WWF

Saving Rhinos in the Wild

More than 95 percent of the world's black rhinos have been wiped out in the last three decades alone.

A Living Planet Campaign Strategy

Losing 60 Million Years of Evolution?

Dozens of species of rhinos once roamed the Earth, but only five exist today. All of them are threatened, and most are in grave danger. Humans have driven these remnants of the world's prehistoric ages to the edge of extinction. On the savannas of Africa, there were approximately 100,000 black rhinos in 1960. Today there are fewer than 2,600. In Southeast Asia, Javan rhinos have disappeared from nearly all of their former range; they number fewer than 85 in the wild today. While this unprecedented loss has been due in part to habitat destruction and fragmentation, the major cause of death has been poaching to satisfy demand for rhino horn for use in traditional Asian medicines and as decorative dagger handles in the Middle East.

Innovative approaches are needed to stop this assault on the world's rhinos. As land-use changes continue to threaten the long-term survival of the species, urgent measures must be employed to combat habitat loss. Support of traditional antipoaching efforts must be expanded. And while strengthening enforcement of wildlife trade controls is essential, it is critical that the marketplace demand for rhino horn products be eliminated.

WWF Responds

WWF is the principal international conservation organization tackling the rhino crisis on every front—from stepping up protection and support for protected areas and rhino reserves, to stopping poaching and illegal trade in rhino horn, to

working with traditional medicine communities to stem demand for rhino-based products. WWF works with concerned parties at every level, from local communities to national governments to international institutions. WWF seeks partnerships with other organizations working to save the rhino, and bases its conservation strategies on the latest scientific research, technology, and information. Building on lessons learned in the field, WWF delivers appropriate resources and technical assistance where they are most needed.

Rhinos are one of four highly endangered species groups targeted for accelerated attention during WWF's **Living Planet Campaign**, a campaign that aims to make the last days of this century a turning point in the worldwide struggle to preserve species and habitats. WWF's **rhino conservation goals** are—

- to stabilize and foster increases in current rhino population levels in the short term (1-3 years)
- to secure positive growth trends in rhino populations in the medium term (3-10 years)
- to conserve viable populations of rhino species and subspecies within their natural ranges in the long term (10-20 years).

A Three-Tiered Strategy for Rhino Conservation

WWF's rhino conservation goals present significant challenges and require a multidisciplinary strategy:

(1) Protecting Wild Rhinos

The immediate protection of rhinos where they live is a high priority, and action at the local level is critical. Supporting antipoaching measures and the monitoring and management of rhinos in the wild will continue to be a cornerstone of WWF's strategy to conserve rhinos. Experience has shown that sponsorship of community-based natural resource management programs produces results: reestablishing the balance between local people and the natural resources around them fosters true stewardship and helps reduce poaching. Promoting innovative land-use measures, such as the establishment of special conservancies where private landowners join together to share both responsibility for and the benefits from rhinos, has proved to be another successful conservation approach.

(2) Ensuring Adequate Habitat Size and Reducing Fragmentation

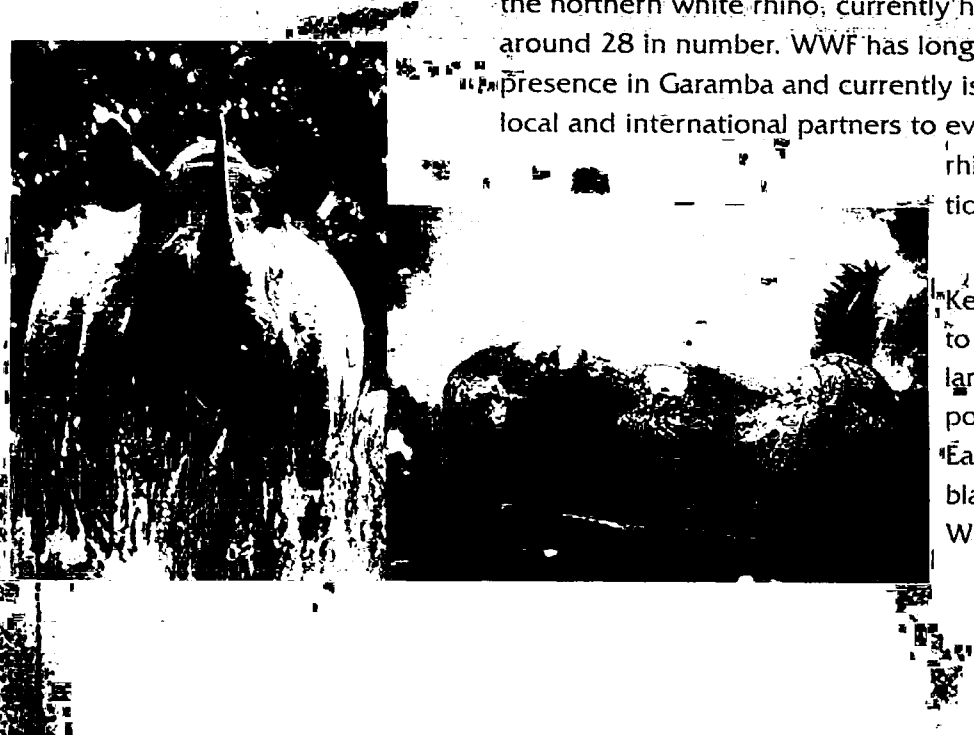
Large animals like rhinos need large land areas to support them. Land-use changes such as deforestation and slash-and-burn agriculture create a fragmented and degraded ecosystem. Such changes force rhinos and other species into smaller and smaller areas, where they face more frequent conflicts with people, diminished food resources, limited breeding opportunities, and the deterioration of their gene pool.

