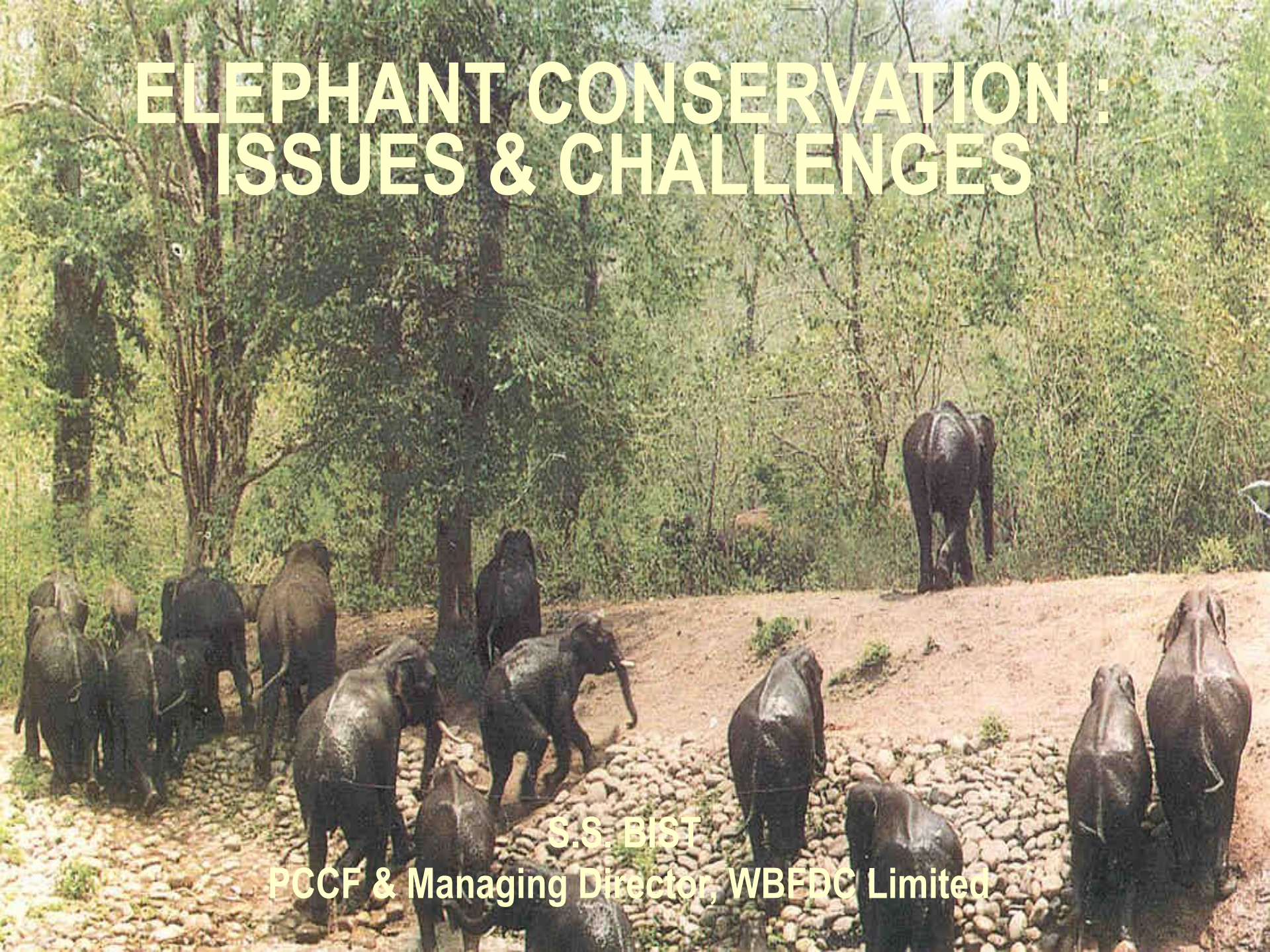


# ELEPHANT CONSERVATION : ISSUES & CHALLENGES

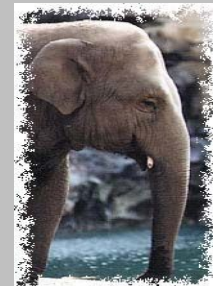


S.S. BIST

PCCF & Managing Director, WBEDC Limited

# Elephant is different

- The Elephant differs from other wild animals in many ways:
  1. Elephant is the largest land animal on the earth. It requires lot of food, water and space.
  2. Elephant is a family animal. It can also be a loner.
  3. Elephants are also domesticated and used for many purposes. But they retain their wild traits even under domestication.
  4. Elephant is a source of ivory-which is treated as asset and industrial resource. Poaching for ivory is one of the biggest threat to elephant.
  5. Every elephant is not a TUSKER.
  6. Elephants can exert negative pressure on their own habitat.
  7. Elephant is one of the first wild animal to get legal protection in India.
  8. Elephant is loved and revered by millions of Indians.
  9. Elephant is also hated by a large number of villagers and farmers who bear the brunt on account of elephant depredation year after year.



