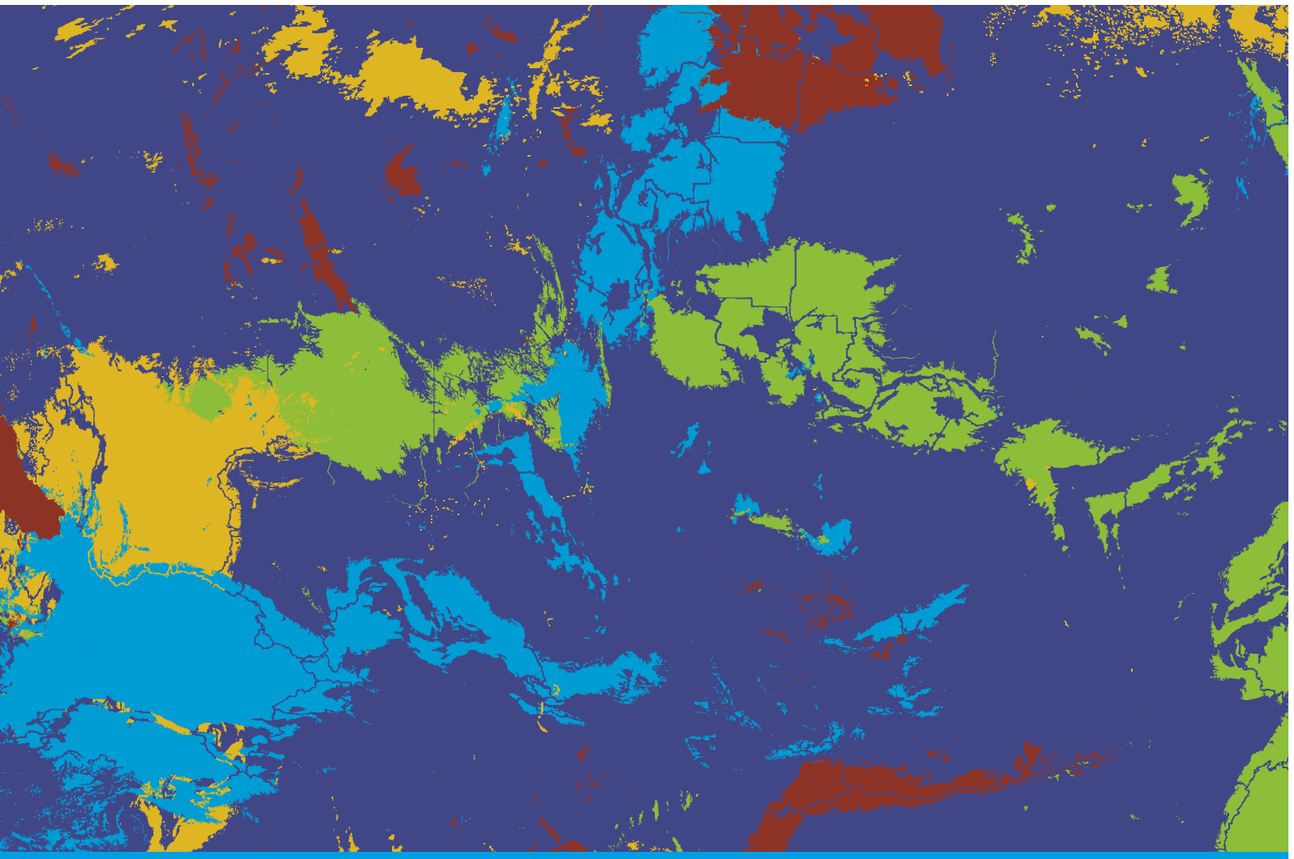
Global Peatland Hotspot Atlas:
The State of the World's Peatlands in Maps
Download the full Global Peatland Hotspot Atlas here

UN environment programme

Global Peatland Map 2.0

The Atlas builds on the Global Peatlands Assessment and accompanying Global Peatland Map 2.0. It provides the most relevant hotspot maps in a redesigned format and introduces several new maps.



