Machine Translated by Google
RCMOS – Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

# Integrated management of global water resources through the capitalist system: a scourge on humanity.

*Integrated management of global water resources through the capitalist system: a scurge on humanity*

Integrated management of global water resources through the capitalist system: a source for humanity

**Jhonatan Matos de Souza**

***Abstract:*** This research aimed to evaluate Integrated Water Resources Management (IWRM), according to the definition of the Global Water Partnership (GWP), within the context of global water resources, with special attention to Brazil. Bibliographical materials from various sources were used, focusing on historical-dialectical materialism. It was concluded that the resolution of global problems through IWRM presents a limited approach within the capitalist system and is antagonistic to the aspirations of environmental sustainability, since...
It encourages exploration and "development" at any cost. The 2030 Agenda presents good premises; however, there are gaps in the Sustainable Development Goals (SDGs), especially in the sixth goal, "Ensure availability and sustainable management of water and sanitation for all," such as the lack of recognition of water as a fundamental right essential to the quality of life of every human being.
Nor is the control of virtual water mentioned in this SDG, which is responsible for promoting water stress in many regions for profit, compromising the availability of resources.
supplying the population. It is observed, therefore, that the urgency of environmental remediation is presented as a collective action, in order to homogenize responsibility, especially on the poorest classes, exempting a minority responsible for the greatest environmental degradation and with the highest concentration of income, while the State, in turn, concentrating power, acts in the benefit of this same group, in order to legitimize its actions in exchange for short-term economic benefits, neglecting long-term damage.
**Keywords:** Social Sciences; Water; Capitalism.

**Abstract:** The research aimed to evaluate Integrated Water Resource Management (IWRM), as defined by the Global Water Partnership (GWP), on global water resources, with special attention to Brazil. Bibliographical materials from various sources were used, with a historical-dialectical materialist approach. The conclusion is that IWRM's approach to global problems is limited within the capitalist system and antagonistic to environmental sustainability, as it encourages exploitation and "development" at any cost. The 2030 Agenda offers good suggestions; however, there are gaps in the Sustainable Development Goals (SDGs), especially in its sixth goal, "Ensure availability and sustainable management of water and sanitation for all," such as the lack of recognition of water as a fundamental and essential right for the quality of life of every human being. Nor is this SDG included in the control of Virtual Water, which is responsible for promoting water stress in many regions for profit and compromising the availability of water supplies for the population. Therefore, it can be seen that the urgency of environmental restoration is presented as a collective action, thus homogenizing responsibility, especially for the poorest classes, exempting a minority responsible for the greatest environmental manipulation and with the greatest concentration of income. The State, in turn, with concentrated power, acts to benefit this same group, legitimizing its actions in exchange for short-term economic gains while neglecting long-term damage.
**Keywords:** Social Sciences; Water; Capitalism.

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google
RCMOS - Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

**Summary:** The investigation aims to evaluate the Integrated Management of Water Resources (GIRH), according to the definition of the World Water Association (GWP), in relation to global water resources, with special attention to Brazil. Bibliographic material from different sources was used, with a historical-dialectical materialist approach. The conclusion is that the IWRM approach to global problems is limited within the capitalist system and opposes the desire for environmental sustainability, which promotes exploitation and development at any price. The 2030 Agenda offers good suggestions; However, there are gaps in the Sustainable Development Objectives (ODS), especially in its sixth objective, «To guarantee the availability and sustainable management of water and sanitation for all», such as the lack of recognition of water as a fundamental and essential right for the quality of life of every human being. This SDG is also included in the control of Virtual Water, responsible for promoting water stress in many regions with the aim of profit and compromising the availability of water for the population. Therefore, it is observed that the urgency of environmental restoration is presented as a collective action, homogenizing responsibility, especially for the poorest classes, exempting the responsible minority from the greatest environmental manipulation and the greatest concentration of income. Meanwhile, the State, with concentrated power, acts to benefit this same group, legitimizing its actions in exchange for short-term economic benefits and neglecting long-term damage.

**Keywords:** Social Sciences; Water; Capitalism.

## Introduction

Since water is an irreplaceable resource, interventions are necessary that allow for the maintenance of their quality and availability for multiple uses, which includes activities such as human supply, animal watering, irrigation, navigation, Fishing, aquaculture, hydroelectric power generation, and recreation, in addition to preserving harmony. landscape design.

