity of forests, the Divisional Forest Officer should be consulted..." The Committee appointed by the State Government in 1972 to enquire into the poaching of rhinos in Jaldapara Sanctuary had recommended that all guns issued for crop protection to villagers residing around Jaldapara Sanctuary should be withdrawn. The recommendation was never implemented. WPA 72 makes it obligatory for all holders of firearms living within 10 km. of a National Park or Sanctuary to get themselves registered with the Chief Wildlife Warden or authorised officer. The Act also provides that no new gun licences will be issued to people living within this radius without consulting the Chief Wildlife Warden. However, in 1997. this important provision still awaits full implementation.

Protected Areas in-the-Waiting

Several proposals were made at different times for protection of already identified areas, the fate of which is noted below:

- i) With support from the State Wildlife Board and also the Central [now Indian] Board of Wildlife, a proposal was mooted to upgrade Jaldapara Sanctuary into a National Park during the Second Plan period at the cost of Rs. 4 lakhs only. Jaldapara is still a sanctuary.
- over a large rugged area of about 388 sq.km.(150 sq.miles) of forest situated at the tri-junction of the three districts of Purulia, Bankura and Midnapore was moved in 1955-56. The relevant annual report states "There are sources of perennial water in this area which will be very

useful for wildlife." Although the proposal was approved by the State Wildlife Board, it was initially kept pending because the legal procedures of declaring the area to be protected or reserved forest were not yet complete. Although the proposal was still alive in the Sixties, the annual report for 1965-66 while accounting for its nonimplementation notes that the "...biggest limiting factor is the scarcity of water. Whatever waterholes are there...there are villages" [Emphases added]. The proposal was revived again in the Nineties, this time under the proposed name of Mayurjharna Sanctuary, as an elephant reserve under Project Elephant. The stumbling block now encountered is the problem of relocation of the large number of human habitations which have cropped up since in the forests in question.

- iii) A proposal was initiated in 1953-54 by the Forest Directorate to establish a Sanctuary in the Bholka forests bordering the river Sankos, but was turned down by the State Government with the observation that "the Bholka forests enjoy a measure of protection, being out of the way, need not be considered for a sanctuary just yet." The proposal was revived in 1956-57 but, presumably, not pursued. It might be mentioned that Bholka was the best wildlife area in the Buxa Division as it contained such important animals as tigers, rhinos, sloth bears, gaur, wild buffalos and hog deer. However, nothing was left by 1983 when the Buxa Tiger Reserve was eventually established and Bholka, ironically, has been kept outside the Buxa Sanctuary!
- iv) The Mongpong forest of Kalimpong Division, which had temporarily been declared a Sanctuary between 1937-46 and remained closed to shooting even after Independence, was never again considered for establishment as a sanctuary despite its wildlife endowments and importance as an elephant corridor.
- v) The Alampur tidal forests covering 526 acres in the Contai Range of East Midnapore Division had been deemed an ideal shelter for wildlife in 1955-56. But the proposal perhaps was never pursued.

Protection of Fish

A look into the annual reports on game preservation prior to 1947 indicates that wildlife mangers in those times paid serious attention to the conservation of game fish in the rivers and wetlands. Fish hatcheries were set up with the help of the game associations and occasional restocking of selected rivers with trout and other species of fish was carried out. Control and regulation of fishing remained under the attention of the forest officers and game associations until the Sixties. However, since the Seventies, game fish became somewhat neglected except

in the Sunderbans where free fishing was allowed in estuarine waters in the reserved forests, and where it became necessary to regulate the movement of fishermen to protect them against attack from man-eating tigers. Erection of fish weirs and use of dynamite and fine-mesh nets for fishing also had an adverse impact on game fish. A proposal was mooted in the late Seventies for restocking the mahseer in the hill rivers of Darjeeling District but did not materialise. No status survey of fish either in or outside the Protected Areas has been conducted in recent times, and illegal fishing remains a serious problem in all rivers flowing through forests.

