

Asian Elephant

हात्ती



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Illustrations

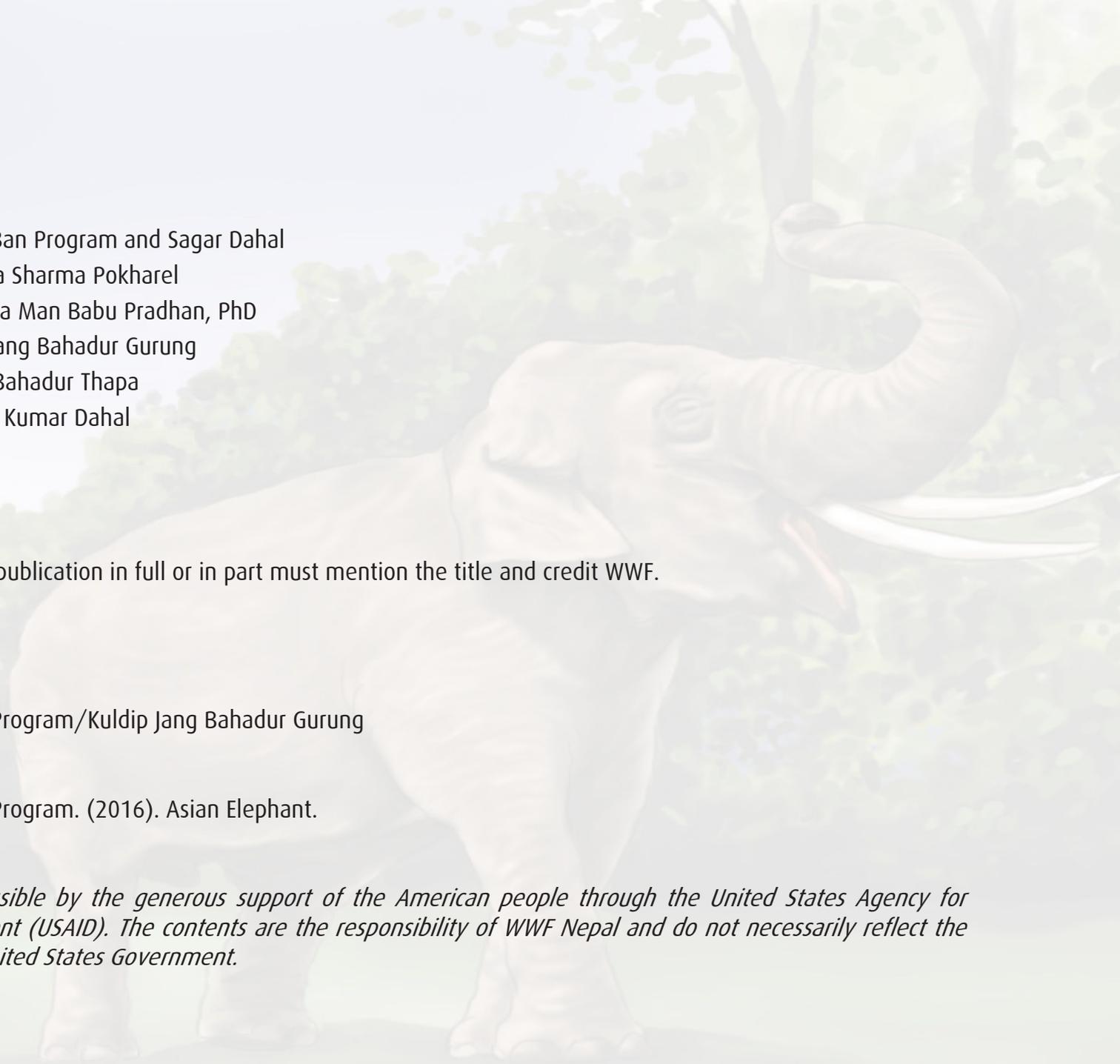