In total, the Earth's water can be divided into 97.5% saline waters and 2.5% freshwater. The latter, in turn, can be subdivided according to its origin into 68.7% in the form of ice and snow cover in Antarctica, the Arctic and in mountainous regions. Another fraction, 29.9%, occurs in the form of groundwater. Of this total amount of fresh water, 0.26% can be found in lakes, reservoirs and river systems, accessible to economic needs, in addition to being vital for the aquatic ecosystems (Shiklomanov, 1998).

Freshwater resources show significant differences in distribution between countries and continents. Not only countries dominated by arid climates exhibit a great lack of Water, but even countries like Brazil, with their apparent comfort, have numerous areas... categorized as having a water deficit (Pinto-Coelho and Havens, 2016).

The hydrological changes induced by climate change have the following consequence

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google
RCMOS - Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

Challenges to the sustainable management of water resources affect water availability, both in both quality and quantity, to meet the most basic human needs, impacting billions of people worldwide (UNESCO, 2021). These risks are geographically distributed unevenly and are, in general, larger for people and disadvantaged communities in countries at all levels of development (IPCC, 2014).

One of the most widely used definitions of Integrated Water Resources Management (IWRM) It was created by the Global Water Partnership (GWP) as:

[...] a process that promotes the coordinated development and management of water, land and of the related resources, in order to maximize economic and social well-being in a way equitable, without compromising the sustainability of vital ecosystems (GWP, 2014, p. 2).

Based on this premise, the objective of this research was to evaluate Historically, the care provided by GIRH, according to the definition established by GWP, regarding to global water resources, especially those of Brazil, through non-Structural factors, such as public policies, legislation, planning, and environmental education.

**Environmental management and the global water crisis**

For a long time, it was mistakenly believed that nature was at our service. of humanity and could be used indiscriminately, as if it came from an eternal source; consequently, the water was mismanaged (Brum, 2020).

Water, specifically in modern society, has come to be treated as a resource or basic raw material for socioeconomic development, with uses varied, ranging from human survival and hygiene to industrial consumption, being used as an intermediate good in economic production. From 2025 onwards, the use Human use of the available water will reach 90% of that total, leaving only 10% for other uses. existing species on the planet (Isaacsson, 2022).

According to Löwy (2021), one of the intellectuals to whom the term Ecosocialism is attributed, The authors Marx and Engels were pioneers in addressing ecological issues from a... from a socialist perspective, although these issues did not occupy a central place in his theoretical device, since the ecological crisis was only beginning in the 19th century. In his studies, it was possible to understand the connection between capitalism and the destruction of the environment, a debate that resurfaced in the mid-1970s, when it became noticeable that emergence of an unprecedented ecological crisis, resulting from the destructive nature of

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google
RCMOS - Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

capitalist civilizational model, with some of its impacts felt in growth
exponential increase in air, drinking water and environmental pollution (Querido, 2016).

Global warming, as one of the most worrying environmental impacts,
resulting from human actions, it is occurring at a faster rate than predicted.
affecting the accumulation of carbon dioxide, the rise in temperature, the melting of ice
polar regions and the so-called "perpetual snow" of the mountains, as well as the occurrence of droughts and
Floods (Löwy, 2021). Events that were previously predicted for the long term.

Mason (2017) points to the solution to current dilemmas with the transition of capitalism.
to socialism or post-capitalism, representing an alternative that could be global with
a substantially better future. The same author describes capitalism as a
a complex and adaptive system, but one that has already reached the limits of its capacity, which operates
outside the control of individuals, governments, or superpowers, contrary to the intentions of
people, even when they act rationally.

The ruling class (whether present in the country or not), the largest concentrator of wealth,
Currently comprising 0.01% of the population, it does not need to produce anything in order to accumulate.
wealth; simply operate in the global financial market, which ends up consuming all the work and
The resources of society. This same segment acts in isolation from the planet's problems.
disregarding public services as well as social rights and the preservation of nature.
(Dowbor, 2020).

