

Six monthly progress report DI 16-009

“Crisis to Biological Management: Rhinoceros and Public Engagement – Nepal”

April – September 2008

Darwin Initiative



Submitted to:

Darwin Initiative

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**Zoological Society of London¹ and
National Trust for Nature Conservation (NTNC)
Nepal**



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1. Progress against agreed milestones for the 1st and 2nd quarters year 2 April to September 2008:

This reporting period was during the monsoon season and this restricts access and activities on the ground. A number of the milestones listed under this period are pushed forward and will be reported in the second annual report. The remaining areas of activity include those brought forward from earlier periods and or according to the planned activities and milestones listed below.

- i) **Training:** Training in GIS, map interpretation is ongoing, to be consolidated in November with a 5 day hands-on a prepared GIS training course (adopted from a ZSL MSc GIS course). Field assessment of training, data quality, entry and reporting procedures completed; standardised annual status reports are yet to be completed although they are in draft – the politics of status reporting remain a contentious issue in Nepal but with strengthening of the technical and steering committee it is hoped this will become routine and less a guarded secret; a meeting will be held with DNPWC officers and NTNC scientists to discuss findings in November. 1st – 4th May 08 a four day hands-on workshop was organised for the training of Greater One-Horned Rhino (and wildlife) monitoring instructors - held at Kathmandu Central Zoo. Thirteen park and army field officers were trained as instructors and tested (theoretical and practical exams) with accreditation, 9/13 passed. Monitoring course material has been developed, disseminated and officially included as the Asian Rhino Specialist Group training course to be used both in Nepal and India and in the Far East as a standard. Further status reporting training has been deferred to the next reporting period of the project but the nuts and bolts for this are now in place and the analysed data from the Parks available from November will make this less theoretical. There is a certain amount completed from earlier activities but it needs to be formally adopted and used by DNPWC. Veterinary training inputs were deferred to the November 08 visit. Training in scene of the crime activities and use of sniffer dogs during anti-poaching activities were deferred and will be started in October with

the arrival in Nepal of Rod Potter from SANPARKS. Feasibility study on use of dogs is deferred to later.

- ii) **Anti-poaching:** A period of serious poaching in the early months of the year in BNP and ongoing low level poaching in Chitwan was rapidly detected through the census and monitoring programme. During the rhino census on March 2008, a total of 22 individual rhinos were recorded in BNP indicating a sharp decline of rhino population in BNP. The more or less stable population of rhino in Chitwan suggests continuing low grade poaching perhaps amounting to 30+ a year of which only a small proportion are recovered. In BNP after the census two male rhinos were shot by armed poachers during the constitutional assembly election in the country in April. The first rhino was poached in the buffer zone on 3rd April and another on 26th April in the core habitat. The guns used were modern automatics. At the same time as the event on the 3rd a soldier working at Thakurdwara barrack was going home during the night time around 20:30 hrs, crossing the Karnali River and was apparently shot and killed by the poachers. The army claimed that the said person was on leave. The soldier was shot about 500m east of where the rhino was poached. This scared all the rhino monitoring team. The Darwin project coordinator, Naresh Subedi, bravely engaged suspects with support from ex-maoist rebels which had retained arms and also supported by the Park authorities. A detailed investigation was initiated by mobilizing the community and local youths. This was partly possible due to the raised awareness and anger generated in the community through the public engagement activities. The theatre production in local villages was ongoing at the time as well as inputs through the educational programme which had increased sensitivity to the crisis. As a result, a series of demonstrations were also held by the local public against the rhino poaching. Finally, on May 10th, 10 suspected poachers were arrested with 1 automatic rifle and 2 home made rifles. About 10 kg of tiger bone and a rhino horn was seized. Others who could be involved in the poaching are under investigation. The arrested poachers were charged, and after a trial were convicted and sent to jail for 15 years and fined NRs. 100,000 according to the law. Out of 10 poachers, one person was a soldier in the Nepalese Army based at Nepalgunj and 3 others were serving with the army until 2007. One (lady) was a hotelier near Nepalgunj airport and was playing a middlewoman role. The project rhino monitoring team along with the anti-poaching team of BNP played a central role in the whole process and financial support for the operation was provided by the BCP and through the project. The most worrying aspect of these arrests was the involvement of army personnel. The army is mandated to protect the rhino, are the only armed personnel have full access to the park and rhino day and night and so it is not surprising the levels of poaching were as bad as they were. The poachers included local civilians but it was clear that the majority of the community were totally opposed to this behavior. This situation was suspected after the project reviews of the situation and only confirmed by events and prior to this work had started on a new anti-poaching strategy. To this end an AP policy reform proposal has been developed (Annex 1) and recommended to the Nepal Ambassador in London, to the NTNC and DNPWC in Nepal and will be presented to the appropriate ministries and policy organs of government in November (08). To facilitate anti-poaching activities, 3 river boats with outboard engines and a pedal rubber boat were imported through contacts in the British Army and delivered, supported by leveraged funds outside the DI project. This grant came from the European Association of Zoos and Aquaria and also has helped to boost the equipment in response to the ongoing poaching pressure being experienced in Nepal. Since these efforts poaching has more or less ceased. This area was noted by the reviewer of the first year as the most difficult and important area for the project to focus on. Considerable effort has been put in through the project in the policy arena, local administration and the community to catalyze the necessary changes. Only time will tell if it has been effective enough.