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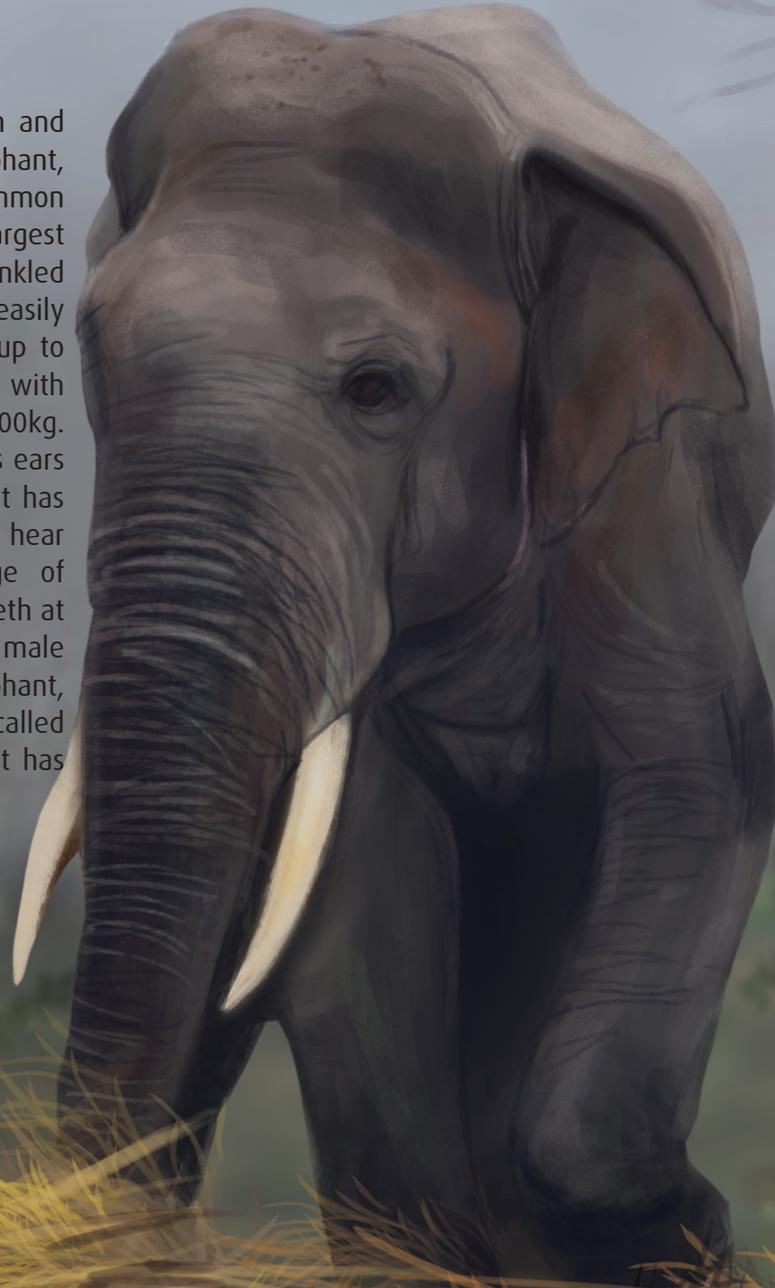
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Morphology and Structure