Adding to this aggravating factor are the differences in the availability of resources.
The effects that naturally exist in each region are accentuated by climate change, by
The increasing destruction of habitats and the emergence of new demands are forming a bleak scenario
that frames the current "Water Crisis" (Coelho; Havens, 2016).

Currently, debates regarding globalization focus on disparity.
comparing the wealth of one country to that of another, without, however, paying attention to other elements.
which determine the prosperity and well-being of their people, namely access to water and
sanitation is a good example of this (BRAVO, 2013).

In developing or emerging countries, there is a differentiation in access and in
availability of water resources. While in large urban centers the population is
Served by the public sector, spending 1% of their salary on water, the population of the zones
In peri-urban areas, without access to piped water, people depend on distribution carried out by water companies.
Private individuals rely on tanker trucks, having to pay more for lower quality water, spending 15%
of your salary. In developing countries and poor regions, the volume of water

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google
RCMOS – Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

The average consumption is 100 to 200 liters per person per day, and in very poor regions, 10 to 20 liters. per person per day, which can be drastically reduced to 1 to 2 liters per person per day in semi-arid regions, where there is scarcity (Tundisi; Matsumura-Tundisi, 2020).

In Brazil, the use of water resources for production and drinking water.

The amount of water used for animal consumption (11.6%) is greater than the amount used for urban water supply (9.1%), and the The sum of these two uses does not reach 32% of the total water consumption destined for irrigation. (66.1%), constituting the largest part of average consumption (ANA, 2019a). In the case of irrigation, 9% of this demand is associated with the production of soybeans and corn for animal feed purposes. local and foreign herds; together, these products consume an average of 89,200 liters. of water per second, which is equivalent to 2.81 trillion liters per year (Fontenelle, 2021).

It is clear, then, that there is currently a great deal of movement happening all over the planet. of water due to the export and import of basic inputs, such as food, whose production requires water to add value to them, the so-called Virtual Water (Tundisi; Matsumura-Tundisi, 2020).

Production that utilizes irrigation in plantations, in what is known as the agricultural industry, This accounts for approximately 70% of global freshwater consumption. This activity increases in areas with higher population density and water scarcity (UN, 2018). In many In some regions, water resources are used inefficiently in food production. leading to environmental degradation, including the depletion of aquifers and reduced flow rates of the rivers, in addition to pollution and the deterioration of wildlife (UNESCO, 2021).

According to Brum (2020), this type of agriculture does not use water resources. It does not, in a sustainable way, nor, conversely, deliver a sufficiently relevant benefit. to justify the high consumption required. There is currently an argument that attempts to legitimize the exponential increase in the use of this resource by the sector as a guarantee of feeding the growing world population, which is not directly reflected in a decrease in World hunger. For the same author, monoculture (the "plantation" system) is proof that Agriculture ceased to be used primarily for subsistence and began to assume a... commercial purpose, as the economic base of States (such as Brazil), positive weight in The trade balance acts as an economic regulator when other areas are in crisis.

Sociologist Sassen (2017) explains that there is a growing process of appropriation of lands owned by huge and powerful corporations involved in sectors such as mining, Plantations and companies that appropriate water, such as Coca-Cola and Nestlé. Once Once the desired resource is extracted, these same corporations simply leave.

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google
RCMOS - Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

Activities like these fuel the accelerated growth of favelas and peripheries.
with the displacement of populations, promoted by the impact generated and the emergence of
"dead lands and waters".

Regions with abundant water resources begin to suffer from a lack of them under the
under the cloak of legality and government acquiescence, through their complicity, once
that these activities generate taxes from commercial transactions (ISAACSSON,
2022). Corporations still use confidential agreements made individually with
governments, something called free trade, but which has nothing to do with commerce, being,
In reality, these are guarantees of protection for corporations and assurances that they will never lose, a method that
who wish to universalize (Sassen, 2017).

Therefore, both the water used in the production of these goods and its eventual disposal...
The impacts on the water cycle are borne by the country of origin, at an environmental cost.
which may not be offset by the revenue generated from the sale of these products (Oliveira;
Moretti, 2024).

**National and international water resources policy**

The first significant concerns regarding water resource management in Brazil are described in the
Water Code of 1934 (Decree No. 24,643, of July 10, 1934).
1934), which contains important legal advances on the subject and is the first to legislate on it.
the classification and use of water as a public good (Issaacsson, 2022).

