

NATURAL RESOURCES AND THE ENVIRONMENT

National Confederation of Industry
Brazil
CNI. THE STRENGTH OF THE BRAZILIAN INDUSTRYWATER SECURITY: A NEW RISK TO
COMPETITIVENESS

- *Water resources are essential for sustaining life, for agriculture, for hydroelectric power generation, and for industry.*
- *Despite the large availability of water in Brazil, regions in the country have faced long periods of drought and water rationing has been implemented even in large urban centers such as Campina Grande, São Paulo and the Federal District.*
- *The risk of running out of water is exacerbated by lack of institutional coordination, by regulatory problems that generate legal uncertainty, and by low investments in operating and maintaining water infrastructure and sanitation projects.*

Water security challenges stem from the inability of water supply to meet water demand and are aggravated by the lack of investment in water infrastructure and by water management issues. Good water resource management requires implementing efficient water allocation mechanisms from the economic and social perspective while respecting environmental limits.

Brazil has good overall water availability, but with major regional distortions. The Amazon river basin accounts for 83% of water availability, 5% of the Brazilian population and 3.7% of Brazilian GDP. The Southeast Atlantic Region has 1.7% of water availability and 136.7 inhabitants per km² and accounts for 17.7% of the GDP. Water uses also differ according to regional production profiles.

Over the last five years, climatic variability has led to even more prolonged and intense droughts. The water crises that hit the country affected industrial production, either directly or by disrupting some links in the supply chain. The condition in the Northeast region since 2012, in the Southeast region between 2014 and 2015, and in the Midwest region and the São Francisco River Basin in recent years has had a direct impact on population supply, agricultural production, hydroelectric generation and industrial production.

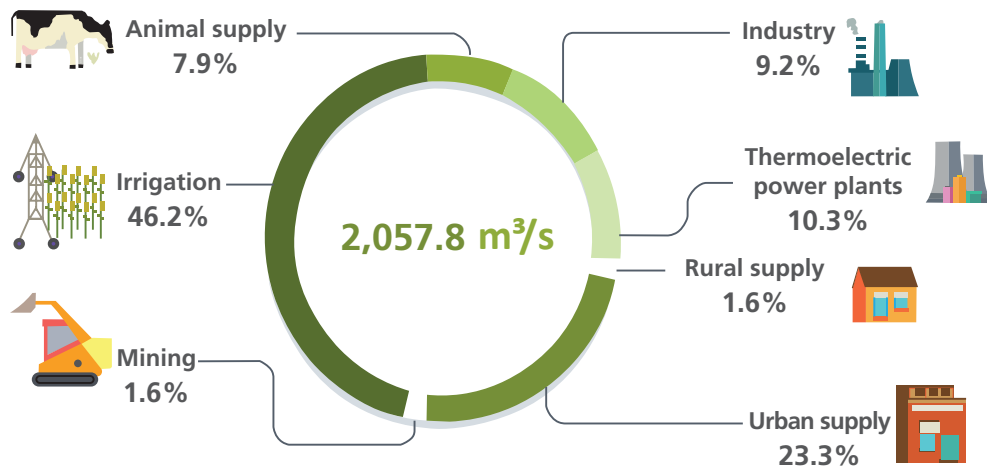
The National Water Resources Policy is based on modern water management principles. However, the water crises faced by Brazil evince the need to improve operational aspects of the National Water Resources Policy. Special attention should be given to the need to qualify instruments for charging for and granting the right to use water resources.

Investing in the sanitation sector is key to ensuring water security. An inefficient provision of sanitation services and water pollution generate costs for both companies and society. When effluents are discharged without previous treatment into water bodies, they not only push up costs for the productive sector but also cause damages to human health and degrade ecosystems. Water losses jeopardize allowable flow rates and limit economic activity in critical watersheds.

Main recommendations

1 Effective mechanisms should be implemented to improve the inter-institutional coordination between the federal government and states and among the National Water Resources Policy, the National Environment Policy and policies governing investment in water users sectors.

TOTAL WATER WITHDRAWAL IN BRAZIL / TOTAL WITHDRAWAL 2,057.8 M³/S



Source: NATIONAL WATER AGENCY - ANA. Conjuntura recursos hídricos 2017. Brasília: ANA, 2017.

2 Mechanisms should be regulated to delegate the granting of the right to use water resources owned by the federal government and to operate and fully maintain multi-use water infrastructure projects in the states.

3 A specific module should be included in the National Information System on Water Resources with the aim of systematizing socioeconomic information and its relation to the situation of water systems and incorporating Industry 4.0 technologies.

4 A new regulatory framework for sanitation should be established, encouraging private participation in investments by facilitating sub-concessions, making program contracts more flexible, and considering sanitation services as regional in nature.

5 Mechanisms for attracting private capital for investment in water infrastructure should be modernized by revising the Presidential veto to Article 28 of Law 9.433/1997, thus allowing water storage or external supply costs to be estimated and shared. The operation of the São Francisco River Integration Project should guarantee the quality of

raw water supply services and the application of low tariffs.

6 A regulatory environment should be created that provides legal certainty for investors, operators and users of reused water from treated effluents. Reuse water production should be decoupled from the sanitation sector.

7 Paragraph 2 of Article 4 of Law 9,984 of July 2000 and the provision set out in item VII of Article 7 should be regulated, defining clear and transparent criteria and procedures for preventive rationing as well as a general rule for defining priorities for granting rights to use water resources.

8 Reference flow rates should be defined in a flexible manner for granting rights to use water resources, allowing each user to define the level of risk they are willing to accept.

9 Mechanisms for charging for water use should be regulated by law, increasing legal certainty and laying the foundation for speeding up disbursements. Mechanisms to implement the refund of funds collected from water charges should be regulated.

The full version of the document can be accessed through the QR code on the side or at: <http://www.cni.com.br/eleicoes2018/downloads/> This summary is part of the series Proposals of Industry for the 2018 Elections comprising 43 documents. The series, which is based on the *2018-2022 Strategy Map for Industry* is a CNI contribution to the new federal administration and presents analyses and proposals of priorities to increase Brazil's competitiveness. Any part of this publication may be copied, provided that the source is acknowledged. Brasília-DF, July 2018.