Out of two species of elephants (African and Asian) found in the world, the Asian Elephant, *Elephas maximus* is one of the most common animal known by the community. It is the largest terrestrial mammal of Asia. Grey wrinkled skin, long trunk and large ears make it easily recognizable. Its body length can reach up to 5.5-6.5m and 3m at the shoulder height with body weight ranging between 2000-5500kg. It doesn't have sweat glands and keep its ears in constant motion to cool itself. Elephant has a very powerful hearing sense and can hear between 8-12000Hz, beyond the range of human capacity. The long white incisor teeth at the base of the trunk is called tusk. Only the male Asian Elephant has tusk. In the Asian Elephant, some males don't have tusks. They are called "Makhana". Females are without tusk but has tush that barely extend past the mouth.

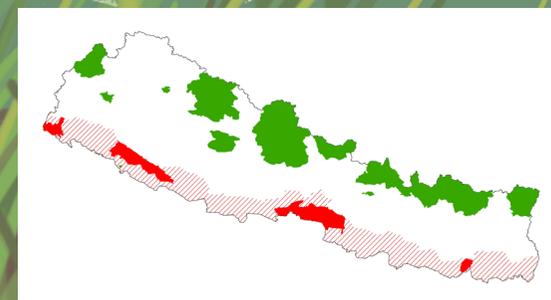


विश्वमा २ प्रजातीका (अफ्रिकी र एसियाली) हात्ती पाइन्छ । एसियाली हात्ती हरेक समुदायमा प्रचलित जनावर मध्येमा पर्छ । यो एसियाको जमिनमा बस्ने सबैभन्दा ठुलो स्तनधारी जनावर हो । खैरो चाउरी परेको छाला, लामो सुँड र ठूलो कानले गर्दा यसलाई सजिलै ठम्याउन सकिन्छ । यसको शरीरको लम्बाई ५.५-६.५ मि. सम्म र काँधसम्मको उचाई ३ मि. सम्म हुन्छ । यसको तौल २०००-५५०० कि.ग्रा. सम्म हुन्छ । यसको छालामा पसिना आउने ग्रन्थी हुँदैन । यसले आफ्नो कान हल्लाएर शरीरको तापक्रम घटाउँछ । हात्तीको श्रवण शक्ति निकै तिखो हुन्छ । यसले मानिसको क्षमताभन्दा अधिक ध्वनी (८-१२००० हर्ज) सुन्न सक्छ । भालेको सुँडको फेदमा बाहिर निस्किएको लामो दाहा हुन्छ । एसियाली हात्तीको पोथीमा त्यस्तो बाहिर निस्किएको दाहा नभए तापनि सुँडभन्दा बाहिर ननिस्किएको सानो दाहा हुन्छ । कुनै कुनै भालेमा पनि त्यस्तो दाहा हुँदैन र तिनीहरूलाई 'मखना' भनिन्छ ।

Distribution and Population

It is estimated that Asian Elephant is distributed within 19 districts of Nepal and found in all the protected areas of the Terai region. The population of wild elephant in Nepal is around 109-142 with 208 domesticated elephant in addition. It is known to cross the Nepal-India border from Bahundangi, Jhapa in the east, Thori, Parsa in central Terai, Hattkhalla, Kanchanpur and Khata and Basanta corridor in the west. Besides Nepal, it is naturally distributed in Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Sri Lanka, Thailand and Vietnam.

नेपालको १९ जिल्लामा हात्ती पाइन्छ भन्ने अनुमान गरिएको छ । यो तराईको सबै संरक्षित क्षेत्रमा पाइन्छ । नेपालमा १०९-१४२ ओटाको सङ्ख्यामा जङ्गली हात्ती रहेका छन् । त्यस्तै करिब २०८ को सङ्ख्यामा घरेलु हात्ती रहेका छन् । हात्ती पूर्वी तराईमा भापाको बाहुनडाँगी, मध्य तराईमा पर्साको ठोरी, कञ्चनपुरको हतखला र पश्चिमको खाता र बसन्ता जैविक मार्गबाट नेपाल-भारतको सिमाना वारपार गर्छ । नेपाल बाहेक हात्ती बङ्गलादेश, भुटान, कम्बोडिया, चीन, भारत, इण्डोनेसिया, लाओस, मलेशिया, म्यानमार, श्रीलङ्का, थाइल्याण्ड, र भियतनाममा प्राकृतिक वासस्थानमा पाइन्छ ।





Habitat

Elephant prefers tropical and subtropical moist and dry broadleaf forests. It seasonally moves from one habitat to another. During dry seasons, it stays closer to rivers and water-holes. It compensates the seasonal changes in resources by changing its feeding habits.

