



Global Peatland Hotspot Atlas:
The State of the World's Peatlands in Maps
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Urbanisation on peatland

The overall trend of rapid urbanization poses imminent threats to peatlands in rural areas and those near large cities due to drainage and degradation associated with urban development.

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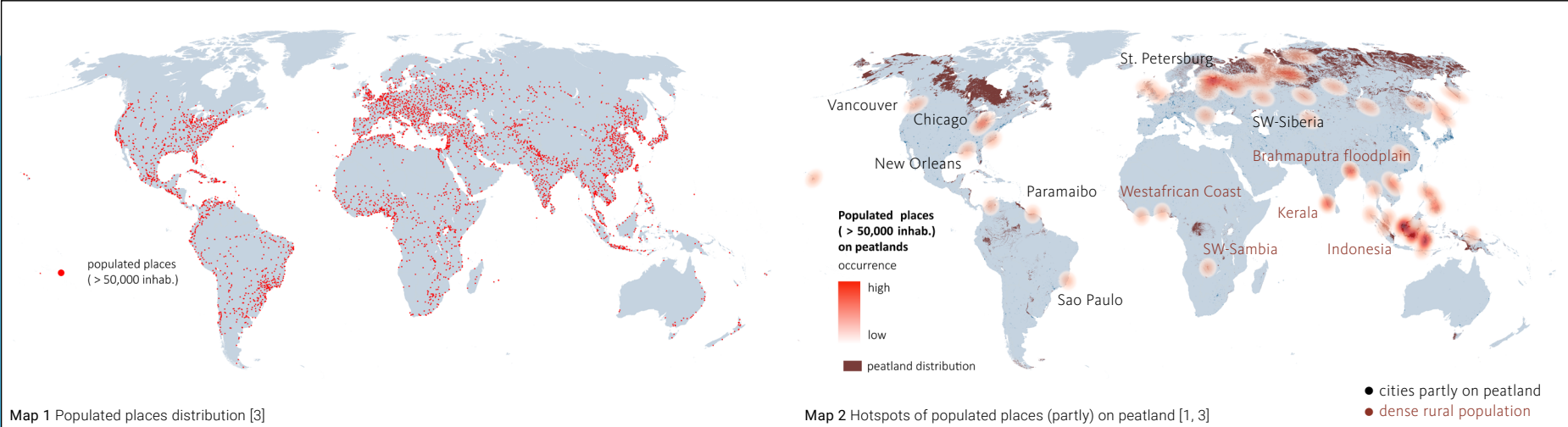
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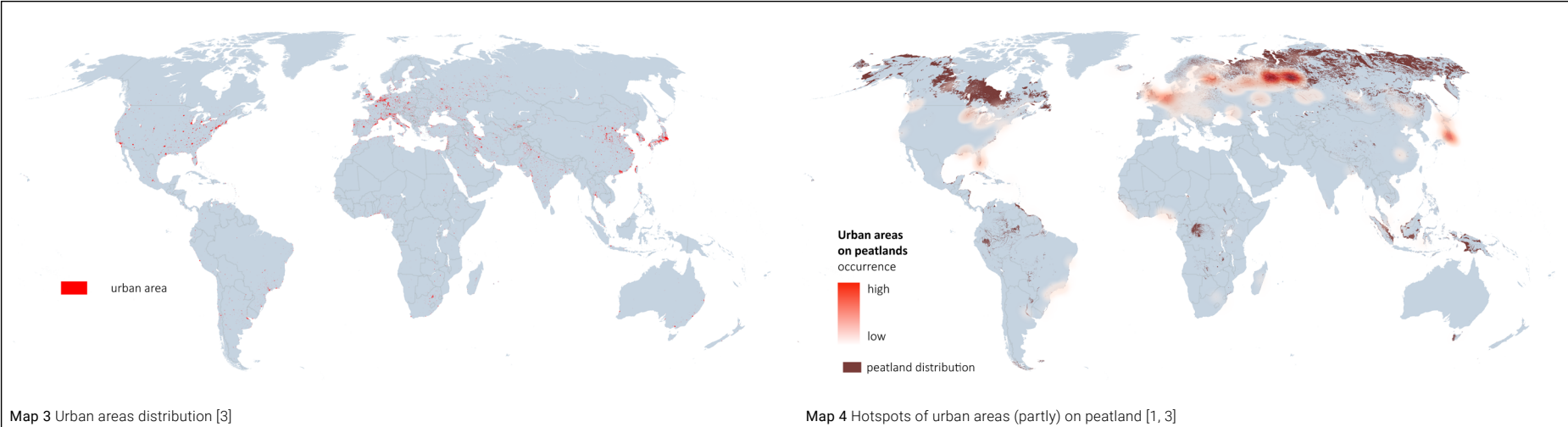
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Urbanisation on peatland

Populated places on peatland



Urban areas on peatland



The overall trend of rapid urbanization poses imminent threats to peatlands in rural areas and those near large cities due to drainage and degradation associated with urban development.