Mounting Concerns

It is not difficult to behold that wildlife management in West Bengal at present has advanced considerably from where it stood before Independence, in terms of infrastructure, manpower, legal authority, financial support, scientific and technical inputs, protection-covered areas and public awareness. Yet in the final analysis, it is the general status of wildlife that matters, and it would be difficult to say with conviction that wildlife in 1997 is more secure or more abundant than it was before 1947. The reasons are not far to see. Ever-increasing human and livestock populations, development activities, defence-related requirements, industrial pollution, ethnic tensions, a generally deteriorating law and order position, political interference, market forces and the many other characteristics of the modern era have pushed forests and wildlife into a corner. The task of wildlife managers therefore was never as difficult nor as challenging as it is today. The only silver-lining is increasing public concern for nature and natural resources. It is this alone that will decide the fate of wildlife in the State in the next 50 years.

ANNEXURE

WILDLIFE MANAGEMENT IN WEST BENGAL A Chronicle of Fifty Years (1947-97)

Year	Event
1947	Hunting closed in the Apalchand Range (Jalpaiguri), except for tigers, leopards and wild pigs.
1948	Lothian Island Sanctuary established in 24-Parganas
1948	Last officially recorded sighting of the gharial in West Bengal (in North Bengal)
1949	Gorumara Sanctuary established in Jalpaiguri District
1949	Hunting closed in the Sevoke Range (Kurseong Division)
1949	Black partridge introduced in Buxa Division by the Torsa-Sankosh Fishing & Shooting Association
1949	The Native State of Cooch Behar joined West Bengal. The Maharaja of Cooch Behar given exclusive rights of hunting and fishing in the forests of the district
1950	Hunting of sambhar banned in Buxa Division for two years uptil 1952
1951	Management of the Jaldapara Sanctuary shifted from

buxa Division to Coochbenar Division

	1951	Hunting closed temporarily in Rydak, Newlands Kumargram and Sankos Biocks in Buxa Division and the Moraghat forests in Jalpaiguri Division. Ban imposed on issuance of shooting permits for deer in	196	reserved and protected forests of West Bengal for two years w.e.f. December 1960
		imposed on issuance of shooting permits for deer in the reserved forests of 24-Parganas Division	196	O Halliday Island Sanctuary established in 24-Parganas District
	1952	Bengal Florican sighted at Arabari in Midnapore Division	196	O Sajnekhali Sanctuary established in 24-Parganas District
	1954	Jaldapara Sanctuary separated from the Nilpara Range and reconstituted as a separate Range w.e.f. 1 October 1954	/196	and the second second second second second second
	954	Jaldapara and Gorumara Sanctuaries affected by severe flood damage. Three rhinos buried at Jaldapara	1962	bears and carnivora, reimposed in all reserved and protected forests of West Bengal for three years were
1	954	Jungle fowl, spotted deer and barking deer introduced in the Mahatpur plantations (Nadia District)	1963	
19	955	State Wild Life Advisory Board constituted in West Bengal	1983	Parganas District Peafowl released in the Kakrajhore Deer Park (West
15	955	Mahanadi Sanctuary established in Darjeeling District		Midnapore Division)
19	955	Wild Life Day observed for the first time in West Bengal on 7 July 1955	1964	Six Gayal (Mithun) introduced into the Jaldapara Sanctuary
/ 19	955	Sambhar and guinea fowl released in the Arabari forest (Midnapore)	1964	Enumeration of wild animals conducted for the first time in West Bengal at Jaldapara Sanctuary
19		Capture of wild elephants by Mela Shikar tried out for the first time in Buxa Division	1965	Hoolock Gibbon and Black-capped Langur introduced into the Mahananda Sanctuary
19		Hunting, shooting or capture of sambhar prohibited for a period of 10 years in Jalpaiguri Division and parts of Coochbehar Division (Madarihat Range and the Nilpara and Chilapata forests to the west of the river Torsa)	1965	Ban on hunting of all wild animals except for wild pigs, crocodiles, bears and carnivora, reimposed in all reserved and protected forests of West Bengal from 15 December 1965 to 31 December 1966
195		First meeting of the State Wild Life Advisory Board neld at Nilpara in February 1956	1965	Black partridge introduced in the Karlali forests of Malda Division
195	e	Death of two wild elephants and two departmental elephants reported from Buxa Division due to affliction by pox	1965	in 24-Parganas District
195	6 S	potted deer released in the Parmadan forests (now ne Bibhuti Bhushan Sanctuary) in 24-Parganas	1965	Six spotted deer released in the Kakrajhore Deer Park in West Midnapore Division
1956	6 D	eer park established at Kakrajhore in West Midnapore ivision	1965	First wildlife census conducted in the Gorumara Sanctuary
1956	= ur	nti-poaching squad established in North Bengal oder the supervision of the Conservator of Forests	1966	First wildlife census conducted in the Senchal Sanctuary
1957	(N	orthern Circle)	1967	Ban on hunting of all wild animals except for wild pigs, crocodiles, bears and carnivora, reimposed in all
1957	Be	ild Life Week observed for the first time in West ngal between 25-31 December 1957)		reserved and protected forests of West Bengal between 1 January 1967 to 31 December 1967
1907	Inc	ttle-epidemic claimed the lives of many wild animals luding three wild buffalos in Bholka Range in Buxa ision	1968 1968	Ballavpur Deer Park established in Birbhum District
1957			1300	Ban on hunting of all wild animals except for wild pigs,
	Sar	odabri Tourist Lodge constructed at the Jaldapara		crocodiles, bears and carnivora, reimposed in all reserved and protected forests of West Bengal for one year w.e.f. 1 January 1968
1958	at D	maja Naidu Himalayan Zoological Park established arjeeling	1968	Kakrajhore Deer Park (West Midnapore Division) closed down and all animals relocated to Ballavpur Deer Park in Dieb in Dieb
1958	Dear	on hunting of all wild animals except for wild pigs, s and carnivora, imposed for two years in all	1968	Deci Faik in Birbnum District
	18 S	eptember 1958		Construction of Mahananda weir commenced in the Kurseong Division
	TTCCA	Life Week observed in West Bengal over the first of December 1958	1968	Construction of the Hollong Tourist Lodge commenced in the Jaldapara Sanctuary
1958	Hunti Benga	ng and fishing leases granted to the three North al game associations revoked w.e.f.1 April 1958	1968	Extensive damage to the Jaldapara Sanctuary from floods in the Torsa river
1959 V	Wild !		1969	Bethuadahari Deer Park established in Nadia District.
1959 T		Vest Bengal Wild Life Preservation Act 1050		Sambhar, spotted deer and barking deer introduced into the Bethuadahari Deer Park Ban on hunting a second
IMALAYA	AN PA	RYAVARAN		Ban on hunting of all wild animals except for wild pigs, crocodiles, bears and carnivora, reimposed in all