हात्ती उष्ण तथा समसितोष्ण प्रदेशको ओसिलो र सुख्खा, चौडापाते जङ्गलमा बस्न मन पराउँछ । यो मौसमअनुसार आफ्नो वासस्थान बदलिरहन्छ । सुख्खा मौसममा यो नदी किनार र पानीको घोल नजिकै बस्छ । यसले मौसमअनुसार आफ्नो खाद्य व्यवहार परिवर्तन गरिरहन्छ ।

Feeding Behavior

Elephant is a browser and grazer and feeds on grass, fruits, leaves and barks of trees. It grazes and browses continuously for 16-18 hours in a day and can eat up to 149-169 kg daily. Elephant can drink upto 100 liters at one time and 225 liters per day. It eats with the help of a trunk which also aids in drinking, smelling, breathing, sensing, communicating, washing, dusting, playing and fighting. The trunk can hold up to 5 liters of water. With the help of the trunk, it can smell water from several kilometers away.

हात्तीले घाँस, फल, बिरुवा, पात, रुखको बोक्रा खान्छ । यो निरन्तर १६-१८ घण्टासम्म खाना खाइरहन सक्छ । यसले हरेक दिन १४९-१६९ कि.ग्रा. सम्म चर्न र खान सक्छ । यसले एक पटकमा १०० लि. पानी पिउन सक्छ भने यसलाई दिनमा २२५ लि. सम्म पानी चाहिन्छ । हात्ती सुँडको मद्दतले खाना खाने, सास फेर्ने, नुहाउने, पानी पिउने, सुँघ्ने, धुलो सफा गर्ने, खेल्ने र अरुसँग जुध्ने काम गर्छ । यसले सुँडमा ५ लि. सम्म पानी जम्मा गर्न सक्छ भने निकै टाढाबाट पानीको स्रोत पत्ता लगाउन सक्छ ।



Reproduction and Life Cycle

Baby Elephant less than a year old are called 'calf'. If they are between 1-5 years old, they are called 'juvenile, above 5-15 years old are called 'sub-adult' and above 15 years are called 'adult'. Depending upon availability of resources for the elephants, they can reach sexual maturity as early as 9-12 years. They have gestation period of 18-22 months and females give birth to one off springs at a time. They can breed at any time but female prefers to breed with males in heat known as 'Musth'. Elephants can live upto 60-70 years in the wild and over 80 years in captivity.

हात्तीको उमेरलाई चार भागमा विभाजन गरिएको छ। एक वर्षभन्दा मुनिकोलाई 'छावा', एक वर्षभन्दा माथिकोलाई 'आंशिक वयस्क', पाँच वर्षभन्दा माथिकोलाई 'उप वयस्क' र पन्ध्र वर्षभन्दा माथिकोलाई 'वयस्क' भनिन्छ। स्रोतको पर्याप्तताका आधारमा हात्तीको प्रजनन परिपक्वता ९-१२ वर्षसम्म हुन्छ भने यसको गर्भधारण अवधि १८-२२ महिनाको हुन्छ। प्रजनन क्षमताले उन्मुक्त भएको भालेलाई 'मस्त' भनिन्छ। भाले जुनसुकै समयमा पनि प्रजनन गर्न सक्षम भएतापनि वयस्क पोथीले मस्तलाई रुचाउँछे। हात्तीले एक पटकमा एउटा छावा जन्माउँछ। यसको प्राकृतिक आयु ६०-७० वर्षसम्म हुन्छ भने यो चिडियाखानामा ८० वर्षसम्म बाँच्न सक्छ।



Social Behavior

Asian Elephant lives in a matriarchal herd of around 6 to 12 members. Upon sexual maturity, adult male leaves the natal herd and hence, is always seen solitary. The adult male spends time in the herd only during breeding period following the estrous females. Elephant is highly social and intelligent animal with extremely complex behaviors. Elephant also shows empathetic and cognitive behavior in solving problems and using tools. Wild elephant is known to destroy the electric fence used for keeping them away with the help of huge tree trunks and sometimes, with its tusks. The home range of elephant depends on habitat, food and water availability.

