

PAKISTAN

LAND AREA 796,095 km² HUMAN POPULATION 156,010,000 (196 per km²)

NUMBER OF IBAs 55 TOTAL AREA OF IBAs 46,701 km² STATUS OF IBAs 33 protected; 9 partially protected; 13 unprotected



The vast Rann of Kutch Wildlife Sanctuary (IBA 55) protects a variety of desert and wetland habitats. (PHOTO: PAUL GORIUP)

KEY HABITATS AND BIRDS

- Forests in Pakistan are mainly confined to the mountains in the north, where there are also alpine habitats above the treeline (*Biome AS05: Eurasian high montane – Alpine and Tibetan*, *Biome AS06: Irano-Turanian mountains*, *Biome AS07: Sino-Himalayan temperate forest*, *Biome AS08: Sino-Himalayan subtropical forest* and *EBA 128: Western Himalayas*). These Himalayan forests are now much reduced in extent, but the remaining fragments support important populations of several threatened species, notably Western Tragopan *Tragopan melanocephalus*.
- The original vegetation of most of the Indus plains region of Pakistan was tropical thorn forest (with associated grassland and scrubland), but this is now much reduced and fragmented, and most of the rest of the lowlands of the country is sandy desert (*Biome AS11: Indo-Malayan tropical dry zone*, *Biome AS12: Indo-Gangetic plains*, *Biome AS13: Sahara-Sindian desert* and *SA 074: Indus plains*).
- There are important wetlands in the Indus valley and on the coast of southern Pakistan which support several threatened waterbirds, including the largest populations of White-headed Duck *Oxyura leucocephala* and Marbled Teal *Marmaronetta angustirostris* in the Asia region.

CONSERVATION INFRASTRUCTURE AND PROTECTED AREAS SYSTEM

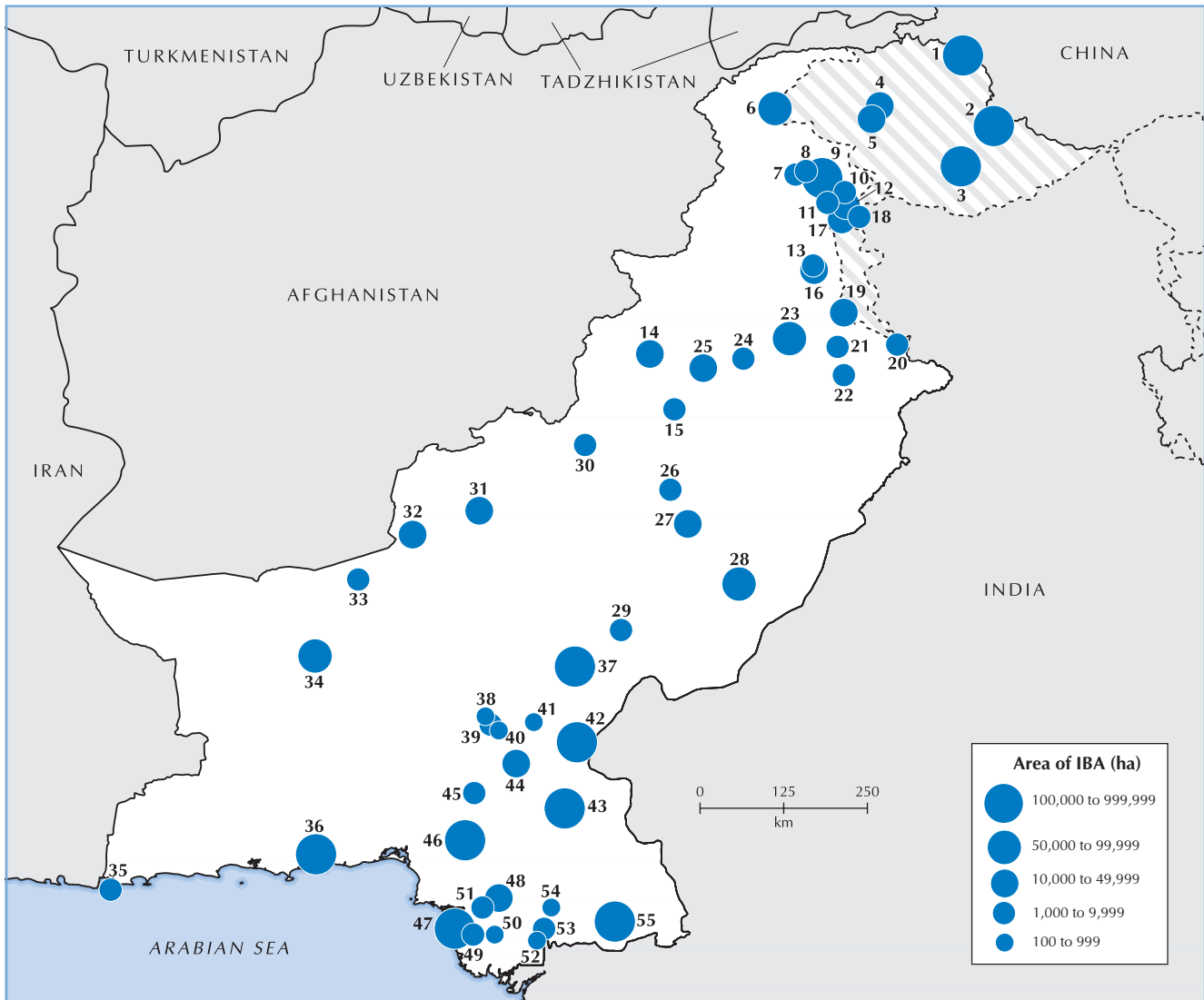
The Ministry of Environment of the Government of Pakistan has overall responsibility for environmental matters in the country. The Environment Division of the ministry is the focal point for national policy, plans and programs regarding environmental planning. The National Council for Conservation of Wildlife is an attached

