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Pantanal port licence would threaten the world's largest tropical wetland

To the Editor — Brazil's Pantanal is recognized as a Natural World Heritage Site and as a Wetland of International Importance by the Ramsar Convention (Fig. 1). Brazil's 1988 Constitution recognizes the Pantanal as 'national patrimony', making any proposal that threatens the integrity of this biome unconstitutional. Nevertheless, on 26 January 2022 the Environmental Council of Mato Grosso State (CONSEMA) approved¹ the 'preliminary licence' (the key first step in the licensing process) for a port to export soybeans that would be transported through the Pantanal on barges travelling on a waterway created by dredging the Paraguay River.

In the 1990s the stretch of this river that passes through the Pantanal (the Tramo Norte) was dredged, and barges carried soy from Cáceres to Corumbá (in barges smaller than those considered to be economically viable today), but this was halted by a judicial order in 2000. After this, only boats for tourism and local commercial trade navigate on this stretch of the river. Some dredging has continued on a modest scale to remove the yearly accumulation of sediments and allow passage of boats, and in 2017 and 2018 the amount of sediment removed increased substantially.

In 2021, the National Department of Transportation Infrastructure (DNIT) signed a contract to greatly increase the amount of sediment dredged from the Tramo Norte². The plan is to transform the Tramo Norte into a large-scale navigation channel, requiring dredging at 17 sites to deepen and widen the channel³. This is the most fragile stretch of the Paraguay River⁴ and flanks three protected areas for biodiversity (Guirá State Park, Taiamã Ecological Station and Pantanal Mato-Grossense National Park, the final two being Ramsar sites), as well as one Indigenous Land (Guató) and several communities of traditional Pantanal residents (pantaneiros). The dredging lowers the water table, with effects throughout the Pantanal wetlands - in addition to the impacts of barge traffic. The proposed plan presents a weak analysis, ignores climate change scenarios that foresee severe drought seasons, and neglects socio-environmental impacts⁵.



Fig. 1 | Pantanal biome landscape. The Pantanal is a tropical wetland that covers three South American countries (Brazil, Paraguay and Bolivia). Credit: Heideger Nascimento

Although the waterway plan³ remains unapproved, on 25 January 2022 the Public Ministry of Mato Grosso issued a document⁶ pointing out that approving the proposed port as a free-standing project serves to avoid consideration of the massive impacts of the waterway plan. The licence for the port was approved on 26 January 2022 despite its environmental impact assessment (EIA) having more than 100 inconsistencies7, violating a National Committee of Wetlands (CNZU) Recommendation (no. 10/2018)8 and various legal requirements, as well as ignoring the objections raised at the Environmental Council meeting¹ by researchers, environmental agencies and nongovernmental organizations. Traditional peoples' groups have denounced both the lack of consultation as established in Convention 169 of the International Labour Organization (to which Brazil is a signatory), and the EIA having omitted the presence of traditional peoples in the area surrounding the port⁹.

Other bills currently advancing towards approval would increase the threat of the wider Pantanal waterway project. Bill 3/2022 in the Mato Grosso state legislature

would allow licensing-free soy planting in the Pantanal¹⁰. This would overturn Recommendation no. 11/2018 of the CNZU, which prohibits the cultivation of soybeans in the Pantanal¹¹. Bills advancing in the National Congress would dismantle federal environmental licensing¹², thus removing any barriers to the full complex of soy infrastructure threatening the Pantanal. The Pantanal is already suffering severe environmental impacts: it has lost 68% of its water area since 1985 (ref. 13) and it is still recovering from the unprecedented fires of 2020 — almost 1/3 of its area was burned (including areas in almost all Indigenous Lands and protected areas¹⁴), killing an estimated 17 million vertebrates¹⁵.

Proposed interventions on the river would potentially change flood pulses, profoundly altering the ecosystem of this large wetland, which has a role in global climate regulation as a carbon sink¹⁶. The intervention is also expected to disrupt the livelihoods of traditional peoples and to jeopardize the income that local residents earn from wildlife tourism and fishing^{5,9,17}.

The destruction of Pantanal is neither profitable nor positive in any aspect.

The Mato Grosso state government should reverse its decision to approve the port and ensure that decision-making is based on scientific advice, bridging the gap between science and policy for conserving this hotspot for biodiversity and ecosystem services. Decisions that threaten the Pantanal also threaten Brazil's international reputation in environmental matters and invite boycotts of Brazilian soy by importing countries.

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Author contributions

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Competing interests

The authors declare no competing interests.