Abstract: The large herds of wild asses (*Equus hemionus*) and gazelles (*Gazella spp*) which until recent times populated the steppes, have been almost exterminated by hunting. Similarly their predators, the cheetah (*Acinonyx jubatus*), have declined. It is impossible to obtain an accurate estimate of current wildlife populations due to the restricted access to important wildlife areas, however from all descriptive accounts of field workers and village project workers, there are few local sightings of wildlife species. Hunting pressure has been an increasing problem for the past several decades as indicated in FAO reports of 1973, 1977 and 1981. Of the six major protected area candidate sites identified in this report, it is feared that many of the original values of the areas may have been lost.
OPPORTUNITIES FOR IMPROVED ENVIRONMENTAL MANAGEMENT IN AFGHANISTAN

Draft Report of a Mission carried out by

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steppe or mountain conditions. Man has strongly influenced the fauna, both directly by hunting and indirectly by changing its habitat by grazing livestock, burning and fuel collection.

The large herds of wild asses (*Equus hemionus*) and gazelles (*Gazella* spp) which until recent times populated the steppes, have been almost exterminated by hunting. Similarly their predators, the cheetah (*Acinonyx jubatus*) and to a lesser degree the hyena (*Hyena hyena*), have declined. Their associated arthropod fauna, such as the dung beetles (*Scarabaeidae*) which are often host specific, have also presumably disappeared. The forests and mountains also harboured large numbers of wild goat (*Capra aegagrus*), urial (*Ovis orientalis*), ibex (*Capra ibex*), markhor (*Capra falconeri*), and Bactrian deer (*Cervus elaphus bactrianus*). These also have been much reduced by hunting and habitat degradation. Predators which are sought after for their furs such as the Turanian tiger (*Panthera tigris virgata*) (probably extinct in Afghanistan), the snow leopard (*Panthera uncia*), the leopard (*Panthera pardus*) and the wolf (*Canis lupus*) are now very rare. Only relatively protected or isolated areas such as the Pamir with its famous Marco Polo sheep (*Ovis ammon poloi*) have kept their fauna.

Afghanistan lies on the major migration routes of many birds including the rare Siberian crane (*Grus leucogeranus*), many ducks (*Anatidae*), waders and birds of prey. For these birds, the Afghan wetlands are an essential stop for resting and feeding during their migrations. Many birds also over winter in these wetlands.

Fishes and amphibians are scarce in such an arid country. Trou are found however in many mountain streams. Reptiles are abundant. The insect fauna is poor in species but certain pest species such as the desert locust are quite numerous at times. *(UNDP/FAO, 1981)*

It is impossible to obtain an accurate estimate of current wildlife populations due to the restricted access to important wildlife habitat areas, however from all descriptive accounts of field workers and village project workers, there are few local sightings of wildlife species. Occasional wolf and fox sightings are mentioned by villagers and in Mission Reports particularly in the mountaineous areas of the north-east. A quick perusal of the Kabul fur shops indicate substantial numbers of wolf and fox pelts, along with less numerous pelts of snow leopard and leopard. One shop had a baby leopard coat displayed in the window. Strings of ducks and other waterfowl are frequently seen in the market in Kabul indicating the indiscriminate shooting of birds continues.

Hunting pressure has been an increasing problem for the past several decades as indicated in FAO reports of 1973, 1977 and 1981. With a marked increase in the number of firearms due to the war, coupled with increased necessity for food and money, it would appear that wildlife species have been hunted, shot and trapped at an alarming rate. Falcons and other raptors have been
captured and sold for Arabian falconry purposes or killed indiscriminately.

Some field workers have speculated that there may be hope that some wildlife habitats temporarily cut off from hunting pressure due to mines and heavy fighting may provide a temporary sanctuary for remaining species allowing some populations to increase. However it is feared by most people interviewed that once peace returns to Afghanistan that without stringent regulations many species are doomed to extinction.

