

**Developing Zoo Educators' kit for Conservation
Education(CE) for South Asia, including an
Educational Manual for Educators and a CD**

A Proposal

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by

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– A Proposal

Zoos have traditionally been viewed by people as places of entertainment. The emphasis for long has been on exhibiting large variety of animals both indigenous and exotic. The animals used to be kept in small dingy cages. With fragmentation of wild life habitats and dwindling populations of animals, the role of the Zoo has now undergone a change.

Today the need for effective conservation education is much more pressing. The desire to understand animals has been joined by the need to conserve their populations and ecosystems. Over the last few decades we linked explosive growth of human populations with changes in the abundance of other species. The emphasis on displaying fewer species of animals, preferable local and regional species in naturalistic enclosures suited to their biological requirements.

Conservation messages are shifting from endangerment and captive breeding to the importance of saving habitat. Zoos and aquariums are looking toward more commitment to in situ conservation, and the educational message should reflect this important shift.

Zoos offer a unique combination of resources that are not available in the classroom situations. Zoo lessons allow students to get up close and personal with live animals. The zoo houses a variety of mammals, birds, reptiles, frogs and insects that form the basis of all lessons offered.

Zoos can be used by teachers as places to sensitize students regarding the need for conservation of our biodiversity and natural habitats. Zoos are sensory places. Students, teachers and parents can see them, sense them and then have the skills to save them.

A tiger displayed in a naturalistic enclosure can be correlated with its conservation status in the wild. The outcome of a zoo visit can thus be made memorable and long lasting.

When you visit the zoo you hear, see and smell wildlife. In the zoos, students can encounter live animals face to face. Thus trained teachers and other educators at the zoos can offer students a wildly different learning experience, one that can act as a stimulus for further learning.

Teachers can address several environmental education themes across the curriculum through a variety of stimulating educational activities and projects related to the zoo. Zoo education supports schools by designing the zoo excursion or zoo lesson around the specific needs of each school.

Several zoos do provide written resources to support learning, such as specific zoo kits for each of the key species, as well as general information kits and zoo-based fact sheets for assistance with school projects. However these are usually more focused on the details of the animals, rather than the methodology of using the zoo with all its features as a teaching learning resource. This is a felt need for a professionally developed educators' kit to highlight this role and potential of a zoo.

CEE proposes the development of a Zoo Educators' Kit.

Rationale for developing the Zoo Kit

South Asia, formerly known as the Indian Subcontinent, consists of eight countries namely India, Pakistan, Bangladesh, Bhutan, Nepal, Sri Lanka, Maldives and Afghanistan.

CEE representative has been selected by the International Zoo Educators' committee(IZE), as a Board Member and the Regional Representative for Zoo Education in South Asia. The term is from 2010-2014.

Correspondence and communications have happened with several zoos located in these countries and many zoo educators' have suggested and keenly expressed, that developing a Educators' manual would be a very useful educational material for their zoos.

The manual would be a very effective tool/aid for conducting activities with students in the zoo, both by the school teachers as well as zoo educators, volunteers and facilitators. Along with the Teachers manual there has been also a request to develop a CD, as a supplementary and complimentary educational tool for teachers.

The Zoo Educators' kit, to be developed by CEE would consist of an Educators' manual and a CD, which would try to educate students on the animal in the zoo, and issues related to sustainable development.

The teachers manual to be developed by CEE seeks to orient and equip and aid teachers in

carrying out their role as zoo educators' effectively and in a fun way.. The manual will deal with various aspects of how Zoos can be used for Conservation Education. It will include:

- Role of a Zoo and its management , changing role in the present ceenario
- National Zoo Policies and legislations with regard to zoo and wildlife and status
- Role of zoos supplementing the in-situ efforts
- Planning effective School visits to zoos – Pre, during and the Post Zoo visit
- Interesting facts on wildlife, forests, endangered species and climate change
- Activities and worksheets that involve students directly in exploring, discovering and engaging with a variety of ecology concepts as well as aspects of zoology, biology and environmental studies.

The Manual will have 4 sections:

Section I : Understanding a Zoo

This provides background information about zoos, including the role of Zoos in conservation, research and education the history of zoos, the working and management of zoos as well as organizations involved in zoo management. This information would be useful in understanding how zoos are more than places for mere recreation but rather that they serve a larger conservation education purpose. Also included are specific suggestions on how an educator can use this facility to plan and create an exciting teaching-learning experience. Thus the first section is meant to serve as a useful starting point for anyone to plan a visit to the zoo so as to make it more educational than a picnic, but certainly as much fun as an outing. This information can be shared with the students to create a greater interest in, and anticipation of, a forthcoming zoo visit

Section II : Worksheets

This includes a set of worksheets, each one developed around a specific theme such as mammals, birds, reptiles, insects ears, eyes, tails, etc. These worksheets are to be filled in by each student, based on their own observations while going around zoo. The worksheets are designed so that students get an idea of the great variety, in form and function Nature as well as

some commonalities that animals share. They will also sharpen students' skill of Observation, recording and classifying information.