- iii) **ID Based Monitoring:** At present, photographic ID of 16/22 rhino has been prepared and intensive monitoring is continuing. A local level trans-boundary meeting was organized on June 25th by the Park with Indian authorities for effective conservation of endangered species along the bordering forest corridor. Indian authorities claimed to have 3 rhinos (1 female, 1

calf and 1 male) permanently residing in India at Katarniaghat Wildlife Sanctuary. The members of the monitoring team from BNP/CNP/SWR and NTNC are gaining more knowledge and skills through the field based training and practices guided by scientists from ZSL and NTNC, particularly on rhino monitoring. As the intensity of rhino monitoring has increased, in BNP/SWR every rhino is being monitored and a good proportion of rhino in CNP their habitat use and movements are known. There is no doubt that the monitoring work was critical in the detection of poaching events and contributed to the arrest 10+ poachers in BNP.

- iv) **Metapopulation management:** If the strategic planning allows there would be translocation of some rhinos (for viable population establishment) to SWR but given the difficult situation with poaching during this period no progress was made.
- v) **Habitat restoration:** priorities for research on the impact and control of alien invasive species were agreed and a plan now prepared and will be presented to NTNC and others in November. Detailed habitat assessment was undertaken during the earlier census and survey work, the extent of invasive species was quantified, with habitat sensitivity maps produced for protected areas and buffer zone community forests; analysis and interpretation are still pending. Suitable control methods for invasive species are under discussion and appropriate ones will be determined for each species and location. Awareness activities on alien invasives are being undertaken in collaboration with local NGOs (Save the Environment Foundation Nepal). The seriousness of the invasive species impact is still not realized generally across Nepalese society and amongst managers of the protected areas. There will be a need to communicate the findings to ensure appropriate levels of decision making and engagement. To resolve this issue is far beyond the scope of the Darwin project and will require most probably international funding.
- vi) **Community assistance & Public engagement:** The project community assistance and public engagement programme is ongoing through a number of routes – support to livelihoods, reduction in human wildlife conflict, education initiatives and community theatre.
 1. **Theatre:** The theatre initiative was expanded and budgets activities adjusted given the urgency to communicate during a time of severe poaching. It was considered economic and socioeconomic surveys were probably less valuable and these were sacrificed for the more direct engagement approach except for one study on the impacts of socioeconomics on the emergence and spread of invasive species in Nepal Terai. This decision was made given the generally supportive attitude of the majority of the community around the parks, the dynamic social and political situation, and the historical attention to this aspect probably negating the need to do standard S-E studies. For the theatre project a variety of performances in both Nepali and English were developed on a number of themes. The plays were written and developed by a combination of the programme staff and the playwright Nicolas Ellenbogen of Theatre for Africa working in Nepal for a number of months with theatrical groups. These included the Gurukul and Earthbeat Nepali Theatre companies. One play *Nanu Gainda ko Katha (Story of a small rhino)* was shown in three locations of Bardia districts. The first show was at Thakurdwara, second at Manau and third at Taratal. The locations were selected on the basis of the poaching pressure faced by rhino. About 3,000 people of the area attended to watch the theatre. The message was catchy and touched the public's heart and the response was very positive. Similarly, the theatre was performed at Sauraha and Meghauri in Chitwan. The prime objective of conducting the street drama was to raise awareness among the general public on conservation of endangered species, especially rhinoceros. The street drama was performed by stage actor/actresses of Gurukul Natya Samuha, whereby the performers imitated roles of major wildlife species and provided insights into their conservation issues. The people flocked to see the street drama in huge numbers in both the locations, around 300 spectators viewed the drama at Sauraha whereby more than 1,000 spectators were present at Meghauri. From this beginning and with new players from the Earthbeat Nepali Theatre the play was developed in English and called "*Silence of Bardia*" developed for the more sophisticated audiences in the cities and Europe. The play is set in the low lying jungle and grassland of southern Nepal known as the Terai. Bardia is a region