department of the Ministry of Environment, which performs the following technical functions: (i) formulation of appropriate policies for conservation of wildlife in the country; (ii) coordination of the implementation of these policies by the provincial wildlife departments; and (iii) liaison with international agencies (e.g. IUCN, Wetlands International and conventions such as CITES and CMS) and non-government societies for the conservation of wildlife.

Important legislation relevant to the conservation of IBAs includes: the *Pakistan Environmental Protection Act* of 1997; the *National Environmental Quality Standards (Self-monitoring and Reporting by Industries) Rules* of 2001; the *National Environmental Quality Standards (Environmental Laboratories Certification) Regulations* of 2000; the *Revised National Environmental Quality Standards*; the *Environmental Samples Rules* of 2001; the *Provincial Sustainable Development Fund Board (Procedure) Rules* of 2001; the *Pollution Charge for Industry (Calculation and Collection) Rules* of 2001; the *Environmental Tribunal rules* of 1999; and the *Pakistan Environmental Protection Agency (Review of IEE/EIA) Regulations* of 2000. In 1992, the Government of Pakistan approved a National Conservation Strategy.

Under Pakistan's current provincial and territorial legislation, only three categories may be established: (i) national parks, to protect areas of exceptional geological, biological and cultural importance for educational, recreational and scientific uses; (ii) wildlife sanctuaries, to protect species or groups of species of flora and fauna from extinction; and (iii) game reserves, to protect flora and fauna for sustainable use. According to the Biodiversity Action Plan for Pakistan (1998), Pakistan has a network of 225 protected areas comprising 14 national parks, 99 wildlife sanctuaries, 96 game reserves and 16 unclassified (private, proposed or recommended). The total area covered by these protected areas is 91,701 km², or about 11% of the country's land area.

Map 1. Location and size of Important Bird Areas in Pakistan.



OVERVIEW OF THE INVENTORY

- Of the 55 IBAs in Pakistan, 36 support globally threatened species, 16 have restricted-range species, 28 have biome-restricted species and 30 qualify as IBAs because they hold large congregations of waterbirds.
- Pakistan's IBAs cover just under 6% of the total land area of the country. They include several large protected areas in the Himalayan mountains of northern Pakistan (e.g. Central Karakoram National Park [IBA 2]) and in the deserts further south (e.g. Hingol National Park [IBA 36] and Nara Desert Wildlife Sanctuary [IBA 42]), as well as many relatively small wetland sites in the Indus valley and on the coast.
- Twenty-two IBAs (40%) are located in the mountains of northern and north-western Pakistan, where montane forest, grassland and scrubland are the main habitats. The Palas valley (IBA 9) is notable for its extensive Western Himalayan forests and the largest known population of the threatened Western Tragopan in the world.
- Inland and coastal wetlands are the most important habitats in 29 IBAs (53%), although many of these also have thorn forest, scrubland, grassland or desert habitats. These semi-arid and arid habitats dominate the remaining four IBAs (7%).

CONSERVATION ISSUES

- Threats to IBAs in the mountains of northern Pakistan include selective logging of forest, forest grazing, fuelwood collection, construction of infrastructure (e.g. roads), hunting and disturbance by people and livestock.