According to Isaacsson (2022), water only began to be considered in the scenario
Brazilian legislation when it became a necessary input for development.
The national economic system that was emerging at that time did not even consider the idea of water.
as a human right or a guarantee of human life and dignity. This can
This is evident in Brazil due to its heavy reliance on water resources in the sector.
Energy: Currently, 85% of its energy is produced by hydroelectric sources, with 35% from...
its potential has already been explored, with hydroelectric power being considered an important means for...
social and economic development (Tundisi; Matsumura-Tundisi, 2020).

According to Drummond and Barros-Platiau (2006), Brazil was definitely not a
environmentalist society for most of the period from 1934 to 2002, being, in a way
forceful, a pro-development society, with a deep and lasting consensus.
social in favor of economic growth, at any and all costs, and that such an attitude was

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google
RCMOS - Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

supported by a very similar global consensus.

Concern about the conservation of water resources has been increasing since...
The 1960s saw the emergence of movements that questioned the model.
consumerist society, alienated from environmental issues, which, in the following decades,
triggered the creation of bodies dedicated to environmental conservation (Brum, 2020).

Despite this, the 1988 Constitution did not include water as a human right.
fundamental nor as a social right, being understood as an integral part of others
rights, since one cannot speak of life, health and food without considering a
an environment supplied with good quality drinking water (Issaacsson, 2022). And, even though
There are water management systems that have been under construction since then, these
They exhibit a stance that is highly susceptible to external political and economic pressures.
especially from corporate demands, which do not demonstrate any
commitment to environmental sustainability (Pinto-Coelho; Havens, 2016).

A milestone in water resource management in the country, with the creation of the National Policy.
Regarding Water Resources, it was undoubtedly Law No. 9433, of January 8, 1997, known as the "Water
Law," which, among the premises included in its Article 1, states that:

I - Water is a public domain asset;

II - Water is a limited natural resource with economic value;

III - In situations of scarcity, the priority use of water resources is for human consumption.
and providing water for animals;

IV - Water resource management should always provide for the multiple uses of water;

V - the river basin is the territorial unit for implementing the National Policy of
Water resources and the role of the National Water Resources Management System;

VI - The management of water resources must be decentralized and include the participation of
Public authorities, users and communities. (Brazil, 1997, Art. 1)

Even though it presents legislation with a more democratic proposal, which includes
with the participation of the government, users and civil society in spaces such as
In River Basin Committees (CBH), weak user participation is observed. This
The absence of social actors is described in many cases as a consequence of the costs of
Attendance at these meetings or the lack of understanding by the public of the technical language.
during these meetings. In addition, these spaces are predominantly male, and
The participation of minorities such as indigenous peoples, although guaranteed by law, is not
In practice, this translates to keeping these populations marginalized in decision-making processes.

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google
RCMOS – Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

(Xavier; Bentes, 2020).

In the international context, with equal importance in decision-making regarding water resources, the 5th World Water Forum (2009), held in Istanbul, in Türkiye has recognized water as a fundamental human right, according to twenty-five countries. States. Among the countries that have adopted this right in the Americas are: Bolivia, Chile, Cuba, Ecuador, Guatemala, Honduras, Panama, Paraguay, Uruguay, Venezuela; in Europe: Switzerland and Spain; in Africa: Benin, Cameroon, Chad, Ethiopia, Morocco, Namibia, Niger, Nigeria, Senegal and South Africa; and in Asia: Bangladesh, United Arab Emirates and Sri Lanka. (Issacsson, 2022). It is worth noting that, on that occasion, Brazil did not adhere to the recognition. of that right.

This recognition of water as a fundamental human right seeks to overcome the The pernicious idea of the Dublin Declaration of 1992, the prime example of recognition of water as an economic good, which would mean its inclusion as a commodity subject to to free trade within the World Trade Organization (WTO). Its premise is... as an argument that, when water is treated as a commodity, with supply, demand and With market regulation, waste would become costly and therefore... Conservation would then be encouraged. However, this position seeks to address... especially private interests, instead of having a legitimate intention to preservation, which can be observed in the depletion of water sources in countries. developed (Brum, 2020). Although some see water as a mere commodity, Subject to market laws, this approach is not capable of solving the problem of... water management, as it does not consider ethical criteria that, based on dignity, are linked to defense of values fundamental to the lives of citizens (BRAVO, 2013).