in the west of the Terai, the home of 400 000 people and a national park of 968 sq km. The play focuses on the incredibly rich biodiversity; in a mosaic landscape of lush forest, rivers and floodplain grassland providing the perfect habitat for a wide range of animals, including tigers, elephants, monkeys, crocodiles, and the greater one horned rhino, whose story is at the heart of the play. The greater one-horned rhino is one of 5 rhino species worldwide, all on the IUCN red list of threatened species. There used to be greater one horned rhinos from Bangladesh to Pakistan, but massive reduction of their habitat to 2% of its original size means they are now found in greatly reduced numbers only in a handful of areas in Nepal and India. Habitat destruction, from agricultural encroachment, overgrazing, too much grass cutting, invasive species, floods and forest fires and poaching for its horn are the major threats to rhino. In Bardia there are an estimated 20 rhino left, down from 81 in 2001. The 10 year conflict in Nepal that ended in 2006 was devastating for wildlife as well as humans, massively disrupting conservation. This April the first post conflict elections were held, hopefully heralding a new era for Nepal's people and wildlife. Silence of Bardia pivots around the life story of a rhino from birth to bloody death at the hands of a poacher. An African vulture narrates the tale, moving us from comic and moving depictions of animals, cheeky monkeys to squawking chickens, to women and men fatefully attracted to the glitter of ill-earned cash. The skilful mimicking of the animals and the traditional songs and dance transports you to the atmosphere of the Nepali jungle, but the play leaves you with a sense that its message has wider resonance; that the plight of the rhino is symptomatic of the fate of all nature, including ourselves. The play was performed in front of a number of audiences around Bardia and in Kathmandu, London, Warwick and Barcelona at the World Conservation Congress.



Photos taken of the play at main auditorium stage Barcelona World Conservation Congress

It will be taken to a number of other Nepali audiences over the remaining period of the project and hopefully the company will continue to develop the theme and encourage community activities in villages and schools and develop a stronger conservation ethic in Nepal. After the Barcelona Congress performance the theatre group was approached to do work on Tigers in the South Asia region so the development has been fruitful for other conservation initiatives. The confirmation of the worth of this public engagement method was in the spontaneous demonstrations by the Nepalese public angry about the poaching and involvement of the army, which was paid to protect the rhino. This flood of emotion was sparked off by the play's messages. This ensured the community was supportive for the subsequent identification and arrest of the poachers which otherwise might have been resisted as had clearly been the case in the past years.