- Wetland IBAs in Pakistan are affected by drainage for conversion to agriculture, water extraction for irrigation and urban water supplies, wide fluctuations in water level, eutrophication, harvesting of aquatic vegetation, burning of vegetation in seepage lagoons, livestock grazing, domestic and industrial pollution, fishery activities (including the introduction of tilapia), illegal hunting of waterbirds, feral dogs and human disturbance.
- In the wetland and desert IBAs, thorn forests and scrublands are cut for fuelwood and fodder and subject to unsustainable grazing. Other problems include extraction of sida ash, and hunting by local people and visiting Arab falconers.
- Of Pakistan's 55 IBAs, 33 (60%) are wholly within protected areas, nine (16%) are partially protected, and 13 (24%) are unprotected. The most notable unprotected IBA is the Palas valley (IBA 9), because of its extensive Himalayan forests and large Western Tragopan population.

SOURCES OF IBA DATA

This initial IBA list was completed for this publication by Aleem Ahmed Khan, Rafiq Ahmed Rajput and colleagues from the Ornithological Society of Pakistan, Dr T. J. Roberts and Mike Crosby. Financial support for this work was provided by the RSPB (BirdLife in the U.K.). Information on Pakistan's conservation infrastructure was downloaded on 7 July 2004 from: <http://pakistan.gov.pk/environment-ministry/>, and information on protected areas was downloaded on 7 July 2004 from: <http://wwfpak.org/> and <http://www.iucn.org/places/pakistan/>.

Table 1. Important Bird Areas in Pakistan (Northern Areas).			
1	Khunjab National Park	Protected	■ A3
Admin region Gilgit; Hunza; Shimshal Coordinates 36°50'N 75°35'E Altitude 2,439–6,000 m Area 227,143 ha Habitats Grassland; Rocky areas; Shrubland ■ Biomes AS05: Eurasian high montane			
2	Central Karakoram National Park	Protected	■ A3
Admin region Baltistan; Ganche; Gilgit Coordinates 35°50'N 76°05'E Altitude 2,000–8,611 m Area 973,845 ha Habitats Grassland; Shrubland ■ Biomes AS05: Eurasian high montane			
3	Deosai National Park	Protected	■ A3
Admin region Baltistan; Diamer Coordinates 35°16'N 75°33'E Altitude 3,000–5,000 m Area 363,600 ha Habitats Grassland; Rocky areas; Wetlands ■ Biomes AS05: Eurasian high montane			
4	Naltar Wildlife Sanctuary	Protected	■ A2 ■ A3
Admin region Hunza Coordinates 36°07'N 74°14'E Altitude 1,806–5,926 m Area 16,842 ha Habitats Forest ■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS05: Eurasian high montane; AS07: Sino-Himalayan temperate forest			
5	Kargah Wildlife Sanctuary	Protected	■ A2 ■ A3
Admin region Gilgit Coordinates 35°56'N 74°06'E Altitude 1,515–4,242 m Area 44,308 ha Habitats Forest; Grassland; Rocky areas ■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS05: Eurasian high montane; AS07: Sino-Himalayan temperate forest			
6	Handrop Shandoor National Park	Protected	■ A3
Admin region Chitral; Gilgit Coordinates 36°05'N 72°32'E Altitude 3,000–5,000 m Area 51,800 ha Habitats Grassland; Shrubland; Wetlands ■ Biomes AS05: Eurasian high montane			

Table 2. Important Bird Areas in Pakistan (North West Frontier Province).			
R = IBA is wholly or partially a Ramsar Site			
7	Dubar valley	Unprotected	■ A1 ■ A2 ■ A3
Admin region Indus Kohistan Coordinates 35°02'N 72°55'E Altitude 1,000–4,500 m Area 7,000 ha Habitats Forest; Grassland ■ Threatened species <i>Tragopan melanocephalus</i> ■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS05: Eurasian high montane; AS07: Sino-Himalayan temperate forest			
8	Kayal valley	Unprotected	■ A1 ■ A2 ■ A3
Admin region Indus Kohistan Coordinates 35°08'N 73°05'E Altitude 1,000–4,500 m Area 4,000 ha Habitats Forest; Grassland ■ Threatened species <i>Tragopan melanocephalus</i> ■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS05: Eurasian high montane; AS07: Sino-Himalayan temperate forest			
9	Palas valley	Unprotected	■ A1 ■ A2 ■ A3
Admin region Indus Kohistan Coordinates 35°06'N 73°18'E Altitude 640–5,151 m Area 141,301 ha Habitats Forest ■ Threatened species <i>Tragopan melanocephalus</i> ■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS05: Eurasian high montane; AS07: Sino-Himalayan temperate forest			
10	Naran Reserve Forest to Saif-ul-Maluk lake	Partially protected	■ A2 ■ A3
Admin region Mansehra Coordinates 34°54'N 73°40'E Altitude 2,424–4,000 m Area 3,000 ha Habitats Forest ■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS05: Eurasian high montane; AS07: Sino-Himalayan temperate forest			

Palas valley (IBA 9) has extensive Western Himalayan temperate forests and the largest known population of Western Tragopan *Tragopan melanocephalus* in the world. (PHOTO: NIGEL BEAN)



Table 2 ... continued. Important Bird Areas in Pakistan (North West Frontier Province).

