

SPECIES FUTURES: What Z.O.O. is doing with the CBSG/WAZA Climate Change Task Force, CWCCTF

Sally Walker*

Zoo Outreach Organisation and its partner organisations and networks join in creating new network for Climate Change. The inspiration for this is, along with our interest and concern, a request from the IUCN SSC Conservation Breeding Specialist Group CBSG and the World Association of Zoos and Aquariums WAZA to represent South Asia on their relatively newly established Task Force. These messages below will explain in some detail as they are what we sent all of our network and organisational members in the region to introduce the network. Just in case you want the "short version", here it is.

We at ZOO decided the best way to use our representation for the CWCCTF would be to start a Climate Change Network somewhat along the lines of our other 8 or so networks. It is entirely electronic and inspired by and strongly associated with CWCCTF, but also an independent entity. The 3 messages do a better job of explaining that than I can in a paragraph so if you are interested, read on.

We got 130 members very fast and still getting them. Now I am wondering if this was actually such a good idea as many of them are taking it VERY seriously. That's what we want but we need a staff to do only this! We are sharing the work between me (as the appointed CWCCTF South Asia rep) Sanjay, Daniel (the climate change specialist of our group), Marimuthu and Latha. So bear with us. We have developed educational literature combining IYB and CC for kids which we distributed to 64 institutions (50 copies each plus a few special requests for more) to use in Indian Wildlife Week programmes (October 1-7). The introductory email messages are below.

We are taking turns to write to the network members every week. My turns are over -- I did three weeks messages and now it is B.A. Daniel's turn. When he completes his three messages we will publish it in ZOOS' PRINT.

We have help from Ateeq Ahmed, our former freek employee who is now very gainfully employed in Los Angeles, California to make our website associated with all the Google tricks so that we get more coverage.

We hope to reach many people in South Asia with this network. We are all pretty busy now with many things but if we don't acknowledge that Climate Change is a reality, our work will go for naught. It IS a reality and life is going to change exponentially unless we all start working for backpedalling on our lifestyles. Just to be perfectly honest and avoid accusations of hypocrisy, I have not given up or contributed much of anything toward reducing carbon emissions. I hope coordinating this network will shame me into doing so!

Sally Walker

MESSAGE 1

(All mss sent to everyone on every one of our networks and organisational lists but many people did not receive it due to the size of the lists (we think). If you are interested to become a member of this electronic network, please send a mail to zooreach@zooreach.org. In the subject line say "I DIDN'T GET YOUR MAIL - I WANT TO JOIN".

Greetings

The World Association of Zoos and Aquariums **WAZA** and the IUCN SSC Conservation Breeding Specialist Group **CBSG** have created a **Task Force** to better respond to the **threats to wildlife** that climate change poses. This is a serious issue and if you are interested in understanding more about what is known about climate change impacts on wildlife, please see the attachments on **species susceptibility to climate change** which we have from the IUCN SSC website.

The ZOO and WILD organisations support a range of 10 regional taxon and thematic networks including CBSG, and ZOO is a Member of WAZA. The South Asian Zoo Association SAZARC which we host is also a member of WAZA. We would like to integrate all of our captive and wild wildlife networks in facing this particular crisis for wildlife, which is so elusive, abstract, controversial and worrisome. The WAZA/CBSG CC Task Force won't solve all the problems of wildlife and climate change but with a climate change network we will have a far greater impact than working alone. All of the 1,700+ members of our various zoo and wildlife oriented groups are invited.

Below is a description and goals of the WAZA/CBSG Climate Change Task Force. Our goals will follow these while focused specifically on wildlife in all the countries of South Asia. We will be catalysts for your direct involvement and use that for improving our technical response, ability and capacity.

WAZA/CBSG Climate Change Task Force

A joint WAZA and CBSG response to the climate change threat facing wildlife.

The WAZA/CBSG Climate Change Task Force was established to facilitate our community's response to the extreme gravity of the climate change threat facing wildlife and natural systems. The goals of the Task Force are to:

Catalyse our community's engagement with the urgency of the climate change threat (inc. our own staff, partners, visitors and outreach constituencies from children through to world leaders); and Improve our technical response ability and capacity

*CBSG/WAZA Climate Change representative for South Asia

(inc. clarifying impact on our species and programmes, producing briefing and engagement materials and optimising our information dissemination networks etc).

