

Africa, Dams and Development

Managing impacts on biodiversity and ecosystems

What do we know about current impacts on species and wetlands ?
Defending environmental perspectives

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Figure 8.2. Richness of threatened species across continental Africa based on occurrence in countries.

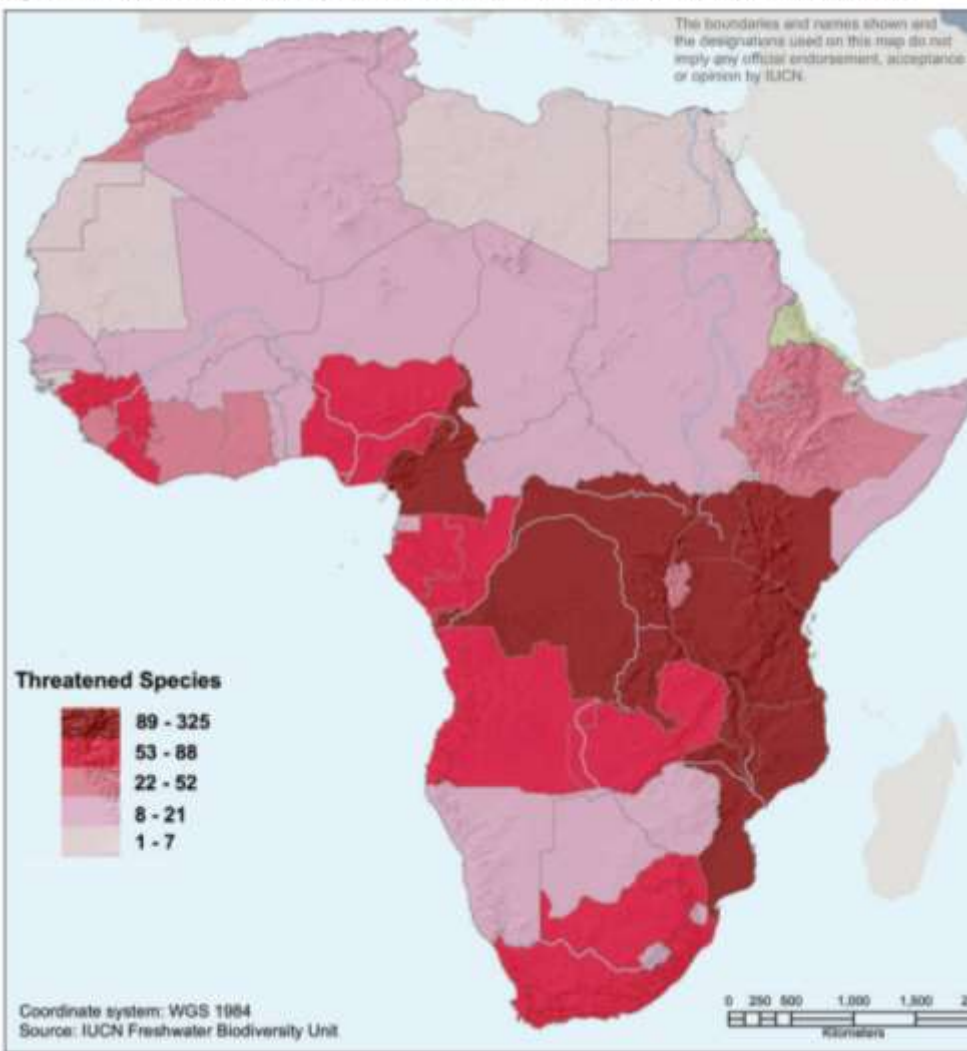
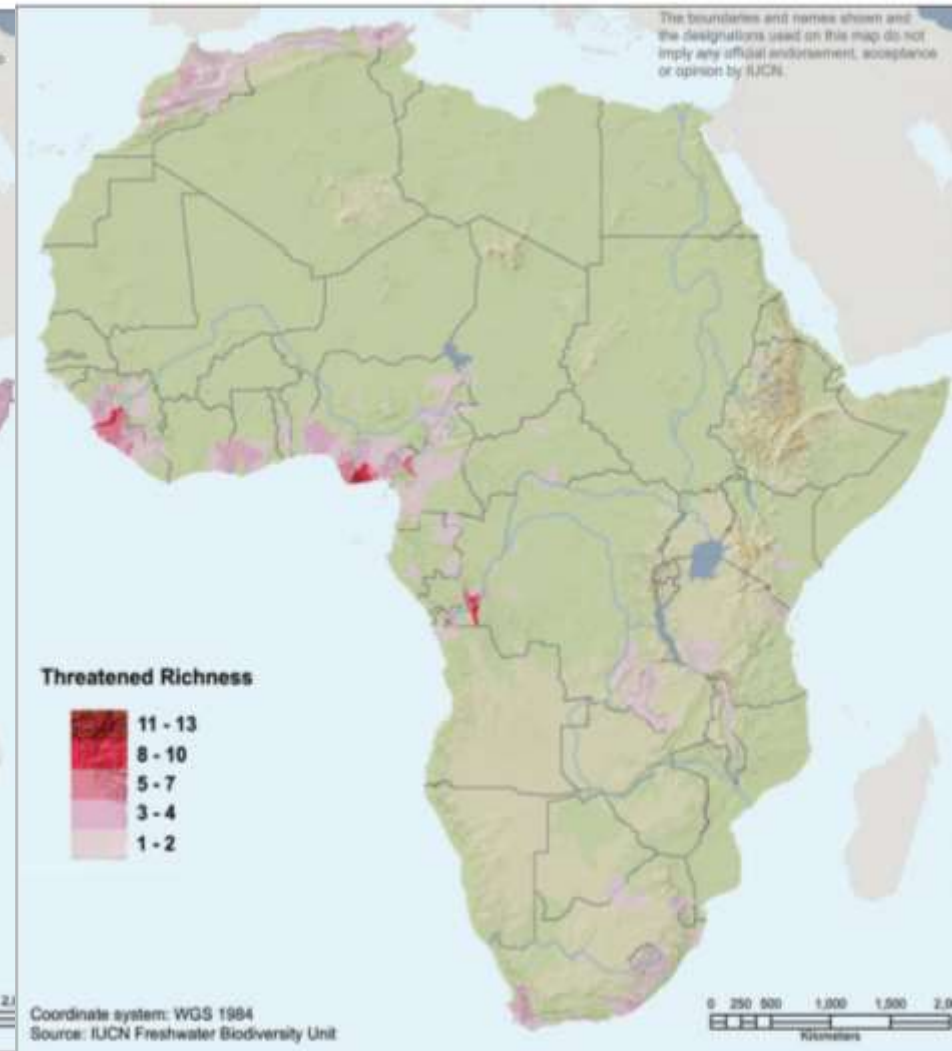


