WAZA Projects, Disciplines, and Principles – in situ conservation

WAZA is involved in an extensive and eclectic array of projects, disciplines and principles, all of which impact conservation of wildlife and habitat in some way. On the WAZA website their conservation oriented activities include the following, which you may find out details by bringing up each one. Also within these topics there are links which will take you to other sites of related interest. Many of these are activities that are as diverse and complex as those of WAZA and CBSG.

We have selected only one of these for this first Zoozine as it is of great significance in forwarding conservation globally, but South Asia is participating only as a beneficiary and not at all as an equal partner. In WAZA Conservation Projects, the idea is to find a worthy *in situ* or field conservation project (a threatened species, ecosystem or community activity that is a positive force and combine funds from several zoos, ngo's, and other groups to provide support for the species).

The significance of *in situ* or field conservation can't be overemphasized in context with contemporary or "modern" zoos. The very meaning of "conservation" for the better zoos today has changed from breeding for releasee in the wild to building support for field projects which will lead to the conservation of a species, a habitat, an ecosystem in its own range.

The better zoos still breed animals, including threatened species, but their reasons for doing so are varied and must have meaning and purpose. Breeding and display can be done so that zoos have animals for display, for supporting natural behaviour of the species, for public education, for research, for continuing the captive species, etc. These reasons include raising funds for supporting the zoo AND its selection of *in situ* projects. Whatever breeding is done in the modern zoo is done for a reason and is done with regard to the genetic and demographic profile of the individual animal. Modern zoos also "protect their space" … that doesn't mean "territoriality"; it means utilizing space in their zoo consciously for conservation. Instead of keeping 200 *Axis* deer at great loss of space, they will focus on a non-common species and keep only a few individuals for public viewing and for very careful breeding. Zoos make informed choices about which species they will keep and insuring that their selection has meaning for wildlife conservation.

The array of conservation oriented topics listed below is what you get when you click your mouse on "Conservation" in the WAZA website:

- Climate Change,
- Environmental Sustainability,
- WAZA at Nagoya,
- 2011 Year of the Bat,
- 2010 Year of Biodiversity,
- 2009 Year of the Gorilla,
- 2008 Year of the Frog,
- World Environment Day,
- World Wetlands Day,
- International Studbooks,
- Conservation Breeding Programmes,
- Science and Research,
- Environmental Education,
- Code of Ethics and Welfare

WAZA Conservation Projects
Including an Overview, Project of the Month (we are including the write ups on the South Asian projects). There is also *Evaluation, Testimonials* and a way to *Donate*. In addition there is a page at the end on published *Conservation Strategies.*

We will focus in this CBSG WAZA ZOO's Print on the latter topic from the website. Also see the write up on Bert de Boer in the section on the Hediger Award following. This section of the WAZA website may alone change your way of thinking about zoos, at least at the international level.

Editor's Note : *Western zoos don't have to be the only institutions which support such projects…considering the importance of conservation of wildlife and wild places, of which there are numerous commercial companies in every country (both international and domestic) which are very well off and could easily contribute significant support to in situ conservation projects. One very good way to do this would also be to become Commercial WAZA member, but donations alone for specific project would be welcome and well-used. Get someone interested in this and have them write to WAZA Secretariat secretariat@waza.org.*

WAZA Conservation Projects
In the years 2000/2001, WAZA organised three *in situ* conservation workshops searching for a strategy on how WAZA should become more involved in *in situ* conservation. One recommendation was that WAZA (with the goal of becoming an internationally recognised conservation organisation) should "brand" suitable conservation projects. The idea behind the WAZA branding is to create a win-win situation: the brand promotes the project, and the brand allows WAZA to use the project to convey what zoos and aquariums do for conservation globally.

