



FIRES ALONG THE PARANÁ-PARAGUAY WETLAND CORRIDOR

WETLANDS INTERNATIONAL POSITION STATEMENT



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INTRODUCTION

The drought observed in the La Plata Basin impacts on the structure and functioning of natural ecosystems, compromising the well-being of important sectors of society.

The La Plata Basin is home to one of the most important wetland macro-systems in the world: the Paraná-Paraguay system, which extends from the Pantanal to the Paraná Delta, along approximately 3,400 kilometres. In this system, water is a key element that flows along the main river channels accumulating in the wetlands of their floodplains, helping to preserve the ecological processes that take place and that are key to maintaining highly productive and healthy ecosystems such as the wetlands, as well as the populations that depend on them. Among the many services that these wetlands provide, is that they constitute natural physical barriers that can help restrict the spread of fires. However, in a drought situation aggravated by the low water level of rivers in the basin, humidity levels present in the soil of this mosaic of wetlands are not sufficient to fulfill this function. As a consequence of the great amount of dry biomass in the soil and the use of burning as a practice associated with human activities, fires have flourished along this extensive river corridor of wetlands, having a marked impact on certain areas, especially on its two extremes: the Pantanal and the Paraná Delta.

The presence of fire has repeatedly reached levels of extreme gravity in dry years, alongside processes of strong anthropization. In this context, it is worrying that the States of the region continue to provide "emergency" responses instead of public policies that anticipate, prevent and minimize the risk and impact associated with fires. Consequently, the effort required to combat fires of the current magnitude end up being

Wetlands International Recommendations:

As a result of an increase in anthropic activities in and around the wetlands of the Paraná-Paraguay System, fire has become a present element and reality that deserves greater understanding, monitoring and regulation. The current situation of socio-environmental emergency along the corridor, highlights the following needs:

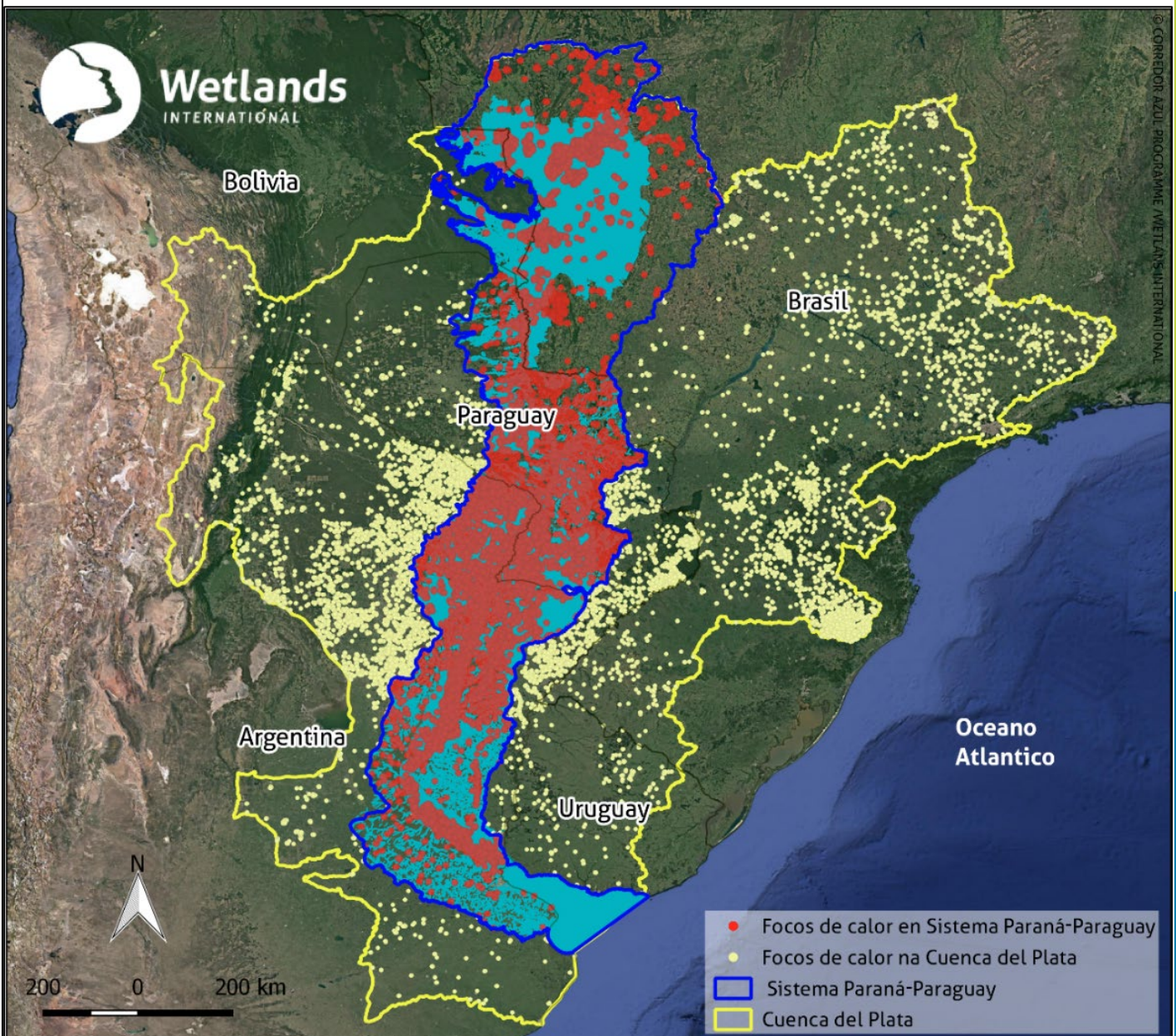
- a. To improve understanding of dry biomass (fuel) accumulation cycles in wetlands and its monitoring in years of extreme drought as a prevention strategy.
- b. To promote better practice and alternatives that limit the use of fire as a productive practice in these environments, a serious consideration of the cost, benefits and externalities on the environment and society, implied by each productive situation.
- c. To plan and regulate conditions for the concession of authorizations for controlled burning, considering the heterogeneity of the wetland regions, differentiating landscape units according to the present vegetation and considering flooding and biomass accumulation cycles.
- d. To maximize existing institutional spaces to strengthen interjurisdictional coordination, information exchange and the establishment of action protocols once the situation exceeds acceptable thresholds.
- e. To improve on the scale of environmental management of the territory in a harmonized way among the different political levels of organization and jurisdictions that share the wetland system.
- f. To increase the presence and territorial control of different state authorities with competence to act in the matter, promoting links and channels of dialogue with the communities that live, work, study and produce in the wetlands.
- g. To promote capacity building actions in methodology and technology for integrated fire management and restoration of affected areas.
- h. To explore public-private partnerships for the development of resources that will allow installment of permanent bases, improve equipment and strengthen capacity to respond quickly to future fire episodes.