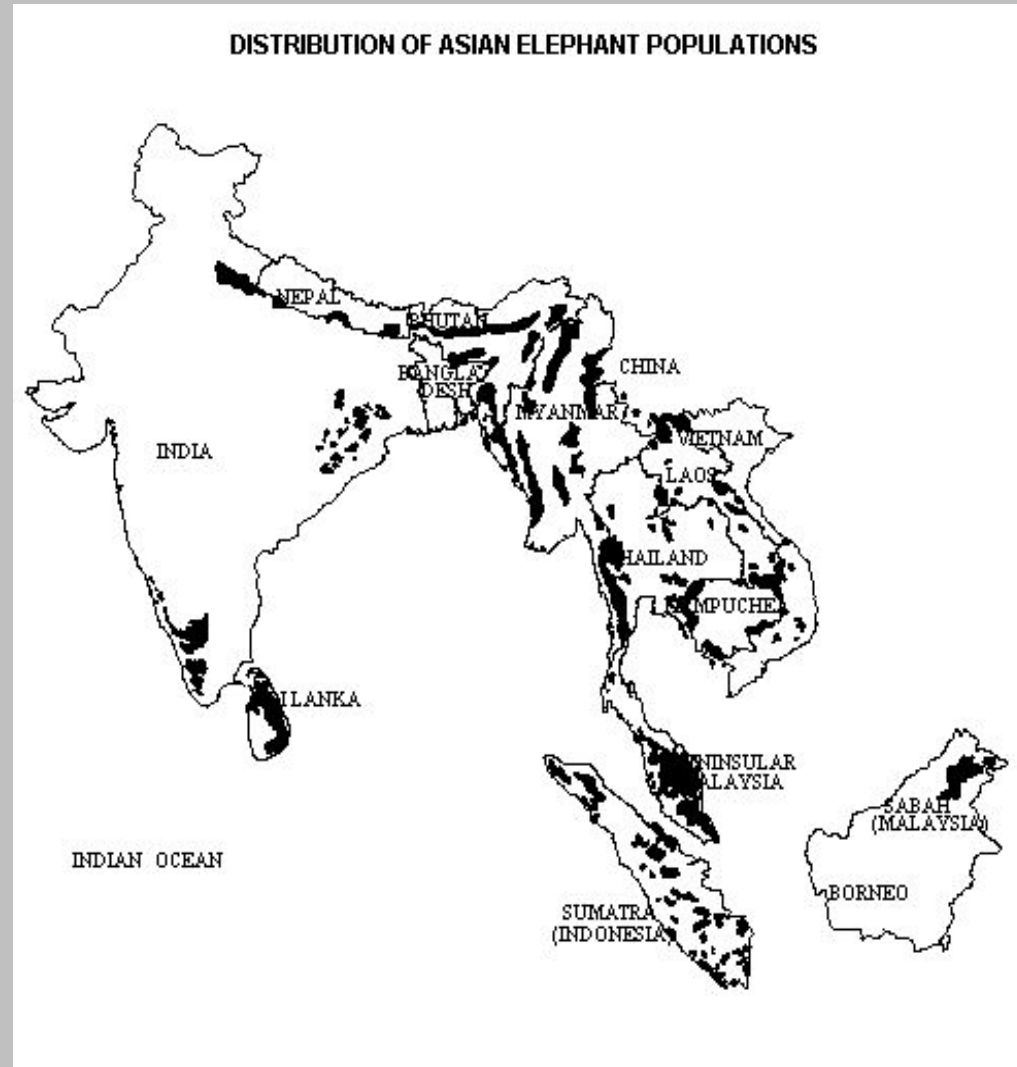
# Milestones of Elephant Conservation in Modern India

- 1873 : MADRAS WILD ELEPHANTS PRESERVATION ACT.
- 1879: ELEPHANT PRESERVATION ACT.
- 1972: ELEPHANT IN SCH-II (P.I) OF THE WPA-1972.
- 1977: ELEPHANT IN SCH-I OF THE WPA-1972.
- 1978: BAN ON IMPORT-EXPORT OF IVORY OF INDIAN ORIGIN.
- 1980 FOREST (CONSERVATION) ACT.
- 1986: BAN ON DOMESTIC TRADE IN INDIAN IVORY,  
LICENCING ON DOMESTIC TRADE IN AFRICAN IVORY.
- 1990: COMPLETE BAN ON IMPORT-EXPORT OF IVORY.
- 1991: COMPLETE BAN ON DOMESTIC TRADE IN IVORY.
- 1992: LAUNCHING OF PROJECT ELEPHANT.

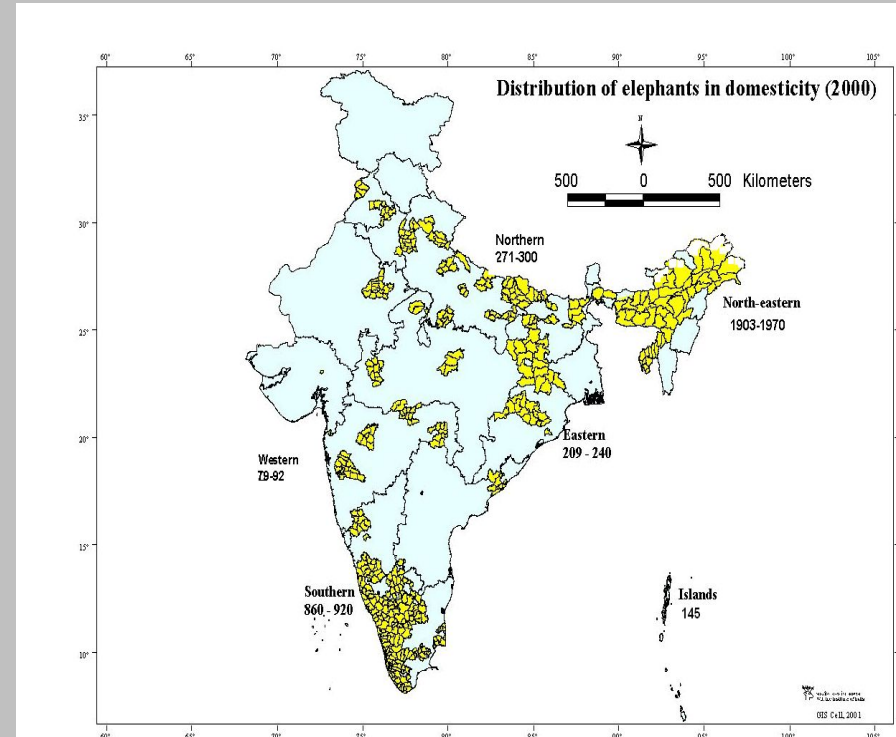
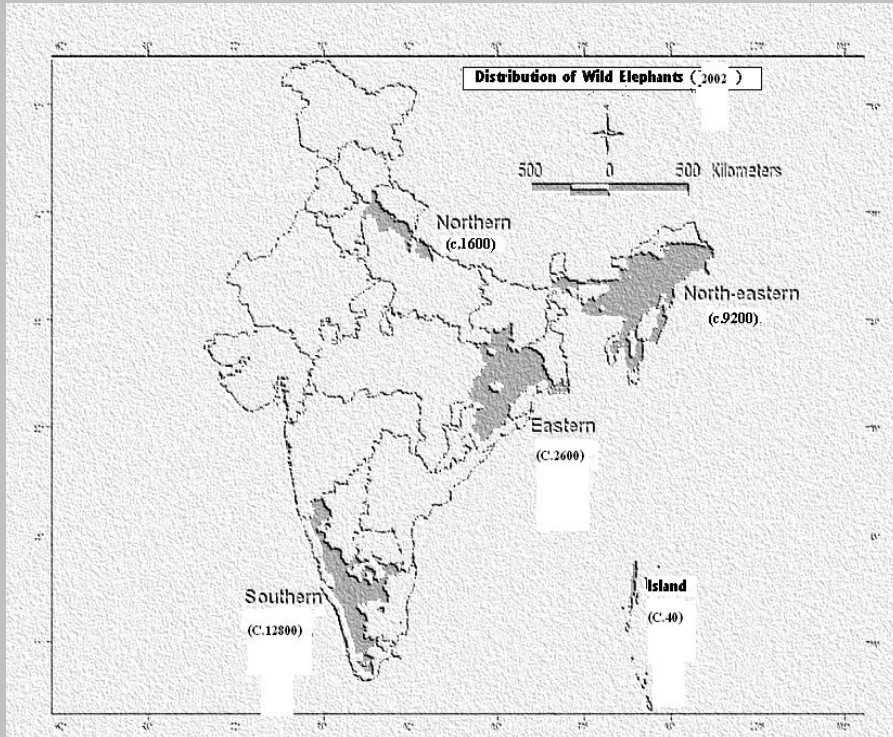
# THE ASIAN ELEPHANT