हात्तीको भुन्डमा पोथी मुखिया हुन्छे । यसको भुन्डमा ६-१२ ओटा हात्तीको समूह हुन्छ । प्रजनन क्षमता विकास भएपछि भालेले आफ्नो आमाको समूह छोड्छ र जीवनभरी एकलै बस्छ । वयस्क भालेले प्रजननको बेलामा मात्र पोथीसँग जोडी बनाउँछ । हात्ती परिस्कृत बानीव्यहोरा भएको सामाजिक एवं बुद्धिमान प्राणी हो । यसमा करुणाभाव र सिक्न सक्ने क्षमता हुन्छ, जसले गर्दा वस्तुहरूको प्रयोग गरी जटिल समस्याहरूको समाधान गर्न सक्छ । जङ्गली हात्तीलाई रोक्न बनाइएको विद्युतीय धरापलाई यसले दाह्रा र काठको मद्दतले भत्काएका उदाहरणहरू छन् । यसको विचरण क्षेत्र बासस्थान, खाना र पानीको पर्याप्तताका आधारमा निर्धारण हुन्छ ।



Threats, Conservation and Legal Status

Globally and nationally, Asian Elephant is categorized as Endangered species in IUCN Red list and is listed in Appendix I in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) agreement. Elephant is legally protected by the Government of Nepal according to "National Parks and Wildlife Conservation Act, 1973 A.D. (2029 B.S.)" and killing, harming or selling the parts and products of elephant is a punishable crime with the penalty of NPR 50,000-100,000 or imprisonment of 5-15 years or both. However, it often gets killed in retaliation for raiding crops during its annual migration on its ancient migratory route known as "elephant corridor". It is also poached for its tusks. Its population is decreasing due to the expansion of human settlements in its ancient migratory routes, conflicts with humans, retaliatory killings and poaching. Honey bee farming and the playback sound of tiger roars are used to keep away the animal from raiding the crops.

