



Darwin Initiative Annual Report

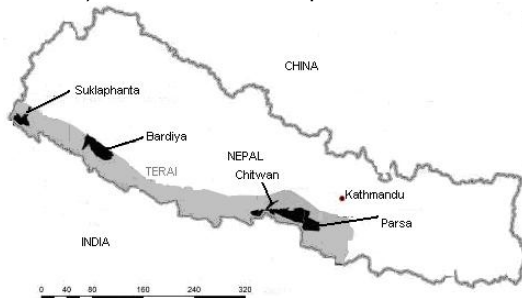


Darwin Project Information

Project Ref Number	Di 16-009
Project Title	Crisis to Biological Management: Rhinoceros, Grassland and Public Engagement – Nepal
Country(ies)	Nepal
UK Contract Holder Institution	Zoological Society London
Host country Partner Institution(s)	National Trust for Nature Conservation (NTNC), Department of National Parks and Wildlife Conservation (DNPWC), World Wide Fund for Nature Nepal, International Union for the Conservation of Nature Nepal (IUCN)
Other Partner Institution(s)	CABI International Europe UK
Darwin Grant Value	£233,087
Start/End dates of Project	April 2007 to March 2010
Reporting period (1 Apr 200x to 31 Mar 200y) and annual report number (1,2,3..)	1 st April 2008 to 31 st March 2009 Annual Report 2
Project Leader Name	Richard Kock
Project website	www.zsl.org
Author(s) and main contributors, date	Richard Kock 12.4.09

1. Project Background (to year 2)

Greater one-horned rhinoceros are restricted to small protected areas (PAs) primarily in north-eastern India and Nepal (Chitwan National Park-CNP, Bardiya National Park-BNP and Suklaphanta Wildlife Reserve-SWR). These rhinos are highly vulnerable due to intensification of agriculture and habitat loss, a burgeoning human population and poaching. Furthermore, Nepal has been facing dramatic socio-economic and political challenges over the last decade that negatively impacted the recovery of rhino; which had occurred during the latter half of the 20th Century after near extinction previously. Numbers in CNP increased from 100 animals in the early 1980s to 544 in 2000 allowing establishment of founder groups in BNP and SWR (83 and 4 rhinos were translocated between 1986 and 2003 to BNP and SWR respectively). However, these declined by 2005 to less than 370 in CNP and less than 40 in BNP, with only 7 in SWR. Nepal still holds the second largest population in the world and for this and its other endangered species, such as the Ganges dolphin (also in severe decline), Bengal tiger (also in decline) and Asian wild elephant, and CNP has been designated a World Heritage Site.



The project was launched at a time of opportunity, the armed conflict in Nepal was coming to an end and a political process towards democratic government had been initiated. The proximate causes for rhino declines were poaching and loss of grassland habitat from encroachment and invasive alien plant species (IAPS) reducing available forage and causing risky migration of rhino outside of the PAs and reduced health and productivity. The underlying

causes were weak anti-poaching systems and law enforcement, ineffective security, inadequate biological management of rhino and habitat, and a failure of the buffer zone community initiatives to provide an effective buffer from encroachment. There was inadequate awareness of the rapid deterioration of the situation with a lack of transparency at many levels. The uncertain political situation was also reducing the effectiveness of government agencies and public engagement was superficial. New policies to address changing circumstances and/or innovative strategies, were also lacking.

The first year of the project was focused on the rhino and public engagement mainly in BNP with some activities initiated in CNP and SWR and including a National Rhino Count which was a major exercise involving 50 elephants and 200 staff over a month. The project was productive in areas of policy (initiating APU and Sanctuary), public engagement, departmental staff training, establishment of standardised systems for monitoring and census. Our main partners NTNC and DNPWC were eager to implement and were more than receptive to our ideas. Poaching and other pressures continued to take their toll of many species but most significantly rhino, which gave urgency to the work. The other main partners (WWF, IUCN) were having some internal difficulties during the first year and there was limited collaborative work. To bolster activities on the ground we brought in an education volunteer from ZSL to BNP who helped to coordinate the public engagement activities. The project management and coordination team (Richard Kock and Raj Amin) spent considerable periods in country and regular networking with the staff implementing the project through emails on almost daily basis and phone calls. The project's financial management processes were established, however with some complication resulting from the loss of the main DI administrative support officer at ZSL Conservation Programmes. This put an expected burden on the PI but with regular communication with DI staff, issues were resolved and the project never suffered from lack of funds.

In summary; the project was set up to 1) strengthen and increase the capacity (particularly monitoring and surveillance of rhino and in anti-poaching) of Nepal's existing wildlife department officials, rangers and communities across the network of PAs (CNP, BNP, SWR); 2) strengthen metapopulation approach (including a feasibility study on sanctuary approach in SWR and/or community areas); and 3) facilitate improved governance of rhino conservation, improved public engagement and integration of politicians, stakeholders and local communities in conservation efforts and decision-making.

2. Project Partnerships

Project partnerships

The main implementing partner in Nepal is NTNC which is the major National Nepalese conservation NGO. Over the period of the project there have been considerable political changes in Nepal with the abolition of the Monarchy and the Maoist party at the dominant emerging political force. Currently the process of constitutional reform leading to a fully democratically elected government is stalled and federalism is gaining momentum. The chairman of the board of NTNC is the Minister of Forests and Soil Conservation with a small, scientifically competent set of HQ and field staff which has survived the troubles, working quite effectively despite the constraints. The Member secretary (CEO) changed twice and there were shifting responsibilities amongst senior staff including NTNC project coordinators in the field at the end of year 2 as they moved into PhD research. The relationship of NTNC/ZSL with the DNPWC has been close, especially in the field with the latter being the main beneficiary of the DI project outcomes. ZSL's relationship with NTNC has strengthened over the year with the appointment of the PI onto the board of both the Nepal NTNC and the UKNTNC a local UK NGO which supports Nepal conservation.

DNPWC remains an underfunded, relatively powerless and poorly motivated government department with little evidence of effective management structures or activities. Given the support, equipment and training that they need, staff made considerable efforts for the DI work so the situation is not hopeless. They require a major injection of funds (a multimillion pound investment) and a complete restructuring to secure the long term future of the PAs of Nepal.

This is unlikely to happen given the current political situation but if a democratically elected stable government is achieved DNPWC development should be a priority. The department is still dependent on the Army for security and this remains a high risk strategy as recent poaching cases have shown. It is also ineffective as shown in Shuklaphanta WR where over the half the reserve area (the extended area) has been occupied in the presence of a 900 strong army battalion by so called land-less people – a process politically driven. Transfer of some responsibility for security should take place if the DNPWC is to become an effective motivated force and project proposals for a new approach on APU are a shift in this direction. The NTNC continues to be relied on by the DNPWC for scientific and technical support. NGOs in general provide significant backing but they should be discouraged from using financial support to address their own agendas. Over the second year of the project the relationship with WWF on rhino issues remained relatively passive and this was frustrating. The improvements in the rhino situation in BNP (where WWF is more or less excluded) perhaps caused some discomfort, especially when the problems only seemed to get worse in CNP during the year (where WWF focus their efforts). WWF commitments to monitoring CNP rhino during the year were never fulfilled and this probably encouraged poachers. There has now been agreement between WWF and DNPWC on support for park wide block monitoring – an implementation plan produced by the DI project and the coming year will see if this is fulfilled or not. NTNC will continue to work in the sector of the Park for which they are responsible with DI support. The DI will increase its focus on CNP (monitoring and IAS) and SWR (sanctuary) during the final year. The CABI inputs on IAPS remained positive with periodic advice given.

The project leveraged funds from ZSL's Zoos and the European Association of Zoological Parks and Aquaria (EAZA rhino fund 2007) coordinated by Save the Rhino International (£31,000 for much needed equipment); ZSL (£10,000) and UK Trust for Nepal (£1000).

The IUCN SSC has given advice and support when requested through mainly the Wildlife Health Group. IUCN Nepal has been effectively closed during the project life so there has been little input other than from SSC. The decision in the first year not to go ahead with the IUCN-Nepal partnership on public engagement activities was the correct one. Other Nepal based organisations have been helpful with advice and other contributions in kind or logistics including the British Army, the British Ambassador and staff and British Council.

Other Collaboration:

Links with other NGOs on wildlife health have been established, notably with Elephant Care International (ECI) and others. There is now in an effort to launch a new programme to support the DNPWC and wildlife veterinary establishment in Nepal.

A partnership has been established with a French NGO AWELY and they are engaging with a human wildlife conflict project called Red Caps. They have employed two locals in BNP who wear red caps and deal with HWC issues. The DI team is facilitating their work.

An important outcome of the public engagement activity has been the motivation of emerging theatre in Nepal. The company Earthbeat Nepal has taken on the responsibility of communicating the crisis in conservation with considerable vigour in the rural areas and in the city. Theatre has become an important voice for people at a time of considerable unrest and socio-political change. Harsh messages and criticism of authority and community are accepted through this medium when other forms of protest have often led to violence and conflict. Earthbeat Nepal continues to work with the project staff feeding science into creative energy and art forms.

On issues of CBD the engagement with DNPWC has led to discussions on a possible National Red List for mammals with appropriate training and support from ZSL. Many of the outputs of the project in the first 2 years are providing considerable input into CBD needs (articles 5, 6, 7, 8, 8h, 11, 12, 13, 14, 16, 17, 18).