- THE ASIAN ELEPHANT IS FOUND IN 13 COUNTRIES: 5 IN SOUTH ASIA AND 8 IN SOUTH-EAST ASIA.
- ESTIMATED POPULATION:  
WILD– 39,400-47,400  
CAPTIVE– 13,700-15,300



# Status of Elephants in India



- THERE ARE ABOUT 27,700 WILD ELEPHANTS IN INDIA (19 States / UTs, 132 Districts) ACCORDING TO THE CENSUS (2007).
  - THERE ARE 3400-3600 CAPTIVE ELEPHANTS IN INDIA (24 States / UTs, 144 Districts).
  - India shelters over 50% of wild population and 20% of captive population of the Asian Elephant (*Elephas maximus*).
- 5

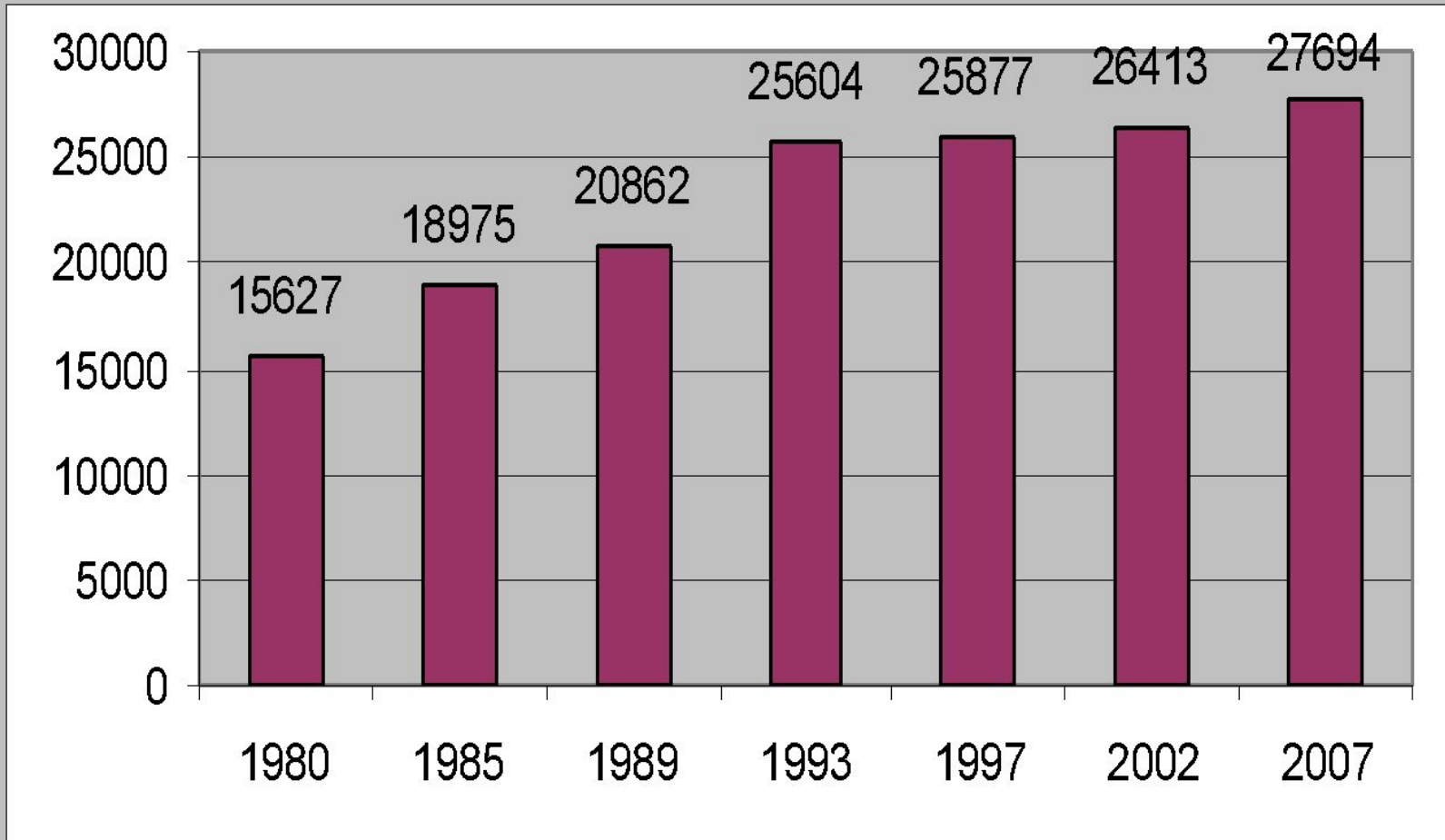
# DISTRIBUTION OF WILD ELEPHANTS(2007)

