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NEPAL

## Report on Community Based Conservation of Asian Big Cats in Nepal

Nepal, as a range state of Asian Big Cats, has adopted community based conservation initiatives for the conservation of these cats and their habitats. All of the Protected Areas (PAs) of Nepal i.e. the Royal Chitwan National Park (RCNP), Royal Bardia National Park (RBNP), Shey Phoksundo National Park (SPNP), Langtang National Park (LNP), Makalu Barun National Park (MBNP) and Sagarmatha National Park (SNP), Rara National Park (RNP), Khaptad National Park (KNP), Shivapuri National Park (SPNP), Parsa Wildlife Reserve (PWR), Koshi Tappu Wildlife Reserve (KTWR), Royal Sukdaphanta Wildlife Reserve (RSWR), Dhorpatan Hunting Reserve (DHR), Annapuran Conservation Area (ACA), Manaslu Conservation Area (MCA) and Kanchenjunga Conservation Area (KCA) having the populations of Asian Big Cats. In among these PAs, the Department of National Parks and Wildlife Conservation (DNPWC) has already established Buffer Zone (BZ) in and around the nine PAs i.e. RCNP, RBNP, SPNP, LNP, MBNP, SNP, PWR, RSWR and KTWR. Various Programs have been implemented for conservation of Asian Big Cats along with other species and natural resources in and around the PAs and BZs through the community involvements and community participation is remarkable in conservation of these cat species and their habitats along with community and eco-tourism development programs to minimize biotic pressure on PAs and for the sustainable management and use of natural resources of that area.

The conciliatory and partnership approach adopted by the DNPWC is aimed at motivating local communities in the participatory management of the biodiversity to fulfill their needs of forest products through User Groups and Buffer Zone/Conservation Area Management Committees. These groups and committees have responsibility in conservation of natural resources and have been benefiting from eco-tourism and community development activities.

Because of having Asian Big Cats and other endangered species, the protected areas of Nepal are major tourist destinations in the world. The government has made legal provision of running hotels and lodges in and around the protected areas of Nepal to improve the socio-economic

condition of local people. The local people are provided cooking and guide trainings to enhance their capacity. Community members also benefit from their involvement in elephant safari, nature walks and cultural and other recreational activities for tourists. The Protected Areas of Nepal generate the revenue from other various sources such as by issuing filming license, entrance fees, royalties from hotels and lodges inside PAs, elephant rides, trekking permits etc. The Government of Nepal has made provisions to plough back up to 50 percent of the revenues earned by the respective PAs to community development activities of local communities through respective buffer zone management committees.

The local communities be encouraged to play a part in and benefit from, the conservation of Asian Big Cats and their habitats through community development activities, eco-tourism activities, income generation and skill development activities of the community based institutions i.e. Buffer Zone Management Committee (BZMC), Conservation Area Management Committee (CAMC), User Committee (UCs), User Groups (UGs), Community Forests (CFUGs), Functional groups (Forest User Groups, Irrigation Use groups, Cooperatives, Tourism Management Sub committees etc.). The DNPWC has implemented several programs in different PAs with support of various partner organizations. The partner organizations have been supported to strengthen these institutions. The DNPWC carries out all PAs management activities in close consultation and partnership with various community based institutions that have been formed and registered by respective PAs under the DNPWC. The community based biodiversity conservation and development programs have been implemented to strengthen the community actions to save Asian Big Cats along with other species in various PAs of Nepal.

The development of community based institutions in and around the PAs is in increasing trends. The PAs, Community Based Institutions, Beneficial Households and Beneficial Populations are given in the table below.