To respond to this problem, WWF is fostering a new, science-based **ecoregional approach** to

conservation based on the concept that it is necessary to conserve entire networks of key sites, migration corridors, and the ecological processes that maintain healthy ecosystems. WWF scientists have identified more than 200 of Earth's most biologically distinct and representative ecoregions—called the **Global 200**—that are defined not by political borders but by ecosystem boundaries. The ecoregional approach takes into account the need for undisturbed core habitat regions as well as buffer zones where human activities are permitted but managed with the needs of both people and rhinos in mind. Critical rhino habitats lie within these Global 200 ecoregions. For example, in Africa, the Zambezian Woodlands and Savannas, East African Moorlands, Maputaland-Pondoland Dry Forest, and Kaokoveld Desert; and in Asia, the Terai-Duar Savannas and Grasslands, Eastern Indochina Dry and Monsoon Forest, and Sumatran Montane Forest.

(3) Decreasing Demand for Rhino Horn Products

Marketplace demand for rhino parts has driven the recent rhino crisis. Fortunately, grass-roots educational efforts and international political pressure recently have led to noteworthy progress in curbing the demand in East Asia. But more needs to be done to halt the illegal trade. TRAFFIC, the trade monitoring program of WWF and IUCN-The World Conservation Union, has conducted pioneering investigative research on rhino trade and consumption throughout Asia and the Middle East and has provided technical support to governments seeking to stop the illicit commerce and improve implementation of CITES (Convention on International Trade in Endangered Species) trade controls. In North America, WWF and the American College of Traditional Chinese Medicine have recently joined forces to devise culturally sensitive community outreach strategies to reduce demand for rhino-based medicines and promote rhino conservation awareness.



WWF Action in the Field

Africa

To improve the conservation of black and white rhinos, a concerted effort must be made to improve the protection and management of existing populations in key range states across Africa. As the economic situation in many African countries continues to decline, wildlife departments are suffering significant budget cuts, making international support for rhino conservation more important than ever.

Important areas for rhino conservation in Africa include—

Cameroon: Cameroon holds the critically endangered northwestern black rhino, currently numbering fewer than 20. WWF is supporting population surveys, security and monitoring activities, and ecological studies of this remnant population.

Democratic Republic of Congo: Garamba National Park is the last remaining wild home of the northern white rhino, currently hovering around 28 in number. WWF has long had a key presence in Garamba and currently is working with local and international partners to evaluate future rhino conservation needs.

Kenya: Kenya is home to the world's largest wild population of East African black rhinos. With the Kenya

The Way Forward

As part of the Living Planet Campaign, WWF will build a foundation of public, political, and financial support to ensure that we leave our children a planet on which rhinos still roam wild. Focusing on the regions of highest priority in Africa and Asia, **WWF will take action at the local level to—**

- protect critical habitat areas and promote expansion of buffer zones and habitat corridors where feasible
- build the conservation capabilities of local institutions and encourage local stewardship of rhinos through community-based conservation activities that provide direct benefits to local people
- provide technical and financial assistance to governments for antipoaching activities and scientific research.

WWF will take action at the national and international level to—

- stem the trade in and demand for rhino products by strengthening enforcement of CITES and wildlife trade controls and reforming laws and policies for more effective prosecution of violators
- work with traditional Asian medicine communities to develop culturally sensitive outreach efforts to eliminate the demand for and promote alternatives to rhino-based medicines
- monitor illegal trade in and markets for rhino horn products in Asia, North America, and the Middle East.

In the United States, WWF will work to—

- secure new U.S. government commitments to rhino conservation by urging congressional support for an increase in the Rhino and Tiger Conservation Fund appropriation to at least $1 million. (Although the Rhino and Tiger Conservation Act of 1994 authorizes up to $10 million per year for the fund, only about $400,000 per year has been appropriated so far, leaving many worthy projects unfunded.)
- achieve passage of the Rhino and Tiger Product Labeling Act that will prohibit the sale of all medicinal products advertised as containing rhino and tiger parts
- urge adoption and implementation of a national interagency law enforcement strategy to improve interdiction, investigation, and prosecution of individuals involved in illegal rhino trade in North America.

WWF rhino conservation partners and sources of rhino information: IUCN/SSC African and Asian Rhino Specialist Groups, International Rhino Foundation, American Zoo and Aquarium Association, U.S. Fish and Wildlife Service.