Currently, at the international level, efforts are being made to implement the 2030 Agenda. United Nations (UN) organization, developed in 2015 for the construction and Implementation of public policies by 2030. This initiative has 17 objectives and 169 Goals for solving common problems, called Development Objectives. Sustainable Development Goals (SDGs), seeking a future with more sustainable solutions.

Among the items of greatest interest for this research, without wishing to diminish their true value... Among activities aimed at protecting and restoring habitats is SDG number 6, which... The goal is to "Ensure the availability and sustainable management of water and sanitation for all". presenting the following as a goal for its sub-item 6.4:

By 2030, substantially increase water-use efficiency across all sectors and

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google
RCMOS – Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

to ensure sustainable withdrawals and the supply of fresh water to address scarcity.
water and substantially reduce the number of people suffering from water scarcity.
(UN, 2015, p. 25).

Another equally important sub-item would be 6.5, which aims to:
By 2030, implement integrated water resources management at all levels, including
through cross-border cooperation, where appropriate (UN, 2015, p. 25).

Another way to approach IWRM suggested by Carvalho (2011) would be through a
international debate regarding water, modeled after Mar del Plata, with an agenda that
prioritized the emergence of a governance model, initially structured by countries.
under the Treaty of Asunción, major holders of water resources, such as Brazil, Argentina,
Uruguay and Paraguay to coordinate a global debate together with the UN on the
Water management and legislation, distancing itself from the models of world forums. The same
The UN, within the framework of the Conference of the Parties (COP) model, should follow a long path.
A path towards a multilateral treaty, with the creation of a ranking of the most...
contaminated for better structuring and regionalized goals, under the coordination
from a state regulatory body. Thus, the world could be divided into water regions; in
Each one would have as its themes the agriculture, urban waste, and...
Industry, basin management, aquifer management, and the oceans.

## Materials and methods

This research focused on acquiring knowledge aimed at...
solving already recognized practical problems, with an exploratory purpose, in order to
to make them more explicit (Gil, 2017). In identifying problems observed in a
global context, with a special focus on Brazil, regarding Integrated Resource Management.
Water Resources Management (WRM), bibliographic sources were used based on material already published in
Physical and digital media, available on the Internet, in newspapers, books, and scientific articles.
In the latter case, the Google Scholar platform was used, with the following delimitation:
publications in Portuguese and, in the keyword search, adopting the acronym "GIRH",
for a period of less than 10 years. Based on the collected material, the problems
The findings were analyzed using a methodological approach that adopts the
historical-dialectical materialism, according to which historical movements occur

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google
RCMOS - Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

according to the material conditions of life, the modes of production, and the class struggle. Subsequently, possible solutions were suggested for the problems identified.

## Results

Although extremely valuable for life, water is not considered, in a way... unanimous, a fundamental human right in the world, not being included in the Constitution. from many countries, including Brazil. Therefore, the first topic to be highlighted in this Research suggests that a change in this aspect would be a very important achievement. allowing for greater guarantees in public supply and imposing greater responsibilities of the State.

The guarantee of water for private activities has always been a priority in Brazil's history, and so it is. As in many other countries, a priority above the common good and the guarantee of quality of life for the population, including the preservation of habitats. Among the multiple Regarding the uses of water resources, priority should be given to meeting the needs of most basic needs, such as food production and public supply. In However, currently, export goals and economic stability are prioritized. The country, instead of guaranteeing its food sovereignty. Achieving the right to water is possible. only through awareness and social mobilization, which can be ensured in a A post-capitalist system, without the opposition of a ruling class.

With access to land for planting and the creation of state farms in this society In a post-capitalist world, it would be possible to meet the demand for food free of charge, which It is also a basic need for every human being, regardless of variations in... market, which can cause a large increase in product prices, making it difficult Access to the required quantity and quality. In turn, free access to food. This would reduce the cost of living for the population, with the added benefit of generating jobs. more stable in these spaces.