PAAs	BZMC/ CAMC	UCs	UGs	Functional Groups	CFUGs	Beneficial Households	Beneficial People
RCNP	1	21	1484	60	19	36193	223260
RBNP	1	15	180	76	33	11504	120000
LNP	1	21	315	30	12	12509	54326
SPNP	1	17	90	11	11	2263	11598
MBNP	1	12	88	69	6	6000	32000
SNP	1	3	69	73	1	1288	5869
KNP	1	9	412	na	na	5018	54693
RNP	1	9	127	na	na	1925	13763
RSWR	1	9	465	11	12	17886	100953
KTWR	1	9	543	71	1	10693	77950
PWR	1	10	345	78	15	7228	43228
ACAP	na	55	na	347	na	na	120000
MCAP	na	7	na	36	na	na	9000
KCAP	1	7	44	32	17	400	20000
<b>Total</b>	<b>12</b>	<b>204</b>	<b>4162</b>	<b>894</b>	<b>127</b>	<b>112907</b>	<b>886640</b>

Note:- na- Not available

There are a total of 12 BZMC/ CAMCs, 204UCs, 4162 UGs, 894 Functional Groups, 127 CFUGs, 112907 Beneficial Households and 886640 beneficial People mobilized for community based conservation and management of Asian Big Cats in Nepal along with other species. The DNPWC has implemented several programs i.e. Institutionalization of Community Based Organizations, Bio-diversity Conservation activities, Community Development activities, Income Generation and Eco-tourism development activities, Alternative Resource Development programs, Women Empowerment activities and Conservation Awareness related activities in different Protected Areas with the support of various partner organizations.

Under taking Programs with the partnership of non-Governmental Organizations for the conservation of Asian Big Cats and other endangered Species are as following:

### 1. King Mahendra Trust For Nature Conservation (KMTNC) Supported Programs

- Bio diversity Conservation Program in RCNP
- Rhino Tiger Conservation Program in RCNP
- Bardia Conservation Program in RBNP
- Sukla Conservation Program in RSWR
- Annapurna Conservation Area Project in ACA
- Manaslu Eco tourism Development Program in MCA

The objectives of these projects are to integrate conservation and community benefit from the conservation of biodiversity. These programs are focused on formation of community based organizations and participatory conservation of endangered species. These programs are focused on holistic and integrated conservation and development programs with the participatory involvement of local people and community based biodiversity conservation through eco-tourism and community development activities.

### 2. WWF Nepal Program (WWF NP) Supported Programs

- Terai Arc Landscape Program (TAL) in RSWR, RBNP, RCNP and PWR
- Northern Mountain Conservation Program (NMCP) in and around the SPNP
- Sagarmatha Community Agro Forestry Project (SCAFP) in SNP
- Kanchenjunga Conservation Area Project (KCAP) in KCA

Very recently, the KCA is being planned to handover to the Kangchenjunga Conservation area management committee under the new Government initiative. This calls for management handover to certain PAs on Nepal to NGOs working in the field of nature conservation that has the capacity to conserve and manage without compromising the basic conservation of the core PA.

The objectives of these projects are to conserve the biodiversity through the community involvements, facilitate local management of natural resources and to improve the living conditions of local people, while safeguarding the unique natural resources of Nepal, promote the alternative energy technology to sustainable livelihood development with the objective of balancing conservation with development needs of local residents and conserve the biodiversity through integration of natural resources conservation with sustainable community development

and strengthen the local community's capacity to manage their natural resources while improving their socio-economic conditions through the collaboration with local communities and local NGOs in and around the PAs.

### **3. United Nations Development Program (UNDP) supported Program**

Participatory Conservation Program (PCP) in RCNP, PWR, KTWR, RBNP, RSWR, KNP, and RNP has the major activities of the program that supports for improving policy and regulatory frame works for participatory conservation of biodiversity, for the institutionalization of buffer zone programs and for park management and conservation initiatives.

### **4. TRPAP Program**

His Majesty's Government of Nepal (HMG/N), United Nations Development Organization (UNDP), Department for International Development (DFID), the Netherlands Development Organization (SNV Nepal), Department of National Parks and Wildlife Conservation (DNPWC) and Nepal Tourism Board (NTB) have embarked on a joint programme entitled Tourism for Rural Poverty Alleviation Programme – NEP/99/013. The overall objective of the programme is to contribute to the poverty Alleviation objective of the government through review and formulation of policy and strategic planning for sustainable tourism development which are pro-poor, pro-environment, pro-women and pro-rural communities.