3. Project progress

3.1 Progress in carrying out project activities

Progress against agreed milestones for the year 2 April 2008 to 31st March 2009:

Improved capacity and systems to monitor rhinos and for anti-poaching **Improved biological management of rhino populations and habitats**

Training activities and outcomes: A 5 day hands-on GIS training course is being developed (adopted from the ZSL MSc GIS course taught by the Darwin staff). Training in GIS, map interpretation is ongoing, to be consolidated in November with a 5 day hands-on a prepared GIS training course (Supplementary Item 1). 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 NTNC field officers were trained as instructors and tested (theoretical and practical exams) with accreditation, 9/13 passed (Supplementary Item 3). Monitoring course material has been developed, disseminated and officially included as the Asian Rhino Specialist Group training course to be used as a standard in the region for GOH rhino conservation. Further, during the census, a total of 50 park staff, NTNC technicians and community observers were trained and tested in Chitwan and Bardia NPs. These staff were also trained in basic IAS identification and assessment. On-site support and training is provided as required by the ZSL and NTNC project team. The Patrol based wildlife monitoring GIS system is operational in BNP and CNP. A comprehensive user-guide has been produced and 4 staff trained in its use (Supplementary Item 4). On the job training in habitat & IAS assessments was provided to the newly recruited research officer on IAS in Chitwan NP. 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. A 8-week regional course is being developed jointly with Wildlife Institute of India for training of wildlife managers and biologists in tools of wildlife management. The Government of India will fully fund the Indian component of Forest Department staff and the project will sponsor some of the Nepali training in addition to the development and delivery of the course in January 2010 (Supplementary Item 5). A similar course will be developed on Wildlife Health. A guideline document on reintroduction and translocation of rhinoceros was completed by the project managers with support from the IUCN SSC. PDF copies have been made available and hard copies will be circulated in the next month to key personnel in Nepal (Supplementary Item 6). Veterinary training inputs are being deferred due to little or no capacity to absorb this whilst a sustainable animal health programme is developed with new partners in the country. A 5-day training workshop in scene of the crime activities to support anti-poaching activities was undertaken in October with a consultancy by Rod Potter from SANPARKS with support of the DI project team. Thirty park, army National Forensic Science Lab and NTNC staff were trained and tested. A training manual for the 'Basic Rhino Crime Scene Procedures Course' was prepared. However, due to significant interest from senior DNPWC and Army staff to participate in the course, the advanced elements of the process of investigating rhino poaching cases were included for exposure and discussions (Supplementary Item 7). The trainees were tested on the basic elements as planned (Supplementary Item 8). A plan for the advanced training was developed and proposal submitted to USFWS. The expansion of the practical elements of the course to other key species inc Tigers is being planned and proposal submitted to USFWS. Feasibility study on use of dogs remains deferred but the Army has now agreed this should be implemented. The project is standing by to assist if the Nepali's decide that they need technical inputs on dog training. 6 army, DNPWC, NTNC boat handlers were trained over a week in the Karnali and Babai rivers by a professional boat handler with experience of these rivers (Colonel Mike Allen formally an officer with the British Army Gurkha).

Monitoring activities and outcomes: The 2008 census report for CNP and BNP is attached (Supplementary Item 9). The National census was a major undertaking and provides a standardised accurate field method for future rhino censuses. Block monitoring in BNP has continued and animals individually identified through records and photography are monitored closely given the low numbers remaining. The wildlife monitoring data is being collected in a standardised, quality controlled process and entered onto the database. 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. The schedule of monitoring in CNP was not initiated to the full extent planned due to delays in fulfilling commitment (mainly WWF-funding) from partners on previously agreed work plans and timetables. Some monitoring work was undertaken in the NTNC responsible areas of CNP. The central ranger post in the main grassland of SWR was rehabilitated and enabled some recording of rhino movements. A plan was developed for systematic monitoring but insufficient park/NTNC staff and moral low due to major park problems (over half the reserve has been re-occupied by what appears landless people and politically motivated) meant that this was not properly implemented – with only 4 rhinos the long term future will depend on providing a secure area for additional rhinos to be brought in - our focus has therefore been on the sanctuary which appears the only practical tool for getting the population viable and breeding. At present, **ID Based Monitoring** in BNP has provided photographic ID of 18 rhino and intensive monitoring is continuing. Information from the rhino monitoring database is being regularly used for planning monitoring patrols. A local level trans-boundary meeting was organized June 2008 with Indian authorities to discuss conservation of endangered species along the bordering forest corridor. No cross border activity has been implemented as yet and will depend on more mobile APU teams that are proposed. Indian authorities claimed to have 3 rhinos (1 female, 1 calf and 1 male) permanently residing in India at Katerniaghat Wildlife Sanctuary. The efficiency of the monitoring in BNP was demonstrated with the rapid detection of poaching and arrest of a large gang in April/May 2008 (see below).

Anti-poaching: A period of serious poaching in the early months of the year in BNP and ongoing low level poaching in CNP was rapidly detected through the census and monitoring programme. During the rhino census on March 2008 in BNP, a total of 22 individual rhinos were recorded indicating a sharp decline of rhino population (from 31 in February 2007). These activities and other events led to the arrest of a gang of poachers in BNP in May 2008. Since then poaching has ceased in BNP. Rhino poaching and horn trade in Nepal were reviewed by in December 2007 (Martin et al. 2009) and a postscript (Kock et al 2009) describing events in BNP were published in the same journal (Supplementary Item 10). The more or less static population of rhino in CNP suggests continuing low grade poaching perhaps amounting to 30+ a year of which only a small proportion of carcasses are being recovered. The situation continues in CNP with regular reports e.g. 2 rhino were shot and wounded in February and March 2009, both dying eventually of the injuries and in one case the horn was chopped off whilst it was still alive, having only been knocked out by the bullet. The most worrying aspect of these incidents (at least in BNP from the information) was the involvement of rogue army personnel in poaching. The army is mandated to protect the rhino, the only armed personnel who have full access to the park and rhino day and night and so it is not surprising the levels of poaching were so high. The poachers in BNP included local civilians but from public engagement activities it was clear that the majority of the buffer zone community were totally opposed to this activity and in the end they were instrumental in exposing the Army activities in BNP. To help tackle the problem, an AP policy reform proposal was developed (Supplementary Item 11) and recommended to the Nepal Ambassador in London, to the NTNC and DNPWC in Nepal and was presented to the appropriate ministries and policy organs of government in November 08. The move towards policy changes culminated in a meeting of all senior officials in BNP in February 2009 where the form of a new AP Task Force was agreed. Funding is now being sought to implement the plans (including the British Embassy and British Army – the Ambassador Dr Andrew Hall visited Bardia, a proposal to USFWS has also been submitted to support this initiative). Meanwhile to facilitate the initiative, 3 river boats with outboard engines and a pedal rubber boat were imported to BNP Nepal, aided logistically by the British Army and supported by leveraged funds (EAZA). Since these efforts poaching in BNP has ceased and no further cases reported between May 2008 and April 2009. This area was noted by the reviewer of the first year report as the most difficult and important area for the project to focus on. We agree.

Metapopulation management: Given the ongoing political situation, severe human encroachment and other factors, translocation and reinforcement to resolve the unviable population in SWR has not been possible as yet. There has been considerable support given to the idea of a fenced sanctuary from the Ministry, DNPWC and NTNC and we are hopeful this will be adopted before too long and further work completed on the feasibility. There is an idea to seek support from European and US zoos which breed GOH rhino to both, provide animals and financial support to a SWR rhino sanctuary. This will take pressure off moving animals from CNP where the worst poaching pressure remains. If this proves possible translocation from CNP could focus on BNP to reinforce the now highly threatened population that remains there.

Habitat restoration: priorities for research on the impact and control of IAPS were agreed and a plan prepared and presented to NTNC and others in November 2008. 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 PAs and buffer zone community forests; analysis and interpretation of the data from over 4000 assessed areas has been completed and this has revealed that over 40% of the potential rhino areas in CNP is now affected by Mikania with prime rhino habitats (riverine forests and tall & short grasslands) most severely affected (Supplementary Item 12). Suitable control methods for invasive species are under discussion and appropriate ones will be determined for each species and location. Awareness activities on IAPS are being undertaken in collaboration with local NGOs (Save the Environment Foundation Nepal). The seriousness of IAPS impact is still not understood in the community and by managers of the PAs. There will be a need to communicate the findings to ensure appropriate decision making and engagement. Resolution of this issue is far beyond the scope of the Darwin project and will require, most probably, international funding. Research staff is now attached to NTNC working on a socioeconomic survey and determination of anthropogenic drivers for the invasives. Questionnaire forms have been designed for community and park staff surveys, target buffer zone communities identified through mapping based on social and ethnic groupings, pilot and full surveys being conducted (Supplementary Item 13). Naresh Subedi (transferred from BNP) is incorporating invasive species as a major component of his PhD work in CNP from the perspective of rhino habitat use and impacts of IAPS on the rhino population and growth co-supervised and supported by DI fellows (Supplementary Item 14). A similar study on impact of IAS on other herbivores (Chital, Sambar, Barking deer) has been developed (outline provided in Supplementary Item 15). Impact on local plants will also be undertaken.

The lantana invasion of BNP remains a concern. Other projects active on this issue include Western Terai Arc Landscape Project and they have started some pilot plots in the corridor where the most advanced invasions and degradation. Cut and pull methods are being tried. These plots are showing reasonably effective removal of parent plants but marked regeneration from seed and this will have to be followed up aggressively. This poor control effect of "cut and pull" was also noted from ZSL work with Wildlife Institute of India in Rajaji National Park. Lantana invasion in BNP is extensive and occurs across the Karnali floodplain and prime rhino habitat. The pilot activities have only been applied on grazed land, relatively accessible compared to riverine forest and tall grasslands and island systems. It will take considerable funding to remove all plants let alone annual removal of the seedlings which are now widespread. IAPS will be the focus of a strategic planning workshop in the 3rd year of the project.

Community assistance & Public engagement

The project community assistance and public engagement programme is ongoing with support to livelihoods, reduction in human wildlife conflict, education and awareness initiatives, veterinary partnership and community theatre.

Theatre: The theatre initiative was expanded during the year and budget activities schedules adjusted to meet the urgent need to communicate during a time of severe poaching. Planned economic and socioeconomic surveys were sacrificed in favour of a more direct engagement approach when it became clear the root of the rhino poaching was not primarily a community or poverty issue. 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 (Supplementary Item 16). The "Silence of Bardia" performances in Bardia and Chitwan attracted 2000-3000 people per show. Shows were also performed in Kathmandu targeting policy makers and city folk. The confirmation of the worth of this public engagement method was in the subsequent spontaneous demonstrations by the local community, angry about the poaching and the involvement of rogue army staff. This led to the community taking the matter into their own hands and the subsequent identification and arrest of the poachers. The courage of unarmed community members, DNPWC and NTNC staff in this arrest was remarkable. The play and concept will be further developed in Nepal and events are in planning for May 2009. 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.

