**Wildlife in Pakistan**

Wildlife Biodiversity of Pakistan

**T**his section describes Pakistan's wildlife, its present status, the major threats to wildlife biodiversity, and the actions that have been taken or are proposed for its protection.  
  
For the purpose of this report, wildlife includes all vertebrates except fish, domesticated animals and human beings. Other broader definitions of wildlife include all plants and animals in wild ecosystems. Wildlife management is therefore concerned with the abundance and distribution of vertebrate species. Wildlife managers must also manage habitats, including vegetation and invertebrates which are food for, or causes of disease to wildlife.  
  
Wildlife management is the science and art of changing the characteristics and the interaction of habitat, wild animal populations and man in order to achieve specific human goals by means of wildlife resources. Until recently, most wildlife management has focused on game animals. With the growing realisation that all wild vertebrates possess important values, the scope of wildlife management has been broadened to include predators, songbirds, furbearers and vertebrate pests.

**For detail information choose from the sections below:**

* [**Section 1: Existing Wildlife in Pakistan**](http://www.wildlifeofpakistan.com/WildlifeBiodiversityofPakistan/existingwildlifeinPakistan.htm)
* [**Section 2: Threats to Wildlife Biodiversity**](http://www.wildlifeofpakistan.com/WildlifeBiodiversityofPakistan/threatstowildlifeinPakistan.htm)
* [**Section 3: Species of Special Concern**](http://www.wildlifeofpakistan.com/WildlifeBiodiversityofPakistan/speciesofspecialconcerninPakistan.htm)
* [**Section 4: Initiative to Promote and Conserve Biological Diversity**](http://www.wildlifeofpakistan.com/WildlifeBiodiversityofPakistan/intiativestoconservewildlifeinPakistan.htm)
* [**Section 5: Protected Areas System**](http://www.wildlifeofpakistan.com/WildlifeBiodiversityofPakistan/protectedareassystemofPakistan.htm)

**T**he mountainous areas embracing the Himalayan, Karakorum and Hindukush Ranges are rich in fauna and flora, as compared to other parts of the country. These areas provide an excellent habitat for wildlife in the form of alpine grazing lands, sub-alpine scrub and temperate forests. These habitats support a variety of wild animals. The areas are difficult for human beings to access, hence, most wildlife is present in reasonable numbers though some are endangered for other reasons. Some of the main wildlife species are the snow leopard, the black and the brown bears, otter, wolf, lynx, Himalayan ibex, markhor, bharal, Marco Polo's sheep, shapu, musk deer, marmots, tragopan and monal pheasants. The snow partridge and snowcock reside at higher elevations. The Rhesus monkey, common langur, red fox, black bear, common leopard, a variety of cats, musk deer (over a limited area), goral, several species of flying squirrels, chakor, partridge and pheasants (koklass, kaleej and cheer) live in the lower elevations. Amongst these the snow leopard, musk deer, Marco Polo's sheep, and the brown bear are endangered. The Tibetan wild ass and the blue sheep populations have been reduced drastically. The cheer pheasant is reported to be extinct from within Pakistan's boundaries, and is included in the IUCN Red Data Book. The western horned tragopan was reported to have disappeared from within Pakistani territory, but has now been relocated to Indus Kohistan, although its numbers are low.

The main threats to the population of wild animals in the northern mountainous regions include, the competition with domestic livestock for existing natural forage, increasing human interference in the form of cultivation, the construction of roads, and hunting.

The Himalayan foothills and the Potohar region, including the Salt Range and Kala Chitta Range, are covered with scrub forests, which have been reduced to scanty growth in most places. Medium-sized animals like the Punjab urial, barking deer, goral, chinkara, partridges (grey and black), seesee and chakor are supported in these habitats. A variety of songbird fauna also occurs in these areas.

Vast Indus flood plains have been cleared of natural vegetation to grow crops. Very little wildlife habitat has been left untouched. Only animals like the jackal, mongoose, jungle cat, civet cat, scaly anteater, desert cat and the wild hare occur in these areas. Hog deer is found in riverine tracts. The crop residues and wild growth support reasonable populations of black and grey partridges.