The South Asia/CBSG/WAZA Climate Change Network is based on the success of our other thematic and taxon networks (without cloning them). Climate Change as a theme is difficult. It has become popular because big organizations tell us it is important, but it is so big and so associated with entrenched habits and favourite activities that only the most dedicated individuals might make sufficient sacrifices to make a small difference. Making a difference in this particular crisis requires almost everyone making sacrifices including everyone whose behaviour and preferences has brought us to this point.

If you are interested in becoming part of this as yet unnamed Climate Change Network please send an email to zooreach@zooreach.org simply stating your interest and you will automatically become a member. We will circulate a only 3 or 4 emails to our entire list before limiting it to those who have indicated interest. If, after joining, at any point, you want out "you got it.

Best wishes

Sally Walker, Sanjay Molur, B.A. Daniel, R. Marimuthu and Latha Ravikumar, Zoo Outreach Organisation ZOO, Wildlife Information Liaison Development WILD

MESSAGE 2

Greetings again ! Introduction

This is the introduction to Message 2 to describe our as yet unnamed CC Network and get feedback before we settle into action. We want this network to be very interactive. We thank all those who joined the network. We hope this mail will attract even more. Before getting into the message itself I want to 1. clarify the difference between the task force and our network and 2. request suggestions for (short) names for the network.

1. Clarification: This as yet unnamed Climate Change Network is not the WAZA and CBSG Climate Change Task Force? it is a regional activity of it based on their request. We will be closely associated with the CBSG and WAZA Task Force and share its products with our network members, but we will organize our CC activities, research, educational material, etc. independently and appropriately for our South Asian networks.

2. Request: We need to find a name for this network that expresses our individuality. We need a name that may include South Asia but also should include a word or words that identifies us as professionals primarily interested in both *in situ* and *ex situ* wildlife conservation, whether it is flora, fauna, fungi, or those itty bitty things in the other kingdoms of life that scientists keep changing. This identity is in

keeping with the TF mandate.

So please suggest some names that might be a clever way to identify our network. It can be a short name and a longer tagline. It doesn't have to make sense (YET) ? we are just brainstorming. Manoj Mishra characteristically came up with a good suggestion, e.g. Species Futures ... quite clever and appropriate. So try your hand at this and then we will winnow them down to a short list and "democratically" select a name.

ZOO held a few brainstorming sessions about issues within the CC subject and how this CBSG WAZA inspired Climate Change Network can be effective in changing attitudes and behaviour with regard to climate change. So first we decided that the network could be run using some of the most effective and popular activities of ZOO & WILD's other thematic and taxon networks.

Climate Change (CC) as a theme or issue is difficult compared to our other networks. CC has become "popular" because big organizations tell us it is important, but it is so big and so associated with entrenched habits and favorite activities that only the most dedicated individuals will make sufficient sacrifices to make even a small difference. Making a difference in this particular crisis requires everyone in industrialized society to make sacrifices, many of them very difficult. We have to exponentially increase the numbers of people who believe that climate change IS actually an issue - too many are still skeptical.

We discussed some of the difficulties facing us in bringing about behavioural and attitudinal change with relation to climate change:

- The **complexity** of climate change makes it difficult to understand its cause. Natural events, such as volcanic eruptions, variations in ocean currents, etc., can bring about climate change, but our concern now is human-induced climate change and how to recover. ways to slow its progress. We have no control over natural events but we can control our own actions. Human beings altered the atmospheric content by 30% in 200 years by changing land use patterns and burning fossil fuel, etc. Another 200 years are required to reverse the damage, provided there is no further alteration to the atmosphere. The entire process of Climate change is difficult to understand because it is a progression, involving weather, winds and ocean currents, atmospheric gases and at least since the industrial revolution, human interference.

- Also, the fact is that Climate Change is an **abstract concept**, and the **uncertainty** generated by what seems a theoretical framework brings about resistance. Our task is to see what IS changeable in an immediate sense and work toward that. A few of the difficulties are listed below.

- ◆ People are uncertain what they are dealing with
- ◆ Climate Change and Global Warming are often discussed together and thought to be exactly the same thing.
- ◆ People do not *want* to believe that Climate Change is real, that it is really happening;
- ◆ People do not want to give up anything they currently do even if it hastens Climate Change, such as flying v/s taking a train or video-conferencing.

So, we need to focus on the human resistance to the reality of climate change that we might influence or change with education. We need to speak directly to this resistance and create dramatic models which generate attitudinal change.

- We discussed the misuse of the term "climate change", that is the tendency of individuals and organizations to claim certain actions significantly mitigate climate change. This tendency prevents people from being honest with themselves. Without being honest, we can't improve our action.