REGION	STATE	ELEPHANT POPULATION
<b>North-East</b>	Arunachal	1690
	Assam	5281
	Meghalaya	1811
	Nagaland	152
	Mizoram	12
	Manipur	Nil
	Tripura	59
	West Bengal (North)	325
<b>Total for North-East</b>		<b>9330</b>
<b>East</b>	West Bengal (South)	25
	Jharkhand	624
	Orissa	1862
	Chattisgarh	122
	<b>Total for East</b>	
<b>North</b>	Uttarakhand	1346
	U.P.	380
<b>Total for North</b>		<b>1726</b>
<b>South</b>	Tamilnadu	3867
	Karnataka	4035
	Kerala	6068
	Andhra Pradesh	28
	Maharashtra	7
	<b>Total for South</b>	
<b>Islands</b>	<b>Andaman &amp; Nicobar</b>	<b>NA</b>
<b>Grand Total</b>		<b>27694</b>

**ESTIMATED POPULATION OF CAPTIVE ELEPHANTS-2000**

Region	State	Number	Total for Region
North-eastern	Assam	1253-1290	1903-1970
	Arunachal Pradesh	564-580	
	Meghalaya	45-54	
	Nagaland	6	
	Tripura	35- 40	
Eastern	Bihar	76-92	209-240
	Jharkhand	15-20	
	Orissa	8	
	West Bengal	110-120	
Northern	Uttar Pradesh	115-140	271-300
	Uttarakhand	18-22	
	Delhi	31	
	Punjab	17	
	Rajasthan	90	
Western	Gujarat	2	79-92
	Maharashtra	20-26	
	Madhya Pradesh	53-60	
	Goa	2	
	Dadra - Nagar Haveli	2	
Southern	Andhra Pradesh	20-25	860-920
	Karnataka	101-115	
	Kerala	612-635	
	Tamilnadu	127-145	
Islands	Andaman & Nicobar	145	145
<b>Total</b>			<b>3400 - 3600</b>

# POPULATION TREND OF WILD ELEPHANTS IN INDIA





## **OVERALL POPULATION OF WILD ELEPHANTS IN THE COUNTRY IS INCREASING, BUT-----**

- THERE IS A NEGATIVE TREND IN SOME STATES.
- ELEPHANT HABITATS ARE UNDER THREAT IN MANY REGIONS.
- POACHING IS RAMPANT IN SOME STATES.
- ELEPHANTS ARE ALSO KILLED BY POISONING, ELECTROCUTION, Etc.
- SEX-RATIO IS HIGHLY SKEWED IN MANY ELEPHANT POPULATIONS.
- HUMAN- ELEPHANT CONFLICT IS ALARMING.<sup>9</sup>

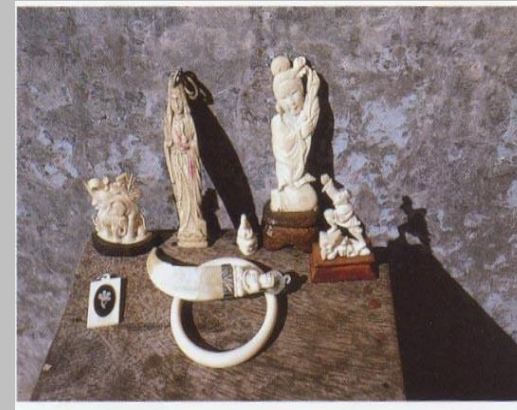
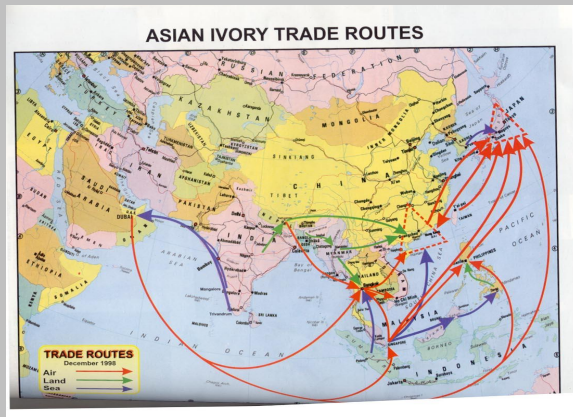
# Increasing Trends----

State	Population-1	Population-2
Tripura	40 (2002)	59 (2007)?
U.P.	85 (2002)	380 (2007)?
Chattisgarh	-	122 (2007)
Maharashtra	-	7 (2007)
Kerala	3850 (2002)	6068 (2007)?

# Negative Trends----

State	Population-1	Population-2
Assam	5524 (1993)	5281 (2007)
Arunachal	2102 (1993)	1690 (2007)
Meghalaya	2872 (1993)	1811 (2007)
Nagaland	256 (1980)	152 (2007)
Mizoram	33 (2002)	12 (2007)
Manipur	12 (2002)	0 (2007)
Orissa	2044 (1979)	1862 (2007)
Jharkhand	772 (2002)	624 (2007)
Uttarakhand	1582 (2002)	1346 (2007)
Andhra	74 (2002)	28 (2007)
Karnataka	5835 (2002)	4035 (2007)

