

Protected Areas

Protected areas refer to the national parks, game reserves and sanctuaries. These together with their areas, distribution in the States and ecosystems are shown in Table 1 and Table 2.

There are 13 protected areas distributed in 7 States, covering 6% of Sudan's area. There is no information about the privately owned Alnagah and Almosoarat protected area which has been recently proclaimed in Nile State According to Aichi Targets, the proportion of terrestrial protected areas relative to Sudan's area is below the international standard (17%), although the proportion of marine protected areas (10%) has already been attained. The establishment of a terrestrial, a marine and Dinder-Atesh transboundary protected areas since the first National Biodiversity Action Plan is a significant progress towards attaining Aichi Targets. Albahr Alahmar alone harbors four protected areas (36%). The Tyia-Basunda-Gallabat protected area is disputed and politically not supported by the Alqadarif State government. States lacking protected areas are North State, Kassala, Alqadarif (disputed), Blue Nile, South Kordofan, East Darfur, Central Darfur and West Darfur; the latter three states have been recently established.

Table 1: Distribution of protected areas in the States and ecosystems of Sudan

Protected area	Area, km ²	State	Year	ecosstem
KhartoumBird Sanctuary	15	Khartoum	1930	Semi-desert
Sabaloga	1160	Nile	1939	Semi-desert
Jebel Alhassania	5528	Nile	2003	Desert
Sinkat	120	Red Sea	1939	Semi-desert
Tokar	630	Red Sea	1939	Semi-desert
Arkawit Game Reserve	820	Red Sea	1939	Semi-desert
Dungunab Bay National Park	2763	Red Sea	2004	Marine
Sanganeib National Park	22	Red Sear	1990	Marine
Dinder National Park*	10292	Sinnar	1936	Low rainfall woodland savanna
Wadi Howar National Park	69836	North Darfur	2001	Desert
Radom National Park	13971	South Darfur	1980	High rainfall woodland savannah
Jebel Dair National Park	330	Nort Kordofan	2010	Low rainfall woodland savannah
Tyia- Basunda-Gallabat**	567	Alqadarif	1994	Low woodland savannah

*Small portions of park area shared by Alqadarif and Annil Alazrag; **Disputed

Year = Year of establishment.

Table 2: Distribution of protected areas in ecosystems of Sudan

Ecosystem	No. of protected areas	Area, km ²	Percentage
Desert	2	75364	71
Semi-desert	5	2745	2.6

Low rainfall savannah woodland	3	11189	11
High rainfall savannah woodland	1	13971	13
Marine	2	2785	2.6
Total	13	106054	100

Except the Dinder National Park, Jebel Aldair and marine parks, most protected areas are not well managed due to lack of facilities, shortage of personnel and sometimes insecurity. There is no presence of wildlife forces in Wadi Hawar since its establishment. Small forces are operating inadequately in Jebel Alhassania and Radom National Park. Most, if not all, game reserves and Sanctuaries have not been taken care of since their proclamation. The status of Jebel Sabaloga Game Reserve, which is only a few of kilometers away from Khartoum, is uncertain. The degazetted Ar Rahad Game Reserve that is supposed to be replaced by Basunda area is disputed. In addition to that, the public attitude towards protected areas is negative. The dispute and the negative public attitude towards protected areas are due to conflicts in interest between the park policies and the interest of the local community to use the natural resources. In light of the increasing demand for land and the use of the renewable natural resources, it is imperative that all game reserves and sanctuaries that have already been established should not be dispensed of although they may be depleted to some extent. With little protection effort, the natural habitat might recover which will attract diverse wildlife. The 10 States those are deficient in protected areas, namely, Northern State, Kassala, Qadarif, Jazira, Blue Nile, White Nile State, South Kordfan, East Darfur, Central Darfur and West Darfur should be convinced to establish at least a single protected area in each State.

Threats

Numerous threats face biodiversity in protected areas, coupled with unclear wildlife policy and weakness in awareness and education programmes. Examples of these threats are Livestock overgrazing, poaching, hunting, shooting and extractive activities. The impact of the livestock trespassing into protected areas can be felt in the Dinder National Park. Most traditional grazing land around the park, which is also wet season habitat for the migratory ungulates, has been depleted. Extensive mechanized agricultural schemes have converted the natural vegetation cover into old field secondary succession, a home for reptiles and small mammals only. Most wildlife habitats are fragmented, thereby reducing chances of wildlife survival and genetic diversity. The situation inside the park is even worse. Livestock compete with some wildlife species for food. Events of disease transmission like Rinderpest and Anthrax, from livestock to wildlife, took place many times and the reverse is possible, particularly the Avian Flu. Livestock herders cut the branches of the ever-green *Balanites aegyptiaca* to feed their animals towards the end of the dry season when forage become scarce. They, together with honey collectors, burn about 30% of the park area annually. These affect biodiversity in many ways: Diseases increase wildlife mortality; the felling of *Balanites aegyptiaca* threatens its very existence, which will affect Marabou Stork that mainly roosts on it; and some wildlife species like Guinea fowl and larger ungulates, the burning depletes the vegetation cover of the small mammals as well as it affects colonies of honey bees.

Poaching is wide spread in protected areas. Populations of larger animals and game birds inside parks and outside them are considerably reduced, sometimes reaching the brink of extinction, due to poaching.