Figure 8.9. The total number of species for the five groups classified as threatened due to infrastructure development. *Threatened richness = number of threatened species per river/lake sub-catchment.*



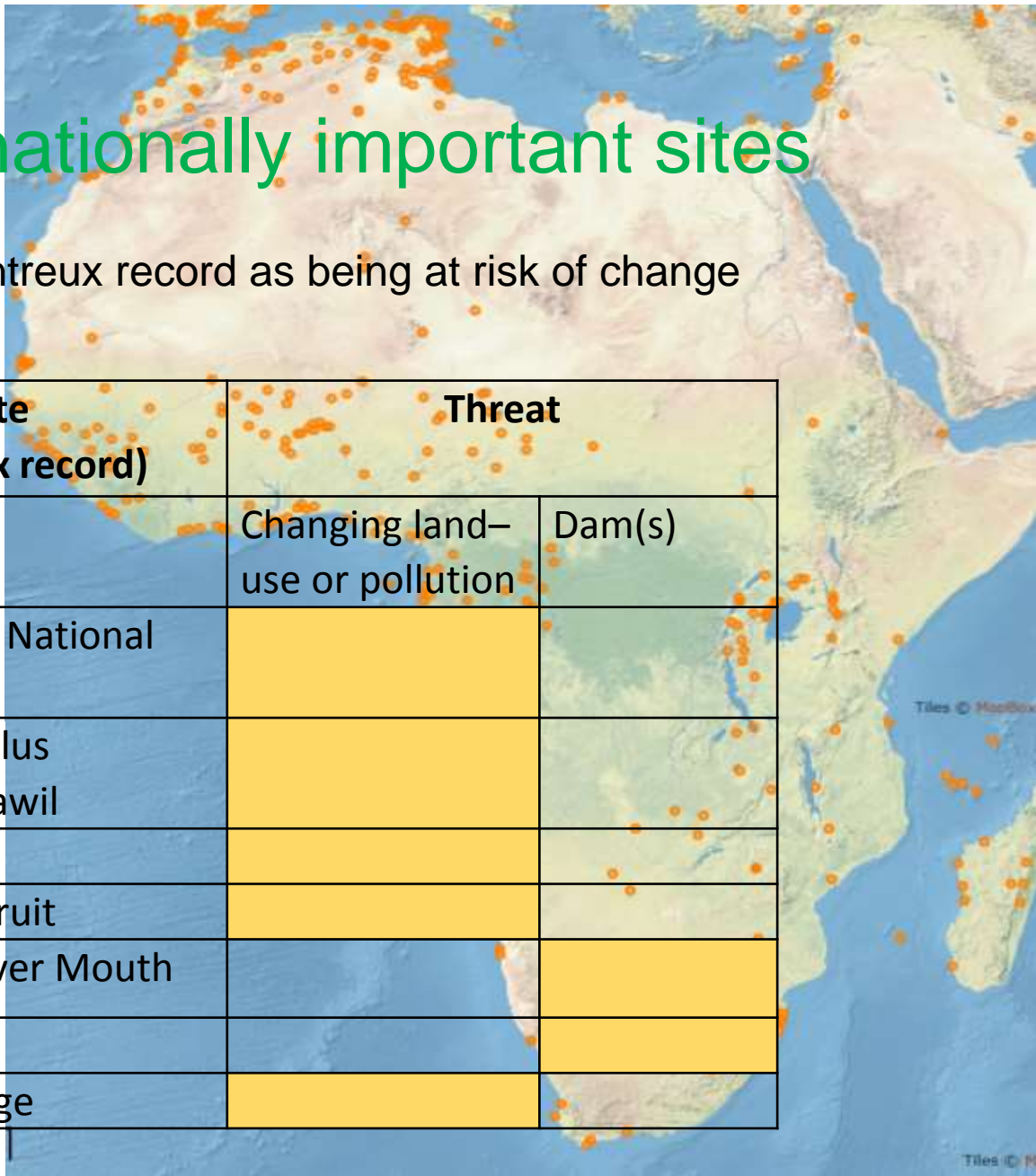
21% of African freshwater species assessed for the IUCN Red List are threatened

Impacts on internationally important sites

The Ramsar Convention registers wetland sites of international importance

8 Ramsar sites listed on Montreux record as being at risk of change to ecological character

Country	Ramsar Site (Montreux record)	Threat	
		Changing land-use or pollution	Dam(s)
Congo	Mangrove National Park		
Egypt	Lake Burullus Lake Bardawil		
Senegal	Ndaiel		
South Africa	Blesbokspruit		
	Orange River Mouth		
Tunisia	Ichkeul		
Uganda	Lake George		



Ecosystem services for people – Inner Niger Delta, Mali

	Sélingue dam	Office du Niger dam	Fomi dam
Value for :			
Agriculture	€ 152,439.02	€ 36,280,487.80	€ 6,250,000.00
Livestock	€ 152,439.02	€ 0.00	- € 1,981,707.32
Fisheries	- € 4,268,292.68	- € 1,219,512.20	- € 9,146,341.46
Biodiversity	- € 457,317.07	€ 0.00	- € 5,030,487.80
Transport	€ 304,878.05	- € 152,439.02	- € 152,439.02
Electricity	€ 10,670,731.71	€ 0.00	€ 17,987,804.88
Total benefits	€ 6,707,317.07	€ 34,756,097.56	€ 7,621,951.22
Total costs	€ 3,963,414.63	€ 22,256,097.56	€ 27,743,902.44
Net value	€ 2,743,902.44	€ 12,500,000.00	- € 20,121,951.22

Zwarts et al (2005) *the Niger – a lifeline*

Future prospects – who will stand up for the environment ?

Only 6 % of Africa's hydropower potential is developed so impacts currently limited

- Data on biodiversity distribution, and models of its responsiveness to changed flows is extremely weak – challenging to include in EIA and environmental flows.
- Ministries of environment have little political clout, indigenous NGOs are weak, and the trade-offs are usually in favour of development
- Where dams are financed by donors such as China, there are few, if any environmental safeguards applied
- Currently there is more traction to be had by promoting maintenance of ecosystem services of value to people

Who is currently advocating for ecosystem sustainability ?