Education: To increase the knowledge, understanding and engagement of the local community with the conservation of natural resources, Bardia National Park NTNC-BCP is conducting a conservation education program with local school children, youth groups and user committee members. Topics are tailored according to the problems in the local community; many have focused on rhino conservation. Each session aims to move participants from knowledge to action by ending with an activity where participants think about what they can personally do for conservation. A range of material has been produced for the activities including 1) slide shows (on rhino conservation, conservation in Bardia, climate change); 2) informative games (such as wildlife picture puzzles, eco-system game cards, rhino origami, rhino drama masks, rhino dot-to-dot, rhino map game); 3) activities (for example, pictures and mini-posters for discussions); 4) grassland conservation poster (with activity sheet); 5) rhino conservation cards (with rhino toolkit booklet, which includes some of the games above); 6) a teacher's handbook for conservation education (with techniques and activities). 100 grassland management poster (with activity sheet), rhino conservation cards and toolkit, and a booklet on techniques and activities for teaching about the environment have been produced and distributed to teachers from local 3 VDCs. Training has been provided through two eco-teacher workshops. In total 70 conservation education sessions were conducted (43 were at school level and 27 with community groups). The truck bought through the project has been ideal for extension work and has enabled the team to engage remote and the poorest communities which have never hitherto benefited from conservation projects. 3 extensive (one week) outreach programmes were conducted to remote areas with impoverished communities heavily dependant on natural resources and where several poachers arrested had come from. A one week conservation education stall at local festival (Maghi Mela) which had over 50,000 attendants was also very popular. Feedback from sessions and the workshops has been positive: community groups and school teachers often approach the trust asking for sessions to be conducted in their community or school and requesting jungle trips. The longer term effect on attitudes to conservation is harder to measure; but by the end of a conservation education session, participants report feeling motivated; an example is a quote from a student after participating in a session and jungle visit: "From today, I love all animals. I have realised that all animals have a right to live on the earth. Now, I will transfer my new knowledge to others." One of the most heartening impacts on children in the BNP region was achieved through the creative work. It was the first time for most of the children to paint animals (Supplementary Item 17). The under-utilised visitor centre at Bardia NP is being converted into a dynamic learning centre over the next couple of months (Supplementary Item 18). This will complement the education centre setup at the NTNC station.

Veterinary support: Inputs on veterinary issues started in this reporting period with a new partnership with another NGO (Elephant Conservation International). This was oriented towards improved policy on tuberculosis control in domestic elephant (there is 20% + infection rate in the CNP/BNP domestic working elephant owned by DNPWC, NTNC and private sector). This illness threatens to undermine the capacity to undertake regular field monitoring into the longer term. Advocacy helped in persuading the authorities to implement necessary isolation of positively infected animals after a 2 year hiatus since the information became known. The NGO is now implementing their project under the umbrella of the NTNC ZSL project. Planned training activities in veterinary health management have been deferred as the capacity to absorb

training was found to be totally inadequate. Instead an initiative to improve health capacity and disease control in Nepal at the wildlife livestock human interface is being developed under a OneHealth Nepal banner with partners (Supplementary Item 19). Currently there is one vet at NTNC working at the zoo who has had support and training from ZSL and another with DNPWC who is poorly equipped and lacks training in wildlife epidemiology and intervention. ZSL set up vet clinics in the CNP buffer zones in the 1990s and these are self sufficient and servicing 4000 households per clinic. One idea is to introduce these models to BNP and SWR but also integrate them into a disease surveillance network.

Livelihoods: The livelihood initiatives were further advanced with the mentha processing equipment purchased and installed in BNP. 109 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 litre 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. During the project period 1,047Kg of mentha oil was processed from the Bindrapuri plant, earning a total of Rs 994,260, with individual farmers earning from Rs 5,000 to 75,000. The average land holding in this area is less than 1 bigha (0.68 hectares) from 1 bigha, a farmer can earn Rs 60,000 if they plant mentha, compared to about Rs 40,000 from wheat. In addition they benefit from the lack of crop depredation by wildlife. As well as mentha, other unpalatable crops that make aromatic oils can be processed in this plant, such as lemongrass, eucalyptus and chamomile. Over 30,000 lemongrass seedlings have been planted in the community forest, and farmers have also planted chamomile and pamarosa. At present (April 2009) farmers are distilling chamomile. The Bindrapuri CFUG earned Rs 115,120 from service charge for the plant. A recently conducted survey of mentha farmers in the Bindrapuri area will once completed provide more accurate measures of the cost-benefit of growing mentha (and the other unpalatable crops) and the effectiveness of planting mentha in reducing crop depredation by wildlife. A translation of some of the responses during the survey:

"I saw my neighbours earning good money from Mentha and decided to start this farming. Mentha farming is very good. The best. I've just sold some for a very good price. And the wild animals don't come in my field. It definitely changed life for my family. I can buy some modern technology and health and education. If you do something and work hard, the effort will be paid back." **Ram Krisna Chaudhari, Mentha and other essential oil farmer, and herbalist,**

Thakurdwara-6. *"With Mentha when you need money, you just get money. Normally in the early monsoon season we don't have money. Before we had to go to the money lenders to borrow money and pay back at a high price. Now with mentha and the other essential oil crops we can get money all year."* **Kulram Chaudhari, Mentha and vegetable farmer,**

Thakurdwara-7. *"We are very happy with the project! For Bindrapuri, what a good thing this has been! And all the local people have participated to make this plant, we have worked together, even if the rest of the time we have our political differences."* **Buddha Ram Chaudhari, Vice Chairman of CFUG and Mentha farmer, Bindrapuri**

With the objective to reduce human-wildlife conflict, electric fencing has been established running 8.526 km south-west border of the Karnarli floodplain section of the park. The fence will be extended to the edge of the park to make a 10.126 km fence. This area suffers a high degree of HWC, particularly rhino. Completion of the fence will result in an almost continuous line along the western part of the park connecting with fence completed in the previous year. The local community contributed wooden poles for construction with its transportation up to site, and labour for the fence construction. The project contributed all the other material (energizer, wire, etc) and management support. DI/NTNC contributed £9742 and the community £7196 including labour. The upkeep and maintenance of the fence will be managed by the local community; a 5 member electric fence management committee has been formed,

and there are 6 sub-committees (each with 5 members) in each village (6 villages with a total population of 4553). Monitoring of the effectiveness of the electric fence in reducing crop depredation is being carried out. Since January 2009, incidences of human wildlife conflict in the area are being recorded. The construction of the fence started in February 2009. The collation, cleaning and analysis of current and past HWC data in the buffer zone is being undertaken and will help in the development of an effective HWC strategy. An electric fence is completed along the northern boundary of Kuchkuche Buffer Zone Community Forest in the buffer zone of Chitwan National Park. The wooden poles were collected from Chitwan National Park. The village electric fence construction committee collected financial support from different organizations to cover the cost of skilled labour, transportation and electricity regulator machine. NTNC/BCC 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. The PI and others completed an assessment of the project and farmers along its border reported undisturbed nights sleep for the first time in many years. They their wives and children were very relieved and happy about the contribution. There is no stronger endorsement for this project than to hear these sorts of positive statements from people living on a couple of acres of land on which they totally depend for their livelihoods. There had been some issue with electric load shedding which is a feature in Nepal and one or two breaches by rhino occurred when the power was off for extended periods. The project is instructed to add solar electric systems to back up the grid and ensure 24 hours function. If this is not done the animals will learn the load shedding routine and undo the good that has been done.

Support admin

The Project Steering committee established earlier; is evolving into more of a National Rhino technical committee. 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 meetings held in Kathmandu – attended by all partners and relevant NGOs, groups; coordination framework being followed, working groups for each project area changing with internal staff movements and implementation plans being modified as the project progresses. Financial management is being handled adequately by NTNC and ZSL so there are no cash flow problems although more resources are always being requested for.

Information gathering

Background information gathering continues on subjects such as invasive species, education and health materials.

Info-sharing: Census material and reports circulated to NTNC and partners DNPWC WWF IUCN AfRSG and ARSG. Two manuscripts are being prepared on Rhino Census and IAS surveys for publication in peer-reviewed journals. The rhino (and wildlife) instructors training manual has been adopted by the IUCN Asian Rhino Specialist Group for use throughout the region. The Scene of the Crime Investigation manual was provided to attendees of the workshop. It is hoped this will also be accredited by the AsRSG and other conservation groups. The policy reform documents on APU and Sanctuary approach have been circulated to all relevant stakeholders. During the final year of the project formal dissemination of outcomes will be undertaken through all means available.

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. Engagement and support from UK branch of the Nepal Trust Nature Conservation has been excellent and is increasingly involved in funding and active support Cross border collaboration ongoing and developing with India and with a strong link developing with the Wildlife Institute of India and African rhino programmes.

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.

Funding leveraged through project

1) £31,000 from EAZA rhino campaign for much needed river boats and other equipment; 2) £10000 from ZSL for Silence of Bardia theatre production/performance in London and WCC-Barcelona and education material production; 3) £1000 from UK Trust Nepal for boat training.

Milestones not yet reached: Guidelines in newer translocation and veterinary practices; 2 week on-site training programme for DNPWC veterinary staff, feasibility on use of dogs in antipoaching.

3.2 Progress towards Project Outputs

a) Improved capacity and systems to monitor rhinos and for anti-poaching.

Baseline population data are now in place for all areas following the National counts. The system implemented also provides a standardised method for conducting future censuses. Training of the staff in all rhino ranges have been completed and institutionalised through instructors and monitoring systems (including a comprehensive wildlife monitoring and reporting system) are in place and functioning in BNP but as yet not fully functional in CNP and SWR. CNP requires support from the project partner (WWF) to enable the entire population monitoring to be effected. DI after initial partnership discussions and agreements was budgeted to cover only the area of CNP under NTNC responsibility (25%). A plan has now been agreed for launching the system across the whole park following a series of meetings. 17 park ranger posts are being set up with at least one elephant for monitoring. All the monitoring equipment is in place and refresher/further training has just been completed. This extensive system will not only serve the monitoring needs but significantly boost the security as it will be the first time such an intensive park wide on-going monitoring will take place. The budget for the operational costs has been carefully put together for sustainability with NTNC and WWF absorbing this within their activities after DI project. SWR has lacked competent human resource to undertake this work and this is partly a failure in management at this location. The low number of rhino (5) and major conflict over human settlement in the Reserve has reduced the motivation and commitment from all concerned.

Significant progress has been made in achieving effective long term effective anti-poaching systems. Training in scene of crime investigation has been conducted and initial protocols and manual developed specific to the needs for Nepal. For the first time ever the key decision makers from the Ministry and Army were gathered in Bardia to agree a new approach – a pilot activity is being launched in BNP (highly trained and equipped specialised permanent Anti-poaching Task Force comprised of both army and DNPWC staff) which will if successful lead to a new policy for the country. Poaching has ceased in BNP with no incident in a year but this situation continuing will depend on getting the the new force equipped, in place and active. The final year of the project will focus on making this a success and increasing efforts in CNP where poaching continues almost on a weekly basis. The SWR situation is unviable although a few animals survive and surprisingly with few poaching incidents but this could change literally in a few days if a serious gang engages in SWR. A sanctuary is currently the only solution and the project will continue to try to reach this goal within the timeframe.

b) Improved biological management of rhino populations and habitat.