We discussed collecting and addressing examples of both commercial and conservation related organizations and individuals that claim their product or activities mitigates climate change but it really isn't. Mitigation measures which seem genuine can be studied and promoted as good things to do.

Example of self-deception: carbon credits. In a conference, we pay a small fee for a nametag that identifies us as having contributed carbon credits and therefore justified our international flight to the venue. We do this without even knowing for sure where the money is going. We do this because our colleagues are doing it but also because it helps absolve us of guilt and enjoy a conference convened at the expense of 100's of 1000's of gallons of oil.

Example of genuine mitigation: A conference could be convened as a virtual meeting over the internet? Or instead of bringing a famous speaker from another country, videoconferencing his speech, and even questions and answers can be done. PSG Tech in Coimbatore invited Dr Rajendra K. Pachauri, Chairman, Inter-governmental Panel on Climate Change for a public lecture using video-conferencing and it was a great success. A few such conferences wouldn't make an impact but imagine if it were enough to reduce the number of flights required around the world.

- We discussed that Climate Change has become a buzz word and CC mitigation a fashionable activity, taking examples of organizations and institutions confusing genuine climate change mitigation with things we would do anyway, to save money or for our own convenience. Such actions just make people feel better without bringing about

awareness and change, and impede rather than help us understand and confront climate change.

- ◆ So what about developing a "standard" of genuine and good practice of climate change mitigation, and apply it to everything that we do thinking that it aids CC mitigation. That would make it possible to be honest about what we are doing.
- ◆ We could then focus on specific tools and methods for Climate Change mitigation which had passed the "standard" for effective CC mitigation.

What do YOU think of these ideas? We want to hear from you.

Our next message will be about working with groups of youngsters and developing ideas and teaching material which would catch their attention. Then we will try and get to working interactively on some of the concepts introduced today as well as effective learning material for kids.

MESSAGE 3

Dear Colleagues:

This is message 3 and from henceforward we will not send messages to anyone who has not signed up. This is, as promised in our first and second message, for the benefit of our network members who do not want to get climate change messages. Anyone interested in wildlife and climate change can still join but they will have to initiate. We will write only to people who have said "I want to join."

This message will be my last for awhile. Next Dr. B.A. Daniel, from our office will put up 3 messages and then Sanjay and Marimuthu will do. We would also like to hear from the final Members of this Network, those who have joined so far and those from the greater network who respond to this mail. Then we will be a smaller group and will have more freedom and diversity possible. For example we can set up small committees within our network and work on some problems and tasks.

We have a task for you now. You know, when a person crosses a certain age, even the age 21 or so, they are already kind of set in their ways. They have established habit patterns and it takes great effort to try and even change our own bad habits much less anyone else. Children are not like that...they are still teachable and it is not so hard for them to change. Perhaps we could start by thinking of ways to invest energy in kids by creating innovative educational materials and activities. We might get more return for our investment if we focus on children a bit. We have developed one packet or kit ... lets have more...as a network project. Our group, Sanjay, Daniel, Marimuthu and me, brainstormed some activities people might want to work on for children's education. These are below. We'd like to assign a task for everyone who has

joined or will join responding to this message, to select one of the themes or activities below and try to create something ... a game, an essay, a drama, a song ... anything that could be used to entertain and stimulate children, and at the same time, direct their attention toward what we need to do as concerned citizens to address climate change.

- Initiate contributory exercises in making children's literature about climate change with the whole network. Start projects via email, such as a packet, or a story and take contributions from any who care to contribute. This will bring new ideas for the difficult task of creating appropriate and effective youngsters teaching material and also keep some network members focused on the problem and a useful approach.

- Think of clever products that would remind people about the importance of climate change, such as create a thermometer keychain with reminder slogan on CC.

- Create CC songs frisky song, sad song, hip hop song, c&w song for use in education programmes. This can also be done with mass brainstorming sessions.

- Make a collection of audio video documents on CC evidences in South Asia

- School/college level small project ideas - just listing topics only for people to get project ideas

- Drama themes on cc

- Create suggested email trailers catchy slogans change every week.

- Same suggestion for SMS messages

- Developing Power Point presentations for distribution

- Identifying Ultimate problem : Reaching/convincing Common man to bring about attitudinal and behavioural change.

Or contribute new ideas.

Well, that's all from me for awhile. **Dr. B.A. Daniel will take care of you for the next three weeks or a month.** If you have Messages for the whole group, you can submit them and we will pass them on.

