



Global Peatland Hotspot Atlas:
The State of the World's Peatlands in Maps
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Peatlands of Africa

Africa's peatlands are highly diverse, including tropical swamp forests in the Congo Basin, river floodplains in West Africa, mountain regions in East Africa, and coastal zones in South Africa. While many remain intact, over 50% are degraded in some countries due to land use and climate pressures.

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Authors

Alexandra Barthelmes (GMC/DUENE e.V.),
Cosima Tegetmeyer (GMC/DUENE e.V.), Hans Joosten (GMC/University of Greifswald), Patrick Scheel (UNEP).

Production, Coordination and Review

Patrick Scheel (UNEP), Jan Peters (GMC/MSF),
Dianna Kopansky (UNEP).

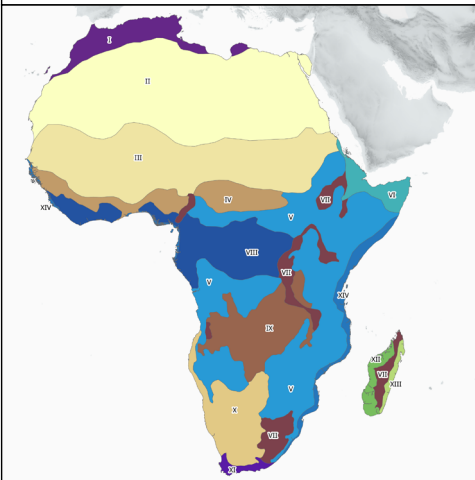
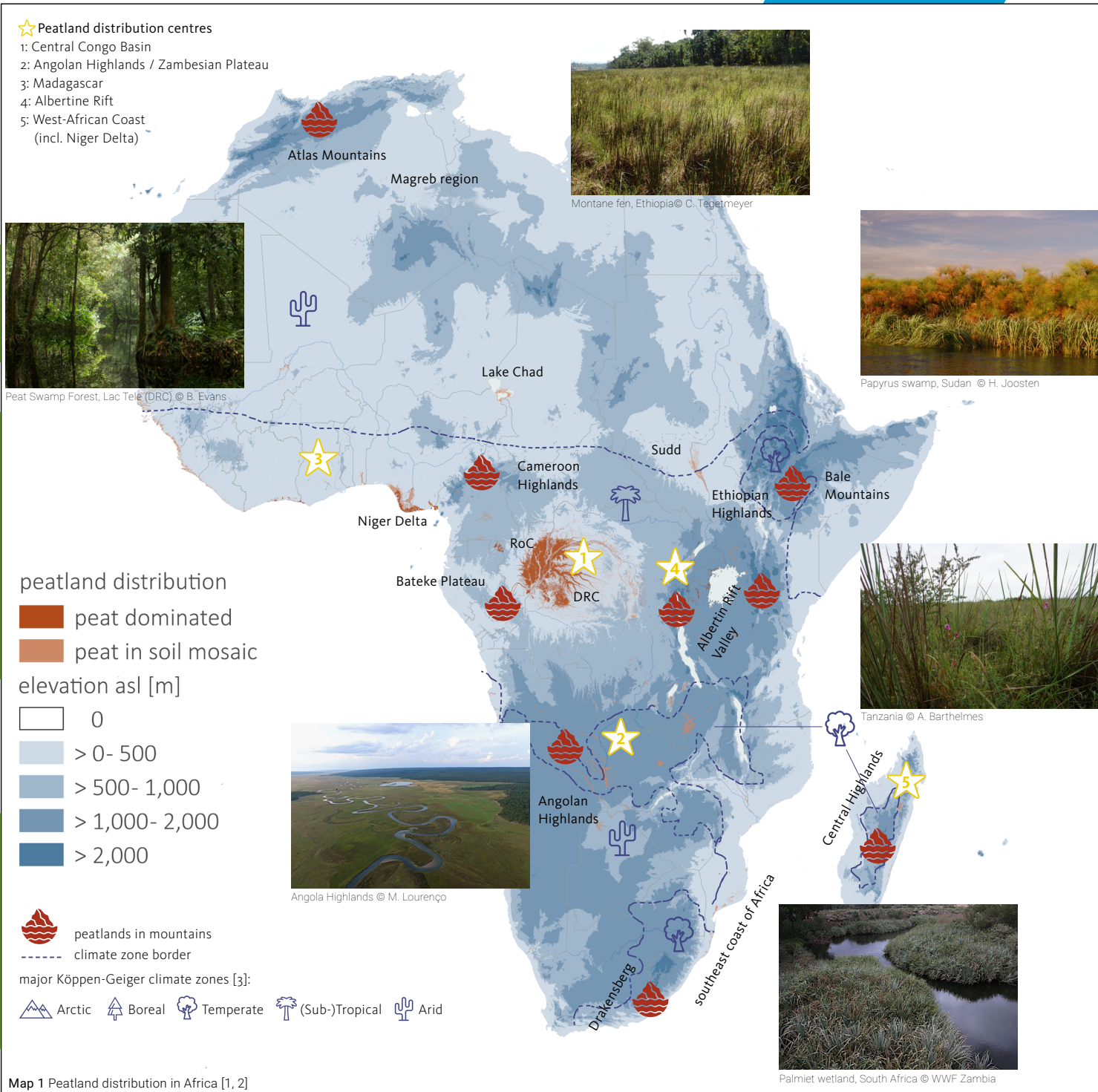
Design and layout

