Conserve and restore peatlands to slash global emissions

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Protecting and restoring peatlands can reduce global greenhouse gas emissions by 800 million metric tonnes per year - equivalent to Germany's annual emissions - according to a new report released by the UN Environment Programme (UNEP) and the Global Peatlands Initiative (GPI). The report calls for investments of up to USD 46 billion annually by 2050 to slash almost half the emissions caused by draining and burning peatlands. The "Economics of Peatlands Conservation, Restoration and Sustainable Management" policy report, authored by Edward Barbier and Joanne Burgess of Colorado State University, identifies that the leading causes of peatland mismanagement are undervaluation and underinvestment. Filling key information gaps on peatlands, the report details the economic and environmental opportunities to boost public and private investments in peatlands protection.

Peatlands cover only 3% of the global land surface area, but store at least twice as much carbon as all of the world's forests. They are also a critical home to many endemic and threatened species.Â "Investment in peatlands is a triple win for people, the climate, and biodiversity,"Â says Professor Joanne Burgess, co-author of the report. Peatlands provide multiple ecological, economic and cultural benefits to communities around them, including sustaining water supplies and controlling pollution and sediments: over 2,300 km2 of peatlands deliver potable water to 71.4 million people worldwide and in Ireland and the UK, peatlands supply around 85% of all drinking water. Dianna Kopansky, UNEP Global Peatlands Coordinator emphasize that peatlands are an ecosystem at risk, with 15% of them being drained for grazing, agriculture, forestry, and mining. Another 5-10% of peatlands worldwide are degraded through vegetation removal or alteration. Infrastructure development is a further driver of peatland decline.Â "Unchecked, the conversion of peatlands in tropical regions could double to about 300,000 km2 by 2050. Drained peatlands are highly prone to wildfires that emit planet-warming greenhouse gases and toxic pollutants,"Â she added.Â "Peat oxidization from fires accounts for 5% of all human-related emissions. Turning them into a global carbon sink, would require rewetting 40% of drained peatlands."

Launched as part of GPI's contribution to the UN Decade on Ecosystem Restoration, the report finds that the principal cause for peatlands mismanagement is the undervaluation of their economic contributions. Commercial activities and policies that degrade and convert these high-carbon ecosystems often ignore or fail to take account of their benefits to society.Â In addition, global peatland conservation and restoration suffers from chronic underinvestment.Â The required annual investment in conservation is between USD 28.3 billion and USD 11.7 billion, but much more is needed for rewetting and restoring peatlands. Investing in cost-effective peatland restoration would have massive economic benefits, reducing global greenhouse gas emissions in tropical peatlands alone by 800 million metric tonnes per year - equivalent to Germany's total emissions and 3% of global emissions. The authors recommend ending the undervaluing of peatlands by adopting policies, regulations and other actions that ensure the full value of peatlands is taken into account. For example, by removing subsidies and other forms of financial support to agriculture, forestry, mining and other economic activities that excessively degrade or convert peatlands and allocating revenues generated or saved from subsidy removal, market-based instruments and other pricing reforms to improving peatland conservation, restoration and sustainable management. The authors also recommend ending the underinvestment in peatlands by increasing private and public funding for the protection of peatlands globally, and by establishing biodiversity offsets, payments for ecosystems services, voluntary carbon markets, REDD+, debt-for-nature swaps and green bonds.

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