WWF

Let's leave our children a living planet

World Wildlife Fund, 1250 24th Street, NW, Washington, DC 20037, www.worldwildlife.org

Photo credits *Front Page*: Young black rhino © R. Ogginoni/WWF, Javan rhino © M. Kappeler/WWF; One-horned rhino © Bruce Bunting/WWF; Sumatran rhino © Bruce Bunting/WWF; White rhino © J. Struthers. *Page 2*: Black rhino © Rich Weyerhaeuser; White rhino © Howard Buffett; Greater one-horned rhino © Michel Terrettaz/WWF; Northern white rhino © Kes Hillmann/WWF. *Page 3*: White rhino © Kes Hillmann/WWF; Sumatran rhino © Sylvia Forath/WWF; Black rhino © R Nardi/WWF. *Page 4*: Greater one-horned rhino © Michel Terrettaz/WWF. *Page 5*: One-horned Indian rhino © Eric Dinerstein/WWF, Young black rhino © Denis Hout/WWF. *Page 6*: White rhino © Rick Weyerhaeuser.

Printed on recycled paper

August 1998

Wildlife Service, WWF is developing strategies to maintain adequate levels of rhino management and protection during the country's current state of economic instability and transition.

Namibia: The world's largest population of southwestern black rhinos survives mostly in and around Etosha National Park. This population has grown to the extent that it can be used as a donor population for restocking other conservation areas. WWF will continue to provide support to the government of Namibia for antipoaching operations.

South Africa: South Africa holds more than 80 percent of Africa's black rhinos and almost 95 percent of Africa's southern white rhinos. WWF supports the black rhino monitoring program in Kruger National Park and increased security efforts in Hluhluwe-Umfolozi Park and Mkuzi Game Reserve in Natal Province. Today, the southern white rhino population numbers nearly 9,000 animals, reflecting the greatest increase of any rhino population in the world this century.

Tanzania: Tanzania is home to the eastern and southern subspecies of black rhino, both of which have experienced a severe decline in recent decades. WWF is supporting a critical status survey in the Selous Game Reserve, as well as assessing the viability of setting up intensive protection zones, an approach which has proven successful in Zimbabwe and other countries.

Zimbabwe: In response to an alarming escalation of poaching, the Zimbabwe government has adopted an intensive protection zone strategy to secure its remaining southern black rhinos in smaller areas where they can be safely guarded. A similar approach has been employed by private landowners in the development of special "conservancies" for the protection of rhinos under land-sharing

1997 Rhinoceros wild population estimates

SPECIES	WILD POPULATION
Southern Black Rhino (*Diceros bicornis. minor*)	1,363
Southwestern Black Rhino (*D. b. bicornis*)	741
Eastern Black Rhino (*D. b. michaeli*)	485
Northwestern Black Rhino (*D. b. longipes*)	~10
Total Black Rhino	**~2,600**
Southern White Rhino (*Ceratotherium simum simum*)	~8,440
Northern White Rhino (*C. s. cottoni*)	25
Total White Rhino	**~8,465**
Total African Rhino Species	**~11,065**
Greater Asian One-Horned Rhino (*Rhinoceros unicornis*)	~2,050
Javan Rhino (*R. sondaicus*)	<70
Sumatran Rhino (*Dicerorhinus sumatrensis*)	<400
Total Asian Rhino Species	**~2,500**
Total All Species	**~13,565**

Source: IUCN/SSC African and Asian Specialist Groups & T.J. Foose International Rhino Foundation, July 1998.

agreements. WWF will continue to support development of the conservancy concept in Zimbabwe.

efforts that include additional protected areas, habitat linkages, and buffer zone development.

Asia

Using the ecoregional approach, WWF is developing a framework for identifying high priority areas for conserving Asian rhinos in the wild. These areas will encompass sufficient contiguous habitat to support viable populations of rhinos if adequate protection is provided to both animals and ecosystems.

Important areas for rhino conservation in Asia include—

India: Along India's northern border runs part of the Central and Western Terai region, a habitat area shared with Nepal that is crucial to the survival of the greater one-horned rhino. WWF is evaluating the southern Brahmaputra Valley as an ecoregion conservation model for the greater one-horned rhino, particularly in Kaziranga National Park and Orang and Pobitera Wildlife Sanctuaries and associated areas. While rhinos in India have generally undergone significant decline due to poaching, Kaziranga numbers have increased to about 1,300 today from under 400 in 1966 due to effective antipoaching and habitat protection measures.

Indonesia: Indonesia is home to the world's two most endangered rhino species, the Javan and the Sumatran. The "stronghold" of the Javan rhino is Ujung Kulon National Park in West Java, although fewer than 70 animals survive there today. For the Sumatran rhino, the Gunung Leuser-Lingga Isar area in Sumatra can serve as an important conservation area. WWF will evaluate and monitor this region and promote conservation

Nepal: Nepal contains much of the Central and Western Terai region, home to the greater one-horned rhino. This area coincides with Terai-Duar Savannas and Grasslands, one of the few remaining Global 200 ecoregions that contains rhinos, tigers, and elephants. One of WWF's long-term conservation goals here is the development of a wildlife corridor stretching from Royal Chitwan National Park and surrounding areas in the east, where ecotourism is providing direct benefits for rhinos, to Rajaji and Corbett National Parks in India in the west. Chitwan's rhino population has grown from 60 in the 1960s to almost 600 today due to successful antipoaching efforts and empowered communities serving as guardians for wildlife habitats.