Little vegetative cover, severity of climatic conditions and the great thrust of grazing animals on the deserts have left wild animals in a precarious position. Parts of Thall and Cholistan are now being irrigated, with the situation almost identical to that of the flood plains. Chinkara is the only animal, which can still be found in average numbers in Cholistan, but rarely in Thall. The blackbuck, once plentiful in Cholistan has now been eliminated. However, efforts are being made to reintroduce them back into the country. A small number of blue bulls are found along the Pak-Indian border, and some parts of Cholistan. Grey partridge, species of sand grouse and the Indian courser are the main birds of the area. Peafowl occur in some areas in Cholistan.

The Thar Desert supports a fair population of the Chinkara gazelle. Peacocks are only found in the wild, mainly because of the protection they enjoy in Hindu communities. The wild ass migrates from the Indian part of the Rann of Kutch to the Pakistani part in search of food.

The Houbara bustard is a regular winter visitor to the desert. Visiting diplomats have hunted and reduced their numbers. The great Indian bustard is sporadically sighted. The imperial sandgrouse is another migrant visiting these areas. Grey partridges are frequently sighted. The python is also threatened with extinction.

The Sulaiman and Kirthar Ranges present habitats manifesting unique characteristics. The former supports the straight-horned markhor, chinkara and urial, whereas Sindh ibex, urial, chinkara and common leopard occupy the latter. The straight-horned markhor, which is almost extinct from within settled boundaries of Pakistan, occurs in somewhat fair numbers in the Tribal Areas. The chakor, seesee and grey partridge are birds commonly found in the tracts.

The reed beds and tamarisk bushes along the rivers support hog deer and black partridge populations. However, due to occasional heavy floods their numbers have also been reduced. The Indus dolphin, fishing cat, and smooth otter are found in the Indus River waters below the Chashma Barrage. The gavial has become extinct in Pakistan. The crocodile is found in small numbers in lower Sindh. Wild boar numbers have increased because of the immunity they enjoy in a Muslim society that forbids its consumption by humans.

The animals found in the south-western mountains of Balochistan are: Sindh ibex, Chiltan markhor, straight horned markhor, wild sheep, leopard, marbled pole cat, Blandford's fox, chinkara, goitered gazelle and the marsh crocodile. The cheetah, is believed to be extinct and the Makran (baluchistan) bear critically endangered. The Houbara bustard (migratory), sandgrouse, black and grey partridges, and the chakor and see see partridges are also found here.

Irrigated forest plantations have emerged as the prevailing land use practice for the last 100 years. These ideally provide excellent habitat for chinkara, hog deer and blue bull. Forest management does not cater to the needs of these wild animals. This, coupled with the poor implementation of laws has resulted in the extinction of species in the irrigated plantations. Due to habitat disturbances, the ungulates have failed to establish themselves, whereas the partridges have flourished well.

The striped hyena and the wolf are widely distributed in the sparsely populated parts of the country. However, information about them is scanty. Information about carnivores in general is difficult to obtain because of their nocturnal mode of life and high mobility. The black bear and brown bear populations are also not understood completely.

Birds of prey like the peregrine, cherrug or saker falcons, tawny eagle, imperial and greater spotted eagles, osprey, shikra, and the black-winged kite occur throughout Pakistan but their population statuses are unknown.

Pakistan's coastline of 1,050 km consists of a variety of habitat types, supporting a wide range of animals, of which over 1000 are fish species. Pakistan's marine flora and fauna have not been studied properly. Hence, detailed information on these species is deficient. Along the shores, there are four species of marine turtles: the ridley, green, leather back and hawksbill turtle, which are of high economic importance. Due to loss of habitat and human disturbances, their population is also decreasing.

About eight species of freshwater turtles are found in Pakistan. Sand lizards, monitors, geckos, agamas, diamond snakes, sand snakes, vipers, cobras, kraits and the famous Indian python constitute the other reptilian fauna.