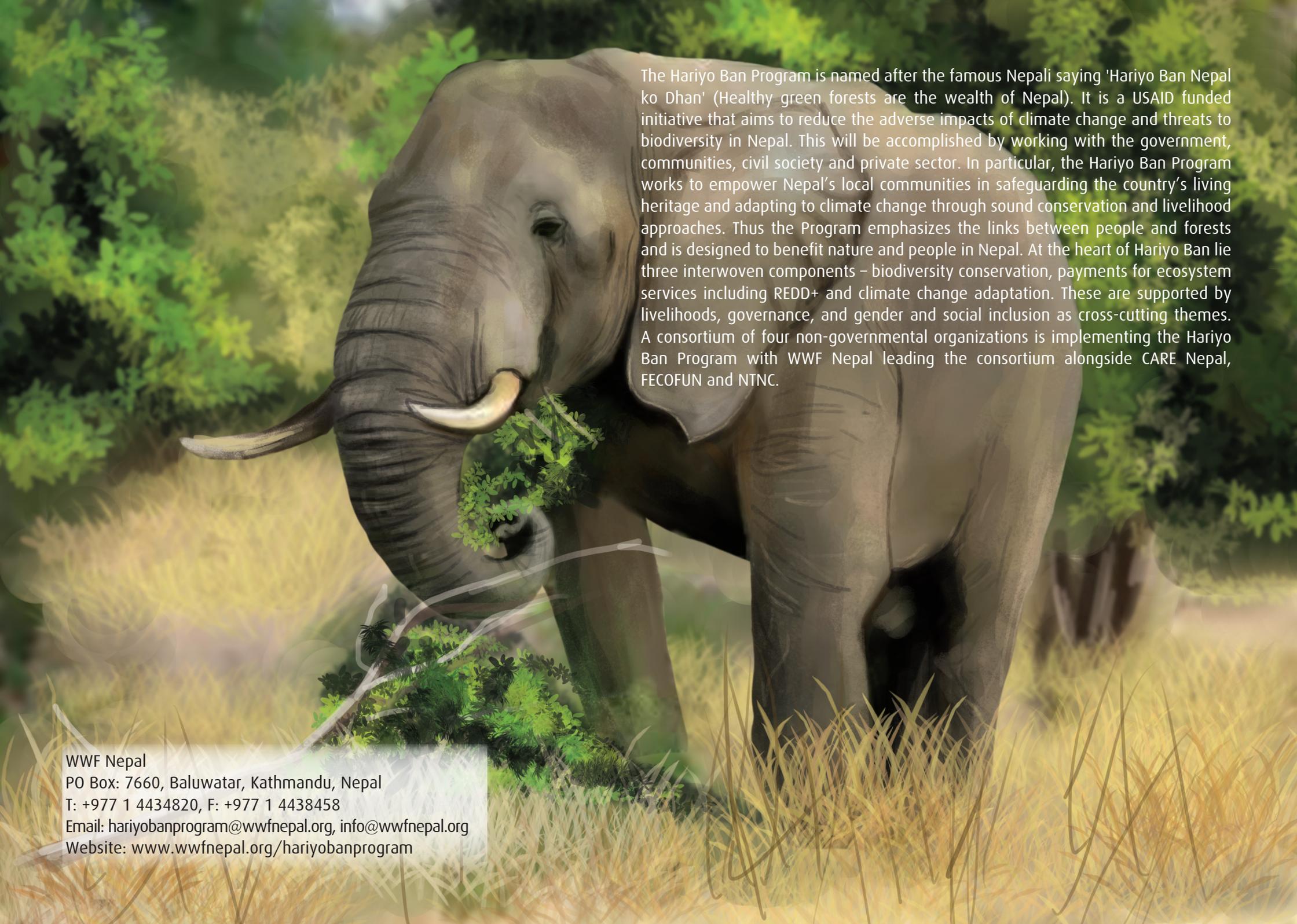
हात्तीलाई आइ.यु.सि.एन. को विश्वव्यापी र राष्ट्रिय स्तरको रातो सूचीमा संकटापन्न र साइटिस महासन्धी अनुसार अनुसूची १ मा राखिएको छ। राष्ट्रिय निकुञ्ज तथा वन्यजन्तु संरक्षण ऐन वि.सं. २०२९ अनुसार हात्तीलाई नेपाल सरकारको संरक्षित जनावरको सूचीमा राखिएको छ। यसलाई हानी पुऱ्याउने, मार्ने तथा यसको अखेटोपहारको व्यापार गर्नेलाई ५०,०००-१,००,००० रुपैयाँसम्म जरिवाना वा ५-१५ वर्षसम्म जेल सजाय वा दुवै हुन सक्ने प्रावधान रहेको छ। तैपनि वर्षेनी हुने यसको वासस्थान परिवर्तनका दौरान जैविक मार्गमा पर्ने गाउँ वस्ती तथा त्यहाँ लगाइएका कृषि बालीमा गर्ने नोक्सानीका कारण प्रतिशोधमा मारिन्छ। यसलाई दाहको लागि पनि मारिन्छ। वासस्थानको कमी, चोरी शिकारी, मानवसँगको द्वन्द्वमा प्रतिशोधात्मक हत्या आदि चुनौतीहरूका कारणले गर्दा यसको सङ्ख्या घट्दै गएको छ। कतै कतै बाली नालीलाई हात्तीबाट जोगाउन मौरी पालन तथा बाघको आवाज रेकर्ड गरी बजाउने पनि गरिन्छ।

Conservation Measures

Elephant is an umbrella species. It is also called the ecosystem engineers, as it helps in transforming the forests, providing micro-habitats for the invertebrates, dispersing seeds and maintaining the habitats. Hence, conserving the elephant population can help in conserving the entire forest or habitat. The most important step to conserve the elephant population is to protect their natural habitats and improve connectivity between the fragmented habitats where elephant travel through. It is very essential to prohibit poaching activities and trade of elephant ivory products. Involving local communities as well as Government bodies to implement the best strategies to mitigate conflicts is one of the solutions. The livelihood of people living in the elephant habitats should be enhanced through elephant conservation activities and tourism development. The active participation of local communities and the intellectual society is vital for elephant conservation.