Malaysia: In Peninsular Malaysia, the IUCN Asian Rhino Specialist Group has identified four potentially viable Sumatran rhino populations. As logging, road development, and resort development pose the most immediate threats, WWF is developing strategies to address these impacts.

Vietnam: The only known wild population of Javan rhinos outside of Indonesia—a small group of fewer than 15 animals—is found in Cat Loc Nature Reserve in Vietnam. WWF will continue to work with local people and government officials in the area to develop strategies to save this critically endangered population.

WWF

African Rhinos

Two of the world's five remaining rhino species are found in Africa. The **black rhino** (***Diceros bicornis***) was once found throughout sub-Saharan Africa, with the exception of the Zaire Basin, but is now likely limited to Cameroon, Kenya, Malawi, Mozambique, Namibia, Rwanda, South Africa, Swaziland, Tanzania, and Zimbabwe. Found mainly in the grassland-forest transition zones, the black rhino is also present in habitats ranging from deserts in Namibia to montane forests in Kenya.

The two subspecies of the **white rhino** ***(Ceratotherium simum)*** occupy widely separate areas. No longer inhabiting a relatively large region in central Africa, the northern white rhino has been decimated and is now confined to Garamba National Park in the Democratic Republic of Congo. The southern white rhino, isolated at the turn of the century to Umfolozi Game Reserve in South Africa, is now found throughout southern Africa and in countries outside its historic range, including Kenya and Ivory Coast.

Description and natural history

There are four subspecies of black rhino: the southern (*D.b. minor*), the southwestern (*D.b. bicornis*), the eastern (*D.b. michaeli*), and the northwestern (*D.b. longipes*). This species of rhino is not really black at all, but derives its name from how it looks after wallowing in the dark-colored local soil. The upper hook-lip of the black rhino is adapted for browsing--feeding on trees and shrubs--and is its best distinguishing characteristic. The black rhino is brownish-gray, hairless, and has two horns.

There are two subspecies of white rhino: the northern (*C. s. cottoni*) and the southern (*C. s. simum*). The white rhino probably received its name from a mistaken translation of the Afrikaans word for wide, which refers to the species' broad square lips. Brown to slate gray in color, the white rhino is hairless except for the ears and tail bristles, and has two horns. Considered a grazer, the species feeds primarily on grasses.

All rhinos are "landscape architects" of their habitat. Rather than being seed predators, whose digestion destroys the seeds they eat, rhinos are seed dispersers. Since it can take a rhino more than three days to digest a meal, seeds can be transported a significant distance before they are deposited in droppings. Rhino dung also enhances soil fertility and nourishes the landscape.

Conservation status and major threats

All rhinos have long fallen victim to poachers trafficking in rhino horn to be used in traditional Asian medicine or to be carved into dagger handles in the Middle East. In addition, unabated human encroachment has squeezed rhinos out of much of their historic range.

Black Rhino

The black rhino has suffered the most spectacular rate of decline of all rhino species in the last four decades, with populations reduced more than 95 percent. Considered critically endangered by the World Conservation Union (IUCN), the black rhino faces a very high risk of extinction in the near future. The species also appears on CITES (Convention on International Trade in Endangered Species) Appendix I and is listed as endangered under the U.S. Endangered Species Act. There are fewer than 2,600 black rhinos left in the wild.

World Wildlife Fund • 1250 Twenty-Fourth Street, NW • Washington, DC 20037-1175 • Phone (202) 293-4800 • Fax (202) 293-9211
www.worldwildlife.org
Affiliated with World Wide Fund for Nature

Southern black rhino (*D.b. minor*)
The most numerous of the black rhino subspecies, the southern black rhino historically occurred from western and southern Tanzania down through Zambia, Zimbabwe, and Mozambique to the northern and eastern parts of South Africa and probably in the southern region of the Democratic Republic of Congo (formerly Zaire), northern Angola, and eastern Botswana. Zimbabwe and South Africa hold 96 percent of this subspecies with South Africa being the stronghold. The latest count stood at 1,363.

Southwestern black rhino (*D.b. bicornis*)
Namibia, southern Angola, western Botswana, and western South Africa were the range of this larger, straighter-horned, and more arid-adapted subspecies. Populations have remained in the desert and arid savannas of Namibia, although small populations have been reestablished in the southwestern part of South Africa. Namibia now holds more than 95 percent of the remaining numbers, which stood in 1997 at 741.

Eastern black rhino (*D.b. michaeli*)
This subspecies was distributed from southern Sudan, Ethiopia, and Somalia through Kenya and into Rwanda and north-central Tanzania. Its current stronghold is in Kenya, which holds almost 88 percent of the 1997 total of 485. A few individuals may be left in Ethiopia and Rwanda. One important population occurs outside the eastern black rhino's historic range in Addo Elephant National Park in South Africa.