Large water bodies in the country support a variety of waterfowl both resident and migratory. The extent of wetlands is constantly being changed. On one hand, swamps and marshes are being drained to reclaim land, whereas on the other hand, new dams (large water bodies) have been created for irrigation purposes. Canal irrigation through seepage has also contributed towards increasing the land area under water in the form of water logging. Such areas support a great number of waterfowl by providing them with an excellent habitat. The wetlands are one of the most important wintering areas and "green routes" of Asia. The important waterfowl in Pakistan are the ducks (mallard, pintail, shoveler, pochard, gargeny, ruddy shellduck, teals, tufted and gadwall), geese (grey lag, bar-headed), coots, flamingoes, pelicans, spoon bills, storks, ibises, plovers, curlews, sand pipers, snipes, and herons. The marbled teal and white-headed duck have decreased in number and now visit the wetlands infrequently. Among the waterfowl are (resident) gallinules, moorhens and rails, gulls, terns, water cock, grebes, cormorants, egrets, bitterns, and jakanas. The spot-billed lesser whistling teal and the cotton teal are resident ducks. A rich wader fauna visits the coastline during the winter.

Efforts have been made to document the status of wildlife and in some cases, the correct status is known, whereas most of the information about their populations is sketchy. With the strengthening of wildlife organisations in the country more reliable information can be obtained.

**Biodiversity in Pakistan**

|  |  |  |  |
| --- | --- | --- | --- |
| Flora/Fauna | Number of Species | | |
| In World | In Pakistan | Endemic |
| Plants | 25,000 to 75,000 species | 6,000 species 5,000 wild) | 372 species |
| Mammals | 18 orders | 10 orders | IndusDolphin. |
|  |  |  | ChiltanMarkhor. |
|  |  |  | Pakistan Sand Cat. |
|  |  |  | SuleimanMarkhor. |
|  |  |  | Punjab Urial. |
|  |  |  | Baluchistan Bear. |
| 4,100 species | 188 species of which:  63 rodents |  |
|  |  | 39 carnivores |  |
|  |  | 38 bats |  |
|  |  | 25 hoofed animals |  |
|  |  | 11 insectivores |  |
|  |  | 9 aquatic animals,  3 primates,  1 pholidota |  |
| Birds | 8,600 species | 666 migratory & resident species |  |
| Reptiles | 6,500 species | 174 species of which :  88 lizards |  |
|  |  | 72 snakes |  |
|  |  | 10 turtles |  |
|  |  | (2 marine, 8 freshwater)  2 tortoises |  |
|  |  | 1 crocodile |  |
|  |  | 1 Gavial |  |
| Amphibians |  | 16 species |  |
| Fishes | 2,600 species | 525 species of which:  400 marine fish |  |
|  |  | 125 freshwater species |  |
| Insects/ Invertebrates | 750,000 species | 20,000 species 700 marine |  |

Section 2: Threats to Wildlife Biodiversity

**T**hreats to Biodiversity. More specific threats to biodiversity are posed by deforestation (estimated at 1% annually), overgrazing, soil erosion, rampant hunting and fishing, and agricultural practices. As a result, it is estimated that at least 12% of the flora is threatened and several of the faunal species are threatened too. However, the real status of most species remains unknown. Some of the major threats posed by human activities are discussed below:

**i. Population Growth**  
The principal threat to biodiversity comes from the increased pressure on natural resources produced by high population growth and demands for increased standards of living. The process of economic development itself widens inequality and may force the poor to depend heavily on natural resources, while the development models followed, in most instances, have been incompatible with the sustainable use of natural resources.

**ii. Irrigated Agriculture**  
It is another major threat to both the riverine and mangrove forests of Pakistan, which are fast disappearing Riverine forests were rich in a wide variety of plants such as obhan, and animals like hog, deer, jungle cat, fishing cat, and gray and black partridges. Mangrove forests are particularly important habitats for certain fish species as noted earlier. Both have been identified as endangered ecosystems, and if they disappear they take with them a unique association of species. Marginal changes in water releases at certain times are critical to the preservation of riverine habitats, it might br possible to accommodate them, but if they require water diversions at times when irrigation demands are high and water supplies are short, the chances of being able to maintain them are low.