igel+ente, Büro für Gestaltung, Fotografie und
Kommunikation Greifswald, Germany
Anna Knüppel & Michael Schröder (www.igelundente.de)
Nora Prinz (www.noraprinz.de)

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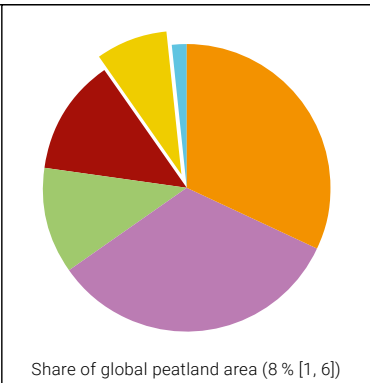
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Peatlands of Africa

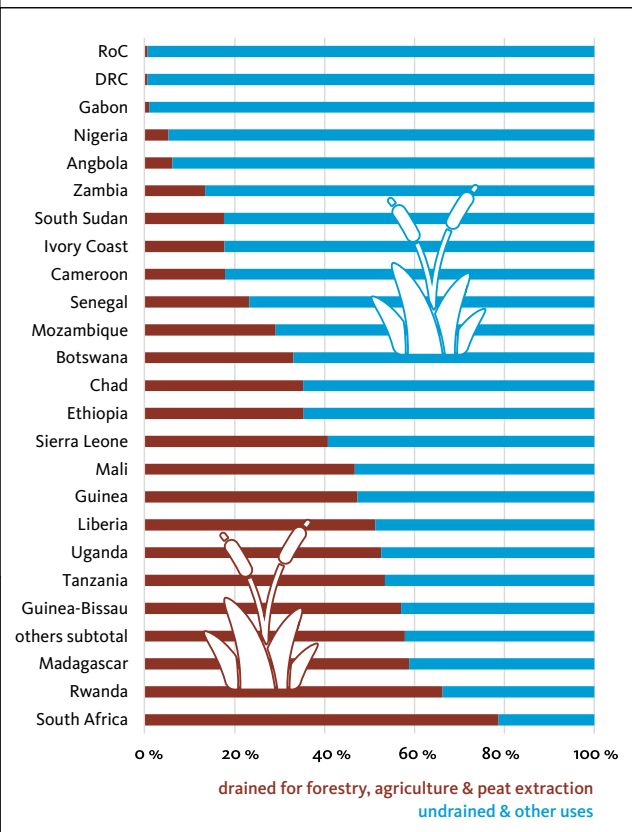


Map 2 Africa's peatland regional map [7]

I N-African Mediterranean marsh, II N-African dryland grassy marsh, III N-African flooded grassland, IV W-African wooded savannah marsh, V (Sub-)tropical savanna marsh, VI Horn of Africa dryland marsh, VII African mountain compound fen and bog, VIII African lowland (peat) swamp, IX Zambesi and Okavango flooded grassland, X S-African dryland grassy marsh, XI S-African Mediterranean marsh, XII W-Madagascar coastal and upland marsh, XIII E-Madagascar mangrove, coastal marsh and (peat) swamp, XIV African mangrove, coastal marsh and (peat) swamp



- **Total peatland area: 39 million ha**
- **Distribution: Congo Basin, Albertine Rift, Madagascar, Highlands of Zambia and Angola, West-African coast**
- **Peatland cover over total regional surface area: 1 %**
- **Share of global peatland area: 8 %**
- **Degraded peatlands: 8 %**
- **Annual GHG emissions from peatlands: 130 Mt CO₂e / yr**
- **Share of global GHG emissions from peatlands: 7 %**
- **Peatlands within protected areas: 35 %**
- **Top 5 countries with largest peatland area:**
 1. Democratic Republic of the Congo (18,157,111 ha)
 2. Republic of the Congo (9,540,799 ha)
 3. Nigeria (2,155,663 ha)
 4. Zambia (1,565,696 ha)
 5. Angola (891,630 ha)
- **Total peatland carbon stock: 36,896 Mt C [6]**
- **Threatened peatland species: Flora: 66 VU, 80 EN, 30 CR; Fauna: 81 VU, 66 EN, 31 CR [8]**
- **Ramsar Wetlands of International Importance with peat: 31 sites (7.3 % of total Ramsar sites in Africa [5])**