Global Peatlands Initiative

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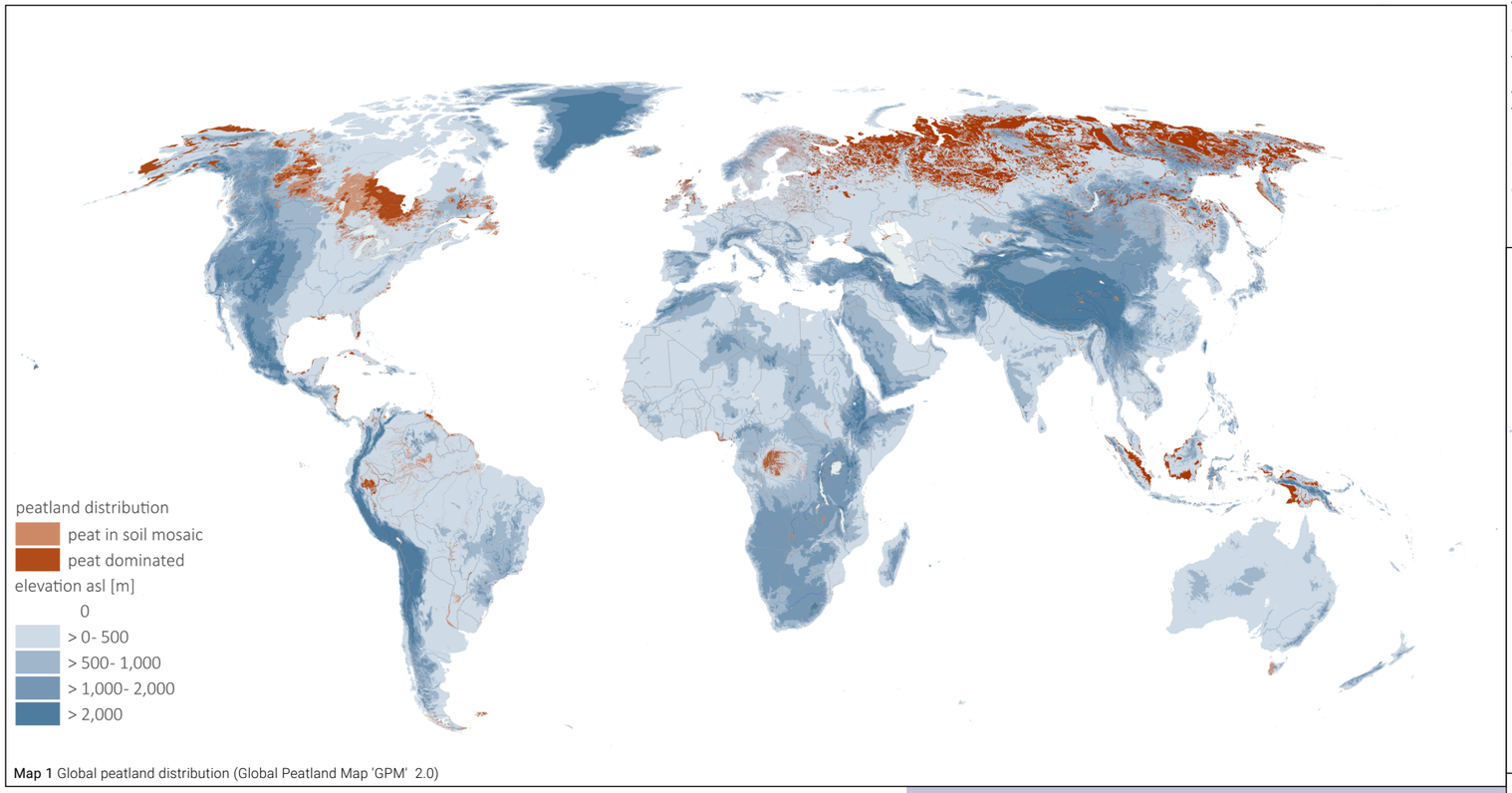
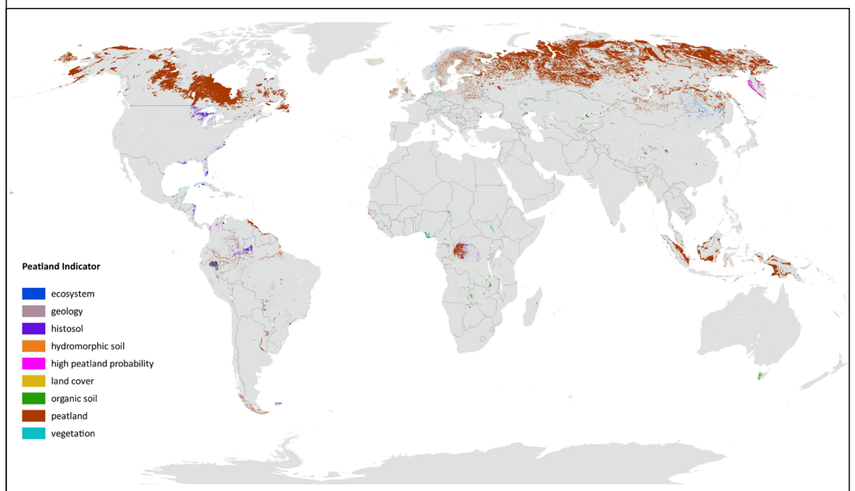
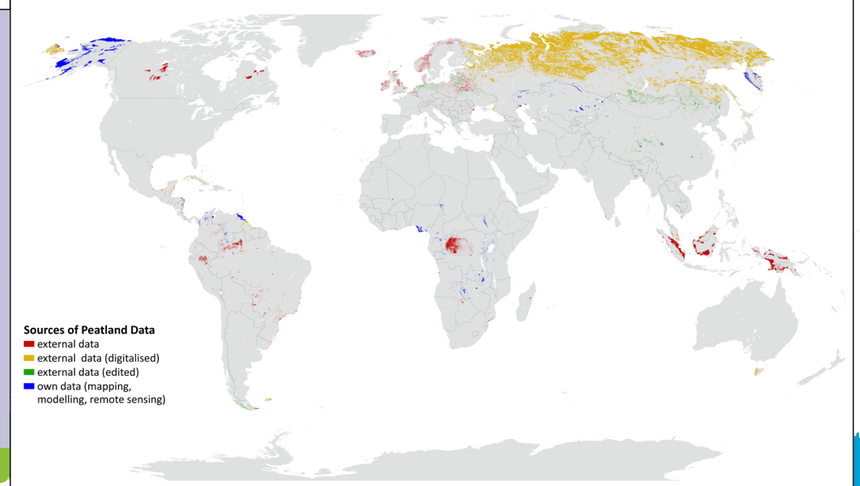