# Tuskers are being poached for Ivory

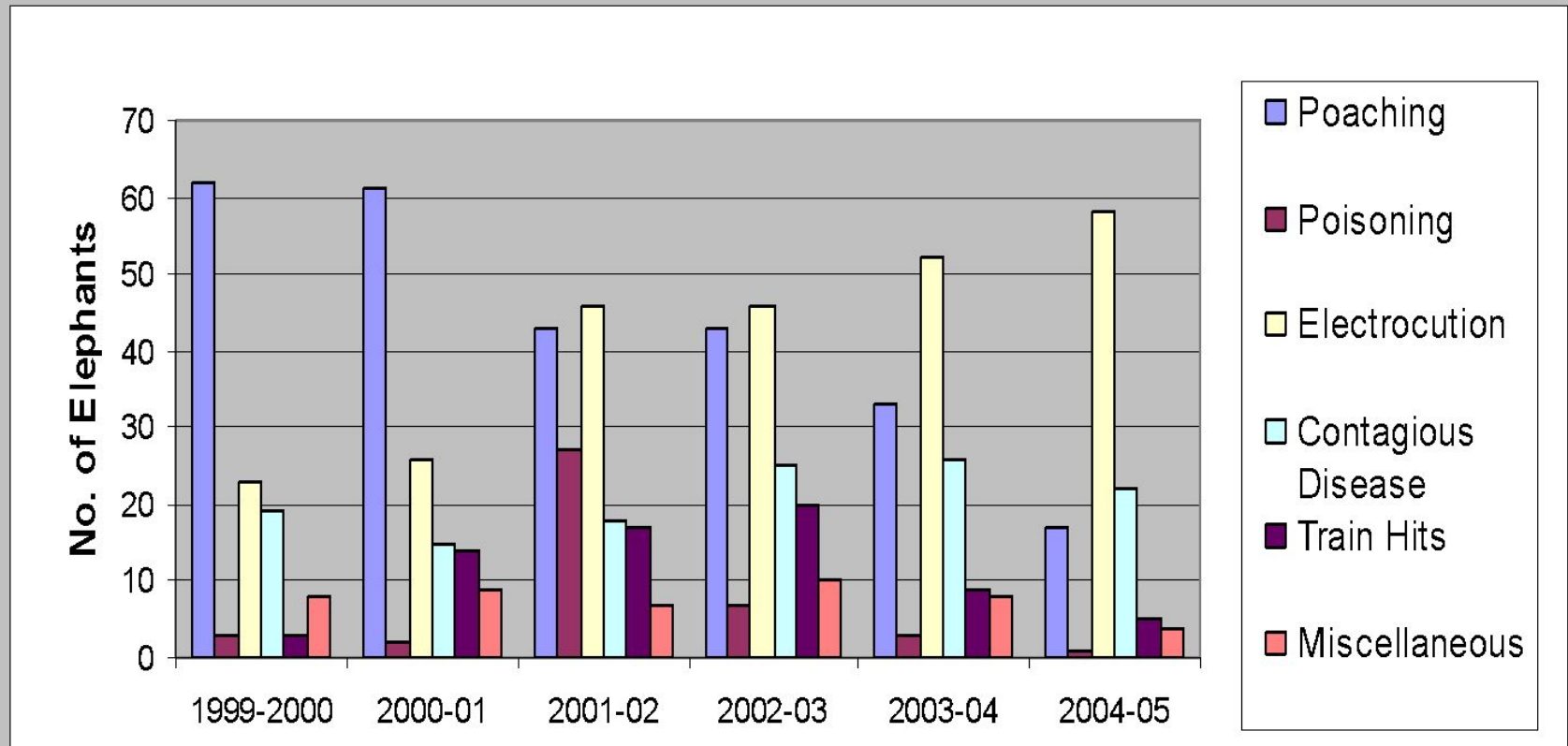


## Proportion of adult bulls (tuskers) is going down---

<b>CENSUS YEAR</b>	<b>REGION</b>	<b>SEX RATIO (Adult Bull: Adult Cow)</b>
1997	Periyar National Park* (Kerala)	1:122
1999	Madumalai Sanctuary (Tamilnadu)	1:29
1997	Bandipur National Park (Karnataka)	1:12
1998	Coimbatore Division (Tamilnadu)	1:9
1997	Nagaland	1:7