Department of National Parks and Wildlife Conservation (DNPWC) has been implementing the Sagarmatha National Park and Buffer Zone Management and Tourism Plan Preparation and Implementation component of the Tourism for Rural Poverty Alleviation Programme since January 2003

The District Development Committee of Rasuwa, and Dolpa has similar program and many initiatives has been implemented in Langtang National Park and Shey-Phoksundo NP also.

### **5. Other Programs**

- Buffer Zone Development Program supported by ECO-Himal in MBNP.
- Buffer Zone Development Program supported by BISEP-ST in RCNP and PWR.
- Buffer Zone Development Program supported by IUCN-Nepal in KTWR.

Likewise, along with other community-based institutions, the specific Snow Leopard Conservation Management Committees have also been formed to organize the specific community participation program for conservation of Snow Leopard in and around the SPNP, ACA, MCA and KCA. Thus, local communities have been encouraged to play a part in conservation and benefit from the conservation of Asian Big Cats and their habitats through eco-tourism and community development interventions in Nepal.

## Tiger Conservation Action Plan for the Kingdom of Nepal.

### Objective 1: Survey and Monitor the status of tigers and their habitats

**Output:** A GIS map and database showing tiger presence and absence, relative abundance of prey species, and quality of habitat, throughout the tiger range in Nepal which can be continuously updated and modified to monitor tiger status.

Activities	Status
1.1 Define potential tiger habitat, based on previous studies and knowledge of local inhabitants.	Dr.Mahendar K.Shrestha's Ph.D.study "Relative ungulate abundance in a fragmented landscape: implications for tiger conservation"
1.2 Develop a GIS map, by digitizing potential habitats; use available satellite maps and/or aerial photos.	
1.3 Choose representative samples from the potential habitats, to survey for presence and absence of tigers.	
1.4 Look for tiger signs, such as pug marks, scrapes, kills, etc.; interview local people, especially those who use forest regularly, to confirm tiger presence.	
1.5 Establish whether an area is breeding or dispersal habitat, once tiger presence is confirmed.	
1.6 Collect geographic coordinates for every tiger sign; map tiger distribution.	
1.7 Estimate relative abundance of each prey species.	
1.8 Use remote sensing and GIS data to detect changes in habitat quality and availability.	

### Objective 2: Identify priority tigers habitats

**Output:** A map that identifies priority areas for habitat restoration, based on GIS analysis of tiger habitats in the lowlands of Nepal.

Activities	Status
2.1. Develop GIS coverage, from tiger and prey species surveys.	Dr.Mahendar K.Shrestha's Ph.D.study "Relative ungulate abundance in a fragmented landscape: implications for tiger conservation"
2.2. Digitize land use and develop forest quality coverage from available satellite maps and /or aerial-photos.	
2.3. Conduct extensive ground verification to validate data obtained.	
2.4. Conduct socio-economic surveys in villages, in or near tiger habitat; generate data layers.	
2.5. Gather information on current and future forestry plans and issues: interview field personnel and District forest officers in the lowlands; interview officers of the department of forests, Regional directorate and Ministry of Forest and Soil Conservation.	
2.6. Conduct a GIS analysis, utilizing the above information, to identify priority areas for tiger habitat restoration.	

**Objective 3: Restoration and improvement of priority tiger habitats.**

**Output:** Increased land base for tiger conservation and improvement in tiger-human relationships.

Activities	Status
3.1. Meet the local communities, and form community user groups (CAUGs) to participate in restoration programs.	Tarai Area Landscape (TAL) program has been in implementation in Lamahi, Basanta and Dovan areas.
3.2. Arrange study tours, of communities and CUGs, to successfully restored areas, such as RCNP, and other community forests, elsewhere.	On going
3.3. Plant open areas or implement the enrichment plantation of degraded forest areas.	On going
3.4. Prepare operational plans for such restored areas; these will be managed in partnership with local communities.	On going
3.5. Manage the habitat of grassland and waterholes, to maintain a healthy population of ungulates.	On going
3.6. Establish control measures, for livestock grazing and fire, to improve tiger habitats.	On going

**Objective 4: Restoration and improvement of priority tiger habitats.**

**Output:** Enhance knowledge on tiger population in Nepal, which will strengthen our ability to educate the general public, and influence decision makers to move towards landscape management.