Furthermore, the technical means for large-scale food production already exist. They exist; however, they are used for other purposes, such as the production of animal feed. The use The management of water resources in these areas would be under the permanent supervision of the State, therefore through continuous monitoring, ensuring stricter control of waste by through predictive management linked to climate forecasts.

In contrast to items 6.4 and 6.5 in the UN SDGs, the best way to

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google
RCMOS - Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

Using water resources is not about guaranteeing "greater efficiency," but rather about preventing certain problems. Uses should be carried out to the detriment of the well-being of life on the planet. The overexploitation of The use of water resources by agriculture, for example, leads to regional scarcity, which requires greater expenses related to physical infrastructure to ensure water security. Consequently, the Rationing falls mainly on urban and rural domestic water supply, which other sectors do not submit so easily, given the need to maintain the economy.

As a second topic of this research, it is possible to observe that water, under the condition As a fundamental right, it would hinder the pernicious attempt to commodify it, which affects national sovereignty is jeopardized by putting the quality of life of its inhabitants at risk, in to the detriment of interests that may even be external. Furthermore, in a scenario of Water resource management by a water market, the then owner of the water source. Supply could prioritize regions with the largest population. where there would be greater gains, thus ignoring smaller regions. This population, therefore, their demands would not be met, leading to the creation of an artificial scarcity, even though if there were technical means that would allow access to surface water resources and/or underground.

The third topic, still as an extension of the first, would be a greater... pressure on the State to guarantee rights that would imply the effective participation of population and the representation of minorities in River Basin Committees (CBH), through increased financial support and adequate training for development of these committees. From then on, these spaces would become truly democratic, with the participation of all social actors within the respective river basin in decision making.

Alongside the topics already mentioned, access to water resources in The necessary quantity and potable quality would enable the population to maintain the improvement. of quality of life, resulting in a reduction of the burden on the health system. public, saving financial resources invested in the sector.

Another equally important subtopic is the dependence of the hydroelectric sector on energy generation and its sensitivity to periods of water scarcity. By avoiding the overexploitation and waste by other sectors in the same river basin would be It is possible to mitigate potential electricity rationing, with greater assurance of... Regulation of river flows.

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google


**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

With the first topic established, it would be important for a country like Brazil, a major power in water resources, is at the forefront of an organization for the Water resource management in Latin America, with a possible expansion to other countries. As a benefit, there would even be progress in the restoration process. The planet's climate, since this contingency will not be resolved solely through actions. individual, specific, and unrelated to each country, considering that these impacts do not They are limited to their respective political and administrative boundaries.