\* DISPUTED

# MORTALITY OF ELEPHANTS DUE TO MAN-MADE FACTORS



# Elephants: Victims of Human Cruelties



# Habitat is shrinking or deteriorating

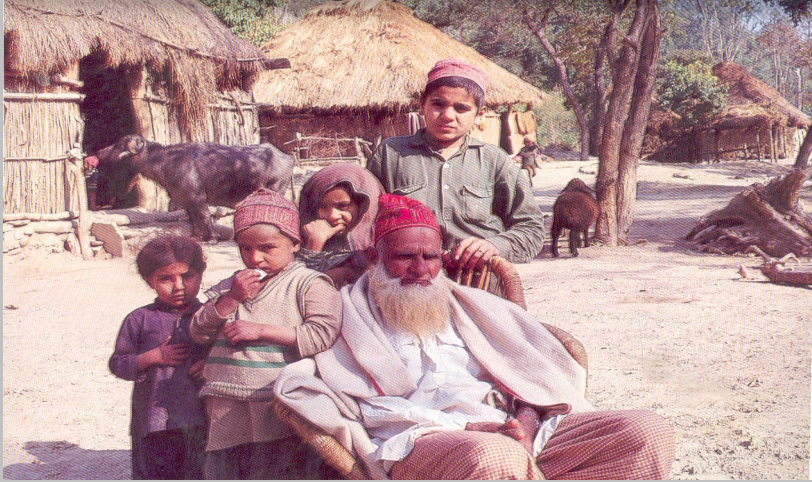




# Biotic pressures on the elephant habitats is increasing

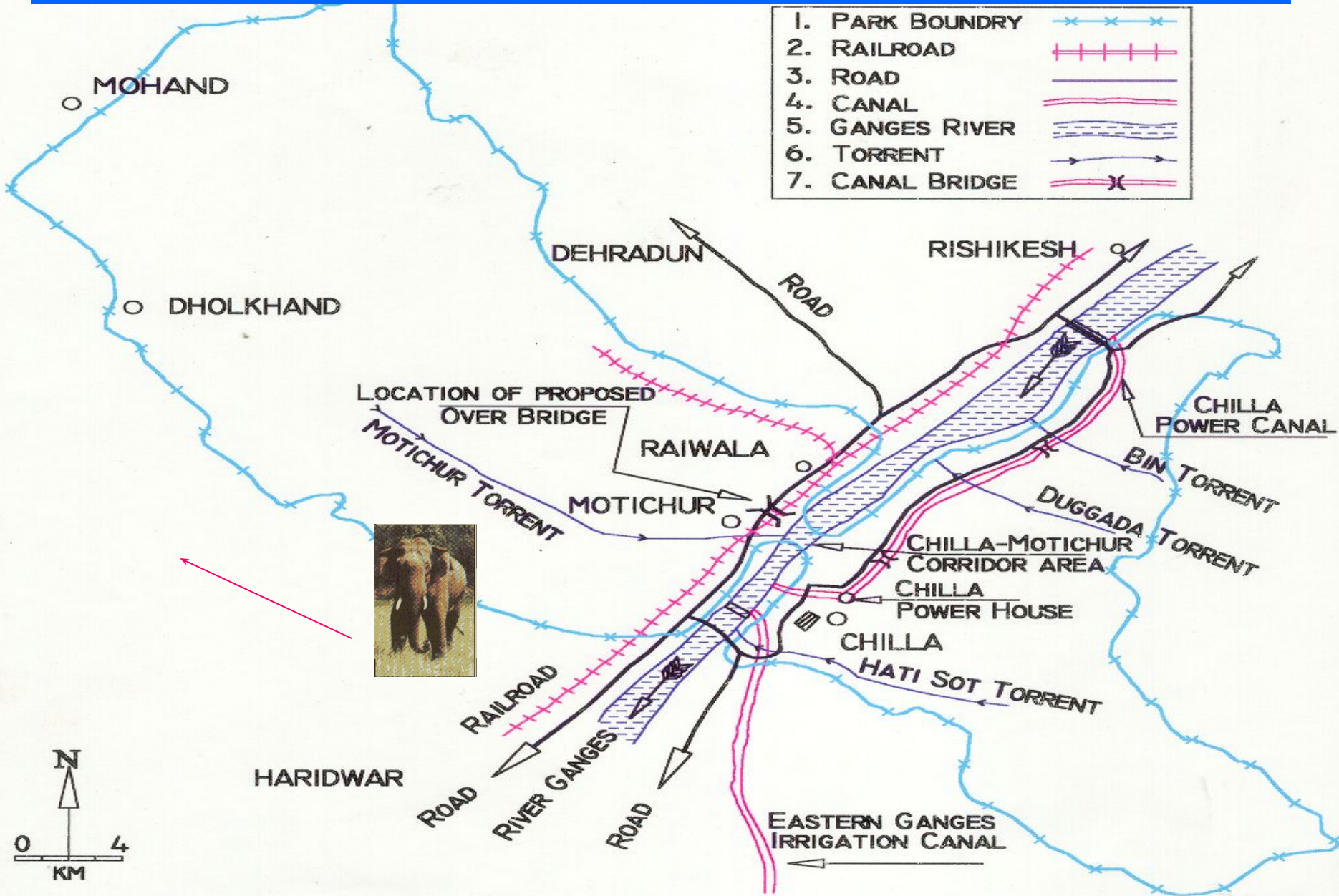


# Human settlements inside elephant habitats



**Gujjars in Rajaji NP**

# Development or a curse for elephants?



# Elephants are paying the price for growing railway network



# Inter-state issues: Andhra, Maharashtra, Goa, South Bengal & Chattisgarh



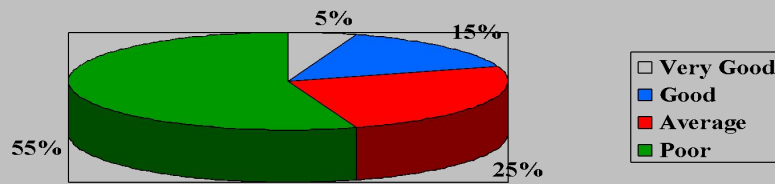
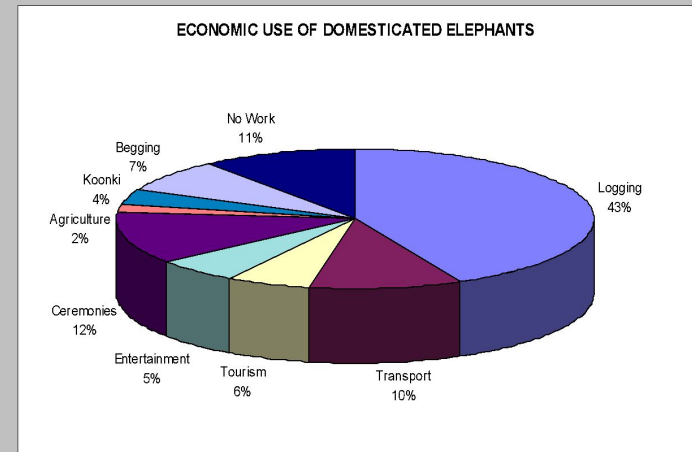
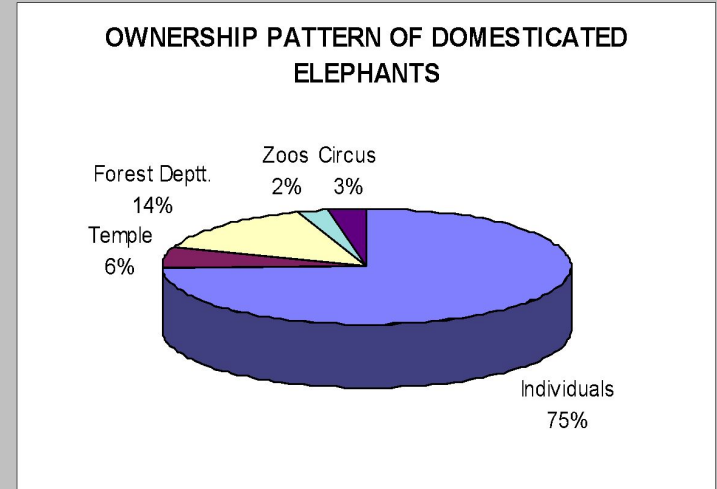
# Cross-Border Problems

1. One cow elephant died within Nepal (10.7.07) when it was fired at during crop-raiding while another injured cow elephant returned to India (North Bengal) and died (22.7.07) despite treatment provided by the forest officers.
2. One tusker, straying from Coochbehar border, shot at by the Bangladesh Rifles (11.1.08) after attempts by the W.B. forest officials to tranquillise it failed.
3. In June 2002, a lactating cow elephant killed 13 persons (3 in Nepal, 10 in North Bengal).
4. Elephants also facing problem along Meghalaya (Garo Hills)-Bangladesh border and U.P.-Nepal border.



# Domesticated elephants are also under pressure

- LACK OF EMPLOYMENT OPPORTUNITIES.
- UNSKILLED MAHOUTS.
- POOR VETERINARY SUPPORT.
- CRUELTY
- REGISTRATION AND LEGAL CONSTRAINTS



# HUMAN-ELEPHANT CONFLICT IS THE MOST SERIOUS ISSUE IN ELEPHANT MANAGEMENT



During 2006-09, there were 1090 cases of human deaths, 15312 cases of house damage and 87269 cases of crop damage by elephants in 14 States. During the same period there were 11 and 3 cases of human deaths by tigers and lions respectively in the country.