I should close by announcing that Manoj Misra's title for our network seems to our naming committee the most creative, as well as appropriate for our interest in species and climate change ... his suggestion for our CBSG WAZA Climate Change Task Force name is:

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Congratulations Manoj. We will use others' suggestions to come up with a "tag" to go with this name.

Best wishes,

Sally Walker and the ZOO Crew

Climate Change and Loss of Biodiversity -- Z.O.O. helping observe the 53rd Year of Wildlife Week

ZOO developed a childrens packet on Climate Change last year. This year we revised it, corrected some errors and reduced the number of pages. It is still a big "out there" but one has to remember, it is for small children to try and explain concepts that defy even adult brains.

Since this is the International Year of Biodiversity and the year is almost over, we at ZOO wanted to make educational material for free distribution for Wildlife Week as is our tradition, on IYB but we also wanted to make materials on Climate Change. Not enough money for 2...oh what to do?

What we did was to combine IYB and CC exploring the relationship of CC and Biodiversity and getting back to basics. The result was a booklet entitled LIVE MORE SIMPLY! starrrrrr- iiiiiiiing who else! Mahatma Gandhi!

Both booklets and a pamphlet with "to do's and not to do's will be featured on our www.zoosprint.org website as an issue of ZOO ZEN which will stop hard copy publication in January 2011 along with ZOOS' PRINT. Here we have included a couple of pages out of LIVE MORE SIMPLY which try to explain the relationship of Climate Change and Biodiversity ... simply.

The explanation is by Daniel with tweaks from me and the Diagram development also, but I should confess that the diagram was my idea, sort of ..., as I blatantly poached the basic concept from CBSG's "Extinction Vortex" model, developed by late Ulie Seal and late Tom Foose. Apologies all around.

We are just testing this on unsuspecting children as the packet has been distributed and we are open to outraged comments and corrections if those who know better think we crossed a line and made some mistakes.

However, it should be remembered that these booklets are for youngsters and older youngsters, not for rocket scientists or even normal people. Having said that I have a paper written some time ago which involved interview a range of adults to see how much they knew and understood the concept of climate change. I will dig that out and quote a few replies to the survey which should put "normal people" in perspective. Of course everyone should know more today about Climate Change than they did in the 90's.

That being said, we welcome comments, compliments, criticism AND corrections. **Sally Walker**

How are Biodiversity and Climate change related?



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

If biodiversity is affected, it will bring negative impact for human well-being. Managing and conserving biodiversity has now become essential since biodiversity also contribute to climate change mitigation through the 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.

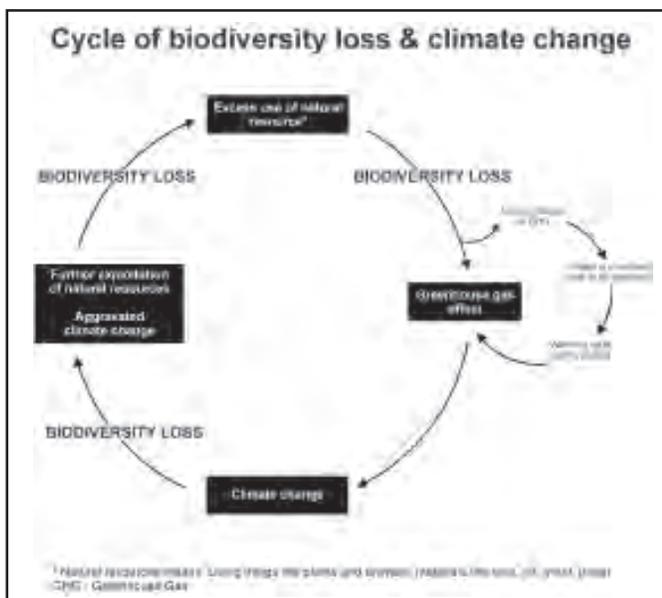


Diagram – the Extinction Vortex,
a new perspective

For younger youngsters

This GreenhouseGas booklet is part of a popular packet for youngsters, but now included in LIVE MORE SIMPLY packet. We can send you a copy of either or both booklets by pdf (a heavy pdf) if you are interested ... write to zooreach@zooreach.org and ask by name. You can order the packet but it will cost you postage and handling.



Caveat: In case the Greenhouse booklet is intellectually controversial I should tell you that it was again my wonky idea and as Daniel's boss I could muscle him against protest to do the technical parts of the text. He shouldn't be held responsible in case it is considered too far out!
Sally

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.