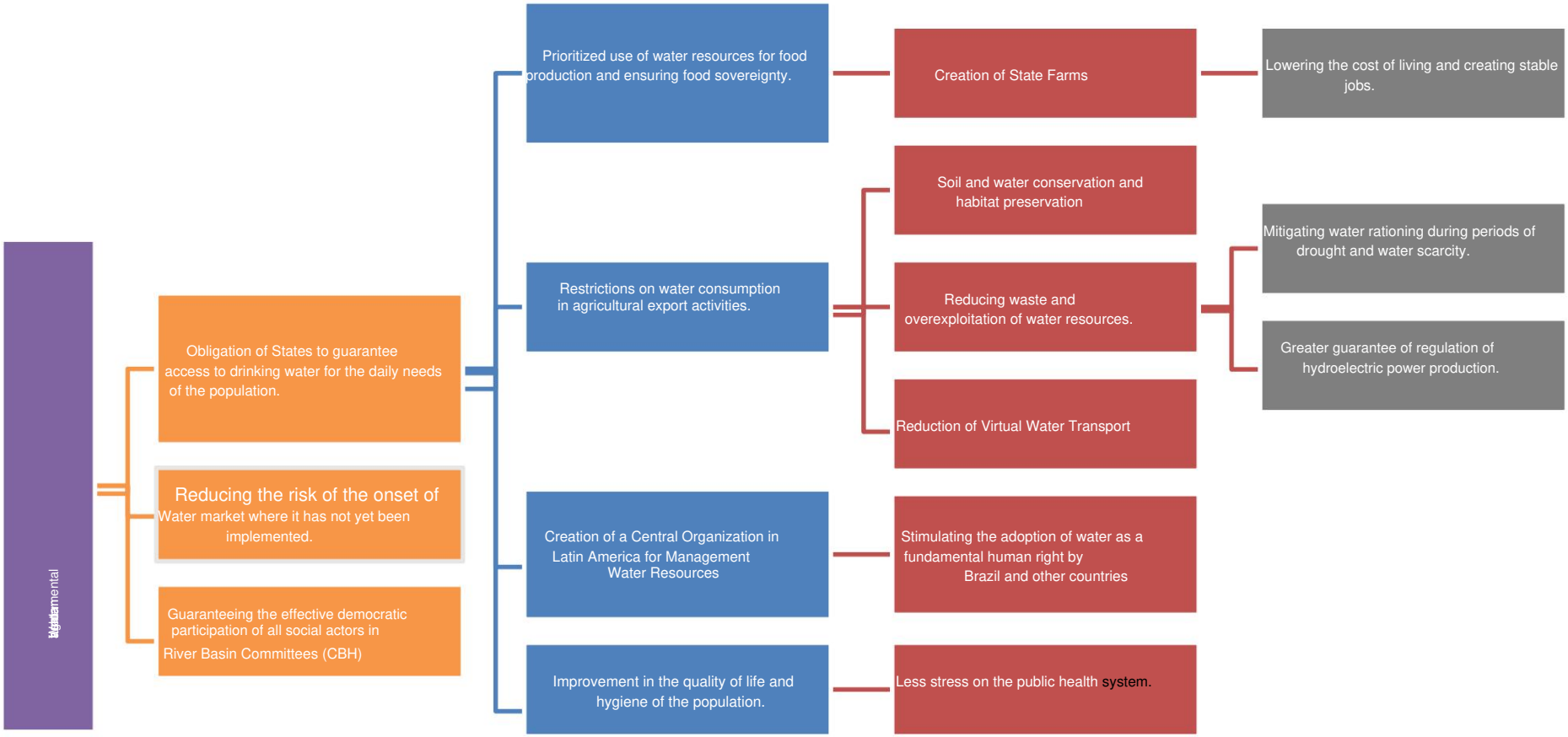
A more complete breakdown, with schematic representations of the results. The information presented can be seen in the flowchart in Figure 1 of this research.

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google
RCMOS – Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 05/15/2026 | Accepted: 05/18/2026 | Publication: 05/21/2026**

**Figure 1** - IWRM through a post-capitalist system.




**Source:** Author (2025).

Machine Translated by Google
RCMOS - Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 03/15/2026 | Accepted: 03/18/2026 | Publication: 03/21/2026**

## Conclusion

In the capitalist model, there are limitations to IWRM (Integrated Management of Human Resources) that prevent equitable distribution. of water resources. This management is guided by a productivist logic of profitability for a minority, in which the State, in a planned and articulated manner due to capitalist logic, places itself. serving that same segment of society, to the detriment of a larger one, disregarding the common good- to be collective.

Through this mode of action, it is also clear that it is not possible to reconcile preservation. environmental [development] with the accumulation of goods based on the unlimited predatory exploitation of that same [environmental] environment, whose impacts fall on the whole of society, especially on the poorest, who They lack the means to leave the regions affected by the scarcity, for example.

Therefore, once society reaches a post-capitalist stage, water will be... considered a fundamental human right; the ruling class would cease to exist; there would be a reduction of conflicts and pressure on water resources. Consequently, the use of water resources The country's population would prioritize the production of essential goods, without that this would lead to scarcity, in a production system that follows a market logic and It places the environmental burden on the vast majority.

## References

National Water Agency (ANA). **Water resources situation in Brazil 2019:** annual report. Brasília, DF: ANA, 2019a.

BRAZIL. Law No. 9433, of January 8, 1997. Establishes the National Water Resources Policy, creates the National Water Resources Management System, regulates item XIX of article 21 of the Federal Constitution, and amends article 1 of Law No. 8,001, of March 13, 1990, which modified Law No. 7,990, of December 28, 1989. **Official Gazette [of the Federative Republic of Brazil,** Brasília, DF, January 9, 1997.