**iii. Hunting**  
Hunting has deep roots in Pakistani culture. It was the recreation of the Moghul emperors and is still extremely popular today. Wild animals have been hunted to extinction from hunting pressure. Various lizards and snakes are hunted for their skins, as are crocodiles and the larger mammals. Distributing the natural order has other more subtle consequences. The increase in the numbers of wild boars, jackals, and porcupines, for example, is directly attributable to the elimination of their predators, particularly the large cats. A greater number of wild boars has led to the trampling and uprooting of gropes and a reduction in the numbers of snakes, which in turn has led to an increase in the number of rats, responsible for post-harvest losses of grain. The loss of birds of prey has led to an increase in undesirable bird species. And having more birds can destroy undergrowth, through their droppings, or even the roost tree itself, which in turn can lessen the ability to resist water erosion, an ever-present threat in Pakistan.

**iv. Deforestation and Loss of Habitat**  
A greater threat to wildlife than hunting, however, is probably the disappearance of habitat or the competition with domestic grazing animals. The closed canopy forest in the North West Frontier Province (NWFP) of Pakistan is reported to be shrinking at approximately 1% per year. Pressure stem from commercial logging (though this is not extensive), and the cleared areas. More significant is the relentless, incremental incursions into the forest by subsistence farmers; the killing of trees through lopping, burning, and tapping; the development of small agricultural plots among the trees; and excessive grazing by domestic animals.

Section 3: Species of Special Concern

**Extinct**  
Though little data is available, there is little reason to believe that Pakistan's biota is exempt from this rapid decline. Within the last 400 years, at least four mammals are known to have disappeared from Pakistan: the tiger (Panthera tigris), swamp deer (Cervus duvauceli), lion (Panthera leo) and the Indian one-horned Rhinoceros (Rhinoceros unicornis). A further four species are also extinct: the Asiatic cheetah (Acinonyx jubatus venaticus), the Indian wild ass (Equus hemionus khur) and the Hangul (Cervus elaphus hanglu) have most likely become extinct in recent decades (Roberts 1977, Khan and Hussain 1985). The fourth species, the blackbuck (Antelope cervicapra) was listed as an extinct species but has been bred in captivity.

**Internationally Threatened**  
The latest IUCN Red List of Threatened Animals (IUCN 1996) lists 37 species and 14 sub-species of internationally threatened or near-threatened mammals that are found in Pakistan (Appendix A). Of these, two are critically endangered, nine endangered, 11 vulnerable, 23 near-threatened, five data deficient and one conservation dependent. The critically endangered mammals are the Balochistan black bear (Ursus tibetanus gedrosianus) and the Chiltan goat (Capra aegagrus chiltanensis). The full list of threatened and near-threatened mammals includes: four species of bats (Chiroptera), two species of primates, three species of dogs (Canidae), three species and two sub-species of cats (Felidae), one species of otter (Mustelidae), and one species and one sub-species of bear (Ursidae). The list also names three species of cetacean, one species and one sub-species of Artiodactyla, one sub-species of Cervid, 11 species and nine sub- species of Bovidae (antelopes, goats, sheep, etc.), one species of pangolin (Manidae), and seven species of Rodentia.

Twenty-five internationally threatened birds (one critically endangered, two endangered, and 22 vulnerable) and 17 internationally near-threatened birds are found in Pakistan (Collar and Andrew 1994, IUCN 1996) (see Appendix B). One critically threatened bird is the lesser florican (Eupodotis indica).

Ten internationally threatened reptiles occur in Pakistan (three endangered, three vulnerable, three near threatened and one data deficient), but there are no internationally threatened amphibians in Pakistan (IUCN 1996) (see Appendix A). The latest Red Data Book (IUCN 1996) additionally lists one species of fish, the spiny eel (Macrognathus aral) and one species of invertebrate, a butterfly (Hyles hippophaes) as data deficient.