	reserved and protected forests of West Bengal from 5		Sankura and Purulia District
4000	April 1969 to 30 April 1970 First appointment made to the post of State Wild Life	1976 M	Management of the Bengal Natural History Museum at Darjeeling taken over by the State Forest Department
1969	Officer for West Bengal Eight gaur (gayal/mithun) reported to have died from	1977 E	Ballavpur Wildlife Sanctuary established in Birbhum District
1969	rinderpest in the Coochbehar Division	1977	Two wildlife squads established in North Bengal to combat elephant depredations
1970	Ban on hunting of all wild animals except for wild pigs, crocodiles, bears and carnivora, reimposed in all reserved and protected forests of West Bengal for five years w.e.f. 17 September 1970	1978	Spotted deer and barking deer introduced into Ramnabagan in Burdwan District
1970	Ban on hunting of tigers and leopards imposed in the Northern Circle for a period of five years w.e.f. 1 September 1970		First electrified fence in West Bengal erected near Sukna in Darjeeling District as elephant-control measure
1970	Nine rhinos killed by poachers at the Jaldapara Sanctuary		Orders issued by the State Government for the payment of compensation to victims of tiger-attack and elephant-depredation
1971	Jataprasad the legendary tusker procured from Assam in April 1971	1980	Bibhuti Bhushan (Parmadan) Wildlife Sanctuary established in 24-Parganas District
1971	A mobile patrol established for anti-poaching duty in Jalpaiguri Division	1980	Bethuadahari Wildlife Sanctuary established in Nadia District
1971	Privileged rights enjoyed by the Maharaja of Cooch Behar of hunting and fishing in the forests of Coochbehar District abolished by the Government of	1981	First Management Plans prepared for Jaldapara and Gorumara Sanctuaries
	India w.e.f. December 1971	1981	Eight gaurs killed by poisoning in October 1981 at Marionbarie Tea Estate in Kurseong Division
1971	Seven rhinos killed by poachers at the Jaldapara Sanctuary	1981	Ramnabagan Wildlife Sanctuary established in Burdwan District
1972	Seven rhinos killed by poachers at the Gorumara Sanctuary between January and February 1972	1982	Adina Deer Park established in Malda District
1972	Eleven rhinos killed by poachers at the Jaldapara Sanctuary	1982	First application made of the chemical immunisation technique in West Bengal made at Gorumara on the departmental elephant Bijli Prasad on 22 August
1972	First Tiger Census conducted in West Bengal between April and May 1972	1000	1982 Narendrapur Wildlife Sanctuary established in 24-
1972	An Inquiry Committee appointed in November 1972 by the Government of West Bengal to enquire into the	1982	Parganas District International Workshop on the Elephant conducted
1973	poaching of rhinos at the Jaldapara Sanctuary Serious elephant depredation starts in the Jalpaiguri	1902	between 10-17 December 1982 at Jaldapara Sanctuary
1973	Forest Division Wildlife Wing headed by Chief Wildlife Warden	1982	Management of Jaldapara Sanctuary handed over to Wildlife Wing (Wildlife Division - II)
	constituted within the West Bengal Forest Department	1982	
1973	Wild Life (Protection) Act, 1972, comes into force in West Bengal from 1 May 1973.	1983	Buxa Tiger Reserve established in Jalpaiguri District
1973	Sunderbans Tiger Reserve established in 24-Parganas District	1984	District
1973	Last officially recorded sighting of swamp deer in West Bengal, in the Coochbehar Division	1984	the Jaldapara Sanctuary
1973	The West Bengal Wild Life (Protection) Rules, 1973, promulgated on 30 November 1973	1985	Darjeeling District
1973	Closed season for hunting of all wild animals declared throughout the State	1985	District
1973	Batagur baska, a rare turtle species, rediscovered in the Sunderbans	1985	First forest officer from West Bengal deputed for specialised training in wildlife management from the Wildlife Institute of India at Dehradun
1975	First systematic study of wild elephants in North Bengal initiated by Dr.D.K.Lahiri-Choudhury	1986	
1975	Deer Research Centre established at Salt Lake in Calcutta	198	
1976	Dowhill Deer Park established in Kurseong Division	198	till - Down Timer Decembe notified as a
976	Last officially recorded sighting of wild buffalo in West Bengal in the Bholka Range in Buxa Division		Wildlife Sanctuary
1976	Bhagabatpur Salt-water Crocodile Centre established	/198	attempted on 24 July 1988, from the Bagdogra Range under Kurseong Division to the Buxa Tiger Reserve
1976	Kumari-Kangsabati Deer Park established over		The Journal of the Environment Protection Soc