Globally, densely populated areas are located close to the world's oceans, major rivers and their deltas (Map 1). The most prominent global hotspots of populated places on peatlands are seen in Indonesia, Bangladesh, and the lowlands of Kerala, India (Map 2 [1, 3]). Additionally, the peatland area

data aligns with several major cities and densely populated rural areas worldwide. However, comparing these population density hotspots (Map 2) with urban area hotspots on peatlands (Map 4) reveals that the densely populated peatland-rich regions, particularly in Asia, have more rural settlements,

as Map 4 does not include rural settlements. Several population density hotspots around specific larger cities (Map 2) do not appear as strong urban area hotspots (Map 4), suggesting that these cities may still maintain a rural character with small houses, backyards, shanty towns, and unpaved roads, as

seen in the Barotse Floodplain (SW-Zambia), the Brahmaputra Floodplain (Bangladesh) or on Borneo (Indonesia). The hotspots of urban areas in Western Siberia correspond to very extensive peatland areas in cities with populations ranging from a few tens of thousands

to over a million inhabitants (e.g., Chanty Mansysk, Surgut, Nizhnevartovsk), which are characterized as centers of urban development within the context of peatland extension, but which do not represent significant urban area hotspots on a global scale (see Chapter 7. Methods).

Urban areas with high population densities and extensive built infrastructure on or near peatlands are more common in the northern hemisphere (Map 3). In contrast, highly populated rural regions and less developed large cities on or near peatlands are more prevalent in the global south (Map 1). In 2009, the world's urban population surpassed the portion of

people living in rural areas (figure 1). This marks a profound shift towards urbanization, with projections indicating that by 2030, approximately five billion people will live in urban centers, with major increases particularly in Africa and Asia (Figure 2). Despite occupying less than 5% of the Earth's landmass, urban centers consume over two-thirds of the world's energy and

are responsible for over 70% of CO₂ emissions. In addition, cities require huge inputs of resources that impact areas well beyond their immediate boundaries. Therefore, peatlands in formerly rural areas and those adjacent to large cities in Africa and Asia face imminent threats from drainage, construction and pollution associated with urbanization.

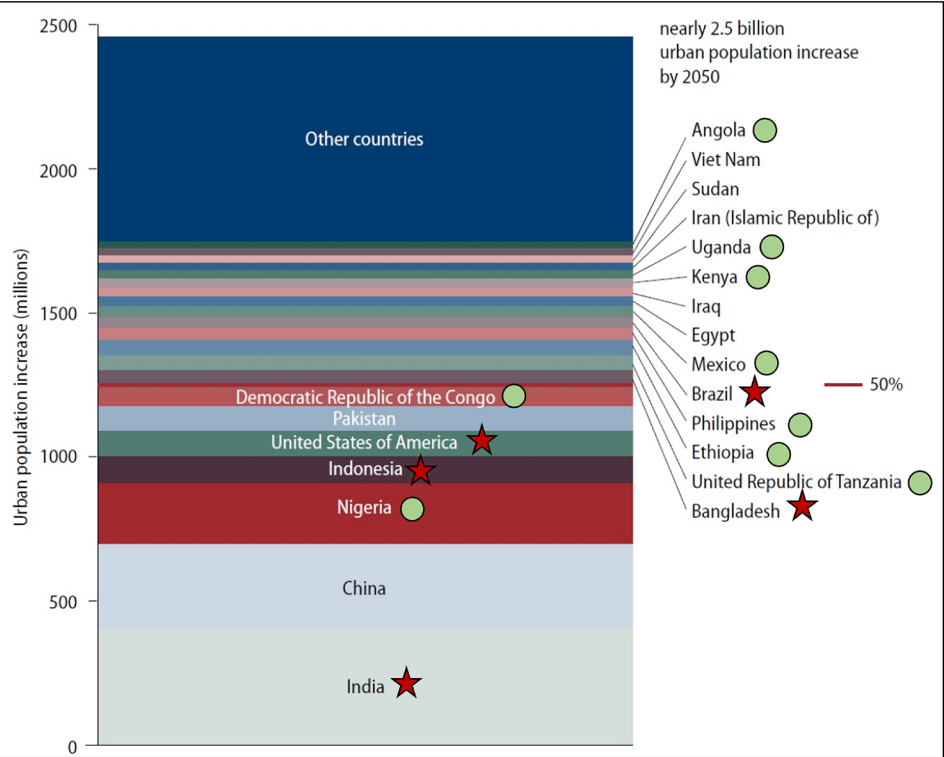


Figure 2 Contribution to the increase in urban population by country, 2014 to 2050 [2].

- ★ countries that already belong to the top 25 GHG emitters
- countries with a larger extent of pristine peatlands that may be under threat of development for agricultural use (incl. oil palm plantations)
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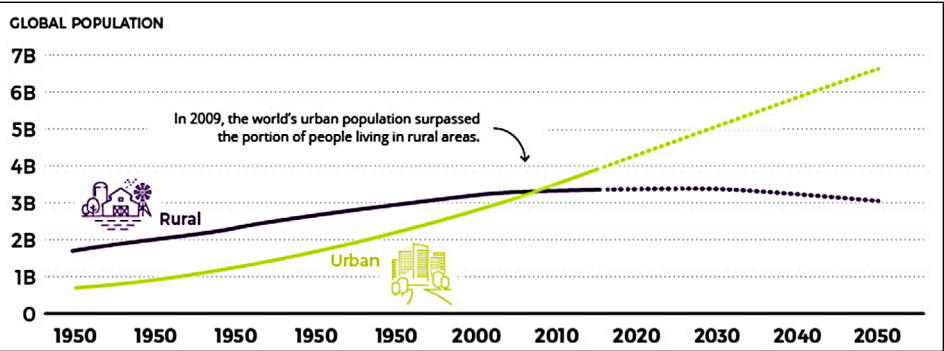


Figure 1 Global population shift from rural to urban environments [2]