unquestionably more costly than maintaining permanent monitoring and prevention programmes and measures. At the same time, preventive actions could avoid the kind of social, economic and environmental losses we face today.

WEATHER VARIABILITY IN THE LA PLATA BASIN

The rainfall in the La Plata River Plate Basin in 2019 and 2020 was one of the lowest on record. In terms of water volume in the La Plata Basin, these changes appear amplified so the response to a decrease in precipitation is a more than proportionally reduced water flow.

Future projections show an increase in the range of flow level variability, with increasingly intense maximum and minimum levels. In other words, while the average values would not change significantly, there would be very significant changes in extreme flow rates. In addition, forecasts indicate long drought periods in the months usually characterised as rainy. Similarly, rainy periods tend to be shorter with heavier and more concentrated rainfall, both in geographical location and time span. In recent years, the seasonal dynamic of rain and drought in the region has been going through a series of alterations, and projections point to even more intense changes.



The most realistic climate change scenarios in the Paraguay Basin for the period 2011-2040, point to temperature increases of over 2°C and reduced precipitation by approximately -15%. The consequent reduction in flow rates would reach -13% in the Pantanal during this period. In the Upper Paraguay Basin, which is responsible for the hydrological functioning of the Pantanal, water flow rates registered historical low levels this year, comparable to the biggest droughts that have affected the region. The water shortage scenario is the most dramatic in 50 years and the rainfall forecast for the coming months will not be enough to replenish the system. As a result, the Brazilian Pantanal is facing a record number of fires since records began in 1998. Although fires had already reached worrying levels by 2005 (6,296 outbreaks), by August 2020 some 10,000 heat sources had been recorded in the Brazilian Pantanal, affecting 10% of its entire territory, equivalent to 1.55 million hectares.

On the other hand, since February 2020, water flow levels in the Lower Paraná River Basin have, on average, been registering their lowest levels for decades. According to the Argentine National Weather Service, the anomaly in average rainfall for this fluvial region so far (in 2020) makes it one of the driest periods in the last 60 years and, consequently, the amount of water stored in the soil profile has been gradually decreasing. In the Paraná Delta, fires have flourished, surpassing 26,000 heat sources since the beginning of 2020, affecting the territory governed by the Integrated Strategic Plan for the Conservation and Sustainable Use of the Paraná Delta (PIECAS-DP), which includes the jurisdiction of the provinces of Buenos Aires, Santa Fe and Entre Ríos, as well as the National Parks Administration. Although in May 2008, fires also reached worrying levels (4,500 heat sources), by the end of August 2020, more than 15,000 heat sources were recorded in the Paraná Delta, making this month the record breaker. According to recent estimates, this signifies some 350,000 hectares being affected by fire, or 20% of the total territory of the Paraná Delta.