The concept paper has generated a lot of debate on the sanctuary approach (Supplementary Item 20). There is general acceptance that this is the only practical way of creating a viable growing population. A final assessment with recommendation to the Ministry is being planned with DNPWC, NTNC and WWF in the next few months. This would include a visit to Dudhwa NP, India where a sanctuary approach has resulted in 31 rhinos from an initial 5 animals with 2

donated by Nepal in the 1990s. The minister has requested a visit to Kenya with his secretary to see the systems in place so there is hope that this could be achieved within the life-time of this project. The data from the regular monitoring of rhinos will help sub-population management with Chitwan NP as there are large areas with low density of rhinos. Habitat issues are very important but the scale of the problem is beyond the scope of the DI project to resolve. The project will provide the necessary training and research data on the extent and impact of the IAPS in CNP and BNP with a strategic plan for their control produced. Short to medium solutions will be piloted in the coming year and support awareness raising initiatives.

With the ongoing crisis in poaching and lack of growth of the population and ongoing political instability and social unrest it is difficult to focus on biological management and no translocations are currently planned but data is being gathered and analysed which will provide the science for decision making on this aspect. Now the BNP poaching situation is improved it is proposed that translocation be planned to reinforce the depleted population which although viable would benefit from more animals. If the SWR sanctuary is completed it is proposed to try to obtain captive bred rhino from the international zoo community which have benefited from rhino gifts over the years. This will provide a viable breeding population if successful.

c) Community support and improved benefits. Less human-rhino conflict.

Considerable progress on these outputs has been achieved to date with fencing completed in both CNP and BNP in critical areas. Benefits to community members are already being seen and reported. The Mentha project in BNP has exceeded expectations and an economic cost benefit analysis is planned for the next year. The second unit is now being put in place. Education, awareness and public engagement in general has been well received especially in BNP (through the establishment of a rural EE) where it helped in engaging the community in resolving the catastrophic poaching involving soldiers from the army. The theatre artists trained by the project are continuing to develop and new activities are planned under Earthbeat Nepal Theatre in conservation awareness and will be reported in the next period. The education programme in BNP has had a significant impact and it is planned the ZSL volunteer continues on a more permanent salaried basis in BNP and funds are being sought for this. Analysis of HWC is ongoing and cooperation with the AWELY NGO has enabled establishment of a parallel HWC project which is now running in BNP.

d) Better governance, science based conservation, stakeholder integration.

The technical and executive committees for rhino are established although the lack of formality, at times, is frustrating. The general uncertainties of government in Nepal are partly at fault and the general malaise in National institutions leads to apathy. As stated earlier significant progress on governance of conservation in Nepal will depend on major funding for the DNPWC and its parent Ministry which will only be possible if democracy takes root and stable government ensues. The signs currently are not encouraging. The general acceptance of the DI scientific inputs is pleasing and NTNC engagement on this is the main driver. The organisation should be complemented on their determination to raise the standards of nature conservation in the country. Stakeholder integration is improving but frustrations remain due to the persisting territoriality between nature conservation organisations.

e) Publications and publicity.

The project has not focused on media other than through theatre targeted on communities, urban and conservation groups. This has been more acceptable to the partners who are highly suspicious of conventional media which has been both positive and negative for conservation over the unstable political period. The project is encouraging transparency but given the need for direct action within the departments and with people working close to the problems the benefits of a wide media initiative are likely to be limited. There have been discussions on contributing to a regular radio programme organised by one project partner (WWF) but this has not proved straightforward to organise and their support has been lukewarm. A number of technical publications and “white papers” have been prepared and these have helped to change minds and attitudes. Peer reviewed publications arising from the scientific work will be forthcoming over the coming months. The project encouraged the IUCN AsRSG meeting to be held in Chitwan, Nepal where a number of project elements were discussed. Four talks/presentations were given made at 1) Rhino Mayday (London May 08); 2) IUCN African Rhino Specialist Group meeting (Tanzania, June 08); 3) IUCN Asian Rhino Specialist Group meeting (Chitwan, October 08). There were a number of national press releases, TV and radio news items on the national census and the Silence of Bardia play. The census was also featured on BBC online news.

Table 1 Project Standard Output Measures (details in annex 1)

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for this reporting period	Total planned from application
Established codes								
2	Masters qualification (MSc, MPhil etc) ongoing		2			2	2	
6A	Trained staff	177	248			429	73	179
6B	Number of training weeks	13	16			29	6	34
7	Training publications	10	7			17	4	12
9	Number of species/habitat management plans	1	4			5	9	12
11B	Papers to be submitted to peer reviewed journals		1			1	1	1
12A	Computer based databases in host country	2				2		2
14A&B	Number of conferences/seminars/ workshops to be organised and attended to present/disseminate findings		4			4	1	1
New - Project specific measures	Public engagement Theatre outputs		11			11	8	0

Table 2 Publications

Type (eg journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £
Guideline document and CD.	IUCN Guidelines on reintroduction and translocation of rhinoceros for conservation purposes	IUCN Gland Switzerland	www.iucn.org – SSC publications ZSL Conservation Programmes Regent's Park London NW1 4RY	

3.3 Progress towards the project purpose and outcomes

Purpose: To re-establish effective capacity, systems, management and motivation for the conservation of the endangered Greater one-horned rhinoceros and the *Terai* grassland habitat in Nepal.

The barometer for the project is very simple – rhino numbers which requires that rhino poaching is under control and the population is showing signs of demographic recovery. In the locations with rhino in Nepal where the project has been focused this has been achieved to a lesser or greater extent (BNP>SWR>CNP) and the indicator remains appropriate as an overall measure. The habitat issues have generally been ignored despite evidence presented from various quarters. The project has focused on this area from all angles, science, awareness, policy etc. and is making good progress. The indicator remains valid. Engagement at all levels from community to high political office has provided a steady achievement which in many countries would be impossible but due to the unique social and cultural aspect in Nepal circumstances has given the project staff a unique opportunity to help and make significant impacts. The risks taken in doing this were significant but the changing socio-political environment and strong desire for change and resolution of problems has paid off and given the project a highly privileged position in rhino conservation.

3.4 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

This project has been remarkable in its impact over a relatively short timeframe. This is a result of the considerable effort and energy of the stakeholders at all levels at a time of crisis. The rhino population has stabilised and biodiversity has also benefited especially those species that are poached and traded. There is a marked increase in awareness about the distribution of the IAPS and effective habitat loss to rhino. The situation remains fragile, but public engagement, governance and policy change, new systems functioning amongst other project outputs will provide the sustainability in the conservation effort. The positive attitude of buffer zone communities is evidence of the impact of public engagement and livelihood support, this will pay dividends. The project is exploring / engaging in various longer term environment issues and initiatives including community forest model (carbon banking initiative), sustainable community based river basin system management (DFID Civil Society Fund); One-health model (people, livestock and ecosystems); livestock veterinary programmes in Bardia buffer zones. The Terai is a fragile system with enormous human pressure with population to double in the next 15/20 years

4. Monitoring, evaluation and lessons

Reporting on the project activities by the officers (one per site and one ZSL volunteer), implementing on the ground, provides a framework for M&E. The M&E is undertaken by the ZSL project officers through regular (2 per year minimum) visits to the sites and ground truthing of each output. This enables confirmation of the output but also through assessment an idea of the real outcome of the investment can be determined e.g. ID files on rhino double checked (through random sightings), monthly reports, cost benefit analysis of the mentha processing plant and quantification of human wildlife conflict. Regular communication on issues and

problems continues and on specific, technical topics we engage with the global rhino network and regional colleagues particularly in India.

The census data and monitoring reports provide numbers that are used as a measure of progress towards the project purpose outcome (systems in place and motivation to manage and protect rhino). The different intensity of effort by this project in each of the sites and how this relates to rhino survival and habitat, status reporting, in each location, provide a measure of this project's impact as opposed to other activities/commitments ongoing in rhino conservation.

Indicators are qualitative in respect to the engagement with and acceptance of the project by the authorities, agencies and communities. A good illustration of this was the combined community, parks staff and NGO (unarmed) staff engagement of an armed poaching gang in BNP which was inspired by the project staff, encouraged by the improved awareness from education and public engagement activities like theatre and livelihood support. The quantified indicators are numbers of rhinoceros, reporting frequency and numbers, scientific data generated and reported or published on rhino and habitat – IAPS threat, events and policy shift/agreements on new initiatives (antipoaching and sanctuary approach, IAPS).

Important lessons learned were that persistence, regular engagement and physical presence in country from project officers was essential in keeping the project activities moving forward in a timely manner. Policy environment is critical but not essential where the main players are supportive of adaptive management and changes in approach that ensure the survival of rhino. The irony of the chaotic situation in Nepal is that it has allowed a lot to be achieved, rigid rules evaporated and desperation encouraged risk but this dynamic will need consolidation and policy change to ensure sustainability.

There are lessons from the year's work which show the advantages of taking some risk in implementation at a politically uncertain time. This has opened up doors and enabled interaction and integration into the core of rhino management activities, decision and policy making which would have never been possible with a settled system. The policy of minimising central planning and workshops with direct field support and training-on-the-job has paid off with product helping to drive the process rather than promises. We have not been proactive enough on blowing our trumpets and there is already some indication of others taking the credit but we would rather be judged locally on the progress than globally through the media although our responsibilities to Darwin and our partners will be addressed in this respect. We would rather have measured rather than sensational output to the media and useful publication that can be applied here and elsewhere.

If this project has its desired effect by the end there will be clear indications of its impact if not in actual numbers of rhino increasing but at least stability in the populations, reduced poaching accurately measured (actual numbers) and overall changes in or introduction of new policies (on security, monitoring, public aspects), new or re-established management systems and scientific methods (total census, block monitoring, metapopulation management), strategies formulated and being implemented on invasives (solutions identified and eradication project development in process) and more generally on rhino (National strategy modified and updated), improved attitudes and engagement between the community, authorities and other stakeholders at home and abroad (strengthened public support, informer networks working, reduced conflict, increased income in buffer zone communities with sustainable resource use, cross border joint patrols and monitoring and law enforcement) and with strong political support (National steering committee and technical committee and site committees functioning). All these aspects will be measured quantitatively where possible and through end-of-project review, workshops and consultations.