The worksheets may be duplicated and distributed, or copied out by each student, so as to be used during the zoo visit. Depending on the time available and/or your planning for the visit, you could decide which of the worksheets the students can full during the visit.

Section III: Activities

The selection of activities covers a wide range of objectivities--starting with creating an awareness and appreciation of wildlife, to observing and noting the variety of form and function in the animal works, to an understanding of ecological principles and interrelationships in nature.

The activities may be used to introduce or reinforce these objectivities. Teachers may choose to do these before, during or after the zoo visit, depending on their overall plan and situation.

Each activity will include a statement of the instructional objective, the main subject area covered duration, recommended group size, setting (indoor or outdoor), materials required, a step by step procedure, and a few questions to evaluate student learning. Each activity would be designed to stand alone, so you that educators may pick and choose the activities to best suit their requirements.

Wild Facts

Each worksheet and activities will be accompanied by a note which provides background information about the topic it covers. This would be useful for introducing the topic, or generating further discussion amongst the students.

Project Ideas

Feasible and interesting project ideas would be suggested and listed, that the students can carry out, consulting agencies and institutions like museums, other zoos, universities and NGO's.

Developing the CD

The CD would be designed and developed and would include :

Slide shows on -

- Role of a Zoo
- Zoo Ethics
- Ecosystems like the Rain Forests, Coral reef, Mangrove, Wetlands and lakes, Grasslands and scrublands, Deserts
- Form and Function in Nature-Introducing characteristics of Mammals, Birds, Reptiles, Insects

Fact sheets/worksheets(downloadable and printable) -

- Common species of South Asia
- Insects and Butterflies

Lesson Plans on different aspect of Biodiversity

Poster series – Posters on aspects related to sustainability and leading towards to a 'Handprint Zoo'. Handprint is a concept launched by CEE; it indicates positive action towards sustainability.

- Showcasing good waste management practices, energy efficient systems, resource conservation steps that zoos can adopt.

Project Duration :

The project duration would be **18 months**, from the time of signing the MoU with CZA.

Design and development of the Educators' Manual and the CD is projected as Phase 1 of the Project.

The budget for Phase 1 is Rs.25,90,000/-(Rupees Twenty five lakhs and ninety thousand)

Please see Annexure 1 as attachment

Phase 2 of the Project would involve conducting teacher orientation workshops in different South Asian regions, for which a separate and detailed proposal, with budgetary details, would be submitted by CEE to CZA.

About CEE

Centre for Environment Education (CEE) is a national institution engaged in developing programmes and material to increase awareness about the environment and sustainable development. CEE was established in 1984 as a Centre of Excellence in Environmental Education, supported by the Ministry of Environment and Forests (MoEF), Government of India.

CEE's primary objective is to improve public awareness and understanding of the environment with a view to promoting the conservation and sustainable use of nature and natural resources, leading to a better environment and a better quality of life. To this end, CEE develops innovative programmes and educational material, and builds capacity in the field of education for sustainable development (ESD). To test the validity and effectiveness of its programmes and material, CEE undertakes demonstration projects in education, communication and development that endorse attitudes, strategies and technologies which are environmentally sustainable.

CEE is honored to have been entrusted by the Central Zoo Authority(CZA)to collaborate on the development of Master Education Plan for Zoos of India. The Master Education Plan documents include the Zoo Education Master Plan and An Ideas Source Book : Adding Value to Zoo Visits. The Master Education Plan for Zoos is report which is a result of extensive discussions, research and visits. Directors of zoos from all over India participated in several meetings and workshops. Almost all zoos in the country were visited and extensive secondary research was also done. The report therefore reflects not only innovative ideas but also rich experience of educational programmes carried out in zoos across India. The plan faces these challenges, shares experiences and gives a direction for future.

Budget for Developing Zoo Educators' kit for Conservation Education(CE), including Manual for Educators and an interactive CD (for South Asia)

Sr.No	Account Head	Total Budget (in rupees)
1	Research,Development and Writing, for CEE team (3 persons)	1057000
2	Salary of Project Officer(to be recruited)20,000/ pm	360000
3	Travel	100000
4	Design, Development and Production of Educators Manual (4 colour title page and 2 colour inside pages) (2000 copies)	300000
5	Design, Development and Production of CD (2000 copies)	350000
6	Communication	90000
7	Admin exps	180000
8	CEE Overheads (15%)	153000
	Grand Total	2590000
	Rupees Twenty Five Lakh Ninety thousand only	

24