11	Sharan Reserve Forest	Unprotected	■ A2 ■ A3
Admin region Indus Kohistan Coordinates 34°45'N 73°23'E Altitude 1,000–4,500 m Area 7,000 ha Habitats Forest; Grassland ■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS05: Eurasian high montane; AS07: Sino-Himalayan temperate forest			
12	Qadir Gali area	Unprotected	■ A1 ■ A2 ■ A3
Admin region Indus Kohistan Coordinates 34°43'N 73°41'E Altitude 1,000–4,500 m Area 11,000 ha Habitats Forest; Grassland ■ Threatened species <i>Tragopan melanocephalus</i> ■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS05: Eurasian high montane; AS07: Sino-Himalayan temperate forest; AS08: Sino-Himalayan subtropical forest			
13	Ayubia National Park and Kao valley, Dunga Gali	Partially protected	■ A2 ■ A3
Admin region Abbotabad Coordinates 33°52'N 73°09'E Altitude 1,828–2,200 m Area 5,000 ha Habitats Forest; Grassland ■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS07: Sino-Himalayan temperate forest			
14	Kurram River system	Partially protected	■ A4i
Admin region Kohat; Parachinar Coordinates 32°37'N 70°30'E Altitude 305–390 m Area 12,516 ha Habitats Shrubland; Wetlands ■ Congregatory waterbirds <i>Aythya nyroca</i>			
15	Indus Waterfowl Refuge	Protected^R	■ A1 ■ A2
Admin region Dera Ismail Khan Coordinates 31°50'N 70°54'E Altitude 157 m Area 3,774 ha Habitats Forest; Shrubland; Wetlands ■ Threatened species <i>Haliaeetus leucoryphus</i> , <i>Gyps bengalensis</i> , <i>Aquila clanga</i> , <i>Aquila heliaca</i> , <i>Rynchops albicollis</i> , <i>Columba eversmanni</i> , <i>Chrysomma altirostre</i> ■ Endemic Bird Areas s074: Indus plains			

Table 3. Important Bird Areas in Pakistan (Islamabad).

16	Margalla Hills National Park	Protected	■ A3
Admin region Islamabad Coordinates 33°48'N 73°10'E Altitude 456–1,580 m Area 17,386 ha Habitats Forest; Wetlands ■ Biomes AS08: Sino-Himalayan subtropical forest			

Table 4. Important Bird Areas in Pakistan (Kashmir ["Azad Kashmir"]).

17	Machiara National Park	Protected	■ A1 ■ A2 ■ A3
Admin region Muzaffarabad Coordinates 34°31'N 73°37'E Altitude 2,134–4,733 m Area 13,593 ha Habitats Forest ■ Threatened species <i>Tragopan melanocephalus</i> , <i>Catreus wallichi</i> , <i>Ficedula subrubra</i> ■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS05: Eurasian high montane; AS07: Sino-Himalayan temperate forest			
18	Salkala Wildlife Sanctuary	Protected	■ A1 ■ A2 ■ A3
Admin region – Coordinates 34°33'N 73°50'E Altitude 2,000–3,000 m Area 1,000 ha Habitats Forest; Grassland ■ Threatened species <i>Tragopan melanocephalus</i> , <i>Catreus wallichi</i> , <i>Ficedula subrubra</i> ■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS07: Sino-Himalayan temperate forest			
19	Mangla Lake	Protected	■ A1 ■ A4i,iii
Admin region Mirpur Coordinates 33°12'N 73°39'E Altitude 630 m Area 26,500 ha Habitats Wetlands ■ Threatened species <i>Marmaronetta angustirostris</i> ■ Congregatory waterbirds <i>Anas platyrhynchos</i> , <i>Anas crecca</i> , <i>Aythya ferina</i> , <i>Aythya fuligula</i>			

Table 5. Important Bird Areas in Pakistan (Punjab).