Northwestern black rhino (*D.b. longipes*)
The northwestern black rhino once ranged throughout the savanna zones of West Africa, but today only a few scattered animals remain in Cameroon. This rarest and most endangered subspecies of black rhino hovered at around 10 individuals in 1997.

White Rhino
The story of the white rhino is a story of contrasts. The northern white rhino population has been reduced to around 25 individuals, while southern white rhino numbers have increased to more than 8,400. IUCN lists the northern white rhino as critically endangered and facing an extremely high risk of extinction in the immediate future. The southern white rhino is listed as vulnerable.

Southern white rhino *(C.s. simum)*
Once widespread in the bushvelds of southern Africa, the southern white rhino was down to fewer than 100 individuals at the turn of the century. Effective conservation efforts have lead to a dramatic rebound of the subspecies. Today, there are just over 8,400 southern white rhinos in the wild, most of which are confined to heavily guarded sanctuaries and protected areas. Although the stronghold for southern white rhinos remains in South Africa, which has about 95 percent of the world's population, the subspecies has been successfully translocated to a number of countries both within its historic range in Zimbabwe, Swaziland, Namibia, and Botswana, and outside its historic range in Ivory Coast and Kenya.

Northern white rhino *(C.s. cottoni)*
The northern white rhino formerly occurred in the grasslands of north-central Africa from Chad and northern Central African Republic, through the Democratic Republic of Congo to Sudan and Uganda. Slaughtered by the thousands by hunters between 1927 and 1931, and losing another thousand in the early 1980s primarily from poaching, the northern white rhino now numbers fewer than 30 and is confined to Garamba National Park in Democratic Republic of Congo.

Link to WWF Global 200
The black rhino is present in several significant ecoregions in east and southern Africa, including the Zambezian Woodlands and Savannas in Zimbabwe and South Africa, the Maputaland-Pondoland Dry Forest in South Africa, the Kaokoveld, Karoo, and Namib Deserts in Namibia, and the East African Moorlands and East African Highland Forests in Kenya. These key areas belong to a suite of more than 200 ecoregions--the Global 200--designated by WWF as the most important places to conserve in order to maintain full representation of the world's diverse ecosystems and the complexity of life they support.

The white rhino is present in several significant ecoregions in Africa, including the Zambezian Woodlands and Savannas in Zimbabwe and South Africa, the Maputaland-Pondoland Dry Forest in South Africa, and the Northeast Congolian Forest Savanna Mosaic in the Democratic Republic of Congo.

Conservation needs and WWF action
Action at the local level is critical if rhino conservation efforts are to succeed. Supporting antipoaching measures and the monitoring and management of rhinos in the field will continue to be cornerstones of WWF's strategy to conserve rhinos in Africa. Promoting innovative land-use measures, such as the establishment of special conservancies where private landowners or communities join together to share both responsibility for and the benefits from rhinos, has proven to be another successful conservation approach.

Marketplace demand for rhino horn has been the major factor underpinning the recent rhino crisis. TRAFFIC, the trade monitoring program of WWF and IUCN, has conducted pioneering investigative research on rhino trade and consumption throughout Asia and the Middle East and has provided technical support to governments seeking to stop the illicit commerce and improve implementation of CITES trade controls. In North America, WWF and the American College of Traditional Chinese Medicine have recently joined forces to devise culturally sensitive community outreach strategies to eliminate demand for tiger- and rhino-based medicines and promote endangered species conservation awareness.

August 1998

WWF

Asian Rhinos

Three of the world's five rhino species are found in Asia. The **greater one-horned rhino (*Rhinoceros unicornis*)** was once found across the entire northern part of the Indian sub-continent. Currently the species survives in a few populations in the borderlands of northeast India, Bhutan, and Nepal.

The **Javan rhino (*Rhinoceros sondaicus*)** was once widespread throughout southeast Asia. Today, the principal population is located on the Ujung Kulon peninsula in Indonesia, with a second small population in Cat Loc Nature Reserve in Vietnam.

The **Sumatran rhino (*Dicerorhinus sumatrensis*)** once occurred widely from the foothills of the Himalayas in Bhutan and eastern India south through the Malay Peninsula to the islands of Sumatra and Borneo. Current populations are scattered in the forests of Peninsular Malaysia, Sumatra, and Borneo.

Description and natural history

The greater one-horned rhino has a single fibrous brown horn and is grayish-brown in color. It is the largest of the three Asian rhino species. Greater one-horned rhinos are generally solitary, although temporary associations of several individuals may form at wallows or on grazing grounds. Greater one-horned rhinos prefer alluvial grassland habitat.

The Javan rhino is a close relative of the greater one-horned rhino and bears the dubious distinction of being the world's most endangered large mammal species. The Javan rhino, or lesser one-horned rhino, favors dense lowland rain forest with plenty of mud wallows.