# THE BIGGEST CHALLENGE IS TO DEAL WITH HEC

- HABITAT IMPROVEMENT
- DISTRIBUTION OF CRACKERS, KEROSENE, SEARCH-LIGHTS & CONSTRUCTION OF MACHAN
- ANTI-DEPREDATION SQUADS, KUNKI ELEPHANTS & HULLA PARTIES FOR DRIVING ELEPHANTS
- ELEPHANT-PROOF BARRIERS
- ALTERNATIVE CROPS
- ELIMINATION OF ROUGES (S.11)
- CAPTURE AND DOMESTICATION / TRANSLOCATION (S.12)
- JOINT FOREST MANAGEMENT & ECO-DEVELOPMENT
- EX-GRATIA RELIEF (COMPENSATION)





# Defective barriers are a drain on public funds



# CHALLENGE TO DEVELOP CAPACITY OF ELEPHANT MANAGERS

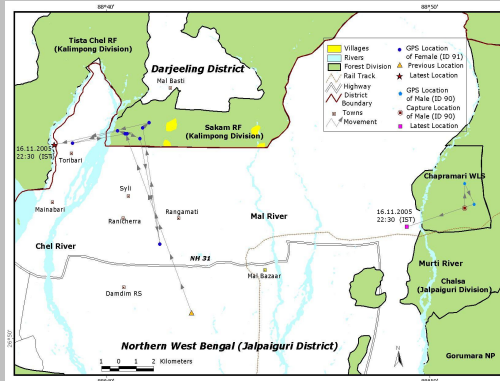
- **Shortage of staff**
- **Lack of knowledge among staff about elephant management techniques (identification, census, habitat manipulation, weed control, HEC management, etc)**
- **Shortage of experienced veterinarians**
- **Shortage of kunki elephants**
- **Shortage of experienced mahouts, phandis and trainers of big elephants**
- **Shortage of tranquillising experts & drugs**
- **Shortage of power fencing experts**
- **Lack of experience regarding translocation of family groups**
- **Lack of elephant-related research (e.g. fertility control, repellants, elephant-proof crops, elephant-friendly engineering structures, etc)**

# State Forest Departments are not properly equipped

## CASE OF W.B. FOREST DEPTT

- WBFD using electric-fences since 1980.
- WBFD possesses in-house expertise in chemical immobilisation technique\*.
- WBFD has in-house expertise in GIS and Remote-Sensing techniques for monitoring elephant habitats.
- WBFD has undertaken radio-telemetry based monitoring of elephants with the help of WII and AERCC.
- WBFD has a fleet of over 50 trained elephants.
- WBFD regularly micro-chips domesticated elephants.

Many States in India lack capacity to manage elephants.

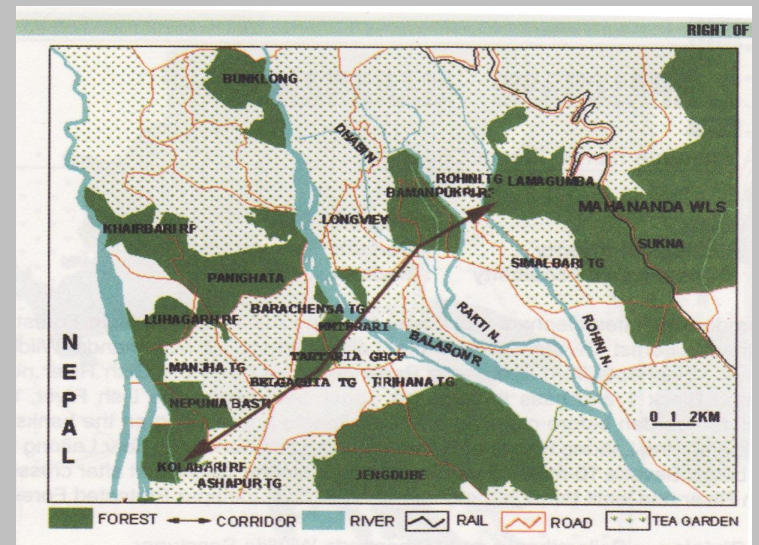
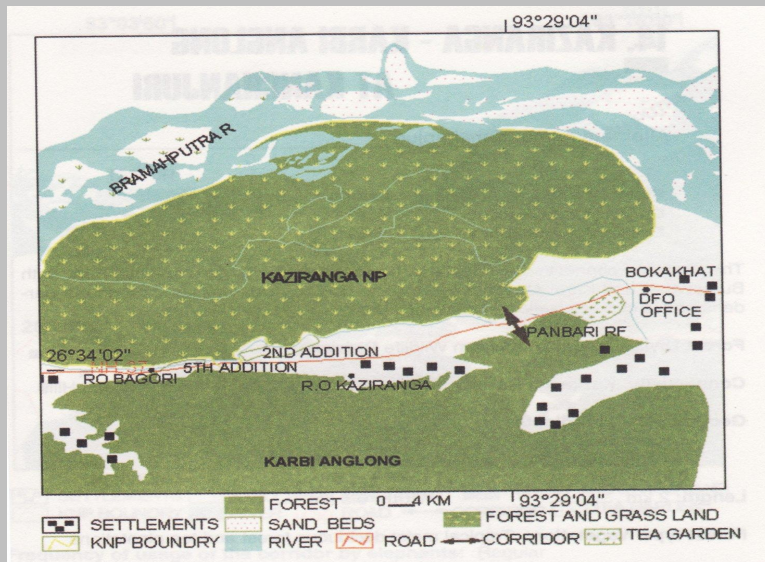
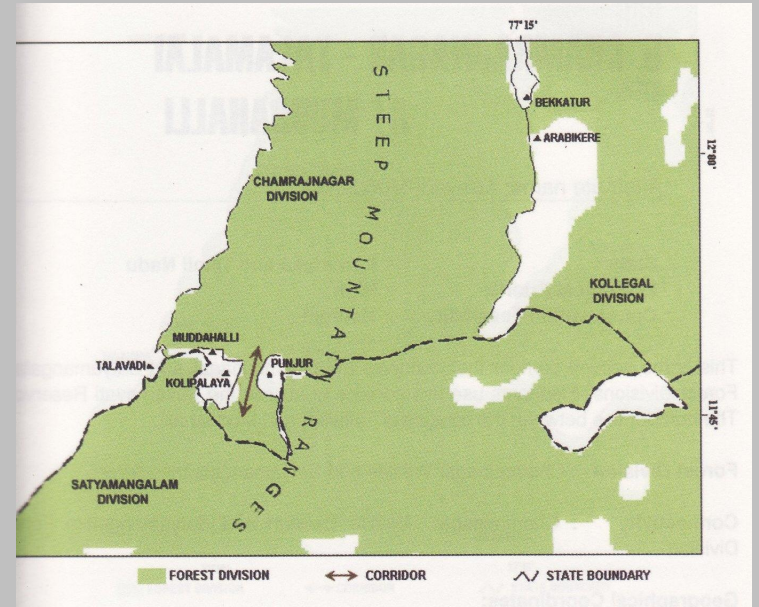
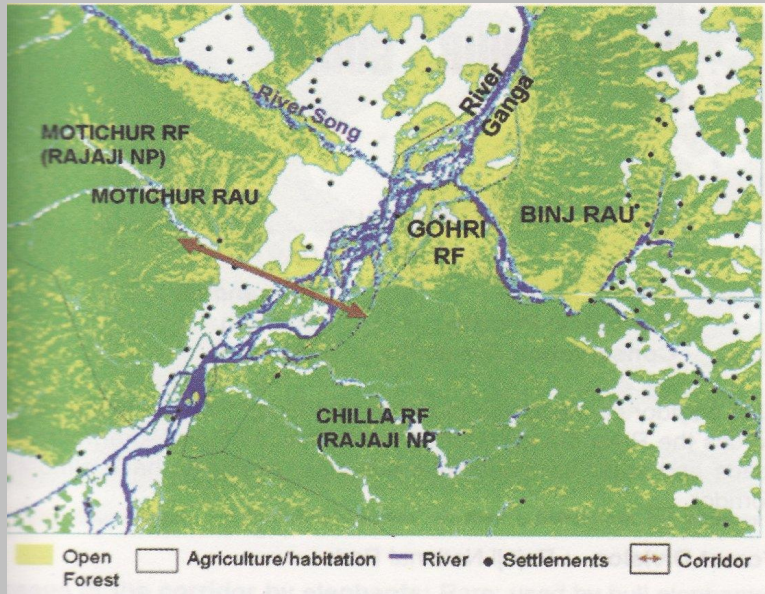