BR = IBA is wholly or partially a Biosphere Reserve; R = IBA is wholly or partially a Ramsar Site

20	Marala Game Reserve	Partially protected	■ A4i,iii
Admin region Sialkot Coordinates 32°45'N 74°31'E Altitude 250 m Area 5,400 ha Habitats Shrubland; Wetlands ■ Congregatory waterbirds <i>Anas platyrhynchos</i> , <i>Anas crecca</i>			
21	Rasool Barrage Wildlife Sanctuary	Protected	■ A4i,iii
Admin region Gujrat; Jhelum Coordinates 32°43'N 73°33'E Altitude 190 m Area 1,125 ha Habitats Shrubland; Wetlands ■ Congregatory waterbirds <i>Anas acuta</i> , <i>Anas crecca</i> , <i>Aythya ferina</i> , <i>Fulica atra</i>			
22	Head Qadirabad Game Reserve	Protected	■ A4i,iii
Admin region Gujranwala Coordinates 32°19'N 73°39'E Altitude 225 m Area 2,816 ha Habitats Shrubland; Wetlands ■ Congregatory waterbirds <i>Anas platyrhynchos</i> , <i>Anas acuta</i> , <i>Anas crecca</i>			
23	Chumbi Surla Wildlife Sanctuary	Partially protected	■ A3
Admin region Chakwal Coordinates 32°50'N 72°46'E Altitude 460–1,050 m Area 55,254 ha Habitats Forest; Shrubland ■ Biomes AS06: Irano-Turanian mountains			
24	Uchali Wetland Complex	Protected^R	■ A1 ■ A4i,iii
Admin region Khushab Coordinates 32°33'N 72°01'E Altitude 700–1,522 m Area 1,243 ha Habitats Shrubland; Wetlands ■ Threatened species <i>Pelecanus crispus</i> , <i>Oxyura leucocephala</i> , <i>Marmaronetta angustirostris</i> , <i>Haliaeetus leucoryphus</i> , <i>Gyps bengalensis</i> , <i>Aquila heliaca</i> ■ Congregatory waterbirds <i>Platalea leucorodia</i> , <i>Oxyura leucocephala</i> , <i>Fulica atra</i>			
25	Chashma Barrage Wildlife Sanctuary	Protected^R	■ A1 ■ A4i,iii
Admin region Mianwali Coordinates 32°25'N 71°22'E Altitude 225 m Area 32,700 ha Habitats Shrubland; Wetlands ■ Threatened species <i>Aquila clanga</i> , <i>Rynchops albicollis</i> , <i>Chrysomma altirostre</i> ■ Congregatory waterbirds <i>Casmerodius albus</i> , <i>Platalea leucorodia</i> , <i>Anas penelope</i> , <i>Anas acuta</i> , <i>Anas crecca</i> , <i>Netta rufina</i> , <i>Fulica atra</i>			
26	Taunsa Barrage Wildlife Sanctuary	Protected^R	■ A1 ■ A2 ■ A4i,iii
Admin region Dera Ghazi Khan; Muzaffargarh Coordinates 30°42'N 70°50'E Altitude 139 m Area 6,567 ha Habitats Wetlands ■ Threatened species <i>Marmaronetta angustirostris</i> , <i>Haliaeetus leucoryphus</i> , <i>Chrysomma altirostre</i> ■ Endemic Bird Areas s074: Indus plains ■ Congregatory waterbirds <i>Platalea leucorodia</i> , <i>Anser indicus</i> , <i>Tringa erythropus</i>			

Table 5 ... continued. Important Bird Areas in Pakistan (Punjab).

27	Rangla Wetland complex	Partially protected	■ A1 ■ A2
Admin region Muzaffargarh Coordinates 30°13'N 71°07'E Altitude 135–138 m Area 24,140 ha Habitats Desert; Shrubland			
■ Threatened species <i>Marmaronetta angustirostris</i> , <i>Haliaeetus leucoryphus</i> ■ Endemic Bird Areas s074: Indus plains			
28	Lal Sohanra National Park	Protected ^{BR}	■ A1 ■ A3 ■ A4i,iii
Admin region Bahawalpur Coordinates 29°22'N 71°57'E Altitude 106–113 m Area 51,588 ha Habitats Desert; Shrubland; Wetlands			
■ Threatened species <i>Haliaeetus leucoryphus</i> , <i>Aquila clanga</i> , <i>Aquila heliaca</i> ■ Biomes AS13: Sahara-Sindian desert ■ Congregatory waterbirds <i>Ciconia nigra</i> , <i>Anas platyrhynchos</i> , <i>Anas clypeata</i>			
29	Bijnote Bustard Game Reserve	Protected	■ A1 ■ A3
Admin region Bahawalpur Coordinates 28°43'N 70°02'E Altitude 106–113 m Area 3,500 ha Habitats Desert			
■ Threatened species <i>Ardeotis nigriceps</i> ■ Biomes AS13: Sahara-Sindian desert			

Table 6. Important Bird Areas in Pakistan (Baluchistan).