With its shaggy coat of hair, the Sumatran rhino is the smallest of the world's five rhino species. It is also the only Asian species that has two horns. The Sumatran rhino can live in different habitat types, including sea-level wetlands and montane forests.

All rhinos are "landscape architects" of their habitat. Rather than being seed predators, whose digestion destroys the seeds they eat, rhinos are seed dispersers. Since it can take a rhino more than three days to digest a meal, seeds can be transported a significant distance before they are deposited in droppings. Rhino dung also enhances soil fertility and nourishes the landscape.

Conservation status and major threats

All rhino species have long fallen victim to poachers trafficking in rhino horn to be used in traditional Asian medicine or to be carved into dagger handles in the Middle East. In addition, unabated human encroachment has squeezed Asian rhinos out of most of their historic range.

Greater one-horned rhino

Classified by the World Conservation Union (IUCN) as endangered, the greater one-horned rhino faces a very high risk of extinction in the near future. The species also

World Wildlife Fund • 1250 Twenty-Fourth Street, NW • Washington, DC 20037-1175 • Phone (202) 293-4800 • Fax (202) 293-9211
www.worldwildlife.org
Affiliated with World Wide Fund for Nature

appears on CITES (Convention on International Trade in Endangered Species) Appendix I and is listed as endangered under the U.S. Endangered Species Act. There are fewer than 2,100 greater one-horned rhinos left in the wild, with the major populations in Royal Chitwan National Park in Nepal and Kaziranga National Park in India.

Nepal's Royal Chitwan National Park, located within the Terai-Duar Grasslands, is an inspiring showcase of effective rhino conservation work. More than 460 greater one-horned rhinos--the world's second largest population of the species--reside here. The introduction of a new approach to buffer zone management is helping local residents earn revenue from community-based ecotourism. Chitwan can support approximately 500 rhinos, but with enhanced protection in the park's buffer zones the carrying capacity could be increased by at least 20 percent.

Royal Bardia National Park, also in the Terai-Duar Grasslands, is another prime refuge for greater one-horned rhinos. Since 1986 Bardia has received dozens of rhinos from Royal Chitwan National Park, and by 1995 the park's rhinos numbered more than 40.

Kaziranga National Park in the state of Assam in India holds the world's largest population of greater one-horned rhinos. Heavily protected by the state government, Kaziranga's marshy grasslands provide excellent habitat for rhinos, which now total close to 1,300.

Javan rhino

IUCN lists the Javan rhino as critically endangered and facing an extremely high risk of extinction in the immediate future. The Javan also appears on CITES Appendix I and is listed as endangered under the U.S. Endangered Species Act. Fewer than 85 Javan rhinos remain in the wild.

Indonesia's Ujung Kulon National Park on the island of Java is home to fewer than 70 Javan rhinos, the last potentially viable population in the world. Unknown to conservationists until 1991, the Javan rhino population in Cat Loc Nature Reserve in Vietnam hovers around 15 rhinos.

Sumatran rhino

IUCN also lists the Sumatran rhino as critically endangered and facing an extremely high risk of extinction in the immediate future. It is also included on CITES Appendix I and the U.S. Endangered Species List. There are fewer than 400 Sumatran rhinos left in the wild.

Gunung Leuser National Park in western Sumatra has the largest population of Sumatran rhinos. The estimated population has remained steady at 60, although this 2 million acre park's carrying capacity is much greater. The remaining populations of Sumatran rhinos are scattered between other protected areas in Sumatra, Borneo, and Peninsular Malaysia including Kerinici Seblat, Barisan Selatan, Taman Negara, Endau Rompin, Belum, and Tabin.

Link to WWF Global 200

The greater one-horned rhino is present in several parts of the Terai-Duar Savannas and Grasslands of Nepal, India, and Bhutan. These grasslands belong to a suite of 200

ecoregions--the Global 200--designated by WWF as the 200 most important places to conserve in order to maintain full representation of the world's diverse ecosystems and the complexity of life they support. The alluvial grasslands of Nepal and the northern Indian state of Assam are the last tiny remnant of a once extensive ecosystem. Besides rhinos, the region supports other endangered species including the tiger (*Panthera tigris*).

The Sumatran and Javan rhinos are present in parts of the North Sumatran and Nicobars Lowland and Montane Forests, another of the WWF Global 200 ecoregions. The Javan rhino also occurs in the Western Java Moist Forest ecoregion and the Da lat-Phnom Lyr Montane Forests ecoregion in Vietnam.

The Sumatran rhino is also found in the Northern Sumatra Limestone Forests, the Northern Sumatra Montane Forest, and the Central and Southern Sumatra Montane Forest ecoregions. In Peninsular Malaysia, the Sumatran rhino occurs in the Peninsular Malaysian Montane Forest ecoregion and the Peninsular Malaysian Moist Forest ecoregion. The lowland moist forests of Sumatra are rich in plants and animals, but between 65 and 80 percent of these forests have already fallen to agriculture and logging. Sumatra is probably losing its natural vegetation faster than any other part of Indonesia.