हात्ती एक छाता जीव हो । यसले जङ्गललाई परिवर्तन गरी स-साना जीवहरूका लागि वासस्थान बनाउँछ । विजहरूलाई वितरण गरी पर्यावरण जोगाउने हुनाले यसलाई पर्यावरणको इन्जिनियर पनि भनिन्छ । अतः हात्तीलाई जोगाउनु भनेको सम्पूर्ण जङ्गल र वासस्थान जोगाउनु हो । हात्ती जोगाउनका लागि सबैभन्दा महत्वपूर्ण कार्य भनेको यसको प्राकृतिक वासस्थान जोगाई यसको वासस्थानहरूलाई जोड्ने जैविक मार्गको संरक्षण गर्नुपर्छ । हात्तीको चोरी शिकारी र अखेटोपहारमा पूर्ण प्रतिबन्ध लगाएर पनि यसलाई संरक्षण गर्न सकिन्छ । स्थानीयवासी तथा सरकारी संयन्त्रहरू मिली जनचेतना फैलाउने र मानव र हात्तीबीचको द्वन्द्व कम गर्न उचित प्रावधान मिलाएर पनि यसलाई जोगाउन सकिन्छ । हात्तीको वासस्थान नजिकै रहेका वस्तीहरूमा पर्यटनको विकास गरी स्थानीयवासीको आयस्रोत बढाई तथा स्थानीयवासी र पुरै समाजको सहायता लिएर हात्ती संरक्षण गर्न सकिन्छ ।

Key Facts मुख्य विशेषता	
Common Name नाम	Asian Elephant एसियाली हात्ती
Scientific Name वैज्ञानिक नाम	<i>Elephas maximus</i>
Height उचाई	3m ३ मी.
Length लम्बाई	5.5-6.5m ५.५-६.५ मी.
Weight तौल	2000-5500kg. २०००-५५०० कि.ग्रा.
Global Status अवस्था (विश्व)	Endangered सङ्कटापन्न
National Status अवस्था (राष्ट्रिय)	Endangered सङ्कटापन्न
National Population सङ्ख्या (राष्ट्रिय)	109-142 १०९-१४२
Global Distribution फैलावट (विश्व)	Nepal, Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Lao PDR, Malaysia, Myanmar, Sri Lanka, Thailand and Vietnam नेपाल, बङ्गलादेश, भुटान, कम्बोडिया, चीन, भारत, इण्डोनेसिया, लाओस, मलेशिया, म्यानमार, श्रीलङ्का, थाइल्याण्ड, र भियतनाम
National Distribution फैलावट (राष्ट्रिय)	Within 19 districts and all the protected areas of Terai. नेपालको १९ जिल्लामा हात्ती पाइन्छ, भन्ने अनुमान गरिएको छ भने तराईको सबै संरक्षित क्षेत्रमा पाइन्छ ।
Threats खतरा	Habitat degradation, poaching, retaliatory killing, disturbance in their migratory route. वासस्थानको कमी, चोरी शिकारी, प्रतिसोधमा हत्या, जैविक मार्गमा व्यवधान ।



The Hariyo Ban Program is named after the famous Nepali saying 'Hariyo Ban Nepal ko Dhan' (Healthy green forests are the wealth of Nepal). It is a USAID funded initiative that aims to reduce the adverse impacts of climate change and threats to biodiversity in Nepal. This will be accomplished by working with the government, communities, civil society and private sector. In particular, the Hariyo Ban Program works to empower Nepal's local communities in safeguarding the country's living heritage and adapting to climate change through sound conservation and livelihood approaches. Thus the Program emphasizes the links between people and forests and is designed to benefit nature and people in Nepal. At the heart of Hariyo Ban lie three interwoven components – biodiversity conservation, payments for ecosystem services including REDD+ and climate change adaptation. These are supported by livelihoods, governance, and gender and social inclusion as cross-cutting themes. A consortium of four non-governmental organizations is implementing the Hariyo Ban Program with WWF Nepal leading the consortium alongside CARE Nepal, FECOFUN and NTNC.

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