



The Terai Arc Landscape

Bengal Tigers in the Himalayas' Shadow

Home to perhaps the highest density of Bengal tigers in the world, with a population estimated to number more than 250 tigers in 11 protected areas, the Terai Arc offers exciting and unique opportunities for conservation.

The Terai is one of the world's most spectacular landscapes, encompassing the tall grasslands and Sal (*Shorea robusta*) forests of the southern slopes and foothill valleys of the eastern Himalayas. This biologically diverse landscape spans approximately 12.3 million acres (5 million hectares) from Nepal's Bagmati River in the east to India's Yamuna River in the west. The Terai supports 86 mammal species, 550 bird species, 47 reptile and amphibian species, 126 fish species, and over 2,100 flowering plant species. It is home to some of the highest recorded tiger densities in the world and the second largest population of the Greater Asian One-horned rhinoceros. It also supports many other endangered wildlife species such as the Asian elephant, black buck, gaur, and Gangetic river dolphin.

The Terai Arc Landscape: Primary Threats to tigers

- Poaching.
- Increasing rates of forest degradation and fragmentation caused by overgrazing and encroachment; and the conversion of grasslands to agriculture.
- Decline in prey populations due to loss of habitat, poaching, and disease.
- Rapid human population growth and substantial poverty.
- Political instability.

Fifty years ago, the Terai (Sanskrit for "lowlands") stretched across 1,600 kilometers of rich forests and tall grasslands. Since then, the exploitation and unsustainable management of forest resources have led to the fragmentation and degradation of natural habitat. Approximately 3 million people, 50% of whom subsist below the poverty line, practice unproductive traditional agriculture. Consequently, they are forced rely on natural resources available in the forests and the landscape as supplements to their livelihood. With such an enormous population density, this subsistence agriculture has extremely detrimental effects on the surrounding environment. Forest encroachment by illegal settlers and overgrazing are the major causes of forest degradation. Specific threats to tigers include poaching and illegal wildlife trade, as well as human-wildlife conflict.

Tigers

The Terai Arc provides critical habitat for the Bengal tiger. While there are fewer than 7,000 tigers left in the wild, the Terai Arc hosts some of the highest tiger densities in the world. Approximately 250 tigers in this region rely on a few remaining strongholds and fragmented forest habitats. Unfortunately, none of the 11 protected areas located within the Terai Arc is alone large enough to maintain a viable tiger population. Unless the protected areas are linked via corridors, allowing individuals to move from one area to another, the probability of the Terai tigers' long-term survival cannot be ensured.

Protected Areas Within the Terai Arc Landscape:

Parsa Wildlife Reserve, Nepal
Royal Chitwan National Park, Nepal
Valmikinagar Wildlife Sanctuary, India
Sohelwa Wildlife Sanctuary, India
Royal Bardia National Park, Nepal
Katarniaghat Wildlife Sanctuary, India
Dudhwa National Park, India
Kishanpur Wildlife Sanctuary, India
Royal Shuklaphanta Wildlife Reserve, Nepal
Corbett National Park, India
Rajaji National Park, India

WWF's Vision

WWF's biological vision boldly proposes to reconnect 11 protected areas between Nepal's Parsa Wildlife Reserve and India's Rajaji-Corbett National Parks into a single functioning landscape. This landscape will be created through the restoration and maintenance of forest corridors which will best be achieved by forging effective partnerships with local communities. Additionally, the formation and institutionalization of Community Forestry User Groups (CFUGs) will establish a foundation for forest corridor restoration.

Utilizing forest restoration, the production of wildlife-compatible cash crops, and basic agroforestry, WWF seeks to connect protected areas via the creation of biological/forest corridors. These include the Kanchanpur-Bardia-Chitwan corridor; the Bardia-Katarniaghat corridor; and

the Basanta corridor, which will connect Dudhwa National Park in India with Royal Shuklaphanta Wildlife Reserve (RSWR) in Nepal through the forests of the Churia foothills.



The reconnection of several disjunct protected areas into a single contiguous landscape will allow tigers and their prey species to migrate greater distances, thus decreasing inbreeding and increasing the chances of long-term population survival. This program strives to reverse the trend of fragmentation which, if unaddressed, will leave South Asia's wildlife in isolated islands of habitat.

The people of the Terai Arc are among poorest in the world, relying on the area's natural resources for survival. Realizing that WWF's vision will require a village-based approach,



Bengal tigers. (WWF-Canon/Martin HARVEY)

strategies involving community forestry, park-revenue sharing, and awareness-building will be vital to the success of the project. Given the legal means to access the resources needed to survive and eventually prosper, local people will have ongoing incentives to restore and protect forests and wildlife.

While addressing the challenges brought on by a growing

human population, the restoration of the Terai Arc Landscape (TAL) will be anchored by the effective management of the 11 protected areas. Currently, these areas are not uniformly well-managed, and the corridors between them vary widely in quality. Some are heavily forested and need only additional protection, while others have been nearly severed by deforestation and agricultural development.

Immediate Objectives

- Restore key corridors connecting protected areas.
- Eliminate poaching in wildlife corridors and protected areas.
- Strengthen community-based anti-poaching efforts along critical forest corridors in Basanta and Bardia-Katarniaghat, and Chitwan and Parsa.
- Improve the management of all 11 protected areas.
- Establish agreements between Nepal and India to track wildlife and poachers across borders and monitor the progress of issues related to landscape-based conservation.
- Protect and, where necessary, rehabilitate the Terai Arc watershed.
- Create incentive schemes that will allow people to profit from stewardship of wildlife.

Future Objectives

- Continue efforts to restore the Terai Arc's forests.
- Restore key species in protected areas.
- Where appropriate, develop ecotourism opportunities for local communities.
- Establish permanent anti-poaching programs throughout the landscape.
- Create programs to reduce and mitigate the damage caused by human-wildlife conflict.
- Enlist local leadership and establish a trust fund to finance ongoing restoration, conservation, monitoring, and evaluation over the long-term.

Achievements to Date

- WWF has trained anti-poaching teams and strengthened anti-poaching efforts in the TAL.
- Prey density surveys were established in Bardia National Park.
- WWF is working on establishing a tiger monitoring protocol.
- WWF has worked with the government of Nepal to draft the Terai Arc Landscape Conservation Program.
- Grasslands management and regulation of unwanted and invasive species were promoted in protected areas to balance predator-prey relationships and minimize human-wildlife conflict.

Conservation Partners: WWF collaborates with many governmental and non-governmental organizations in the effort to save the Terai Arc's elephants, rhinos, and tigers. These include the U.S. Agency for International Development, Save the Tiger Fund, the International Rhino Foundation, Dfid (UK Department of Foreign Aid), Netherlands Development Agency, CARE Nepal, the Government of Finland, WWF-UK and US, the U.S. Fish and Wildlife Service, the Department of National Parks and Wildlife Conservation, the Department of Forests, and the King Mahendra Trust for Nature Conservation.

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