Activities	Status
4.1. Continue tiger projects initiated in RBNP; expand them to cover the entire Banke-Bardia Tiger Conservation Unit (TCU).	In progress
4.2. Develop a project in Chitwan to enhance understanding of dispersal corridors and the survival of dispersing tigers, outside protected areas-using modern tools such as satellite and GPS collars.	In progress
4.3. Conduct a study, of the genetic relatedness of tigers in the Chitwan population, to verify the behaviorally observed inbreeding. Collect specimens from animals darted for other reasons-such as during the handling of the problem animal, or in dealing with naturally dead animals.	
4.4. Conduct studies on the population dynamics of the tiger prey species.	Conducted
4.5. Develop studies to monitor the habitat quality for prey species-such as maintaining short grasslands, or controlling various stages of vegetation succession-to maintain suitable prey habitats.	On going
4.6. Develop small research projects-in Royal Suklaphanta Wildlife Reserve, Parsa Wildlife Reserve, and Koshi Tappu Wildlife Reserve-to increase the knowledge of tiger populations in Nepal.	

**Objective 5: Educate the public about the importance of tiger conservation and the restoration of necessary habitats.**

**Output:**

Increased support from local people, for tiger conservation and the restoration of necessary habitats.

Activities	Status
5.1. Develop audiovisual programs, for local people that focus on the tiger biology; they should be entertaining, as well as educational.	General awareness conservation on biodiversity including tiger has been conducted and specific tiger based audio visuals activities are to be designed.
5.2. Develop information centers, where problems faced by tigers are publicized; information should be in the form of photos or display cards in local languages.	Developed in RCNP and RBNP.
5.3. Develop a curriculum for school children, which portrays tigers as part of the ecosystem, rather than as an object for human exploitation.	
5.4. Conduct seminars and interactive programs, to emphasize the co-dependency of humans and the terai ecosystems; i.e., the health of such ecosystems are important, not only for biodiversity, but also for sustaining the ecosystem processes, up on which local people and development depend.	
5.5. Publicize the fact that a strong economic link, between tourism and biodiversity, benefits both local people and conservation efforts.	On going

**Objective 6: Improve tiger-Human relationships through community development activities.**

**Output:** Increased villager's cooperation, and an enhanced quality of life, in the villages around tiger habitats. These will increase the chances for successful tiger conservation.

Activities	Status
6.1. Develop community plantations, by mobilizing local resources and labor, so that local people need not collect their fodder and firewood from tiger habitats.	Programs are being implemented through Buffer Zone and TAL program.
6.2. Establish community funds for the families of tiger victims.	In implementation in RCNP and RBNP
6.3. Collaborate with other institutions, working at the grassroots level, to develop and implement additional income generation programs, to uplift local economies.	Programs are being implemented through Buffer Zone, TAL program and NGOs
6.4. Provide initial subsidies, to encourage local participation in establishing safe drinking water systems, human and veterinary health clinics, and schools.	
6.5. Encourage people, at the community level, to develop and manage sewage and irrigation canals.	



**Objective 7: Strengthen anti-poaching efforts.**

**Output:** A reduction in wildlife poaching, and an improved likelihood for maintaining viable tiger population.

Activities	Status
7.1. Increase personnel and facilities for patrolling. For example, provide vehicles-fixed with mobile, wireless, communications systems-for each protected area in the terai.	In implementation.
7.2. Coordinate anti-poaching efforts among jurisdictions.	
7.3. Expand the reward system for the informants.	
7.4. Educate key individuals and/or civil servants-such as custom officials, postal workers, police, etc.-regarding threats to tiger, illegal trade, and the identification of tiger parts.	
7.5. Modify current laws, to impose stronger penalties on poachers.	