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1988	Mahananda Sanctuary extended by addition of the Laltong Block from Baikunthapur Division, and its management transferred to the Wildlife Wing (Wildlife
	Division - 1)
1988	Nature Interpretation Centre opened at Madarihat near the Jaldapara Sanctuary
1989	Nature Interpretation Centre opened at Kalimpong in Darjeeling District
1989	Establishment of the Sunderbans Biosphere Reserve
1989	First successful captive-breeding of the snow leopard in India at the P.N.Himalayan Zoological Park at Darjeeling on 20 May 1989
1989	Nature Interpretation Centre opened at Sukna near the Mahananda Sanctuary
1990	Jaldapara Sanctuary extended by 101 sq.km.
1990	Spotted deer released in the Buxa Tiger Reserve
1990	Buxa Tiger Reserve extended by 54.5 sq.km.
1992	Rare Black-necked crane sighted at Bhutanghat in the Buxa Tiger Reserve
1992	Darieeling District
1992	Neora Valley National Park established in Darjeeling District
1992	Management of Singalila National Park transferred from Darieeling Division to Wildlife Wing (Wildlife Division - I)
1992	Management of Neora Valley National Park transferred from Kalimpong Division to Wildlife Wing (Wildlife
	Division - I)
1992	Nature Interpretation Centre established at Moorti in the Gorumara Sanctuary
1992	First application of computerised techniques in the Tiger Census conducted at the Buxa and Sunderbans Tiger Reserve
1992	First culling of a rogue elephant in West Bengal using the chemical immobilisation technique atMoraghat Range of the Jalpaiguri Division
1993	A large number of spotted deer decimated at the Adina Deer Park by unidentified disease
1993	Bengal Florican rediscovered in West Bengal in the Jaldapara Sanctuary
1993	International Workshop on Rhinos conducted in December 1993 at the Jaldapara Sanctuary
4000	Management of the Senchal Sanctuary transferred
1993	from Darjeeling Division to Wildlife Wing (Wildlife Division- I)
1994	Gorumara National Park established
1/502	First experiment in logging using domesticated
1994	elephants in West Bengal conducted at the Buxa Tiger Reserve
1994	Five elephants dead at Jaldapara Sanctuary and the Buxa Tiger Reserve from suspected outbreak of anthrax. Massive inoculation of rhinos in Jaldapara Sanctuary against anthrax carried out
1994	First recorded poaching of wild tuskers using poisoned darts in West Bengal at the Buxa Tiger Reserve. Two poachers from Assam arrested
1994	First successful captive-breeding of the red panda at the P.N.Himalayan Zoological Park at Darjeeling
1994	Survey undertaken of wetlands in West Bengal
1995	First radio-collaring of wild elephants in West Bengal