2. **Education:** To increase the knowledge, understanding and engagement of the local community with the conservation of our natural resources, Bardia National Park NTNC-BCP is conducting a conservation education program with local school children, youth groups and user committee members. The emphasis is on sessions that entertain and engage the participants, drawing upon what they already know about their environment, and building upon this, leaving participants with a strong conservation message. The sessions include activities such as creative and active nature games and competitions, films and slide

presentations, and park visits. The topics explored aim to increase understanding of the conservation of the park: the importance of biodiversity, ecosystems, endangered animals (especially rhinos), and discussions about local environmental problems and their possible solutions. Eight units of conservation education training were held in BNP consecutively on 10th - 12th June 2008, 16th - 18th June 2008 and 23rd and 24th June 2008. The training aimed to enhance the awareness level of school green force club (GFC) members towards biodiversity conservation practices. In total, 289 executive members and school children of 16 school green force clubs participated in the training program in which two school GFCs were trained in each unit. The training was participated by green force club members of Bhimodaya Secondary School, Shree Kamalpur Lower Secondary School, Panchakanya Lower Secondary School, Kapiya Secondary School, Divyajyoti Lower Secondary School, and Gabai Secondary School on 10th - 12th June 2008. Similarly, Buddha Shanti Secondary School, Mahadevtar Lower Secondary School, Himalaya Secondary School, Indrapuri Lower Secondary School, Naya Kiran Secondary School, Siddhi Binayak Lower Secondary School on 16th - 18th June 2008 and Bhandara Secondary School, Kathar Secondary School, Arunodaya Higher Secondary School, Shaheed Smriti Secondary School on 23rd and 24th June 2008. The training program imparted knowledge on species level conservation efforts with special emphasis on Rhinoceros. For the purpose of building awareness and training the students, rhino cards, which were developed for the purpose, were used. The use of information on rhino cards provided a brief introduction on the rhinos, their physical attributes, behavior, rhino conservation issues and rhino history and ways to conserve rhinoceros population. A documentary film 'life of mammals' was also shown to the students. Similarly, the training also highlighted on the objective and role of GFC students on biodiversity conservation, flora and fauna of Chitwan National Park, vulture conservation and breeding program, and climate change - impacts and mitigation measures. There were some restrictions on our program in this period due to the election, school exam period and school holidays in April, as schools were closed and it was also not easy to travel. In May, the start of pre-monsoon rains and rice farming, and another school holiday made it difficult to conduct sessions, especially in the last week of May. However, in total, 47 conservation education sessions were conducted with 2,093 participants from schools and communities. In the first 6 months, sessions were conducted with 511 participants, in May. The intensity of the program was greatly increased and there were 1,582 participants. Initially, we focused on schools in the closest 3 VDCs of the Park. From the end of April, we expanded the program to include communities focusing on problem areas. Dalla, Tanduwa, Kailasi and Bahadurpur are between the corridor forest and the river, so they have problems with crop raiding and flooding. Patabhar, Janaknagar, Gola, Pashupatinagar and Manau are on the other side of the Karnali river and have big problems with crop raiding, human-wildlife conflict, and are also the area where many rhino poachers have come from. Bhurigaun, Bhankatti and Bagnaha are near Babai valley and have some problems with elephant crop-raiding and human-wildlife conflict, poaching and unsustainable forest resource use, and had not previously been the focus of conservation education programs. The community sessions were organized through user-group committees, which in some areas meant that the people who turned up were those who frequently attend meetings and education programs. We realized the importance of arranging some community sessions on a settlement basis to reach different people, and plan to do this in the future. Many new materials were developed including: a poster depicting a good and bad grassland management, a rhino slide show, a grassland conservation slideshow, a rhino poster, a human-wildlife conflict solutions poster, mini-posters and pictures to illustrate points in talks, an eco-system and animal guessing game, and 3 sets of 18 rhino cards. The grassland poster was a very effective tool for discussing a dream and nightmare scenario of their village in the future and for facilitating discussions on problems and their solutions. The slide shows were a new and interesting media for many participants. Many new games and activities were tested to make sessions varied, dynamic, participatory and fun. We also showed nature related films, which participants greatly enjoyed. Films and slide shows could only be shown in places where there was electricity. During this period two rhinos were poached and several poachers were caught. For this reason, we focused on rhino conservation, human-wildlife conflict mitigation, and rhino habitat (grassland)