**Species of National Concern**  
Lists of internationally threatened species show only the tip of the iceberg. For example, while only 5% of European birds are of global conservation concern, a further 33% have unfavourable conservation statuses in Europe (Tucker and Heath 1994). While there is little data available to demonstrate the decline of species' populations in Pakistan, the accelerating loss, degradation and fragmentation of habitats clearly imply such declines. Habitat fragmentation isolates the population of a species, exposing them to a higher rate of loss of genetic diversity and a higher risk of extinction (UNEP 1995). A few preliminary attempts have been made to draw up national lists of threatened species. These include a list of some 500 species of plants believed to be nationally rare or threatened (Davis et al. 1986). No comprehensive and systematic list of species of national concern has been compiled for Pakistan. Such a list would include species, which are nationally rare and declining, and those that are nationally rare, and not declining, but otherwise at risk (e.g. from population fluctuations, natural catastrophes, indiscriminate killing, etc.). The list would also include those that are highly localized in distribution and those, which are still widespread and common but are suffering significant decline.

Section 4: Initiatives to Promote and Conserve Biological Diversity

**P**akistan has given serious thought to promote and conserve its biological resources by taking important steps in the following areas:

**Establishment of Protected Areas (P.As)**  
In order to conserve as many species and ecosystems as possible, the government has established 190 protected areas (P.As) so far. These include 15 national parks, 83 wildlife sanctuaries, 85 game reserves and 14 unclassified areas. The extent of land under protection in Pakistan comprises 9% of the country area, i.e., 71649 square kilometers. Nine wetlands have been designated under the Ramsar Convention.

**Institutional Measures**  
The first step towards legislation to protect biodiversity was introduced in 1968 with establishment of the Wildlife Enquiry Committee (WEC). This Committee drafted conservation legislation which was later adopted through various provincial acts and ordinances. These statutes provide for the creation and management of Various categories of P.As; national parks, wildlife sanctuaries; game reserves; and private game reserves. A national Council for Conservation of Wildlife (NCCW) was established in 1974 within the Ministry of Food, Agriculture and Livestock. The NCCW has an advisory board and is responsible for coordinating, formulation and implementing wildlife policies at the federal and provincial levels, coordinating activities with international agencies and promoting conservation generally. The first piece of legislation to consider environment as a whole was the Environmental Protection Ordinance 1983. The National Conservation Strategy (NCS) marked a further shift away from simple regulation and protection measures towards a holistic view of environmental problems.

**International Conventions and Agreements**  
Pakistan is a signatory of virtually all the major international agreements in this field: the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), the Convention on Wetlands of International Importance (Ramsar), the World Heritage Convention, and the Convention of the Conservation of Migratory Species of Wild Animals(Bonn). Pakistani is a member of the World Conservation union (IUCN) and the International Waterfowl and Wetland Research Bureau (IWRB). In addition, Pakistan also signed convention on Biological Diversity (Rio de Janeiro). Today 125 countries are parties to this convention. iv. National Conservation Strategy (NCS): The Ministry of Environment, Urban Affairs, Forestry and Wildlife, Islamabad which is the apex body in Pakistan responsible for environment related issues has formulated a ®National Conservation Strategy¯ which encompasses Biodiversity along with other thirteen core programme areas. This strategy provides backward and forward linkages among various core areas.

The NCS recognizes that the existing protected areas (P.As) system is incomplete, in that it is not representative of all the ecosystems and plants and animal communities; the boundaries of existing P.As are in most cases not drawn according to ecological criteria; many are too small and isolated; and there are limited management planning capabiliities and weak law enforcement programmes. There are no plans which identify species ®hot spots¯, or the specific management requirements of rare and endangered species. The lack of any significant financial benefits and incentives to local people to participate also constrains biodiversity conservation in the country. As a result of these conditions, much of Pakistan¯s biodiversity is severely threatened, and in critical need of attention. To conserve biodiversity, the NCS recommends investing Rs. 1.08 billion in the following seven programmes.

- management of national parks and protected areas;   
- development of new national parks;   
- development of new wetland reserves;   
- a medical botanicals and germplasm preservation programme;   
- community management of game reserves;   
- programmes for endangered species; and   
- captive breeding in the private sector.

 Section 5: Protected Areas Systems

**L**and areas set aside specifically for protecting wildlife is not a new concept in Pakistan. The early rulers or Mirs often declared certain areas as preserves especially for this purpose so they would have a sufficient supply of game animals for hunting.

The first forest reserves set up under the British period in the mid 1800's, more often than not circumscribed the same areas previously set aside by the Mirs. Under the British forest system, habitat was protected and to some degree wildlife itself.