Projects (or programmes) are branded on application, with three sets of endorsement criteria, focusing on biological, operational, and institutional and partnership issues. Applications have to meet the criteria set forth by the WAZA Executive Office. Applications may be submitted by either the project receiving support from member(s) of WAZA or a WAZA member providing support to the project. Since inception of the scheme in 2003, the number of WAZA-branded projects has steadily increased to currently 195.

As an additional marketing tool, EAZA, the European section of the IUCN/SSC Conservation Breeding Specialist Group (CBSG Europe) and WAZA have established a World Zoo and Aquarium Conservation Database.

Getting the WAZA brand implies:
* Branded projects remain fully independent and WAZA in no way interferes with the implementation of the project.
* Branded projects may use "Partner of WAZA" label in publications, website, etc.
* A short article about the branded project is published in the WAZA News, with the possibility for a longer article in the WAZA Magazine.
* Branded projects receive the WAZA News and the WAZA Magazine.
* Branded projects may give a presentation at the WAZA annual conferences.
* A project description is published on the WAZA website. WAZA provides a link to the branded project's website and expects the project to do the same reciprocally.

* WAZA looks into the possibility of financially supporting branded projects through online donations and fundraising initiatives.
* Branded projects are expected to annually submit a short progress report (incl. evaluation) to WAZA.

The following are examples of WAZA branded projects from South Asia

SRI LANKA: Pinnawela Elephant Orphanage
To rescue and breed Asian elephants in Sri Lanka
The Sri Lankan elephant, *Elephas maximus vilaliya*, sometimes considered a distinct subspecies, has been reduced in the wild to an estimated 2500-3000 individuals, and a further 500 live in captivity. The Sri Lankan elephant occupies a variety of habitats from open grasslands to forested regions. The more than 10,000 elephants living all over the island in 1900 were rapidly depeleted due to big game hunting, rapid urban and agricultural development and deforestation, the latters leading to increased conflict between man and elephant. The remaining elephant population is essentially confined to the national parks, while pockets of small herds are strewn around in the north-eastern and eastern areas.

Pinnawela Elephant Orphanage is home for about 60 elephants, out of which many are juveniles found abandoned or orphaned in the wild. The project was started in 1975 by the Department of Wildlife. In 1978 the Orphanage was taken over by the National Zoological Gardens (Dehiwala) Zoo, and an *ex situ* breeding programme was launched in 1982. At Pinnawela an attempt is made to simulate, in a limited way, the conditions in the wild. Animals are allowed to roam freely during the day and a herd structure allowed to form.

WAZA Conservation Project 04022 receives financial support from Vienna Zoo and the "Tiergarten Schönbrunn" also provides assistance for developing a new elephant keeping concept. There is cooperation with Colombo (Dehiwala) Zoo and Pinnawela on several research projects (Hant Perera, Harald Schwammer).

NEPAL: Red Caps Programme
To monitor, understand and resolve human–wildlife conflicts in Nepal by training local people

As the human population expands, natural habitats shrink, leading to increased human–wildlife conflicts. The impacts of such conflict are often huge: people lose their crops, livestock, property and sometimes their lives. The wild animals, many of which belonging to threatened species, are often killed in retaliation or to prevent future conflicts. Human–wildlife conflict is one of the main threats to the continued survival of many species in many parts of the world, and is also a major threat to many local communities. If conflicts are not addressed quickly, the local support for conservation declines drastically.

For example, there were only two wild elephants (*Elephas maximus*) in Bardia during early 1990s: at that time, the level of conflict between wild elephants and humans was insignificant. This scenario has remarkably changed after a dramatic increase in the elephant population, which now is about 80. This population increase, due to elephants crossing the border from India, has led to an escalation of human–elephant conflicts: in a survey in Bardia's buffer zone, the elephants were reported to cause substantial damage to agriculture and property (mainly housing) every year. Besides, local people were also reported killed (three in 2007 alone) while chasing elephants from their paddy fields. In less than a decade, 64 people were badly injured and 15 were killed due to elephant attacks outside the Park. Prejudices towards the elephants are spreading, particularly since the elephant population is growing.