Africa, the second-largest landmass on Earth, boasts a diverse range of peatland types. They prevail in various regions, including the tropical zone, in mountains and on plateaus, along the coast, and in river floodplains and deltas (Map 1). The Central Congo Basin is home to the world's second-largest tropical peatland complex, including hardwood swamp forests and palm-dominated swamp forests. This region features three wetlands of international importance (Ramsar sites): the Grands Affluents and Lac Télé/Likouala-Aux-Herbes in the Republic of Congo, and the Ngiri-Tumba-Maindombe in the Democratic Republic of Congo. In 2017, both countries agreed to jointly manage these sites, creating the largest transboundary Ramsar site in the world, covering over 129,000 square kilometers of highly diverse peatland ecosystems [5]. Many peatlands in sub-Saharan Africa are associated with large river systems such as the **Sahelian** and **Zambeian floodplains**, as well as **flooded savannahs**, where mineral and organic soils are closely intertwined and **organic-rich floating mats** occur. Recently, larger peatlands have been identified in West Africa, specifically in Côte d'Ivoire and Nigeria, situated in **river floodplains dominated by *Raphia* peat swamp forests** and mangroves. Moreover, the mountains and equatorial lakes of the Great Rift Valley in East Africa host open peatlands dominated by ***Papyrus*, grasses, and sedges, as well as *Raphia*-dominated peat swamp forests. Afromontane and Afroalpine peatlands featuring *Sphagnum*, *Lobelia* and, *Dendrosenecio*** can be found above 2,000 meters above sea level in Ethiopia, Tanzania, Kenya, Rwanda, Lesotho, and South Africa [1, 2].

In the South African region, peatlands are the best explored on the continent and are predominantly located along the east coast where they include **forested peatlands and mangroves**, such as those found in the Maputaland coastal plain. In the Maghreb region of North Africa, peatlands are generally small and host **alder swamps, *Sphagnum* fens** and **peaty heaths with *Erica scoparia***. **Although only about 8 % of Africa's peatlands are degraded on a continental scale, several countries already report that more than 50 % of their peatlands are degraded [1].** Peatlands of South Africa, Burundi, Rwanda and Madagascar are heavily overused in both highlands and lowlands, mainly for agriculture. Peatlands in the Nile Basin are degrading at an alarming rate caused by agriculture, extraction, infrastructure development, and climate change, which severely impacts livelihoods, especially by affecting the provision of clean water. However, there are still large intact peatlands in Africa, such as the Sudd in South Sudan, the Angola Highlands, the Peat Swamp Forests along the coast of Côte d'Ivoire and the Cuvette Central in the Congo Basin [1, 2]. Unfortunately, recent initiatives have been announced that involve logging, oil and gas exploration, dam building, and infrastructure development in the Congo Basin putting these peatlands at significant risk.

Sources: 1. UNEP (2022) Global Peatlands Assessment – The State of the World's Peatlands: Evidence for action toward the conservation, restoration, and sustainable management of peatlands. Main Report, Global Peatlands Initiative, United Nations Environment Programme, Nairobi. 2. Greifswald Mire Centre (2022) Global Peatland Map 2.0. Underlying dataset of the UNEP Global Peatland Assessment. 3. Peat, M. C., Finlayson, B. L., McMahon, T. A. (2007) Updated world map of the Köppen-Geiger climate classification. Hydrol. Earth Syst. Sci. 11:1633-1644. 4. Angola Highland photo reproduced with permission of the National Geographic Okavango Wilderness Project. 5. Data extracted from the Ramsar Sites Information Service 6. Greifswald Mire Centre (2022) Country-wise Global Peatland emission Database (2022) Statistics for (drained) peatlands and GHG emissions in 266 countries and regions. 6. Joosten, H. (2009) The Global Peatland CO₂ Picture: Peatland status and drainage associated emissions in all countries of the World. Wetlands International, Ede, 10 p. + tables. 7. Greifswald Mire Centre (2024). Draft peatland regional maps for the World. contact: alex.barthelmes@greifswaldmire.de 8. Data extracted from the IUCN Red List of Threatened Species (VU = vulnerable; EN = endangered; CR = critically endangered).