conservation in our sessions. Feedback from participants after sessions included many passionate comments about the need to conserve rhinos. Every session ended with participants thinking, discussing, writing or drawing what actions they could take personally to aid conservation of their environment. We hope this increased participant's sense of their power to affect the future of their environment, and feel that everyone left sessions clearly remembering a strong need to conserve their natural resources. The conservation education truck was painted with mural of animals. There were several jungle visits for children in this truck, which they greatly enjoyed and allowed them to see rhinos, wild elephants, spotted deer, swamp deer, hog deer, jackal, several birds and other animals in their natural habitat. Reconnaissance surveys of the eco-clubs identified that teachers also wanted to visit the park, and they also needed resources such as reference books and activity books, an eco-teacher training workshop as well as financial support. Students were keen on park visits and creative activities. We also asked participants for feedback after the sessions, and from May onwards, we used a written form as well as oral feedback. The feedback was very positive – with nearly half of participants requesting that we come again to conduct more conservation awareness sessions. NTNC's conservation education officer was provided with some teaching support and training by a ZSL education officer. A three morning teacher training workshop was conducted for 3 staff of NTNC on teaching techniques and theory to build the capacity of NTNC staff to deliver this conservation education program, with a focus on participatory teaching techniques where the teacher acts as a facilitator. In addition, ongoing training and evaluation was conducted before and after every session so that teaching techniques were continuously improved. The result of this training was that sessions were more participatory, more interactive, better planned with clear aims and objectives, and many new activities were tried and tested. Through our evaluation and feedback from participants, we realized what made sessions work the best: a relaxed environment, a well planned session with locally relevant topics with case studies, a good variety of different discussion techniques that allow a variety of people to speak, and a variety of different visual materials and activities. A plan was made and agreed upon to update the visitor centre in the park headquarters to increase the effectiveness of its conservation message. For details of outputs to date see Annex 2.

- vii) **Livelihoods:** The livelihood initiatives were further advanced with the mentha processing equipment purchased and installed in BNP. Over 60 farmers in critical conflict zones in BNP have engaged and been trained in growing and processing mentha. As a means for livelihood and reducing human wildlife conflict Mentha has been one of the alternative crops in the area. There was a strong demand for the installation of distillation plants. The first multiple distillation plant was installed around the Thakurdwara area with a 2000 liter capacity in collaboration with Bindrapuri Community Forest User Group (CFUG). Out of a total cost of NRs. 14,140,000, the project contributed NRs. 11,000,000 and the rest of the costs were contributed by the community. The installation work was completed by the second week of June and distillation work has been initiated. Similarly, a 500 kg capacity Mentha distillation plant has been installed through the partial support of the project at Suryapatuwa 1, Pattarbojhi which is a human enclave in the forest corridor area in between Nepal and India. With the objective to reduce human-wildlife conflict, electric fencing work is underway along the northern boundary of Kuchkuche Buffer Zone Community Forest in the buffer zone of Chitwan National Park. Villagers have already constructed wooden poles (1,125) required for the fencing and started to fix it on the ground. All other necessary accessories and electric wire has already been purchased. The committee has already purchased the electricity regulator machine as well. The wooden poles were collected from Chitwan National Park. The electric fence construction committee has collected financial support from different organizations to cover the cost of skilled labour, transportation and electricity regulator machine. NTNC/BCC has also provided NRs 50,000 for skilled labour. NRs 75,000 cash has been contributed from Kathar Village Development Committee, NRs 100,000 from Khagendramali Buffer Zone User's Committee and local have contributed NRs 45,000 cash for the completion of the project. A feasibility study for a fenced rhino sanctuary was completed and is circulating amongst various decision makers and communities and this will be debated more fully in the coming months;