Similarly, wild boar *(Sus scrofa*), spotted deer (*Axis axis*), tiger (*Panthera tigris*), leopard *(Panthera pardus),* greater one horned rhino (*Rhinoceros unicornis*), rhesus monkey (*Macaca mulatta*) and langurs (*Presbytis entellus*) are among the wildlife species that also cause substantial damage to crops and cause conflict.

Documentation on human–wildlife conflict is very poor. Understanding the dire need to create a scientific database on human–wildlife conflict, Awely – in collaboration with the National Trust for Nature Conservation (NTNC), the Department of National Parks and Wildlife Conservation (DNPWC) and Bardia's Buffer Zone Management Committee – has proposed to standardise data recording systems and develop practical mechanisms to minimise the extent of human–wildlife conflict.

The "Red Caps" are part of a broad programme Awely has been developing in different regions of the world. They are selected from the local population, trained and paid by Awely, in collaboration with our partner conservation organisation based in the country: NTNC.

Among our goals are: to monitor, understand and resolve the origins and consequences of the conflicts between men and animals (through investigations), to organise workshops with the populations (involved as much as possible), to improve vigilance and cooperation between land owners, to supply them with training materials and to assist them into the settling of micro-projects.

Through the "Red Caps", the project creates sustainable cohabitation – profitable to both people and wildlife. In collaboration with the NTNC's Bardia Conservation Programme and DNPWC's Bardia National Park, Awely develops its "Red Caps" actions at the south and south-western areas of the buffer zone. Awely's "Red Caps" programme has been welcomed and well appreciated by the Trust, the Park authorities and the local communities.

With an aim to understand and evaluate the problems, two "Red Caps" have been employed in this region of Nepal and have been investigating each conflict's case in their area in detail. When going on site, they question people, take pictures and precisely describe the damage, location, species and number of individuals involved by filling a form. Having accurate information and a map of the areas of vulnerability is necessary to get a clear idea of the situation. In 2009, our staff members have investigated the following conflicts: Damage to crops 476, Attacks on cattle 66, Damage to houses 2, People wounded 2, People killed 1.

The information gathered are saved and analysed by Awely's staff in a dedicated database, when it will also be compared to conflicts in other places or countries in Awely's network, which contain the same species. Awely subsequently draws up an appropriate strategy, in collaboration with our partners.

By organising workshops, the "Red Caps" are able to provide communities with information on preventive measures, especially by giving some examples and demonstrations of what has been successfully tried somewhere else. This is based on Awely's conflicts network and includes workshops on: animals' behaviour, regulated harvesting, construction of fences, chilli fencing, guarding livestock and crops, chemical

repellents, growing of alternative crops, auditory, visual or olfactory stimuli used as repellent, diversion, land use modification, better and different landscape management, etc.

During 2009, an electric fence was installed along the park border. It has helped to reduce the number of conflicts. The "Red Caps" teach villagers how to maintain the fence and regularly verify its condition. For example, one of our staff members trained six groups of villagers in these techniques. One of the key messages we are communicating concerns planting crops in the fields near the fences that are not attractive to the specific animals, such as elephants or rhinos. While the collection of information on the conflict remains a priority for the "Red Caps", the other aspects of our programme are also being gradually introduced.

WAZA Conservation Project 08011 is implemented by AWELY in collaboration with the National Trust for Nature Conservation – Bardia Conservation Programme and the Department of National Parks and Wildlife Conservation – Bardia National Park and is supported by the Le Pal Foundation and Save the Rhino International.
Visit www.awely.org.

NEPAL: Red Panda Research and Conservation
To collect baseline information on red pandas in Nepal

The red panda (*Ailurus fulgens*) occurs in isolated pockets of high mountain ranges in western China (Sichuan, Yunnan and Tibet provinces) and the Himalayan mountain chain of Nepal, India, Bhutan and Burma, with an exceptional population on the Meghalaya Plateau in north-eastern India. The global population of the red panda is estimated at 16 000 to 20 000 individuals based on ecological density. Nepal hosts about 2% of the global population and the red panda population in Nepal is estimated at 300 individuals based on habitat suitability.