It is worth noting that numerous fires have also burned large areas of wetlands in north east Argentina, in the provinces of Chaco and Santa Fe. As a striking example of the seriousness of the situation, it is estimated that 80% of the Jaaukanigás Ramsar Site was severely affected by fire.

LOCAL REACTIONS TO THE EMERGENCY AND REPERCUSSIONS

As part of a broad collective of civil society organisations, research institutions and local communities in both the Pantanal and the Paraná Delta, we began alerting ministries and authorities at national and sub-national levels, requesting an early response plan to reduce the risk of disaster resulting from the advance of fires. In this way we were seeking to avoid the repetition of events which had taken place in the region in recent years with string impacts on the environment and society.

The magnitude of the scale reached by the fires in the Paraná Delta and the intensity of the impact on nature and society catalysed the Argentine Supreme Court of Justice to issue a preliminary injunction on August 11 of 2020. As a result of this act, the provinces of Santa Fe, Entre Ríos and Buenos Aires and the municipalities of Victoria and Rosario decided to set up an Environmental Emergency Committee to deal with the urgent need for action within an institutional framework coordinated at the national level. In the Pantanal, the Integrated Command of Operation Pantanal II was set up, made up of actors from the municipalities and provincial states, in Mato Grosso do Sul it was coordinated by the Brazilian Navy and in Mato Grosso by the Military Fire Brigade. They were joined by the Air Force, the Army, the Secretariat of the Environment, Civil Defence and the IBAMA Fire Prevention Programme (Prev-Fogo). This combat group is supported by civil society organisations and rural landowners, as well as by volunteer citizens. But despite all the effort and good intentions, Operation Pantanal II is proving insufficient in the face of the magnitude and intensity of the fires.

Although climate variability, changes in land use, and global climate change are driving forces affecting the hydrological functioning of the region's wetlands, it is noteworthy that they are not

sufficiently taken into account in fire management and control procedures. Likewise, fire sources that would otherwise be controllable now constitute a threat of catastrophic proportions along the entire Paraná-Paraguay river corridor.

The above-mentioned facts raise the need to rethink procedures, policies and regulations regarding the use of fire in wetlands, but also the need to review and strengthen firefighting response capacities in our region.

A CALL TO ACTION

Wetlands International, as an International Organization Partner of the Convention on Wetlands of International Importance (Ramsar Convention), calls on governments, regional organisations and the international community to articulate efforts to seek permanent answers to the problem of fires that affect the connectivity and health of the Paraná-Paraguay Wetland System. To this end:

- We request fostering dialogue and technical cooperation between the five countries of the La Plata Basin in order to find sustainable solutions and to meet the commitments assumed by the countries of the region with regard to regional agreements and international conventions.
- We emphasize the importance of prioritizing existing spaces and mechanisms for transboundary collaboration (Regional Initiative for the Conservation and Sustainable Use of the La Plata Basin Wetlands, MERCOSUR Environmental Emergency Protocol, among others).
- We stress the need for installing monitoring, regulation and control measures for the use of fire as a productive practice, especially considering the risks of its use in periods of drought and great vulnerability and the risk of disaster, carrying out periodic reviews of permits in the light of changes in land use and climate variability.
- We reiterate the importance of strengthening the integrated management of water resources in the face of the recurrence of periods of extreme drought in the La Plata Basin, introducing the environmental flow approach as a tool to define the quantity of water needed to deal with risk situations and maintain the ecosystemic integrity of the wetlands.
- We urge competent institutions and governments to address with commitment the critical transboundary issues already identified by the programme Framework for the Sustainable Management of the Water Resources of the La Plata Basin, in particular, actions linked to the Loss and Degradation of Habitats and Climate Variability and Change, as these are closely related to fires and their effects.
- We especially stress the importance of guaranteeing permanent consultation and participation mechanisms which include local communities in the decision-making process.
- We note with concern cuts or decreases in budget allocations to environmental agencies and fire monitoring and control systems in some countries in the region.
- We highlight the fundamental role of Protected Areas, Ramsar Sites and the corridors that connect them as key allies in policies and programmes for fire prevention, fire fighting and management based on their management experience, technical knowledge, territorial knowledge and their capacity to articulate with relevant local actors.
- We encourage governments in the region to strengthen mechanisms for the exchange, joint production and integration of knowledge in regional public policies by generating useful information for decision-making.

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We are the global not-for-profit organisation dedicated to the conservation and restoration of wetlands. Our vision is a world where wetlands are treasured and nurtured for their beauty, the life they support and the resources they provide.



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