5. Actions taken in response to previous reviews (if applicable)

The review, quite rightly, highlighted the risks inherent in working in a country in socio-political turmoil but commended the long term benefits of engaging with the National Conservation NGO and Department of Wildlife. This encouraged the project direction towards even more direct engagement with the political leadership, achieving a high degree of trust between the stakeholders and with transparency on the real conservation issues and not just conventional dogma. This might make the exit strategy more difficult as a certain dependency on key members of the project from the Ministry and the Department is creeping into the project which we need to guard against. The reviewers concern of balancing community inputs and anti-poaching goals were easily dealt with as the community in BNP courageously demonstrated by taking matters into their own hands. This unofficial AP intervention could have turned out badly but in fact was the tipping point, to which the government responded very positively and the army accepted and to which it is now adapting to though a new strategy on APU and the setting up of a more integrated task force. Project partners did not comment specifically on the review outputs and recommendations but they were pleased with the assessment and clearly took some notice through subsequent actions.

6. Other comments on progress not covered elsewhere

The project has shifted emphasis to some extent to CNP where the poaching and IAPS problems are particularly acute and away from SWR where resources were not apparently well applied and little progress seen. This might change rapidly if the sanctuary policy is accepted and activities launched in SWR. CNP is a bigger challenge than BNP but by building on the success so far, hopefully subtle influence will prevail and the complexities and difficult politics of this PA will be overcome. As this report is being written, the extensive block monitoring is going ahead and the project has managed to get the other major partner, WWF Nepal, fulfil their commitments on monitoring and engagement in CNP. This is also being done with a major shift in financial incentives so making the process sustainable (the project has confronted this issue). Success with the model APTF in BNP will hopefully provide a way forward for the CNP APU to follow. Given the continuing political uncertainty and focus of dissent (Madheshi federalism movements) in the Terai, the current relatively peaceful situation is unlikely to last and the impacts on the parks and central government action is difficult to predict but sustaining active conservation efforts will remain a challenge. The positive results to date will encourage the in country project staff, collaborating departmental staff and communities generally. Despite the last year' conflicts and hardships much was achieved and this has restored some motivation and hope. The Nepalis are extremely competent and fundamentally committed people which we believe will ensure the rhino situation will improve if we can encourage government and people to work together towards a common goal of conservation of these precious resources. The main risk for the project now is running out of resources at this critical time!

7. Sustainability

The most important results were achieved within the Ministry and Department responsible for rhino, raising their understanding of the real situation on the ground and providing potential solutions. The other success was in engaging local community which have been an ally in getting more reaction and cooperation from government, the department and security forces whilst benefiting in livelihood terms from the project. The sensitive and reactive media and public attention on poaching continues to keep pressure on the authorities to bring this under control. The project has helped to provide alternatives and supported the government in being able to show that solutions are possible and that more rigorous scientific methods help to guide and even improve security by default. The exit strategy is the biggest challenge and given the background the project team will try hard to find fresh resources to maintain the systems established and momentum achieved. It will be some time before the country is settled and economically active, given the world recession and internal problems.

8. Dissemination

Provide details of dissemination activities in the host country during the year, including information on target audiences. Will dissemination activities be continued by the host country when the project finishes, and how will this be funded and implemented?

The main dissemination activities have been through community theatre and direct public engagement, through regular meetings and awareness campaigns in buffer zone communities. There has been equal activity in Kathmandu to encourage political support for the stakeholders. These young, socially and politically active groups are highly motivated and see the success of natural resource conservation closely aligned with political empowerment of the local people, responsible government and a sign of success over the past exploitation of people and wildlife for commercial and personal gain. With the roots of this movement in society so positive for wildlife there will be little chance of the systems in place failing, assuming this political force drives improvements in governance and adoption of responsibility to CBD by the Nepal government. The rhino and other iconic species might even be a rallying point for Nepal as one nation at a time when federalism is growing in popularity.

All relevant materials relating to the project continue to be placed on a webpage of the NTNC in Nepal and on the ZSL website.

9. Project Expenditure

Project expenditure during the reporting period (Defra Financial Year 1 April 2008 to 31 March 2009)

Table 3 ITEM	Total Budget	Budget 08/09 (Project budget against allocation)	Expenditure claimed (2008/9)	Balance on 08/09 budget
Rent, rates, heating, overheads etc				
Office costs (eg postage, telephone, stationery)				
Travel and subsistence				
Printing				
Conferences, seminars, etc				
Capital items/equipment				
Others Census/Monitoring, community projects, public engagement				
Salaries (specify)				
TOTAL				

(note £XXXX claimed to December 08 from Defra as 75% advance and request to forward unspent amounts to 2009-10 accepted difference between actual expenditure and advance will be reconciled through final submissions).

* Travel budget was increased with approval of LTS.

Printing expenditure shifted into next period.

Conferences seminars part expenditure on training and public awareness costed under "other" and remaining funds pushed forward to next period discussed with LTS.

Monitoring unspent pushed to next period discussed with LTS

Salaries and expenditure adjusted due to rephasing of IAS work into 2009-10 and discussed with LTS

10. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

[I agree for LTS and the Darwin Secretariat to publish the content of this section](#)

The project has been catalytic in rhino conservation in the country, at a time of a social, political and conservation crisis especially in Bardia National Park. It has brought to the attention of all stakeholders the major issues which will affect the conservation of species in the Terai. These relate to protection policy, habitat management and public engagement. Stakeholders have been motivated and brought to the table and are now considering all options. Potential solutions have been proposed and scientific assessment and systems established. These are contributing to transparency and confidence building amongst the responsible government staff. Communities have been rapidly and effectively engaged particularly in BNP and in Kathmandu and work in BNP provides a model for the other PA buffer zones. The National NGO has been strongly supported by ZSL and the project officers, encouraged in all activities and the finance has helped to expand and consolidate their scope of work at a difficult time due to their earlier association with the royal family and the criticism arising from this. The project is providing a bench mark for other conservation NGOs and partners with perhaps greater resources but suffering a degree of apathy or complacency.

Photographs are available showing rhinoceros and habitat, IAPS, poaching, community work (livelihood improvement), public engagement and educational methods focused on theatre and creative teaching systems for all age groups.

Annex Darwin Report 2008-9 NEPAL DI 16-009

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2008/09

Project summary	Measurable Indicators	Progress and Achievements April 2008 - March 2009	Actions required/planned for next period
<p>Goal: <i>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve</i></p> <p><i>The conservation of biological diversity,</i></p> <p><i>The sustainable use of its components, and</i></p> <p><i>The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</i></p>		<p><i>The second year has shown remarkable progress in dealing with the poaching threat in BNP, with no loss of rhino since May 2008 when a large gang organised by rogue army staff was caught. This led to high level actions in government and by the end of the year a major shift in policy on antipoaching and sanctuary approach was being agreed by the Ministry, Department and Security forces. The community engagement approach has been very successful with a combination of effective livelihood support projects, creative education and village community theatre to the extent where the involvement of local people in dealing with poachers was the catalyst in galvanising in resolving the problem in BNP and for government to take action. Standardised census and monitoring systems are integrated with park management in BNP; a major step forward with the whole CNP rhino daily block monitoring now being implemented with 17 posts being established involving over 25 elephants and 60 staff.</i></p>	<p><i>(do not fill not applicable)</i></p>

<p>Purpose To re-establish effective capacity, systems, management and motivation for the conservation of the endangered Greater one-horned rhinoceros and the <i>Terai</i> grassland habitat in Nepal.</p>	<ul style="list-style-type: none"> ● Cessation of the rhino population decline and standardised monitoring system in place for biological metapopulation management for rapid growth. ● Take up of recommendations by DNPWC and NTNC for <i>Terai</i> grassland habitat invasive species management both in protected areas and community forests. ● Take up of recommendations by DNPWC, NTNC and NGOs for buffer zone community livelihood, human wildlife (rhino) conflict and support programmes.) 	<p>Evidence for some stabilising of the Chitwan rhino population confirmed. Poaching ceased in BNP through standardised monitoring system. Distribution of mikania in CNP quantified and research activities on drivers and impacts initiated. Assessment on existing lantana control methods in BNP corridor undertaken. Fencing in CNP completed and benefits reported. Fence in BNP started and use of non-palatable crops (Mentha processing) completed first season with success. Historic and current HWC data collated and being analysed for effective strategy development; system for monitoring and logging HWC in place through partnership with AWELY. Veterinary OneHealth Nepal project moving forward with new partnership with Elephant Care International and others. Theatre project completed and taken up by Earthbeat Nepal theatre in own programme; Radio programme being explored. Community awareness and education programme with EE centre in BNP established and dynamic with a range of activities..</p>	<p>Consolidate on agreed policy change and support new APTF.</p> <p>Analyse data and advocate solutions</p> <p>Complete fencing projects and second mentha plant in BNP. Complete economic cost benefit analysis of menthe processing. Consolidate and progress veterinary health programme. Complete analysis of HWC data. Attempt to get WWF agreement on radio outputs.</p>
<p>Output 1. Improved capacity and systems to monitor rhinos and for anti-poaching.</p>	<p>Systems in place and training completed</p>	<p>Indicators appropriate.</p>	
<p>Activity 1.1 Monitoring Monitoring block systems establishment in CNP, BNP and SWR.</p> <p>New standardised security, monitoring database and GIS systems</p>		<p>Standardised and accurate census established. Standardised monitoring block system, capacity, tools, procedural mechanisms and equipment established and functional in BNP. Delays in initiating system in CNP but capacity (40 trained staff) and equipment in place and park-wide monitoring plan developed to be implemented in April-May. Due to low numbers of rhino (5) in SWR block monitoring considered too costly on resources for little benefit – instead ad hoc survey work in SWR 3/5 rhino regularly sighted (camera traps).</p>	

established in CNP, BNP and SWR	Patrol based wildlife GIS monitoring system developed and implemented in BNP and CNP, BNP already populated with XX months of data, monthly reporting templates in place and reports being generated.	
DNPWC scouts and officers trained in wildlife management.	A 8 week regional course is being developed jointly with Wildlife Institute of India for training of wildlife managers and biologists in tools of wildlife management (January 2010).	
<p>Activity 1.2 Anti-poaching “Scene of crime” training Feasibility of tracker dogs GIS security information database Restoration of community support/networks (Y1 and Y2).</p>	<p>Scene of crime training completed with 30 staff trained and manual produced. Delay in tracker dog study but agreed in principle now by authorities. GIS security information database integrated with patrol system Community support network re-established in BNP and active underpinning resolution of poaching problems for the present. APU policy reform document developed and discussed resulting in a major policy shift in policy with the set-up of a dedicated well-trained and armed APU in BNP agreed with Army and DNPWC; 4 river boats (3 with engine) and training provided; setup of tracking dog units agreed; funding being explored (British Embassy – vehicle, USFWS – proposal developed).</p>	
<p>Output 2. Improved biological management of rhino populations and habitat.</p>	<p>Progress slow in this aspect due to poaching crisis in 2007-8</p>	<p>Indicators appropriate</p>
<p>Activity 2.1. Metapopulation Management Park and national status reports Rhino information system + GIS maps</p>	<p>National rhino census reports published. Rhino information and reporting system (as part of patrol based wildlife system) with GIS in place and in use in BNP, implemented in CNP and staff trained and ready for regular block monitoring initiative. Master ID files of all known rhinos in BNP created and up-to-date; system implemented in NTNC monitored section of CNP. Systematic monthly block monitoring established in BNP, and NTNC sector of CNP; complete park monitoring to begin in May with system in place. DNPWC and NTNC training in analysis and status reporting to be completed in next phase. BNP, SWR rhino population structure, demographics, range patterns being analysed with CNP to follow with data and this will enable national status reports to be produced in next phase, draft report template developed to be finalised in training workshop. 3 DNPWC and NTNC staff trained in metapopulation management through study</p>	