Conservation needs and WWF action

Land-use changes such as deforestation and slash-and-burn agriculture lead to a fragmented and degraded ecosystem and pose a major threat to rhino survival by forcing rhinos and other species into smaller and smaller areas. WWF's ecoregional (or "landscape") approach takes into account the need to set aside undisturbed core regions for rhinos, as well as buffer zones around the core regions where human activities are permitted but managed with the needs of both people and rhinos in mind.

Action at the local level is critical if rhino conservation efforts are to succeed. Supporting antipoaching measures and the monitoring and management of rhinos in the field will continue to be cornerstones of WWF's strategy to conserve rhinos in Asia. Promoting innovative land-use measures, such as buffer zone management, where communities share both responsibility for and the benefits from rhinos, has proven to be another successful conservation approach.

Marketplace demand for rhino parts has been the major factor underpinning the recent rhino crisis. TRAFFIC, the trade monitoring program of WWF and IUCN, has conducted pioneering investigative research on rhino trade and consumption throughout Asia and the Middle East and has provided technical support to governments seeking to stop the illicit commerce and improve implementation of CITES trade controls. In North America, WWF and the American College of Traditional Chinese Medicine have recently joined forces to devise culturally sensitive community outreach strategies to reduce demand for tiger- and rhino-based medicines and promote endangered species conservation awareness.

WWF

Saving 60 Million Years of Evolution

Royal Chitwan National Park: Two Decades of Effective Rhino Protection

The Chitwan Valley of southern Nepal, which spans 100 kilometers east to west and about 40 kilometers at its widest north to south, was once almost entirely forest and tall grasslands. Royal Chitwan National Park, a World Heritage Site, is famous for harboring endangered species, including greater one-horned rhinos (*Rhinoceros unicornis*) and Bengal tigers (*Panthera tigris tigris*). Over time, human development has converted most of the valley's forest and grasslands to other land uses, shrinking critical habitat and leaving rhinos vulnerable to poaching for their horns, which are used in traditional Asian medicines.

As a result, Nepal's greater one-horned rhino was once, like its cousins in the rest of Asia and Africa, headed for extinction. As recently as the late 1960s, there were perhaps only 60 of these magnificent creatures roaming the country. But these numbers have made a dramatic turnaround, thanks to local projects developed by the King Mahendra Trust for Nature Conservation, Nepal's Department of National Parks and Wildlife Conservation, and the Biodiversity Conservation Network, together with World Wildlife Fund. Today, Nepal is home to nearly 600 greater one-horned rhinos, the second largest population in the world.

The secret behind this success lies not only with effective antipoaching measures but also with empowered local communities around Royal Chitwan National Park, who now serve as guardians for wildlife habitats. To take exploitation pressure off the park, residents have set aside special plantations for fodder, fuelwood, and hardwood. The firewood they grow helps supply energy needs; the hand-cut fodder keeps livestock from grazing and denuding whole stretches of forest; and the hardwood will soon provide a new income source for financially strapped villagers. By allowing plants and trees to regenerate in these buffer zones, local people, in effect, extend the park's boundaries and expand critical rhino habitat. Local communities also benefit from the estimated 60,000 tourists who make Chitwan Park one of Asia's most popular wildlife tourist destinations. In a ground breaking move, the Nepalese government passed legislation in 1995 that provides for up to 50 percent of tourist revenues to be plowed back into conservation and development programs in communities adjoining the buffer zones.

The rhino population in Chitwan Park, which is growing at an annual rate of 3.7 percent, increases by about 17 animals per year, permitting this population to be used as a source of rhinos for translocation to other areas. In fact, the Royal Bardia National Park in Nepal now has a population of 45 greater one-horned rhinos, the result of a successful translocation of animals from Chitwan. With support from the Royal Government of Nepal, World Wildlife Fund, and the Smithsonian Institution, 13 animals were translocated in 1986 and an additional 25 animals were introduced in 1990. In November 1998, WWF plans to translocate more rhinos to Bardia and enhance Bardia's chances of becoming the next rhino success story.

World Wildlife Fund • 1250 Twenty-Fourth Street, NW • Washington, DC 20037-1175 • Phone (202) 293-4800 • Fax (202) 293-9211
www.worldwildlife.org
Affiliated with World Wide Fund for Nature

WWF

Saving 60 Million Years of Evolution

Kaziranga National Park: A Rhino Conservation Success Story

Kaziranga National Park in the state of Assam in northeastern India is best known as the home of the world's largest single population of the greater one-horned rhino (*Rhinoceros unicornis*). Rhino conservation here dates back to 1916, when the forests of Kaziranga were designated a game sanctuary. This 430-square kilometer protected area, consisting mostly of alluvial grassland and semi-evergreen forest, was declared a national park in 1974. Kaziranga's habitat is greatly influenced by the waters of the mighty Brahmaputra River, which forms the park's northern boundary. This river and its tributaries create numerous channels, lakes, and ponds, giving Kaziranga its characteristic marshy grasslands. The park also provides excellent habitat for tigers and elephants.

