

Protect and restore small wetlands

Despite their size, small wetlands perform valuable functions including biodiversity protection, floodwater storage, water quality maintenance and climate regulation (1, 2). Due to their diverse geographical distribution and environmental characteristics, small wetlands provide habitats for specialised plants and animals that may not be found in larger wetlands. Human activities and climate change have driven widespread loss and degradation of small wetlands causing declines or complete loss of ecological functions (3, 4). For example, small wetlands account for >80% of total wetland area in East Africa but their rapid loss has caused soil salinization and degradation, impacting agricultural productivity and social stability (5). Loss of small wetlands in North America's Prairie Pothole Region reduced groundwater recharge and summer stream flows (6).

Compared with larger wetlands, small wetlands may be more vulnerable and recover more slowly in response to conservation efforts (7, 8). Their conservation is hindered by lack of unified global definitions whilst scientific studies of small wetlands are relatively scarce (9). Their ecological and socio-economic values are often chronically underestimated. This results from different emphasis paid to wetland conservation and management by different countries (10) as well as a focus on large flagship sites. Small wetlands may be excluded from protection and conservation policies applied to other wetlands (11).

The Ramsar Convention's draft resolution on "Enhancing the Conservation and Management of Small Wetlands", adopted in November 2022, advocates integration of small wetlands within national wetland conservation strategies and designation of relevant sites as internationally important (12). Such shifts from focussing on larger sites are reflected in policy developments at different scales. For example, China's new national standard on "specifications for conservation and management of small wetlands" (13), released on 12 April 2024, is amongst the first significant national responses whilst at a smaller scale from January 2025 New York State's Department of Environmental Conservation (NYDEC) will increase protection to smaller wetlands (14). Further expanding these initiatives worldwide will require international collaboration. Conventions on Biodiversity and Climate Change should embrace protection of small wetlands and strengthen collaboration with Ramsar to achieve the Queens-Mongolia Global Biodiversity Framework, global climate goals, and the United Nations Sustainable Development Goals. Additional efforts are required to expand scientific research on small wetlands, develop projects that demonstrate their protection and restoration, and improve relevant laws and regulations.

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