Map 1 Global peatland distribution (Global Peatland Map 'GPM' 2.0)

The Global Peatland Map 2.0 (GPM 2.0) was produced through the Global Peatlands Assessment (GPA) to compile the most up-to-date data on peatlands location and extent globally. It shows peatland occurrences divided into two classes: '1'=peat dominated, and '2'=peat in soil mosaic. The assignment of these two classes was informed by ancillary peat occurrence information, satellite imagery and Digital Elevation Model (DEM) inspection, and multiple expert knowledge. The GPM 2.0 allows decision-makers to scope potential regions for conservation, restoration, and sustainable management of peatlands. However, it does not permit a direct 1:1 comparison with ground conditions and is unsuitable for detailed, high-resolution land use planning at the local level.



Map 2 Peatland indicator data



Map 3 Sources of peatland data

The GPM 2.0 [1, 2] has been compiled by merging over 200 individual datasets of varying scales, which describe the extent of peatlands, organic soils, histosols, and include suitable proxy data indicating permanent water surplus. Following the Intergovernmental Panel on Climate Change (IPCC), no minimum thickness for the organic layer was specified to account for the often historically determined, country-specific definitions of peat and peatland. However, where such information was available, a threshold of >12 % Soil Organic Carbon (SOC) was applied to account for the relevant datasets. The input data for the GPM 2.0 were sourced largely from the Global Peatland Database (GPD) and accessed from the World Wide Web. Most of the spatial data included represent 'peatlands', 'organic soils', or 'histosols' (Map 2) and were obtained from external sources such as scientific publications on soil and peatland research, national agencies, online repositories, or directly from researchers (Map 3). To fill gaps in the coverage of these 'external data', additional peatland mapping was conducted using several methods (Map 3).

Users of the GPM 2.0 should note that this map does not yet cover all global peatlands and will be updated in future versions. Smaller peatlands, which can be numerous within certain regions, are not covered comprehensively. Moreover, the map includes "probable" peatland areas where, based on ancillary data, landscape position, and remote sensing signal, peatlands can be expected but have not been confirmed on the ground [3]. These areas are included to raise awareness and encourage more comprehensive mapping and assessment in regions where peatlands have been underrepresented or previously overlooked. For more detailed information on the methods, input data origin, and references used for the GPM 2.0, see Annex III of the Global Peatland Map 2.0 of the Global Peatlands Assessment.

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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 Initative. United Nations Environment Programme, Nairobi. 2. Greifswald Mire Centre (2022) Global Peatland Map 2.0. Underlying dataset of the UNEP Global Peatland Assessment. 3. Barthelmes, A., Balhorn, U., Couwenberg, J. (2015) Consulting study 5: Practical guidance on locating and delineating peatlands and other organic soils in the tropics. The High Carbon Stock Study 2015.