Outside the Indus basin, wildlife has maintained itself due to the remoteness and inaccessibility of the terrain, especially in the northern mountainous, tribal areas. Local chieftains with a passion for hunting often recognised the value of putting certain areas off limits to hunting to allow animal populations to build up.

Thus, coming into the present century there were a number of areas scattered around the country that served to protect wildlife. Except for the reserved or protected forests, few received more than a minimum amount of management and many were unknown.

The passage of the Wildlife Protection Ordinance in 1959 and issuance of the Wildlife Protection Rules in 1960 authorized the establishment of sanctuaries and reserves for game. Wildlife was formally recognised as an important natural heritage.

Following the 1966 and 1967 World Wide Fund for Nature expeditions in Pakistan to assess the state of the environment, recommendations were made to the Government of Pakistan for the establishment of parks and reserves. The Wildlife Inquiry Committee, appointed in 1968, had additional functions, which included the selection of suitable areas to be set aside as national parks or reserves and making recommendations concerning legislative, administrative and other measures to set up and maintain them. It was well-recognised that in order to conserve wildlife, Pakistan needed an extensive network of well-maintained reserves and that this network should include samples of all the various habitats and their associated fauna, including predators such as wolves and leopards. The Wildlife Inquiry Committee completed its work in October 1970 and recommended the establishment of 46 wildlife sanctuaries . These would be devoted to preservation of flora and fauna in its natural state and entrance and other activities would be controlled by permit. Forestry practices were prohibited, as were the collection of grass, firewood, building materials. Five Game Reserves were established and hunting was to be controlled by a special permit system.

**Summary of Protected Areas in Pakistan (based on NCCW data)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Region/ Province** | **National Parks** | **Wildlife Sanctuaries** | **Game Reserves** | **Un Classified** | **Total PAs** | **Total Area Conserved (ha)** | **% of Total Land Area Protected** |
| Azad Jammu Kashmir | 1 | 0 | 8 | 0 | 9 | 51,998 | 3.91 |
| Balochistan | 2 | 15 | 7 | 7 | 31 | 1,837,704 | 5.29 |
| Punjab | 2 | 37 | 19 | 0 | 58 | 3,315,803 | 16.14 |
| NWFP | 3 | 6 | 38 | 5 | 52 | 470,675 | 6.30 |
| Sindh | 1 | 35 | 14 | 4 | 54 | 1,307,575 | 9.27 |
| Federal Territory | 1 | 1 | 1 | 0 | 3 | 94,186 | 100 |
| Northern Areas | 4 | 5\* | 9 | 0 | 18 | 2,092,180 | 2.97 |
| **Totals** | **14** | **99** | **96** | **16** | **225** | **9,170,121** | **10.40** |

a. One of the Wildlife Sanctuary in Balochistan has been redesignated as Game Reserve in 1998.  
b. Two of the Wildlife Sancturies in Northern Areas have been redesignated as Controlled Hunting Areas in October 1998

The first national park, Lal Suhanra, was formally declared in the Bahawalpur district of Punjab in 1972. The park consists of irrigated forest plantations (20,974 acres), desert branch pond (4780 acres) and Cholistan Desert (51726 acres) for a total of 77480 acres. The park was established to protect existing wildlife and vegetation; reintroduce extirpated species; rehabilitate wildlife habitat; create education/research facilities for local and foreign tourists, and recreational facilities for the local population.

Kirthar National Park achieved its protected status in 1973. Established in the Dadu district of Sindh, this 466,000 acre reserve provides protection for a fine herd of ibex about 60 miles north of Karachi. Other large game species such as Indian gazelle and urial sheep have increased their populations within the park. A management plan has been drawn up for the park with the assistance of the World Conservation Union (IUCN). However, fiscal restraints and other priorities have largely precluded full implementation of the plan.

Khunjerab in northern Hunza, Gilgit Agency, became the third national park in 1975. This area has been successful in providing protection for the Marco Polo's sheep, blue sheep, snow leopard, snowcock, snow partridge and other high mountain species.

National parks in Pakistan have apparently been established primarily for wildlife and not necessarily for their historic or scenic features. Their administration is handled by the provincial wildlife departments.