<p>Training translocation, veterinary and field officers</p> <p>Viable populations</p> <p>National Action Plan</p>	<p>visit to Kenya. SWR sanctuary assessment and concept paper circulated to all relevant stakeholders and discussed.</p> <p>IUCN published guidelines completed. Capacity issues in Nepal in wildlife health discussed and agreed that it is totally insufficient and a new project will need to be developed under a OneHealth Nepal umbrella to address this need. The DI project has insufficient resource to undertake this action. Integration of ECI Nepal project on Elephant under NTNC has been completed and collaboration continuing with the one NTNC vet based at the zoo, the Army vet but little contact has been possible with the DNPWC vet.</p> <p>Collaboration between Wildlife Institute of India initiated with first PhD candidate the BNP coordinator now working in CNP (Impact of <i>Mikania micrantha</i> on the nutritional ecology, habitat preference and demography of the Greater One-Horned Rhino in Chitwan National Park). Also development of wildlife health training module agreed for later in 2009 organised collaboratively between WII and ZSL.</p> <p>Discussions with EAZA initiated through ZSL to develop a collaborative metapopulation management project for SWR which currently is not viable, involving captive bred stock returning to Nepal. Sanctuary approach in SWR will need to be agreed and initiated. Progress continues on this aspect in Nepal.</p> <p>Revised National Strategy and Action plans will follow in final year.</p>
<p>Activity 2.2. Habitat restoration Invasive Alien Plant species studies Plan</p>	<p>Work completed on mapping extent and abundance in CNP of Mikania during census; Report and draft manuscript produced for publication.</p> <p>Scientific officer recruited in November and starting work with socioeconomic analysis of drivers in buffer zone communities of CNP for Mikania. Questionnaires developed, communities identified, pilot and full surveys conducted and data being logged for analysis. Former coordinator NTNC DI project transferred to CNP for PhD studies targeted on rhino and Mikania. Impact studies on other animal and plant communities being developed with field assessment studies to be undertaken from May 09.</p> <p>Discussions with voluntary groups continue on raising awareness about invasive aliens – amateur video prepared but possibility to engage British Film interest.</p>
<p>Output 3. Community support and improved benefits. Less human-rhino conflict.</p>	<p>Engagement through education activities productive in BNP. Livelihood activities mostly</p>

	completed and conflict issues increasingly being addressed. Public engagement initiatives through theatre successful.	
Activity 3.1 Community assistance Crop protection Socioeconomic studies Strategy and livelihood development Public engagement Communication of information Awareness, Dialogue, Media and Community Theatre Rhino campaign	<ul style="list-style-type: none"> • Education and community officers continue to develop extensive programme and use educational opportunities to engage with communities especially those marginalised around BNP. • Electric fence (CNP), non-palatable mentha crops initiatives completed first season. Engagement of farmers (>100) exceeded expectations. BNP fence under construction. <p>Socioeconomic studies are ongoing and involving work in CNP on IAPS and cost benefit analysis of the mentha processing initiative in BNP.</p> <ul style="list-style-type: none"> • Dialogue and awareness with focus on the most vulnerable and poorest buffer zone communities is starting to show benefits. • Public engagement through theatre had a significant impact and momentum is carrying these activities on through a Earthbeat Nepali theatre company in Kathmandu which is strongly rooted in Nepal avant garde. • HWC past and current data collated and being analysed. System now in place to monitor HWC in standardised way. Long term HWC mitigation strategy to be developed in next phase. 	
Output 4 Project management	Very positive role of NTNC, Ministry of Forests and Soil Conservation and Department of National Parks in current activities. Direct engagement with Minister, Permanent Secretary and Director of Parks.	Indicators are the establishment of appropriate governance structures for rhino conservation These are still too loose but given the fragility of government in Nepal (still under a constituent assembly with little progress on the constitution)
Activity 4.1. Project management	Steering committee established (May 07); annual Partnership project meetings; regular internal NTNC project meetings; 6 monthly and annual Darwin progress reports; Final Darwin project.	

Standard Measures details

Code No.	Description	Year 1	Year 2
Planned originally 30 x (6A) 3 x (6B) 1 x (7)	At least 30 trained staff in large mammal census techniques	50 staff trained in census techniques for the rhino total count and invasive species, training material produced 50 x (6A) 2 x (6B) plus on job training 4 x (7)	
3 X (7)	Training manuals, posters, guidance notes and accreditation tests (in monitoring, anti-poaching and surveillance techniques)	Comprehensive training manual, posters and tests produced 3 X (7)	Endorsed as an IUCN AsRSG accredited course to standardise across the region
10 x (6A) 1 x (6B)	At least 10 DNPWC, community forest and NTNC trained instructors (in monitoring, anti-poaching and surveillance techniques) (5-day trainer's course + regular on-site training and support as required)	4-day workshop - 14 staff trained as instructors 14 x (6A) 1 x (6B)	On-site training support provided during field visits
2 x (7)	Data collection forms and data quality control procedures	Patrol data recording booklet, Rhino sighting booklet produced and being used 2 X (7)	
2 x (12A) 2 x (7)	Fully operational GIS-based monitoring and security systems with user manuals and tutorials (in 3 protected areas).	Standardised patrol based wildlife monitoring GIS monitoring and security system (combined 2 x (12A) 2 x (7))	Operational in Bardia & Chitwan NPs and NTNC staff trained in its use; comprehensive manual produced. Shuklaphanta WR has only 5 rhinos and limited human resources so basic data is being entered in excel spreadsheet 4 x (6A) 1 x (6B)
30 x (6A) 12 x (6B)	At least 30 trained park and community patrol and monitoring staff (initial intensive 4 week on-site training in each area + regular on-site training and support)	Instructors have been trained and this programme is now being planned with a proper monitoring structure ground; situation is still unstable on the ground	Training conducted on-site by instructors – 40 staff trained in Chitwan NP and 5 in Bardia NP 45 X (6A)
9 x (6A) 3 x (6B)	At least 9 trained staff in field tools and procedures, data processing and reporting.	At least 15 staff in CNP, BNP, SWR and KTM trained in use of the various tools (sightings forms, 15X(6A)	Further training provided during field visits by DI team

		At least 60 staff trained in field data recording forms. 60X(6A) At least 5 staff trained in data analysis and producing monthly status reports, 5 X (6A) 14 staff trained in basic GIS 14X(6A) 4 staff trained in patrol based GIS monitoring (4X6A)	
3 X (6A) 3 X (6B)	2 Darwin local community liaison officers trained further in public education, awareness/engagement activities (+ regular on-site training and support as required)	2 education staff provided on the job training 2 x (6A) 8 x (6B)	Training continuing to be provided by ZSL education volunteer officer in BNP
1 x (7)	Public education, awareness / outreach material (initial set and then further developments on an ongoing basis)	Range of material developed 1 x (7)	Range of material continuing to be developed (main 4 x (7) – various items see text for details)
4 X (6A) 2 X (6B)	At least 4 trained DNPWC and NTNC staff (in sanctuary approach/metapopulation management). (2-week field visit)	3 NTNC and DNPWC staff members undertook Kenyan field visit. The director general of DNPWC could not attend at the last minute due to the political situation. 10 relevant South Asian regional rhino managers also attended the workshop and tour 3 x (6A); 10 x (6A) 2 x (6B).	
1 X (7)	"Scene of crime" training manual	Draft completed	1 x (7) Manual + supplementary docs
12 x (6A) 2 x (6B)	Minimum of 12 trained staff in Scene of the Crime and security system		30 x (6A) 1 x (6B) - Scene of Crime Training Workshop
8 x (6A) 2 x (6B)	At least 8 park officers and NTNC scientists trained in production and interpretation/of standardised annual status reports (2 weeks in the first year).		Training deferred to Nov 2009 - see text
4 x (9)	Standardised annual status reports for CNP, BNP, SWR; National annual status report.	Bardia status monitoring report 1 x (9)	2008 National count reports (1 x 9) Monthly; Draft annual status report template produced to be finalised in October 2009