This project is based on scientific field investigation, community-level activities comprising extensive consultation, meetings with local communities, formation of conservation and monitoring groups as well as so-called *goth* committees, and collaboration with other organisations and policy-makers concerned with wildlife conservation and habitat management. The goal of this site-specific project is to develop the newly established Gaurishankar Conservation Area as a prime red panda conservation area in the Sacred Himalayan Landscape, with a viable population and suitable habitat.

This project provides baseline information on red pandas in the Gaurishankar Conservation Area, with the initiation of community participation in red panda conservation. The results of this project are used by the Nepalese Department of National Parks and Wildlife Conservation, the National Trust for Nature Conservation and local/national/ international non-governmental organisations and external agencies working in Nepal for formulating conservation policies.

WAZA Conservation Project 10030 is implemented by the Small Mammals Conservation and Research Foundation, with support provided by Chester Zoo. Other stakeholders involved in the project include the Department of National Parks and Wildlife Conservation Nepal and the National Trust for Nature Conservation. Visit www.smcrf.org.

INDIA: Red Panda Research
To study the behaviour of red pandas in India both ex situ *and* in situ
The red panda (*Ailurus fulgens*) is a small mammal of the Himalayas, almost the size of a jungle cat with a bright chestnut coat and ringed tail. It is distributed in the Himalayas from central Nepal through northern Burma and in the mountains of south-western China (Sichuan, Yunnan and Xiang provinces at an altitude of 1500–4000 m) The red panda is categorised as Vulnerable on the IUCN Red List of Threatened Species and is included under CITES as an Appendix I species. Red pandas are threatened by habitat loss, habitat fragmentation and trapping.

Various *ex situ* conservation efforts exist for the red panda. Padmaja Naidu Himalayan Zoological Park in Darjeeling, India, is dedicated to the conservation of endangered Himalayan fauna and embarked on a conservation breeding initiative for red pandas in the early 1980s with the acquisition of 1.3 animals. At present the zoo keeps 15 (10.3.2) red pandas and managed to release four animals back into the wild. The present project aims to look into and study various aspects of red panda behaviour at the zoo and in the wild.

The objectives of the project are (1) to study the behaviour of red pandas at Padmaja Naidu Himalayan Zoological Park, including their breeding biology, using closed circuit television and night vision cameras; and (2) to study the behaviour of red pandas, including within and between species interactions, in the wild at Singhalila National Park with the aid of camera traps. WAZA Conservation Project 10022 is implemented by Padmaja Naidu Himalayan Zoological Park. Visit www.pnhzp.gov.in.

INDIA: Indian Rhino Vision 2020
To promote the survival of Indian rhinos in India

The conservation of Indian rhinos, *Rhinoceros unicornis*, in Assam and India has been a great success in Kaziranga National Park. Through strict protection, the declining population of 10-20 rhinos in 1905 has recovered to more than 1800 individuals in 2007. However, more than 86 percent of India's rhinos live in just one National Park, Kaziranga. Only few other National Parks, such as Orang and Pobitora carry valuable populations of Indian rhinos. The risk to loose rhinos to disease, poaching and other problems (habitat destruction, traffic) has grown with the increase of human populations around the NPs and the always growing demand for rhino horns.

IRV 2020 aims to increase the rhino populations in Assam to 3000 by the year 2020. These rhino populations will be built up at the seven protected areas to provide long-term viability to the rhino meta population in Assam. The IRV 2020 project will further improve the security of all rhinos in Assam by implementing law enforcement measures, by expanding the distribution of rhinos to reduce risks like disease, in-breeding depression and mass mortality, and by improving the security system for those protected areas, where Indian rhinos already live. The project also aims to reduce the rhino population pressures in any single habitat by ensuring a better distribution of the rhino population over suitable ranges. In addition the project also concentrates on integrating the local communities into the conservation effort. It aims to provide jobs for people living around the NPs (in conservation or tourism), to help to protect crops from being raided and to implement further educational methods.