\*Tranquillisation team of West Bengal has visited Tripura, A&N, Orissa, U.P. and Bangladesh.

## Getting good veterinary support is a challenge

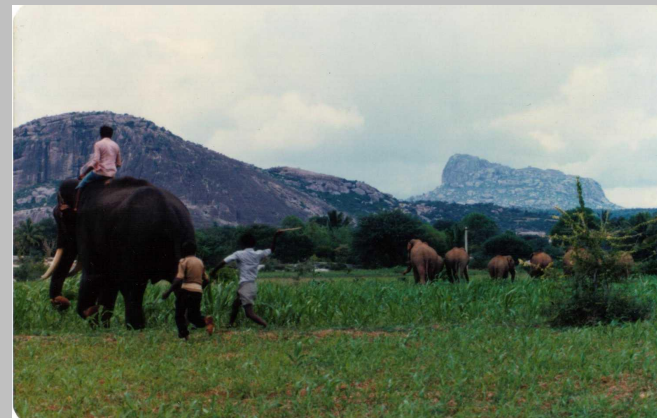


# Challenge to secure and restore corridors



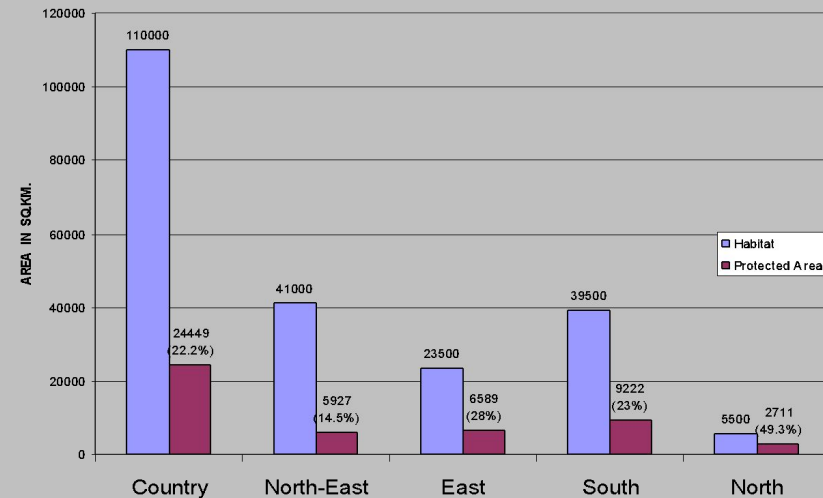


# Challenge to find job for domesticated elephants



# CHALLENGE TO LOOK BEYOND PROTECTED AREAS

1. 64 P.As occupying 24,580 sq. km of area (22% of elephant range) harbour elephants.
2. Elephant Reserves provide protection to viable populations of elephants over their entire range and ensure their focused and scientific management.
3. 32 Elephant Reserves over 11 Elephant Ranges identified in the country occupying over 69,000 sq km area and harbouring over 20,000 elephants.
4. 27 Elephant Reserves have been notified since September 2001. 5 more are in the pipeline.
5. But management of Elephant Reserves needs lot to be desired.



# Challenge to enforce elephant-friendly development and land-use policies

- Mining, agriculture, tea, sugarcane, settlements, etc are incompatible land-use of an elephant landscape.
- Railways, roads, canals, dams, hydro-electric projects, factories, etc exert adverse impact on elephant habitat.
- The Challenge is to prevent incompatible development or land-use in an elephant habitat or to use scientific and technological innovations to mitigate their negative impact on elephants.



# Biggest Challenge: Getting people along



# ROADMAP FOR FUTURE

1. EMPHASIS OF ELEPHANT CONSERVATION PROGRAMMES IN FUTURE SHOULD BE **TO IMPROVE THE QUALITY** OF LIFE OF ELEPHANTS RATHER THAN ON INCREASING THEIR NUMBERS.
2. **QUALITY MEANS:**
  - GOOD HABITAT
  - UNRESTRICTED CORRIDORS FOR MOVEMENT
  - MINIMUM CONFLICT WITH THE PEOPLE
  - GOOD VETERINARY SUPPORT
  - A REASONABLE PROPORTION OF TUSKERS
3. **SURVIVAL OF ELEPHANTS WILL DEPEND UPON :**
  - LARGER FINANCIAL INPUTS
  - LARGER RESEARCH INPUTS
  - A CONSERVATION-ORIENTED DEVELOPMENT
  - CONTINUED SYMPATHY OF THE PEOPLE FOR ELEPHANTS.



OK, IT'S DECIDED!  
WE'LL CULL 50%  
OF THE HUMANS.

EARTH SUMMIT



THANK YOU AND BEST OF LUCK!

