



Presenter's name: Suraya Damas de Oliveira Modaelli
Author's name: Suraya Damas de Oliveira Modaelli
Research Title: Strengthening Governance: Water Crisis in the Paranapanema River Basin
Institution(s): Agência de Águas do Estado de São Paulo, Comitê da Bacia Hidrográfica do Rio Paranapanema, Comitê da Bacia Hidrográfica do Médio Paranapanema e Comitê da Bacia Hidrográfica dos Rios Aguapeí e Peixe
Email Address: suraya.modaelli@gmail.com



Introduction

Water resource management in Brazil (Law 9433/97) is decentralized by river basins and participatory, with representation from public authorities, civil entities and water resource users. This management is also integrated in all aspects.

The Paranapanema River connects the states of São Paulo and Paraná. In 2012, the Paranapanema River Basin Committee was established with the role of integrating the six state basin committees that make up the river basin, and the responsibility of promoting dialogue, coordinating the actions of the entities, and arbitrating, in the first administrative instance, conflicts related to water resources.

The Paranapanema River has 11 reservoirs, generating more than 4% of the energy consumed in the country. In 2019, it experienced the most severe water crisis ever recorded, due to low rainfall. The Committee was activated by water users and municipalities because of the low reservoir levels.

Methodology

In coordination with the National Water Agency (ANA), the Paranapanema Crisis Room was established in 2019, with the participation of government entities involved in reservoir operations and the state management bodies, São Paulo State Water Agency (SP Águas) and Paraná Water and Land Institute (IAT).

The Committee mobilized sectors to propose a viable solution, maintaining energy generation and ensuring water access for users. Communication efforts were intensified to inform and train society about reservoir management, notably through the Paranapanema Reservoirs Report Series, which received the ANA Award in 2023.

In coordination and consensus with the management bodies SP Águas and IAT, reservoir behavior modeling was carried out, resulting in a proposal for a Resolution with operational rules, by ANA. The Committee actively engaged in the Public Consultation process, which received 68 contributions.

Results and discussion

In September 2022, ANA Resolution No. 132 was approved, the result of the Committee's leading role as a conflict mediator. The Resolution was awarded the Gold Seal by the Ministry of Development within the Good Regulatory Practices Seal program.

In 2024, facing a new water crisis in the Basin, but with the operational rules in place, the impacts on reservoir uses were minimized, a minimum of 20% of useful volume was maintained, and water governance was strengthened at all levels in the River Basin.

The crisis became an opportunity for institutions operating in the Basin, in a decentralized manner, to establish participatory agreements and plans, ensuring access to water resources among different uses and users, and minimizing conflicts in the River Basin.

Conclusions and Recommendations

The water crisis in the Paranapanema River Basin revealed the strength and effectiveness of a decentralized, participatory, and integrated management model, as established by Law No. 9.433/1997. The actions of the Paranapanema River Basin Committee, in coordinating a Crisis Room in partnership with the National Water and Sanitation Agency (ANA) and state agencies, demonstrated that even under adverse conditions, the basin's institutions are capable of engaging in dialogue, reconciling interests, and adopting operational measures to safeguard water and energy supplies.

The work carried out shows that the crisis, beyond presenting challenges, became an opportunity to consolidate cooperation among the basin's stakeholders. The Paranapanema River Basin Committee established itself as a mediator and coordinator, promoting agreements and participatory plans that ensure greater equity in water access, reduce potential conflicts, and reinforce the basin's resilience in the face of extreme events.

It is recommended to permanently strengthen the Monitoring Room, ensuring that the operational ranges continue to be applied transparently and effectively, while also enabling more agile responses to future scarcity events. Through the Monitoring Room, periodic assessments of the Resolution's impacts must also be conducted, so that the regulatory measures remain effective and adaptable to future conditions.

The Integrated Water Resources Plan for the Paranapanema River must continue to be the basis for long-term planning, and its review should reinstate planned actions with a particular focus on water security. It is essential to continue encouraging public participation, and the dissemination of information must remain a priority to educate and engage the basin's various audiences, thereby promoting a more inclusive water governance culture.

Acknowledgement

This institutional progress was recognized with the Gold Seal for Regulatory Best Practices, awarded in 2022 by the Ministry of Development, Industry, Trade, and Services (MDIC), which distinguishes normative acts aligned with best regulatory practices, highlighting the regulatory maturity achieved in the basin.

The Committee's Reporting Series, which presented the topic in an educational manner, was also recognized with the ANA Award 2023—one of Brazil's most prestigious honors dedicated to water resources, granted to initiatives that stand out for their excellence in promoting water security, management, and the sustainable use of water resources.