

SPECIES FUTURES: What zoos and other organisations are doing for climate change with the CBSG /WAZA Climate Change Task Force

The World Association of Zoos and Aquariums (WAZA) and Conservation Breeding Specialist Group CBSG responded to the dramatic threat of climate change with a wide and varied array of actions. WAZA and CBSG formed a Climate Change Task Force to integrate and coordinate ideas and activities of their member communities. There has been an overwhelming response to their request for solutions and help for this staggering challenge to the world over the last few years.

Now a dynamic electronic document is being created which will appear on the WAZA website soon after 30 March 2012 to collect all manner of documents, reports etc. from all manner of organisation and institutions and covering the technical and educational needs of all ages and levels of human beings.

Zoo Outreach Organisation has contributed to the need for Climate Change material on three levels : Training, Education and Network. Recently we sent our succinct contributions to WAZA for their web based project. The review below is reflective of those activities with a more detailed overview of the last 3 years of climate change actions. The following is the story of ZOO's involvement with climate change and our attempts to assist a wide range of age and education levels of people to understand the gravity of the problem without losing hope. **Editor**

In 2008 the World Association of Zoos and Aquaria WAZA and the IUCN SSC Conservation Breeding Specialist Group CBSG created a Task Force to better respond to the threats to wildlife that climate change poses.

ZOO and WILD organisations support 10 regional taxon and thematic networks. ZOO integrated people from both organisations and networks in yet another network, the ZOO Climate Change Network. Our Network cannot solve all problems of wildlife and climate change but it can increase the knowledge, interest and effectiveness of many people who may be working alone. The goals and activities of the Network below are focused specifically on South Asian Wildlife.

View the activities of ZOO, WILD and SAZARC through their Climate Change Network, CC Education and CC Training.



ZOO's Climate Change Educational materials

The South Asia Climate Change Network is based on the success of other thematic and taxon networks. Climate Change as a theme is difficult because it requests human beings to change their habits. We can't survive climate change if we continue on the road to disaster of the last few decades.

ZOO has been communicating various climate change publications, announcements, education tools etc., to its network members regularly since 2009, covering literally thousands of people of all ages.

Climate Change Education International Year of Biodiversity
ZOO developed educational literature combining IYB and Climate Change for kids which have been distributed to more than 100 institutions and supplied 7000 packets and other items which were used in Indian Wildlife Week since 2009 and again for the 2011 World Environment Day and Wildlife Week (International year of Forests).

- **Booklets :** [The Greenhouse Gasses and the Greenhouse Ghost](#), [Live More Simply](#) (links biodiversity with

[climate change](#)), [What you can do to live more simply](#)

- **Activities and games :** [Five Kingdoms of Life Cards](#), [Climate Change Gameboard](#), [climate change mask](#), [climate change commitment bracelet](#)
- **Drama items :** [Drama card](#), [Masks](#), [placards](#), [Climate change glasses](#)
- **Climate Change Education reports from South Asian zoo and wildlife educators using above mentioned materials.**

Training in Climate Change SAZARC works on Climate Change
South Asian Zoo Association Regional Cooperation Conference 2010 participants at Nepal formed country-based climate change working groups who assessed animals in their own zoo collections to ascertain which species were more vulnerable to climate change with a focus on education and conservation.

Dr. Wendy Foden, Programme Manager for the IUCN SSC Climate Change Group, delivered three lectures during SAZARC 2010 conference held at Nepal on climate change and monitored country-based working groups on species susceptibility to climate change.





Students pledge on climate change wearing climate change mask



Dr. Wendy Foden discusses species susceptibility with the Afghans and Pakistans



Participants fascinated with Dr. Wendy Foden's presentations on climate change

How are Biodiversity and Climate change related?
a short note by B.A. Daniel.

It has been accepted by scientists that climate change and biodiversity are interconnected and climate change is a new threat to biodiversity.

If our biodiversity is adversely affected, it will bring negative impacts for human well-being all over the world. Managing and conserving biodiversity has now become essential since biodiversity also contributes to climate change mitigation through its ecosystem services. For example, forests (if conserved) can remove carbon dioxide from the atmosphere, thus helping to address climate change by storing carbon.

Climate change will affect different areas of the world to different degrees. Some species can adapt to climate change while many species are susceptible to climate change. It all depends on a variety of biological traits including the species life history, ecology, behaviour, physiology and genetic makeup.

Predicted aspects of climate change

- Frequent storms
- Frequent droughts
- Frequent floods
- Frequent fire
- Increased Carbon dioxide in atmosphere
- Increased Carbon dioxide in Ocean
- Extreme rainfall
- Change in rainfall pattern
- Temperature extremes
- Sea level rises
- Changes in seasons leads to

Effects on species

- Changes in species distribution ranges
- Loss of habitats
- Death of species due to increased stress
- Changes in birth rate – change in population structure
- Changes in sex ratios
- Changes in competitive ability
- Impact on migration and dispersal
- Disconnection of prey predator relationship
- Emerging new pathogens
- Problem with invasive species

The present cause of Climate change is man-made. Excess use and over-exploitation of natural resources through industrialization, and use-pattern, deforestation, large scale farming of domesticated animals, etc., are the main causes of global warming that leads to climate change