

# Using scientific thinking process to promote Human elephant coexistence HECx in Tamil Nadu, southern India

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In general we learn through reading, lectures and demonstrations. Science, however, creates new knowledge by careful use of the scientific thinking process. This includes observing, communicating, comparing, organizing, relating, inferring and applying. Applying knowledge involves using knowledge to solve problems — often in creative and inventive ways. Zoo Outreach Organisation has been working to promote Human elephant coexistence (HECx) since 2008 through training and education programmes in South Asia and South East Asia. In all these programmes, a teaching guide developed exclusively to promote Human elephant coexistence is used. The education module that has been developed to address Human elephant conflict provides a systematic exploration of the topics using the scientific thinking process.

The US Fish and Wildlife Service extended further assistance to reach out to people who live in HEC areas of Tamil Nadu to cover all major HEC areas that includes Thirunelveli, Viruthunagar, Theni, Nilgiris and Hosur districts. The first educator skills training programme was conducted at Rajapalayam, inviting educators from Kalakkad, Thirunelveli, Sivagiri, Devathanam, Rajapalayam, Srivilliputhur, Saptur, Watrap, Theni, and Usilampatti. The Wildlife Association of Rajapalayam WAR being the local partner the three-day programme was conducted in collaboration with the Grizzled Giant Squirrel Wildlife Sanctuary. The first workshop of the series was organized at Chinmaya Vidyalaya P.A.C. Ramasamy Raja Matriculation Hr. Sec. School, Rajapalayam in which 36 educators participated from 18-20 August 2012. A pre-workshop survey was conducted in all these areas before the training programme.

The major objectives of the workshop are 1. to empower educators to confront the issue of HEC and a partial "solution" HECx (Human-Elephant Coexistence) and 2. to demonstrate innovative teaching and learning techniques designed to change human attitudes and behaviour for the better.



Villagers view on Human Elephant Conflict



Politicians view on Human Elephant Conflict

## Getting along with elephants: teaching guide

The approach in the teaching guide is "first and foremost" that individuals and families who live in elephant areas, take responsibility for themselves which includes learning ways to avoid confrontation and promoting self-protection, become willing to exchange some old habits and beliefs for survival and thus reduces the incidence of injury and death due to HEC. At the same time they may also learn other techniques which may help them both "Get Along with Elephants" and

salvage property, crops, etc., but our primary purpose is mitigation... reduction of incidence of death and injury, both to humans and animals. The teaching techniques are also varied in order to target different educational, economic, and social levels of students. The techniques include evaluation tools; historical, cultural and current matter through

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**Human Elephant Conflict from Poet's view**



**Role play of a Farmer on Human Elephant Conflict**

activities rather than lectures; a variety of intellectual skills taught through small working group activity; and philosophical and emotional approaches to bring about attitudinal and behavioural change through role playing and drama.

Getting along with elephants teaching guide consists of five units, each featuring the Asian elephant, which can be used as a medium for conveying a wide range of active learning techniques for both experienced and casual educators. This also provides education about Asian elephants generally and creates interest among students and other target groups to contribute at individual level to help mitigate HEC.

Included in the teaching guide are basic facts about kinds of elephants, elephant facts, drama with themes on elephant biology and threats, systematic position of Asian elephants in animal kingdom, comparing elephants with that of other pests, elephant role in human culture, elephant behavior, past and present Asian elephant distribution – Map activity, illustrated history of elephant, peoples perception of elephants - Role play, village committee and debate. All these activities help to use the following scientific thinking process.

**Observing** - is using all the senses of sight, smell, taste, touch, and hearing to gain information (Activity: elephant behavior).

**Communicating** - whether oral, written, or graphic — increases everyone's awareness and gives a fuller picture of the object or phenomenon. (Activity: illustrated history).

**Comparing** - Measurement is a way of comparing things: we compare something to a set of standardized units. we may weigh something (kgs), measure its length or measure its holding capacity. (Activity: elephant behavior, elephant Vs rodents).

**Organizing** - Grouping or classifying the things. (Activity: elephant taxonomy – Asian and African elephants)

**Relating** – a process by which concrete and abstract ideas are related together to test or explain phenomena. (Activity: HEC conference, village committee and debate).

**Inferring** - is the process of realizing ideas that are not directly observable. (Activities: past and present Asian elephant distribution – Map activity, peoples perception of elephants - Role play, role of elephants in Asian culture)

**Applying** - knowledge involves using knowledge to solve problems. Activities: conducting education programmes, using ele-kit packets, applying "Dos and don'ts" in HEC situation.

At the programme at Rajapalayam, the participants committed to do programmes in HEC areas using all education tools that they learned and to promote Human elephant coexistence. A follow up programme will be organized six months after the training programme to assess the impact of the training towards attitudinal change among the people who live in HEC areas. We would like to thank Sri. S.S. Ramachandra Raja, Correspondent, Chinmaya Vidyalyaya P.A.C. Ramasamy Raja Matriculation Hr. Sec. School, Rajapalayam and the Wildlife Warden, Grizzled Squirrel Wildlife Sanctuary, Srivilliputhur for their assistance and cooperation to organize this programme successfully.