In what has become a familiar story in the struggle to protect endangered species in India, poaching of rhinos for their horn has plagued the park throughout much of the last three decades. In 1966, there were an estimated 400 rhinos in Kaziranga, but 45 rhinos were poached between the years 1965 and 1968. Poaching pressures intensified in the mid- 1980s and continued through the mid-1990s. The park lost 179 rhinos during the poaching wave between 1982 and 1986, and another 191 between 1989 and 1993. In 1996 and 1997, however, Kaziranga lost fewer than 10 rhinos each year, reflecting an impressive reversal of fortune for the species. In 1995, the date of the last official census, Kaziranga's rhino population had climbed to close to 1,300, representing more than 60 percent of the world's wild population of greater one-horned rhinos.

Kaziranga's recent success can be attributed in no small part to the inspirational leadership of state officials and dedicated staff working in extremely difficult conditions. With the support of political, scientific, and nongovernmental sectors in India and around the world, the staff of the park has managed against huge odds to create a true protected area, complete with an effective antipoaching system and a successful track record of defusing man-animal conflicts. Today, Kaziranga has become one of Asia's better-managed parks and could well serve as an example for other countries.

WWF continues to play an important role in strengthening park management. In 1997 and 1998 alone, WWF has helped broaden communication systems and antipoaching intelligence networks. Working with the park staff, WWF has fostered infrastructure improvements, including cleaner water and increased land-based transportation. In an attempt to boost staff morale, WWF has established an incentive system to reward outstanding park staff members.

While much remains to be done at Kaziranga to sustain the success of the past few years, the future of the park holds promise. The state government plans to add nine new forest tracts to Kaziranga to provide critical wildlife corridors and more secure overall habitat for wildlife. In fact, the north bank of the Brahmaputra, an area of about 375 square kilometers, is on track to become the next addition to the park and another important step forward for the greater one-horned rhino.

World Wildlife Fund • 1250 Twenty-Fourth Street, NW • Washington, DC 20037-1175 • Phone (202) 293-4800 • Fax (202) 293-9211
www.worldwildlife.org
Affiliated with World Wide Fund for Nature

WWF

Saving 60 Million Years of Evolution

Southern White Rhino: A Major Wildlife Conservation Achievement

Of the world's five remaining rhino species, two--the black rhino (*Diceros bicornis*) and the white rhino (*Ceratotherium simum*)--are found in Africa. Like their Asian relatives, Africa's rhinos face an uncertain future, as many inhabit countries that rank among the poorest and most beleaguered. Rhino numbers were greatly reduced by settlers and sport hunters during the colonial era, but the overwhelming cause of the rhino's decline during the past 40 years has been poaching to supply the international demand for rhino horn in traditional Asian medicines and as decorative dagger handles in the Middle East. The poaching wave that swept across the continent starting in the 1960s and continuing into the 1980s decimated the black rhino population. Only rhinos in South Africa were unaffected by the widespread slaughter. In fact, the southern white rhino (*Ceratotherium simum simum*), reduced at one time to a single dwindling population in South Africa's Natal Province, is considered one of the great wildlife conservation success stories of our times.

The early distribution of the southern white rhino extended throughout the bushveld of southern Africa. At the turn of the century, hunting had pushed the animal to the brink of extinction, with less than 100 rhinos isolated in the Umfolozi Game Reserve in South Africa. Since that time, intensive management by South African government authorities and private landowners has dramatically reversed the decline. By 1960 the population had grown to approximately 600. Today, it approaches 8,000. The success is so remarkable that many South African sanctuaries and reserves have exceeded their capacity to support the increasing numbers of white rhinos, and have provided more than 3,000 for translocation to government and private reserves in southern Africa and zoos around the world. Although the southern white rhino's stronghold remains in South Africa, which holds close to 95 percent of the world's population, the animal now occurs in a number of countries within its historic range including Zimbabwe, Namibia, Swaziland, Zambia, and Botswana.

WWF has concentrated its efforts in South Africa on the establishment of both state-run and privately held rhino conservation areas where rhinos can be intensively monitored and effectively protected. In the field, WWF is examining key populations and will combine our findings on successful management actions, such as antipoaching measures and translocations, with scientific information on population size, habitat size, and other relevant biological criteria and apply this knowledge to future rhino conservation efforts. Over the years, the investigative work of TRAFFIC (the trade monitoring arm of WWF and IUCN) has helped us better understand the rhino horn trade. Realizing that the trade dynamic is far more complex than earlier thought, TRAFFIC has developed new analytical approaches to truly assess the level of demand and its impact on poaching around the range states of Africa.

As the country with the world's single largest population of rhinos, and a source for restocking depleted southern white rhino populations in other range states, South Africa remains Africa's key rhino country. It continues to be an inspiring example of what carefully planned and well-executed conservation programs can achieve.

World Wildlife Fund • 1250 Twenty-Fourth Street, NW • Washington, DC 20037-1175 • Phone (202) 293-4800 • Fax (202) 293-9211
www.worldwildlife.org
Affiliated with World Wide Fund for Nature