R = IBA is wholly or partially a Ramsar Site

30	Torghar Nature Sanctuary and the Shingar range	Partially protected	■ A2 ■ A3
Admin region Zhob Coordinates 31°20'N 69°10'E Altitude 1,500–2,700 m Area 7,000 ha Habitats Forest; Shrubland			
■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS06: Irano-Turanian mountains			
31	Juniper Wildlife Sanctuary Zialat	Protected	■ A2 ■ A3
Admin region Ziarat Coordinates 30°24'N 67°44'E Altitude 2,000–3,487 m Area 37,247 ha Habitats Forest			
■ Endemic Bird Areas 128: Western Himalayas ■ Biomes AS06: Irano-Turanian mountains; AS07: Sino-Himalayan temperate forest			
32	Hazarganji Chiltan National Park	Protected	■ A3
Admin region Quetta Coordinates 30°04'N 66°39'E Altitude 1,680–3,313 m Area 15,555 ha Habitats Rocky areas; Shrubland			
■ Biomes AS06: Irano-Turanian mountains; AS13: Sahara-Sindian desert			
33	Zangi Nawar	Protected	■ A1 ■ A3 ■ A4i,iii
Admin region Chagai Coordinates 29°26'N 65°46'E Altitude 975–1,000 m Area 2,070 ha Habitats Desert; Shrubland; Wetlands			
■ Threatened species <i>Marmaronetta angustirostris</i> ■ Biomes AS06: Irano-Turanian mountains; AS13: Sahara-Sindian desert ■ Congregatory waterbirds <i>Anas clypeata</i> , <i>Anas crecca</i> , <i>Marmaronetta angustirostris</i> , <i>Fulica atra</i>			
34	Ras Koh Wildlife Sanctuary	Protected	■ A3
Admin region Chagai Coordinates 28°21'N 65°04'E Altitude 600–1,000 m Area 99,498 ha Habitats Desert			
■ Biomes AS06: Irano-Turanian mountains; AS13: Sahara-Sindian desert			
35	Jiwani Beaches and Dasht Kaur	Unprotected ^R	■ A1 ■ A4i,iii
Admin region Gwadar Coordinates 25°03'N 61°45'E Altitude Sea-level Area 4,600 ha Habitats Coastline; Wetlands			
■ Threatened species <i>Pelecanus crispus</i> ■ Congregatory waterbirds <i>Pelecanus crispus</i> , <i>Phalacrocorax carbo</i>			
36	Hingol National Park	Protected	■ A1 ■ A3 ■ A4i
Admin region Kharan Coordinates 25°33'N 65°05'E Altitude 100–1,600 m Area 699,088 ha Habitats Grassland; Shrubland			
■ Threatened species <i>Pelecanus crispus</i> ■ Biomes AS06: Irano-Turanian mountains; AS13: Sahara-Sindian desert ■ Congregatory waterbirds <i>Pelecanus crispus</i>			

Table 7. Important Bird Areas in Pakistan (Sind).