on 19 October 1995 at Jaldapara Sanctuary

1995 Forest Directorate reorganised, Management of Gorumara National Park and Chapramari Sanctuary transferred from Jalpaiguri Division to the Wildlife Wing (Wildlife Division - II). Coochbehar Division brought under the Wildlife Wing and management of Jaldapara Sanctuary reverted to the Coochbehar Division. Management of Neora Valley National Park transferred to Wildlife Division - II

Nature Interpretation Centre opened at Rajabhatkhawa near the Buxa Tiger Reserve 1995

Spotted deer released in Sutan (Ranibhandh) and Joypur forests in Bankura District /1995

Operation Elephant Capture launched in South Bengal. Capture of wild elephants effected for the 1995 first time in Midnapore District. Use of the Kraal Method made for the first time in West Bengal in the training of captured elephants

Two subadult bull rhinos brought from Guwahati Zoo and one each released at Jaldapara Sanctuary and at Gorumara National Park

Spotted deer released in Sutan (Ranibhandh) and 1996 Joypur forests in Bankura District and at Mahananda Sanctuary in Darjeeling District

Orders issued by the State Government for the setting 1996 up of Ecodevelopment Committees in and around the National Parks and Sanctuaries

Jataprasad, the legendary tusker passed away on 14 1997 July 1997

Sambhars brought from Manipur zoo for release into 1997 the Jaldapara Sanctuary

Nature Interpretation Centre opened at Sajnekhali in the 1997 Sunderbans Tiger Reserve

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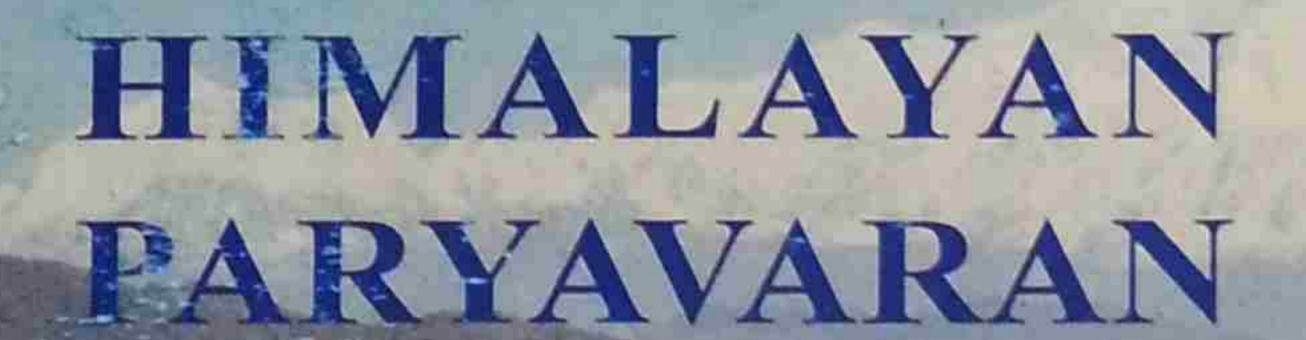
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KURSEONG WHILE IN

PLEASE VISIT DEER PARK AT DOW- HILL AND BE NEARER TO NATURE AND ALSO PAY A VISIT TO MIRIK

"THE UNIQUE GIFT OF NATURE" KURSEONG FOREST DIVISION AND OBSERVE, APPRECIATE & ENJOY THE

MARVELLOUS SCENIC BEAUTY



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