			training (1 x 9)
1 x (7)	Basic guide lines (with illustrative cards, visual aids) - captive elephant healthcare.		Project partner established (Elephant Care International) working in CNP and BNP to improve elephant healthcare and husband and resolve the serious tuberculosis problem in domestic elephants.
25 x (6A)	At least 25 trained park Mahoots (in captive elephant health) (1 week on-site training in each PA + on-going support as needed)		see above ECI inputs. 2 vets trained in elephant health care and tuberculosis management.
4 x (9) 1 x (14A) 1 x (11B)	3 Social, cultural and economic assessment reports (summary in local languages); 1 strategy document (1 workshop); 1 paper submitted.		<i>This output was mainly dropped with approval of LTS. One socioeconomic assessment relating to IAPS has been launched.</i>
1 x (9)	Feasibility study report - tracker dogs		Agreement on the principle for use of tracker dogs in AP work was achieved but implementation of feasibility delayed.
9 x (6A) 1 x (6B) 1 x (7)	At least 9 trained staff and students in GIS, map interpretation and analysis.		Training manual finalised. On-site basic training provided to research/technicians; formal workshop to be held in October 09 1 x (7) 4 x (6A) 2 x (6B)
30 x (6A)	Minimum of 30 trained farmers (in mentha crop processing).		109 x (6A) – see text
1 x (7)	Guide lines - translocation, wildlife veterinary practices (wildlife and livestock).		1 x (7) – see text.
4 x (6A) 2 x (6B)	At least 4 trained veterinary staff (newer translocation and veterinary practices – wildlife, livestock & captive elephant health) (2 week on-site training + ongoing support as needed).		<i>2 vet staff trained (ECI) 2x (6A) see text. Training module planned at WII India i late 09</i>
1 x (9)	Sanctuary feasibility study report and strategy document.		(1 x 9) ; A concept paper has been developed following feasibility study; Strategy document will follow a final assessment in the next couple of months.
2 x (2)	2 staff trained in conservation research		One staff on PhD programme organised by project and research officer is being trained on IAS. 2x(2)
5 x (6A)	At least 5 NTNC and park staff trained (in		This is on-going – 2 research officers and ranger are being trained (3 x 5A); 50 field

	habitat invasive species assessment and control).		staff were trained in basic IAS assessment (50 x (6A))
4 x (9)	Standardised annual status reports for CNP, BNP, SWR; National annual status report.		This will be completed end of this year once there is sufficient field monitoring data
Additional outputs			
(6 x 6A) 8 x 6B)	Theatre production		6x(6A) 12x(6B) local Nepali performers trained (Silence of Bardia performed locally and internationally – including World Conservation Congress)
1 x (9)	APU strategy document		Policy reform document on dedicated well trained and armed APU 1X(9)
4 x (14B)	Talks at conferences		Rhino MayDay (London, May 08); IUCN AfrSG (Tanzania, June 08); IUCN AsRSG (Chitwan, Oct 08) 3X(14B)
2 x (15A) 1 x (18A) 2 x (19A)	National press releases, TV and radio news items		National rhino census, Silence of Bardia play 2X (15B)
1 x (14A)	Conferences seminars		IUCN AsRSG meeting organised in Nepal. 1X(14B)
2X11B	Publications		Census 1X(11B)
1 x (23)	Funds leveraged from other sources		£31000 from EAZA £10000 ZSL £1000 UK Trust for Nepal (see text for details)
1 x (20)	Physical assets	£8000 – education truck; £13160 – vehicles; ~£10000 - 40 GPS, 26 binos, 10 radio handsets, digital cameras, camping equipment; ~£10,000 mentha plants	~£14,000 electric fencing ~£18000 - 4 river boats, 3 with engines
1 x (21)	Education facility		1 x (21) – Bardia NP see text
2 x (11B)			2 papers on Census and IAS survey will be submitted in the next couple of months to Oryx or Pachyderm

Annex 2 Project's full current logframe

LOGICAL FRAMEWORK APRIL 2009

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal: To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve</p> <ul style="list-style-type: none"> • the conservation of biological diversity, • the sustainable use of its components, and • the fair and equitable sharing of benefits arising out of the utilisation of genetic resources 			
<p>Purpose To re-establish effective capacity, systems, management and motivation for the conservation of the endangered Greater one-horned rhinoceros and the <i>Terai</i> grassland habitat in Nepal.</p>	<ul style="list-style-type: none"> • Cessation of the rhino population decline. • Take up of recommendations by DNPWC and NTNC for <i>Terai</i> grassland habitat invasive species management both in protected areas and community forests. • Take up of recommendations by DNPWC, NTNC and NGOs for buffer zone community livelihood, human wildlife (rhino) conflict and support programmes. 	<ul style="list-style-type: none"> • Census, reports and strategies. 	<ul style="list-style-type: none"> • Continuing improvements in the political process towards democracy and inclusive government.
<p>Outputs a) Improved capacity and systems to monitor rhinos and for anti-poaching.</p>	<ul style="list-style-type: none"> • DNPWC, NTNC and community forest programme staff trained and accredited in standardised monitoring and anti-poaching; minimum of 10 staff also trained as instructors (Y1). • Monitoring block systems established in CNP, BNP, SWR (Y1) • New standardised security, monitoring database and GIS systems established in CNP, BNP and SWR; minimum of 9 staff trained (Y1). • Restoration of community support/networks (Y1 and Y2). • DNPWC scouts and officers trained in wildlife management. 	<ul style="list-style-type: none"> • Adopted monitoring/ anti-poaching system. • No of trained and accredited staff including instructors; quality of training material. • No of monitoring equipment bought and used regularly. • Extensive wildlife monitoring data in system database. • No of poaching reports. • No of staff trained in wildlife management. • Monitoring reports. 	<ul style="list-style-type: none"> • Trained staff retained and stimulated instructors • Support for equipment maintenance and repairs • Well motivated field monitoring and anti-poaching staff
<p>b) Improved biological management of rhino</p>			<ul style="list-style-type: none"> • Retention of staff with

<p>populations and habitat.</p>	<ul style="list-style-type: none"> ● Total rhino census in CNP, BNP (Y1). ● Systematic block monitoring in CNP, BNP, SWR (Y1-3). ● Minimum of 9 DNPWC and NTNC trained in data quality control, analysis and status reporting (Y1). ● CNP and BNP Rhino population structure and demographics; 3 park and national status reports produced (Y1-3); report template developed (Y1). ● Viable populations established and intensively monitored; (Y1-2). ● Invasive Species (IS) trends, impacts and solutions: Research studies (e.g. MSc); workshop held, plan developed; 2 scientific papers submitted (Y1-Y2); Awareness activities undertaken. ● 4 DNPWC and NTNC staff trained in metapopulation management; Kenyan Darwin program visit (Y1). ● Strengthen cross border links with Indian protected areas. ● Study on sanctuary approach undertaken and national Rhino Conservation Action Plan reviewed (Y2-3). 	<ul style="list-style-type: none"> ● Newly defined rhino management units. ● No of staff trained. ● No of annual status reports. ● Rhino census reports. ● Reports on invasive species trends, impacts and control solutions; plan. ● No of rhinos intensively monitored and protected in SWR. ● Scientific reports and papers. ● Report on cross-border initiative. ● Report on sanctuary study and revised national Rhino Conservation Action Plan. ● No of IS awareness activities. 	<p>specialised training skills and experience, and high motivation.</p> <ul style="list-style-type: none"> ● Open data policy to enable verification. ● Trained elephants available to carry out systematic monitoring and census. ● Strategy adopted. ● Partner support.
<p>c) Community support and improved benefits. Less human-rhino conflict.</p>	<ul style="list-style-type: none"> ● Socioeconomic studies oriented to IAPS, HWC and Livelihood project outcomes. ● Pilot electric fence, non-palatable mentha crops established for minimising crop damage; minimum 30 farmers benefiting through mentha processing plants; strategy developed for all areas (Y1-3). 	<ul style="list-style-type: none"> ● Socioeconomic reports, Recommendations and strategy. ● No of conflict reports; no of farmers benefiting. ● Quality of community awareness material. 	<ul style="list-style-type: none"> ● Mentha processing plants well maintained. ● Electric fence well maintained. ● Highly motivated park education and community awareness officers. ● Strategies

Comment [K1]: Elephant health training aspects are removed and are being done by a partner NGO Elephant Care International so this is deleted to avoid unnecessary duplication of effort. The translocation and intervention training is removed as no activities are likely given the heavy poaching pressures but the guidelines from IUCN were produced by project staff and colleagues and will be distributed to all stakeholders to ensure they understand the necessary processes to improve this aspect. Improved capacity in wildlife health is essential but the project is not able to do this with the available resources only facilitate and encourage a new project specifically to address this gap.

Comment [K2]: Original planning on socioeconomic studies were changed in the first year in light of finding this to be unnecessary as a number of reports were available and the root to the problems with rhino were clearly not entirely poverty related. Community in buffer zones were largely better off than many other more marginalised communities with added benefits of natural resource offtake. There were felt to be some linkage though with habitat deterioration and IAPS so this is now the focus along with work on outcomes of the project specifically and on HWC.

	<ul style="list-style-type: none"> • Dialogue and awareness programme established with focus on the most vulnerable and poorest buffer zone communities (Y1-3). • Public engagement campaign undertaken (local radio, press, community theatres). 	<ul style="list-style-type: none"> • No of community dialogue and awareness initiatives. • No of public engagement programmes. • No of community skills development activities initiated / supported. 	adopted.
d) Better governance, science based conservation, stakeholder integration.	<ul style="list-style-type: none"> • Strategy/governance change, financial and human resource commitment. 	<ul style="list-style-type: none"> • Human-rhino conflict resolution strategy. 	<ul style="list-style-type: none"> • Supporting and properly integrated governance structure.
e) Publications and publicity.	3 papers submitted for publication; radio and press coverage, information on partner websites.	<ul style="list-style-type: none"> • Integration audit. • Rhino “awareness” days for politicians and other stakeholders (Kathmandu and PAs) 	None.
		No of papers submitted, radio and press items; quality of information on websites.	