- viii) **Support admin:** The Project Steering committee established earlier; is evolving into more of a National Rhino technical committee. An example of the outputs are illustrated from decisions taken by the authorities guided by outputs of the project as follows: Following arrangements have been made in three rhino bearing parks and reserve:

Minute of meeting 24.9.08 of technical committee

1. *Chitwan: Total no. of blocks: 5 (based on rhino density and vulnerability)*
2. *Chitwan: No. of blocks for Id based monitoring: 3 (island-narayani bank; Khoriya muhan - Temple Tiger and south and Sauraha/Barandabhar area)*
3. *Chitwan: The eastern block (Sauraha/Barandabhar and north east is divided into 4 sub-blocks and Narayani strip is divided into 3 sub-blocks).*
4. *Chitwan: The two blocks (kasara and Sukibhar) will be swept twice a year.*
5. *With an objective of institutionalizing the monitoring program, all the guard posts in all three PAs will be mobilized to monitor the rhino.*
6. *A minimum resource will be provided to guard posts that are involved in monitoring will be given a max. on one thousand rupees a week as field cost.*
7. *The existing system of giving DSA and other cash payments have been discouraged.*
8. *NTNC/ZSL will provide resources for Sauraha block, Bardia and Suklaphanta and resources for other blocks in Chitwan will be covered by WWF.*
9. *Taskforce has been asked to see possibilities to radio mark/ear-notch Sukla as well as Bardia animals for intensive monitoring.*
10. *NTNC has now got permission to import drugs to capture wildlife including tiger/leopards, rhino/elephants and other drugs to handle zoo animals.*

Project management and reporting procedures are running on time: NTNC providing quarterly activity and financial reports; ZSL mission reports; specific consultancy and operational reports e.g. census. Project meeting held in Kathmandu – attended by all partners and relevant NGOs, groups; coordination framework produced, working groups for each project area established and detailed implementation plans being drawn up. There are some delays in processing payments largely due to minor problems on receipts sent from Nepal and these are being vigorously followed up and the last two quarters submissions from Nepal will be finalized by November.

- ii) **Information gathering:** Background information gathering continues on subjects such as invasive species and education materials.
- iii) **Info-sharing:** Census material and reports circulated. *NTNC and partners DNPWC WWf IUCN AfRSG and ARSG*
- iv) **Network development:** Asian Rhino Specialist Group meeting endorsed the use of the Darwin Wildlife monitoring training packages produced under the project for the South Asia and South East Asian Region. An EU funded Save the Rhino International project for Nepal with ZSL as a partner to enable ongoing activities beyond the Darwin Initiative was not successful. Engagement and support from UK branch of the Nepal Trust Nature Conservation has been excellent and is increasingly involved in funding and active support (Annex 3). Cross border collaboration ongoing and developing.
- v) **Media coverage (UK):** ZSL website updated www.zsl.org conservation programmes. BBC online provided a piece on the Census and survey results from Nepal. Press coverage in Nepal was significant.

Many of the above activities are not included in the agreed timetable for this period and reasons given in the introduction paragraph and these will not be highlighted:

Milestones not yet reached:

<p>Basic guide lines on captive elephant healthcare, guidelines in newer translocation and veterinary practices; 2 week on-site training programme for DNPWC veterinary staff, scene of the crime training, feasibility on use of dogs in antipoaching are all planned to be executed this coming mission planned for November.</p>	
<p>Have any of these issues been discussed with the Darwin Secretariat and if so, have changes been made to the original agreement?</p> <p>Slight changes to the scope of work and budgets accordingly relating to the shift of emphasis from academic research on socioeconomics to more direct public engagement and community engagement.</p>	
<p>Discussed with the DI Secretariat: Yes</p>	
<p>Changes to the project schedule/workplan: Socioeconomic surveys, workshops etc dropped from project activities</p>	
<p>3. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?</p> <p>Slight delays in resolving financial discrepancies from submissions on expenditure received from Nepal but not serious and should be resolved in November</p>	<p>Yes</p>