**Objective 8: Strengthen institutional developments.**

**Output:** Trained personnel in DNPWC, and in the Department of Forests, that can implement tiger and biodiversity conservation programs.

Activities	Status
8.1. Conduct nature conservation workshops and seminars, to provide basic knowledge; increase awareness-for game scouts, forest guards, rangers, and officers-of their role in tiger and biodiversity conservation.	In implementation and is on going program
8.2. Use existing resources and training programs in NCRTC, to improve the skills in game scouts, forest guards, rangers, and officers; so that they can distinguish tiger signs, ungulate pellets, deer browse, etc.	
8.3. Train rangers and officers to read compasses, maps, and aerial photos; and to use GPS equipments.	
8.4. Set up a GIS lab in DNPWC. Train and hire personnel to use it; appoint a regular staff to manage the lab.	
8.5. Involve rangers and officers in further study and long-term, management oriented research.	Short term trainings are being carried out and long term research need to be conducted

**Objective 9: Coordinate trans-boundary tiger conservation actions.**

**Output:** Increased cooperation between India and Nepal, to maintain tiger habitat and to reduce poaching.

Activities	Status
9.1. Enhance communication among conservation authorities, in the adjacent tiger reserves in India and Nepal; conduct joint/complementary patrols.	Central Level and Local Level Trans-boundary
9.2. Formalize and strengthen trans-boundary communications with India (initiated by DNPWC), for managing tiger habitats that are contiguous between the two countries.	Meetings have been organized and is on going program.
9.3. Develop strategies for monitoring illegal wildlife trade activities, along the border of the two countries.	
9.4. Share information about poachers and tigers, residing in the trans-boundary areas.	Central Level and Local Level Trans-boundary Meetings have been organized and is on going program.

**Objective 10: Develop a proposal to implement tiger action plan.**

**Output:** A proposal to implement Nepal's Tiger Conservation Action Plan.

Activities	Status
10.1. A proposal has been submitted to the National Fish and Wildlife Foundation, to fund objective 1 & 2 of the tiger conservation action plan.	
10.2. This plan outside Protected areas, will be incorporated and implemented through district forestry management plans. Biodiversity areas, wetlands, habitats of endangered species-including Siwaliks and River banks-are to be categorized as sensitive areas; therefore, they will be excluded form production forestry.	
10.3. Based on the information obtained through objective 1 & 2, develop a GEF proposal to fund objective 3-9. The GEF proposal will include: a) information on critical management issues throughout the tiger range in Nepal; and b) successful community forestry projects, as models for restoring key habitats-such as those with corridors, important edges, etc. It will also coordinate tiger coordination with other biodiversity objectives-such as those of Nepal's Biodiversity Action Plan, and other buffer zone restoration programs-throughout the terai ecosystems.	

**Objective 11: Develop Stronger HMG collaboration with National and international Agencies, Development organizations, and Research institutions.**

**Output:** Commitment-among Governmental, non-Governmental, and international organizations-for conservation of the tiger and biodiversity in Nepal.

Activities	Status
11.1. Formalize the tiger surveys currently done by DNPWC, in collaboration with NCRTC and the International Trust for Nature Conservation (ITNC).	In progress
11.2. Strengthen the Memorandum of understanding-established by the Ministry of Forest and Soil Conservation-with Oregon and Auburn universities, explore the possibilities of developing a similar programs.	
11.3. Enhance long-term collaboration of the Nepalese Government and NGOs, such as the partnership that exists among KMTNC, WWF-US, the Smithsonian Institution, and NORAD.	
11.4. Develop programs to attract researchers, to monitor and inventory Nepal's biodiversity.	Research policy has been drafted and yet to be approved.