Orang National Park is a small NP (around 72km^2), located on the northern banks of the Brahmaputra, to the West of the Kaziranga NP. The rhino population currently ranges around 68 Indian rhinos. This is the third largest population of Indian Rhinos in India.Tiger and other rare species live in this NP as well. Orang NP is directly surrounded by communities to the North, West and East. In the past, there have been insufficient infrastructure and security systems, which led to high poaching activities (between 1995 – 2000, 64 rhinos were poached). The rangers did not have the means to go on daily patrols, neither during the dry, nor during the rainy season. Being located in a very beautiful natural setting, the Orang NP has the potential to become a very attractive tourist side and to raise an income through ecotourism. However this field has never been developed because of the proximity of the well known Kaziranga NP. Within IRV 2020, the Orang NP has received special attention as the population of rhinos live in a very good area but need strong protection. The Orang NP is one of the seven NPs in Assam that help to carry a sustainable Indian rhino population in the near future and, through its location, it also carries the potential to become a corridor area between Kaziranga and the northern part of Assam in the future.

The main threats for wildlife within the Orang NP are currently: Poaching, Shortage of manpower, Open river fronts, Lack of infrastructure, Lack of Community participation.
In the last year, the following issues were discussed and started:
- Motivation of field staff was strengthened by improving housing facilities, by providing basic field kits and by arranging annual medical camps for the staff and their families.
- More scouts were employed and replaced those who were sick and could no longer go on duty. Each scout received special training on land, riverside and in boats for the rainy season.
- More camps were build which allow for a better control. In addition the roads were cleared properly, wireless communication was optimized, a 4x4 vehicle as well as motorcycles and bicycles were purchased.
- Communities were approached and several awareness campaigns raised.

Basel zoo has assumed the sponsorship of the Orang NP on a long-term base to ensure the protection of Indian rhinos and to assist in the development of the Orang NP for the future.

WAZA Conservation Project 08008 is implemented by WWF India, the Government of Assam, and IRF (International Rhino Foundation), and is supported by Basel Zoo (Switzerland), and the IRV 2020 is supported by: IRF, USFWS, and the EAZA rhino campaign.

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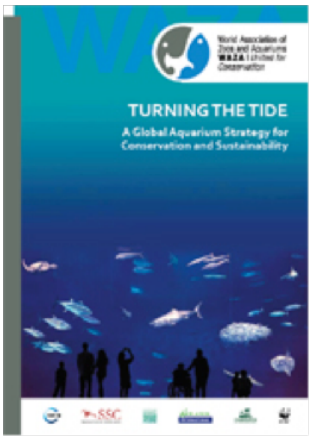
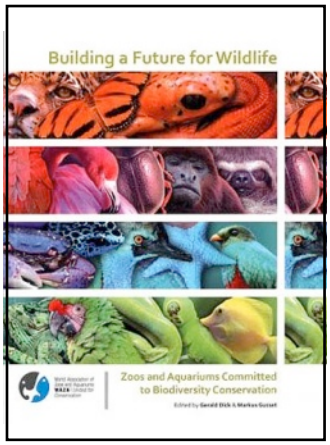
Some of WAZA's Strategic Documents

Building a Future for Wildlife: The World Zoo and Aquarium Conservation Strategy
Published in 2005



Turning the Tide: A Global Aquarium Strategy for Conservation and Sustainability
Published in 2009

Understanding Animals and Protecting Them: About the World Zoo and Aquarium Strategy
Published in 2006



The WAZA Biodiversity Book: Building a Future for Wildlife. Stories of WAZA's in situ conservation programme.
Published in 2010