R = IBA is wholly or partially a Ramsar Site

37	Indus Dolphin Reserve and Kandhkot wetlands	Partially protected	■ A1 ■ A4i,iii
Admin region Gotki; Jacobabad; Khairpur; Sukkur Coordinates 28°12'N 69°17'E Altitude 50–70 m Area 125,000 ha			
Habitats Desert; Shrubland; Wetlands			
■ Threatened species <i>Pelecanus crispus</i> , <i>Marmaronetta angustirostris</i> , <i>Haliaeetus leucoryphus</i> , <i>Aquila clanga</i> , <i>Aquila heliaca</i> , <i>Rynchops albicollis</i> , <i>Columba eversmanni</i> ■ Congregatory waterbirds <i>Phalacrocorax niger</i> , <i>Casmerodius albus</i> , <i>Anas crecca</i> , <i>Limosa limosa</i> , <i>Tringa erythropus</i> , <i>Calidris minuta</i> , <i>Glareola lactea</i> , <i>Sterna aurantia</i>			
38	Drigh Wildlife Sanctuary	Protected ^R	■ A1 ■ A4i,iii
Admin region Larkana Coordinates 27°30'N 67°50'E Altitude 50 m Area 182 ha Habitats Shrubland; Wetlands			
■ Threatened species <i>Marmaronetta angustirostris</i> , <i>Haliaeetus leucoryphus</i> , <i>Aquila clanga</i> , <i>Aquila heliaca</i> ■ Congregatory waterbirds <i>Nycticorax nycticorax</i> , <i>Anas crecca</i>			
39	Hammal Katchery Lake	Unprotected	■ A1 ■ A4i,iii
Admin region Larkana Coordinates 27°23'N 67°55'E Altitude 50 m Area 1,000 ha Habitats Wetlands			
■ Threatened species <i>Marmaronetta angustirostris</i> ■ Congregatory waterbirds <i>Anas strepera</i> , <i>Anas penelope</i> , <i>Aythya ferina</i> , <i>Fulica atra</i>			
40	Pugri Lake	Unprotected	■ A1 ■ A4i,iii
Admin region Larkana Coordinates 27°18'N 68°03'E Altitude 50 m Area 500 ha Habitats Forest; Shrubland; Wetlands			
■ Threatened species <i>Marmaronetta angustirostris</i> , <i>Haliaeetus leucoryphus</i> , <i>Aquila clanga</i> , <i>Aquila heliaca</i> ■ Congregatory waterbirds <i>Platalea leucorodia</i> , <i>Anas clypeata</i> , <i>Anas acuta</i> , <i>Anas crecca</i> , <i>Aythya ferina</i>			
41	Mehrano Reserve Lake and Rohri canal wetlands	Partially protected	■ A1
Admin region Khairpur Coordinates 27°25'N 68°37'E Altitude 60 m Area 200 ha Habitats Wetlands			
■ Threatened species <i>Marmaronetta angustirostris</i> , <i>Chrysomma altirostre</i>			
42	Nara Desert Wildlife Sanctuary	Protected	■ A1 ■ A3 ■ A4i
Admin region Khairpur; Sanghar; Sukkur Coordinates 27°08'N 69°19'E Altitude 60–80 m Area 223,590 ha Habitats Desert; Shrubland; Wetlands			
■ Threatened species <i>Marmaronetta angustirostris</i> , <i>Aquila heliaca</i> ■ Biomes AS11: Indo-Malayan tropical dry zone; AS13: Sahara-Sindian desert ■ Congregatory waterbirds <i>Ciconia nigra</i> , <i>Aythya ferina</i> , <i>Fulica atra</i>			
43	Nara canal wetlands (including Soonhari, Sadhori and Sanghriaro)	Unprotected	■ A1 ■ A4i,iii
Admin region Sanghar Coordinates 26°12'N 69°07'E Altitude 60 m Area 109,966 ha Habitats Desert; Wetlands			
■ Threatened species <i>Haliaeetus leucoryphus</i> , <i>Aquila heliaca</i> ■ Congregatory waterbirds <i>Ciconia nigra</i> , <i>Aythya ferina</i> , <i>Aythya nyroca</i> , <i>Fulica atra</i>			