Comment [K3]: Theatre and educational routes were decided on to best get the message across

Activities	Activity Milestones	Assumptions
<u>Monitoring</u> Field work Training instructors Training field staff	Completed training & rhino census CNP, BNP (Jun 07) Completed manuals and field instructor training (Sept 2007) Completed initial intensive field staff training (Oct 07). On-going field staff training (07-10)	No major political security issues
<u>Anti-poaching</u> “Scene of crime” training Feasibility of tracker dogs GIS security information database	Block monitoring system developed in CNP, BNP, SWR; On-going monthly monitoring of rhino (07-10) Training completed (Oct 07) Feasibility study completed, strategy recommended (08) GIS security information database in each PA, staff trained (Oct 07).	None
<u>Metapopulation Management</u> Training translocation, veterinary and field officers Rhino information system + GIS maps Park and national status reports Viable populations National Action Plan	Completed training in data analysis, standardised status reporting and metapopulation management (inc. Kenyan Darwin programme training visit) (Dec 07) Annual park and national status reports produced and reviewed (Mar 08,09,10) Completed translocation and veterinary (including rhino and captive elephant health) training and tested new methods (08-09) Computerised information system and GIS capability in each PA (Oct 07) Viable populations established; feasibility study for fenced sanctuary approach; revised national Rhino Conservation Action Plan (Mar 10)	Partner support
<u>Habitat restoration</u> Invasive species studies Plan	Completed 2 research projects (09), workshop held and plan developed (09). Awareness activities on invasive species threat initiated	Plan adopted
<u>Community assistance</u> Crop protection Socioeconomic studies Strategy and livelihood development	30 farmers in critical conflict zone in BNP growing mentha and processing (Jan 08), pilot electric fence study completed; Human-rhino conflict resolution strategy developed and implementation support (Jan 09) 3 socioeconomic studies completed; workshops held, strategy developed; Support in development of suitable community livelihood skills development started (Mar 08);	Strategy adopted
<u>Public engagement</u> Communication of information Awareness, Dialogue, Media and Community Theatre Rhino campaign	Community awareness programme initiated (Sep 07) <i>Rhino Days</i> in Kathmandu, CNP, BNP and SWR communities completed. (Including public engagement meetings to present theatre, science, policy initiatives and strategy) (07-10). Local radio broadcasts and newspaper articles (07-10)	None
<u>Project management</u>	Steering committee established (May 07); 3-monthly project meetings; assessment reports; 6 monthly and annual Darwin progress reports; Final	None

21. Provide a project implementation timetable that shows the key milestones in project activities.

Project implementation timetable		
Date	Financial year	Key milestones
	Apr-Mar 2007/08 Apr-Mar 2008/09 Apr-Mar 2009/10 Apr-Mar 2010/11	
May 2007	Apr-Mar 2007/08	Steering committee established; Project management reporting procedures and ToRs setup; Project meeting held in Kathmandu – attended by all partners and relevant NGOs, groups; working groups for each project area established and detailed implementation plans drawn up.
May 2007	Apr-Mar 2007/08	Training material developed and at least 30 staff trained in large mammal census techniques.
Jun 2007	Apr-Mar 2007/08	Rhino total census completed in CNP and BNP.
Sep 2007	Apr-Mar 2007/08	Training materials (manuals, posters etc) for instructors and park staff in monitoring, anti-poaching and surveillance techniques developed; Formal theoretical examinations and practical tests for accreditation of instructors and monitoring staff produced.
Sep 2007	Apr-Mar 2007/08	Training workshop completed – Training of at least 10 CNP, BNP, SWR, buffer zone community forest and NTNC staff as instructors in monitoring, anti-poaching and surveillance techniques; Field standardised data collection forms, data quality control procedures and protocols produced. (2 weeks).
Oct 2007	Apr-Mar 2007/08	Half yearly report submitted to Darwin Initiative.
Oct 2007	Apr-Mar 2007/08	Development of GIS Monitoring database system with user manual completed.
Oct 2007	Apr-Mar 2007/08	Local community liaison officers appointed and provided further training; Community education & awareness programme initiated.
Oct - Dec 2007	Apr-Mar 2007/08	Block monitoring system developed and implemented in CNP, BNP and SWR; Park monthly monitoring reports initiated.
Oct - Dec 2007	Apr-Mar 2007/08	Intensive on-site training of CNP, BNP, SWR and buffer zone community forest patrol and monitoring staff by local instructors and Darwin fellows completed; Field tools including GIS monitoring database system and procedures implemented; Hands-on training of 9 park officers and NTNC in GIS, data quality control, entry and basic data processing using a customised system and field protocols completed. (12 weeks).
Dec 2007	Apr-Mar 2007/08	Development of “scene of crime” training manual completed.
Dec 2007	Apr-Mar 2007/08	Additional training to community liaison officers provided; Initial set of community education & awareness material/activities developed; Community education & awareness programmes initiated, mobile unit setup, local theatre troupe trained, first Rhino Day held (others to be held at convenient times).

Comment [K6]: There are delays as reported in this timetable

Dec 2007	Apr-Mar 2007/08	Field training of DNPWC officers in metapopulation management completed (2 weeks).
Jan 2008	Apr-Mar 2007/08	Training workshop completed – at least 10 DNPWC (inc. CNP, BNP, SWR), community forest and NTNC staff trained in Scene of the Crime; GIS Security database system developed and implemented in CNP, BNP and SWR; Staff trained; Feasibility study of trackers dogs completed and strategy recommended.
Jan 2008	Apr-Mar 2007/08	2 Research studies started (Invasive species spread, impact and control <u>studies</u>).
Mar 2008	Apr-Mar 2007/08	Annual status report template produced; Training workshop completed - at least 9 park officers and NTNC scientists trained in data analysis and the production of annual status reports; First annual park status report produced and <u>reviewed</u> .
Apr 2008	Apr-Mar 2007/08	Annual report submitted to Darwin Initiative.
May 2008	Apr-Mar 2008/09	Basic guide lines (with illustrative cards, visual aids) in camp elephant healthcare produced; 5 day training programme for DNPWC vets and Mahoots in each protected area completed, post monitoring <u>undertaken</u> .
May 2008	Apr-Mar 2008/09	Surveys and reports on Social, cultural and economic assessment in CNP, BNP and SWR buffer zone communities completed; Stakeholder workshop held to discuss findings; Strategy developed with recommendations for community development; Strategy document sent to all relevant NGOs, 1 scientific paper prepared from <u>data</u> .
Jun 2008	Apr-Mar 2008/09	Feasibility study on tracker dogs completed; Report <u>produced</u> .
Jun 2008	Apr-Mar 2008/09	Development of suitable community livelihood skills development initiatives started with park authorities, local government organizations, NGOs and community leaders.
Sep 2008	Apr-Mar 2008/09	Training workshop completed – Training of at least 9 DNPWC, NTNC staff and field placement students in GIS, map interpretation.
Oct 2008	Apr-Mar 2008/09	Half yearly report submitted to Darwin Initiative.
Dec 2008	Apr-Mar 2008/09	Mentha processing equipment purchased; At least 30 farmers in critical conflict zone in BNP trained in growing and processing mentha; Pilot electric fence study completed; HRC strategy developed and implementation plan agreed.
Jan 2009	Apr-Mar 2008/09	Feasibility study for fenced sanctuary approach (including potential community ones) completed; Detailed report produced; Strategy meeting with DNPWC, community leaders and NGOs <u>held</u> .
Jan 2009	Apr-Mar 2008/09	Guidelines in newer translocation and veterinary practices produced (wildlife and livestock); 2 week on-site training programme for DNPWC veterinary staff

Comment [K7]: Delayed but ongoing now

Comment [K8]: Still delayed for reasons in report.

Comment [K9]: Deferred for reasons given in the report and undertaken partly by partner.

Comment [K10]: Delayed and modified outputs to 0910

Comment [K11]: Delayed due to political reasons around APU.

Comment [K12]: Delayed but ongoing

Mar 2009	Apr-Mar 2008/09	completed; Ongoing support provided.
Mar 2009	Apr-Mar 2008/09	If the strategic planning allows there would be translocation of some rhinos (for viable population establishment) to SWR; Further guidance / field support provided to DNPWC vets and capture team; Rhino population monitored.
Mar 2009	Apr-Mar 2008/09	Field assessment of training, data quality, entry and reporting procedures completed by Darwin Fellows; Second standardised annual status reports completed; Meeting held with DNPWC officers and NTNC scientists to discuss findings.
Apr 2009	Apr-Mar 2009/10	2 Research studies completed; Detailed habitat assessment undertaken, extent of invasive species quantified, habitat sensitivity maps produced for protected areas and buffer zone community forests; Suitable control methods for invasive species determined; Awareness activities undertaken.
Apr 2009	Apr-Mar 2009/10	
Apr 2009	Apr-Mar 2009/10	B.Sc., M.Sc. student field placement studies completed; Reports produced.
Sep 2009	Apr-Mar 2009/10	Annual report submitted to Darwin Initiative.
Oct 2009	Apr-Mar 2009/10	Workshop held; Invasive species control plan developed and implementation plan agreed; Field control methods initiated; 1 scientific paper submitted for publication.
Mar 2010	Apr-Mar 2009/10	Workshop held: Human-wildlife (rhino) conflict management/ resolution strategy developed and implementation agreed & implemented; 1 scientific paper submitted for publication.
Mar 2010	Apr-Mar 2009/10	At least 2 DNPWC and NTNC staff trained in GIS database systems future support and development.
Mar 2010	Apr-Mar 2009/10	Half yearly report submitted to Darwin Initiative.
Apr 2010	Apr-Mar 2009/10	B.Sc., M.Sc. student field placement studies completed; Reports produced.
		Field assessment of training, data quality, entry and reporting procedures completed by Darwin Fellows; Third standardised annual status reports completed; Meeting held with DNPWC officers and NTNC scientists to discuss findings.
		Workshop held: Review of the 5-year national rhino action plan undertaken.
		Final project report submitted to Darwin Initiative.

Comment [K13]: Deferred due to capacity issues – basically nobody to train currently and capacity needs to be brought in but this project has no resource for this.

Comment [K14]: Ongoing

Comment [K15]: ongoing

Annex 3 Onwards – supplementary material (optional but encouraged as evidence of project achievement) on CD ROM

Supplementary Item 1: GIS training course material
Supplementary Item 2: GOH and other wildlife monitoring Instructor's training report
Supplementary Item 3: GOH and other wildlife monitoring Instructor's training material ***
Supplementary Item 4: Patrol based wildlife monitoring GIS system user manual
Supplementary Item 5: Course content: Training of wildlife managers and biologists in tools of wildlife management
Supplementary Item 6: Guidelines for reintroduction of rhinos
Supplementary Item 7: Scene of Crime Investigation training manual
Supplementary Item 8: Report on Scene of Crime Investigation training including evaluations
Supplementary Item 9: USFWS proposal for scene of crime training
Supplementary Item 10: 2008 National Rhino Census report
Supplementary Item 11: Pachyderm postscript note
Supplementary Item 12: APU policy reform document ***
Supplementary Item 13: Chitwan Mikania survey report
Supplementary Item 14: Community survey questionnaires – Mikania drivers
Supplementary Item 15: Naresh PhD proposal
Supplementary Item 16: Outline on impact study of Mikania on mammals
Supplementary Item 17: Report on theatre development
Supplementary Item 18: Bardia annual report
Supplementary Item 19: Bardia education planned activities with costings
Supplementary Item 20: One-health concept proposal
Supplementary Item 18: Bardia annual report (as above)
Supplementary Item 21: SWR sanctuary concept paper ***
Supplementary Item 22: Technical report NTNC 08-09

*** submitted last year.

Set of pictures are available on request

Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	No
Is your report more than 5MB? If so, please advise Darwin-Projects@ltsi.co.uk that the report will be send by post on CD, putting the project number in the Subject line.	Yes
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	