So far, 15 national parks have been declared as follows:

NAME OF THE NATIONAL PARK AREA (ha) Year of declaration  
Ayubia 1,684 1984  
Chinji 6,095 1987  
Chitral Gol 7,750 1974  
Hazarganji-Chiltan 15,555 1980  
Hingol 165,            004 1997        
Khunjerab 226,913 1975  
Kirthar 308,733 1974  
Lal Sohanra 37,426 1972  
Margalla Hills 17,426 1980  
Central Karakorum 13,90,100 1995  
Kandrap Shandur 51,200 1993  
Deosai Plains 3,58,400 1993   
Sheikh Buddin 15,554 1993  
Machiara 13,532 1980  
Total 37,67,518 Ha  
(Source: WWF-Pakistan and MELGRD)

The classification system follows the IUCN Protected Area Classification (I-VI) as given below:

**IUCN PROTECTED AREAS CATEGORY**

**I. Strict Nature Reserve/Wilderness Area:**Areas of land and/or sea possessing outstanding or representative ecosystems, geological physiological features and/or species, available primarily for scientific research and/or environmental monitoring; or large areas of unmodified or slightly modified land, and/or sea, retaining their natural character and influence, without permanent or significant habitation, which are protected and managed so as to preserve their natural condition.

**II. National Park:** Protected Areas Managed Mainly for Ecosystem Conservation and Recreation. Natural areas of land and/or sea, designated to (a) protect the ecological integrity of one or more ecosystems for this and future generations, (b) exclude exploitation or occupation inimical to the purposes of designation of the area and (c) provide a foundation for spiritual, scientific, educational, recreational and visitor opportunities, all of which must be environmentally and culturally compatible.

**III. Natural Monument:** Protected Areas Managed Mainly for Conservation of Special Features. Areas containing one or more specific natural or natural/ cultural features which is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities or cultural significance.

**IV. Habitat/Species Management Area:** Protected Areas Managed Mainly for Conservation through Management Intervention. Areas of land and/ or sea subject to active intervention for management purposes to ensure the maintenance of habitats and/ or to meet the requirements of specific species.

**V. Protected Landscape / Seascape:** Protected Areas Managed Mainly for Landscape/ Seascape conservation and recreation. Areas of land, with coast and sea as appropriate, where the impaction of people and nature over time has produced an area of distinct character with significant aesthetic, cultural and/ or ecological value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.   
  
VI. Managed Resource Protected Area Protected Areas Managed Mainly for the Sustainable Use of Natural Ecosystems. Areas containing predominantly unmodified natural systems managed to ensure long-term protection and maintenance of biological diversity, while providing at the same time a sustainable flow of natural products and services to meet communituy needs.

Source: IUCN, 1994. Guidelines for Protected Area Management Categories

In addition to the above mentioned 14 national parks, the provincial governments have listed 99 wildlife sanctuaries (Punjab - 19, Sindh - 35, Northwest Frontier - 6, Balochistan - 15, Northern Areas - 5).

In addition, 96 other areas have been designated as game reserves and these govern an additional 4407 square miles of terrain, (Punjab - 19 areas, Sindh - 14 areas, Northwest Frontier - 38 areas, Balochistan - 7 areas, Northern Areas - 9 sites and AJK - 8 sites).

Most of the areas were created to provide habitat protection for animal species commonly referred to as game (huntable species for sport or meat). Providing protection for these species also offered a measure of security for many lesser known plant species and smaller animal species. Thus, the Government of Pakistan has created a parks and reserves system governing about 9.1 million ha (10.40% of total land area). Although extensive, only a fraction of the network is protected. Game reserves, in particular, which are often in private land, receive minimal protection due to the lack of legal provisions to control land use. Wildlife sanctuaries enjoy better protection, but in practice, legal restrictions are seldom enforced other than to prevent hunting. Most sanctuaries have been designated in reserve forests of commercial value where timber and minor forest products are harvested. Enforcement is better in the national parks. Protected areas have been created haphazardly, often in the absence of any criteria for their selection, and the boundaries drawn with little or no ecological basis. The protected areas system is under review to incorporate a new category of protected areas viz. biodiversity conservation.