Table 7... continued. Important Bird Areas in Pakistan (Sind).				
44	Deh Akro Wildlife Sanctuary		Protected^R	■ A1 ■ A4iii
Admin region Nawabshah Coordinates 26°50'N 68°20'E Altitude 60–80 m Area 20,243 ha Habitats Shrubland; Wetlands ■ Threatened species <i>Marmaronetta angustirostris</i>				
45	Manchar Lake		Unprotected	■ A1 ■ A4i,iii
Admin region Dadu Coordinates 26°25'N 67°39'E Altitude 35 m Area 6,000 ha Habitats Shrubland; Wetlands ■ Threatened species <i>Pelecanus crispus</i> , <i>Marmaronetta angustirostris</i> , <i>Haliaeetus leucoryphus</i> , <i>Aquila clanga</i> , <i>Aquila heliaca</i> , <i>Rynchops albicollis</i> ■ Congregatory waterbirds <i>Anas crecca</i> , <i>Fulica atra</i>				
46	Kirthar National Park (including Hub Dam)		Protected	■ A1 ■ A3 ■ A4i,iii
Admin region Dadu; Karachi; Malir Coordinates 25°45'N 67°30'E Altitude 70–1,004 m Area 308,773 ha Habitats Desert; Shrubland; Wetlands ■ Threatened species <i>Pelecanus crispus</i> , <i>Haliaeetus leucoryphus</i> , <i>Aquila heliaca</i> , <i>Vanellus gregarius</i> , <i>Rynchops albicollis</i> ■ Biomes AS13: Sahara-Sindian desert ■ Congregatory waterbirds <i>Podiceps nigricollis</i> , <i>Pelecanus onocrotalus</i> , <i>Netta rufina</i> , <i>Fulica atra</i>				
47	Outer Indus delta		Unprotected	■ A1 ■ A4iii
Admin region Thatta Coordinates 24°30'N 67°20'E Altitude Sea-level Area 300,000 ha Habitats Wetlands ■ Threatened species <i>Pelecanus crispus</i>				
48	Kinjhar (Kalri) Wildlife Sanctuary		Protected^R	■ A1 ■ A4i,iii
Admin region Thatta Coordinates 24°56'N 68°03'E Altitude 70 m Area 13,468 ha Habitats Shrubland; Wetlands ■ Threatened species <i>Pelecanus crispus</i> , <i>Haliaeetus leucoryphus</i> , <i>Aquila clanga</i> , <i>Aquila heliaca</i> ■ Congregatory waterbirds <i>Phalacrocorax niger</i> , <i>Phalacrocorax carbo</i> , <i>Nycticorax nycticorax</i> , <i>Anas strepera</i> , <i>Anas penelope</i> , <i>Aythya ferina</i> , <i>Aythya fuligula</i> , <i>Fulica atra</i>				
49	Keti Bundar North Wildlife Sanctuary		Protected	■ A1 ■ A4iii
Admin region Thatta Coordinates 24°25'N 67°38'E Altitude 2–5 m Area 8,948 ha Habitats Wetlands ■ Threatened species <i>Pelecanus crispus</i> , <i>Marmaronetta angustirostris</i> , <i>Aquila clanga</i> , <i>Aquila heliaca</i> , <i>Rynchops albicollis</i>				
50	Mehboob Shah Lake		Unprotected	■ A1 ■ A4i,iii
Admin region Thatta Coordinates 24°25'N 67°59'E Altitude 50 m Area 100 ha Habitats Shrubland; Wetlands ■ Threatened species <i>Marmaronetta angustirostris</i> , <i>Haliaeetus leucoryphus</i> , <i>Aquila clanga</i> ■ Congregatory waterbirds <i>Platalea leucorodia</i> , <i>Anas strepera</i> , <i>Anas penelope</i> , <i>Anas crecca</i> , <i>Aythya ferina</i>				
51	Haleji Wildlife Sanctuary		Protected	■ A1 ■ A4i,iii
Admin region Thatta Coordinates 24°48'N 67°47'E Altitude 60 m Area 1,704 ha Habitats Wetlands ■ Threatened species <i>Pelecanus crispus</i> , <i>Haliaeetus leucoryphus</i> , <i>Aquila clanga</i> , <i>Aquila heliaca</i> , <i>Rynchops albicollis</i> , <i>Columba eversmanni</i> ■ Congregatory waterbirds <i>Pelecanus crispus</i> , <i>Phalacrocorax niger</i> , <i>Phalacrocorax fuscicollis</i> , <i>Phalacrocorax carbo</i> , <i>Anas strepera</i> , <i>Anas penelope</i> , <i>Anas clypeata</i> , <i>Anas crecca</i> , <i>Aythya ferina</i> , <i>Aythya fuligula</i> , <i>Fulica atra</i> , <i>Chlidonias hybrida</i>				
52	Jubo Ramsar Site		Protected^R	■ A1 ■ A4iii
Admin region Thatta Coordinates 24°20'N 68°40'E Altitude Sea-level Area 706 ha Habitats Wetlands ■ Threatened species <i>Marmaronetta angustirostris</i> , <i>Haliaeetus leucoryphus</i> , <i>Aquila clanga</i> , <i>Aquila heliaca</i>				
53	Nar-ri Ramsar Site		Protected^R	■ A1 ■ A4iii
Admin region Badin Coordinates 24°30'N 68°47'E Altitude Sea-level Area 2,540 ha Habitats Wetlands ■ Threatened species <i>Marmaronetta angustirostris</i>				
54	Phoosna Wetlands Complex		Unprotected	■ A1 ■ A4i,iii
Admin region Badin Coordinates 24°48'N 68°54'E Altitude 40 m Area 800 ha Habitats Shrubland; Wetlands ■ Threatened species <i>Pelecanus crispus</i> , <i>Haliaeetus leucoryphus</i> , <i>Aquila clanga</i> ■ Congregatory waterbirds <i>Platalea leucorodia</i> , <i>Anas crecca</i> , <i>Aythya ferina</i>				
55	Rann of Kutch Wildlife Sanctuary		Protected^R	■ A1 ■ A3 ■ A4i,iii
Admin region Badin; Thar Parkar Coordinates 24°36'N 69°56'E Altitude 10–50 m Area 566,375 ha Habitats Desert; Wetlands ■ Threatened species <i>Gyps indicus</i> , <i>Grus antigone</i> ■ Biomes AS13: Sahara-Sindian desert ■ Congregatory waterbirds <i>Phoenicopus roseus</i> , <i>Phoenicopus minor</i> , <i>Tadorna ferruginea</i> , <i>Tadorna tadorna</i> , <i>Anas penelope</i> , <i>Anas clypeata</i> , <i>Anas acuta</i> , <i>Anas crecca</i> , <i>Grus grus</i> , <i>Charadrius alexandrinus</i> , <i>Calidris minuta</i> , <i>Philomachus pugnax</i> , <i>Recurvirostra avosetta</i>				

Arid scrubland and desert in Kirthar National Park (IBA 46). (PHOTO: PAUL GORIUP)

