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# GAJAH

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# The Asian Elephant: future prospects

J. C. Daniel

The Asian elephant in spite of the close relationship it has had with man since time immemorial, is likely to be the first large mammal to be found only in small numbers and as a domesticated animal by the end of the 21st century. It faces more pressures on its habitat than its African counterpart and its survival is very closely linked to the increasing human population and its demand on natural resources. This is a thesis which has solid historic support when one examines the distribution of the species within the last several millennia. To recapitulate, its known historic distribution was from the Tigris and Euphrates valleys of Syria and Iraq to the Yellow river in China and south to Sumatra. Today only a fragmented population exists from India eastwards.

A settled agricultural human society has always spelt doom for the larger herbivores unless they had been assimilated as a domesticated natural resource and the elephant is a classic example of an animal well on its way to being so assimilated. As the river valleys were converted from forests to agriculture, they were able to support a larger static human population, which in turn demanded more from the surrounding natural resources. This was limited by the regeneration capacity linked to the rainfall regime of the area. There is clear historical evidence, at least in north India, to prove that over the last several centuries, rainfall has progressively decreased. This is probably a result of climatic changes over the centuries but there is certainly evidence that human cultural development as a settled agricultural community has been a major cause for destruction of the original habitat and with it the wildlife dependent on such habitats.

In terms of numbers, the existing population which is believed to be between 34,000 and 54,000 is very small indeed when compared to the current population of about 700,000 of the African elephant. But in terms of conservation, the Asian elephant has a higher survival potential than the African elephant. The crucial factor responsible for this survival potential is the relationship between man and elephant in South East Asia. In almost all the human cultures prevailing in this area, the elephant is a part of the religious ethos and is therefore conventionally protected. How long this protection will stand the strain placed on it and how best these can be overcome for the conservation of the species should be carefully and urgently considered.

In India, which has the largest population of elephants, special attention to their conservation commenced with the formation of the Asian Elephant Specialist Group of the IUCN in 1976. The status survey that was made between the years 1976-80 and reported in the document published in 1980 has not been repeated. In India, the trend turned to research on identified areas of prime elephant habitat, by scientists of the Centre for Ecological Sciences, the Bombay Natural History Society and the Wildlife Institute of India. The sustained interest in the conservation of the Asian Elephant fostered by the IUCN and Indian institutions such as the Bombay Natural History Society, Wildlife Institute of India, and Centre for Ecological Sciences, prompted the Government of India to plan the organisation of a PROJECT ELEPHANT similar in principle to Project Tiger. A task force was established to spell out the problems facing the elephant and to frame a

long term conservation programme for the elephant in India under a specially funded initiative, namely the Project Elephant. The objectives were defined as under:

### Objectives of Project Elephant

- (a) Ensuring the long-term survival of identified larger populations.
- (b) Evolving management plans for the smaller populations, mainly with a view to reducing man-elephant confrontations and ensuring their survival pending further review of the ground situation.

### Objectives of Elephant Reserves

- (a) Ensuring the long-term survival of identified larger populations [(a) >1000, (b) >2000, (c) <200]: the target in the first phase should be categories 'a', 'b' and category 'c' will cover under 1(b) above;
- (b) by protecting their habitat and existing ranges;
- (c) linking up already fragmented portions by establishing corridors wherever possible and protecting corridors at present under threat;
- (d) improving the quality of the habitat wherever necessary by attempting ecosystem restoration and other measures keeping in main objective of range protection in view;
- (e) attending to the socio-economic problems associated with this, especially the problem of elephant depredation, loss of employment, and problems arising out of restrictions on use of forest produce by the fringe populations.

The Committee appointed by the Government of India identifies the following major problems facing the Indian Elephant population namely

loss and fragmentation of habitats, loss of habitat quality or range degradation and the inability of such areas to support existing elephant populations; loss of forest lands to meet the needs of increasing human population. The conservation strategy recommended by the Committee has as its goal (a) ensuring that each elephant holding state maintains one or two natural viable populations of elephant. (b) Assure that the local communities in the environs of such areas are not adversely affected. (c) Ensure that individual problem elephants do not mitigate conservation efforts aimed at the whole population.

The project is now in operation and is on a much lower level of public awareness than Project Tiger and is funded at a much lower level than Project Tiger. In the allocation of funds, studies by the Bombay Natural History Society have brought out very interesting data on elephants and their effect on the habitat. For instance, Sivaganesan's studies on habitat utilisation have shown that over-exploitation of food species does not lead to destruction of the forest community as a whole but the selective disappearance of the most favoured species of tress fed on by the elephants in the different habitat types. What is required are methods for regeneration of favoured food species. The problems facing the wildlife manager in the conservation of the elephant have been clearly brought out by Ajay Desai. In a recent paper he shows that home ranges of herds cover areas with different levels of protection in a conservation area and a herd or for that matter a population of elephants living within a National Park or Wildlife sanctuary is therefore not assured of complete protection throughout its range. It is therefore necessary to assure that there is a strong research component not only to collect basic data but also to examine management oriented problems.

It is now necessary to repeat the status surveys undertaken over a decade ago to determine general population trends and habitat status. There has been considerable difference of