Of the six major protected area candidate sites identified in this report, it is feared that many of the original values of the areas may have been lost. Wildlife and migratory waterfowl have been shot at an increasing rate, and it is reported that birds such as the rare Siberian crane *Grus leucogeranus* have been captured in Banmu, south Waziristan where there is a traditional trade in capturing cranes to tame as domestic pets and watch dogs. (FAO, 1990)

3.6 Protected Areas

There is one national park, Bande Amir, and Ab-i-Estada and Dashteh Nawar waterfowl sanctuaries have been gazetted through orders in response to petitions submitted to the Head of State (FAO 1981). Afghanistan ratified the World Heritage Convention on March 20, 1979, however obviously with the onset of war in 1979 no further actions have been taken in the field of conservation.

The Protected Areas Data Unit of the World Conservation Monitoring Centre, Cambridge published a draft report in 1988 containing the following candidate protected areas sites:

3.6.1 Ab-i-Estada Waterfowl Sanctuary:

Located in the Hindu Kush Highlands in Ghazni Province, south-east Afghanistan, Ab-i-Estada together with Dashteh-Nawar to the North is a vital staging ground for migratory waterfowl and waders of the Siberian-Kazakhstan / Pakistan-India population, in particular the rare Siberian crane *Grus leucogeranus*, as well as essential breeding ground for the greater flamingo *Phoenicopterus roseus*. The international importance of the two sites was recognized at the 1971 Conference of the parties to the Ramsar Convention. Ab-i-Estada is also an important archaeological site exhibiting stratigraphic sequences. Several mounds representing early dwellings have been discovered with accompanying artefacts which suggest occupation Palaeolithic to Buddhist times. (Shank and Rodenberg, 1977)

In addition to damage from war, threats to the area exist from irrigation projects diverting water resulting in decreased water levels and increased salinity, as well as extensive grazing by
domestic stock. Egg collection, disturbance during breeding and hunting throughout the year are significant problems. In 1978 there were an estimated 70 Siberian cranes in the Indo-Soviet flock; only 17 Siberian cranes and known to survive in 1990. Siberian cranes have historically used Ab-i-Estada as a stopover rest site but no scientists have visited the lake in the last decade to confirm whether this is still the case.

3.6.2 Ajar Valley Wildlife Reserve

In the Hindu Kush Highlands north-west of Bamiyon, the area was used as a hunting reserve by royalty since the turn of the century and protected as such since early 1950s. Proposed as a national park by FAO on 1978 the area contained ibex Capra ibex, Bactrian deer Cervus elephas-bactrianus, feral yak Bos grunniens(E), snow-leopard Panthera uncia(E), leopard P.pardus(V), lynx Lynx lynx, wolf Canis lupus(V), jackal C. aureus, fox Vulpes vulpes, otter Lutra lutra, marten Martes foina and long tailed marmot Marmota campestris. The avifauna is also diverse recorded in the Hindu Kush with 60 species identified. Ajar Valley represents the largest tract of land in Afghanistan with an history of effective environmental protection. (Shank et al., 1977)

3.6.3 Dashte-Nawar Waterfowl Sanctuary

In south-east Afghanitan in Ghazni Province, Dashte-Nawar is an important breeding and feeding site for migratory waterfowl and waders. (along with Ab-i-Estada). It is also an important archaeological site exhibiting intact stratigraphic sequences. Several mounds representing early dwellings have been discovered with accompanying artefacts which suggest occupations from Palaeolithic to Buddhist times. (Shank and Rodenberg 1977)

3.6.4 Pamir-Buzurg Wildlife Sanctuary

In the western Wakhan Corridor on the border with USSR in Badakhshan Province, the Afghan Pamirs are among the most spectacular landscapes of central Asia providing habitat for the famous Marco Polo sheep Ovis ammon poli along with seventeen other mammal species including ibex Capra ibex. Carnivores include wolf Canis lupus, red fox Vulpes vulpes, brown bear Ursus arctos, ermine Mustela erminea, lynx Lynx lynx, and snow leopard Panthera uncia(E).

The Afghan Pamir is one of history’s greatest crossroads and migration routes for travellers. It contains valuable archaeological sites including petroglyphs probably dating to pre-Islamic times in the Wakhan Valley (Naumann, 1973) in addition to the well know sites in the Small Pamir. (Petocz et al, 1987).