BRAVO, Á. AS Environmental injustice and human rights in water. In: BRAVO, Á. A. S (ed.). Justice and environment. Spain: Punto Rojo Libros, 2013. p. 151-170. ISBN 978-84-16068-33-3.

BRUM, DM. **The right to water and international conflicts:** legal globalism and international environmental humanization based on the Water Credit System in the conservation of water resources. Curitiba: Juruá, 2020.

CARVALHO, Kleverton Melo de. The water cue. Reflections on the legal bases for creating a bonus system. In: CAPALDO, Griselda D. Governance and sustainable management of Water – Governance and Sustainable Management of Water. Buenos Aires: Mnemosyne, 2011.

DOWBOR, Ladislau. **Capitalism shifts:** new social architectures. São Paulo: Edições Sesc São Paulo, 2020.

DRUMMOND, J.; BARROS-PLATIAU, AF **Brazilian Environmental Laws and Policies, 1934- 2002:** a Critical Overview. *Law; Policy,* 28(1), p. 83–108, 2006.

FONTENELLE, Thiago H.; FUCKNER, Marcus A.; SOARES, Sérgio Rodrigues A. Animal production and consumptive water uses in Brazil. In: PALHARES, Julio César Pascale (technical editor).

This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Machine Translated by Google
RCMOS - Multidisciplinary Scientific Journal The Knowledge.
ISSN: 2675-9128. São Paulo-SP.

**Year VII, v.1 2026 | Submission: 03/15/2026 | Accepted: 03/18/2026 | Publication: 03/21/2026**

**Animal production and water resources: water use in quantitative and qualitative dimensions, as well as in regulatory and consumption scenarios.** Brasília, DF: Embrapa, 2021. p. 15 – 37.
GIL, AC **How to prepare research projects.** 6th ed. São Paulo: Atlas, 2017.
GLOBAL WATER PARTNERSHIP. **GWP Gender Strategy. 2014.** Available at: https://www.gwp.org/globalassets/global/gwp-cam_files/estrategia-de-genero-de-gwp_espanol_cam.pdf. Accessed on: May 13, 2024.
Intergovernmental Panel on Climate Change (IPCC). **Climate Change 2014:** Synthesis Report. Summary for Policymakers. Geneva: IPCC, 2014.
ISAACSSON, GB. **Drinking water and its access:** Right or Commodity? An analysis of the rulings of the Brazilian Supreme Federal Court. São Paulo: Editora Dialética, 2022.
LÖWY, M. Ecosocialism: what it is, why we need it, how to get there. **Germinal:** Marxism and education in debate, Salvador, v. 13, n.2, p.471-482, Aug. 2021.
MASON, Paul. **Post-Capitalism:** A Guide to Our Future. São Paulo: Companhia das Letras, 2017.

OLIVEIRA, CF; MORETTI, RS. **Water use by livestock farming in Brazil.** Le Monde Diplomatique Brasil. 2024. Available at: https://diplomatique.org.br/. Accessed on: June 5, 2024.
United Nations (UN). **Transforming Our World:** The 2030 Agenda for Sustainable Development. Available at: https://brasil.un.org/sites/default/files/2020-09/agenda2030-pt-br.pdf. Accessed on: November 7, 2024.
United Nations (UN). **On World Water Day, the UN advocates for nature-based solutions to water problems.** Available at: https://brasil.un.org/pt-br/79252-em-dia-mundial-da-%C3%A1gua-onu-defende-solu%C3%A7%C3%B5es-para-problemas-h%C3%ADdricos-baseadas-na-natureza. Accessed on October 26, 2025.
United Nations Educational, Scientific and Cultural Organization (UNESCO). **United Nations World Water Development Report 2021.** The Value of Water: Executive Summary. Paris, 2021.

PINTO-COELHO, RM; HAVENS, K. **Water Resources Management in Times of Crisis.** Porto Alegre: Artmed Editora, 2016.
DEAR, FM **Michael Löwy:** Marxism and the Critique of Modernity. 1st ed. São Paulo: Boitempo/Fapesp, 2016.

SASSEN, S. **The Invisibles of the System.** Valor: February 10, 2017. Interview given by Diego Vieira. Available at: https://valor.globo.com/eu-e/noticia/2017/02/10/os-invisiveis-do-sistema.ghtml. Accessed on: June 27, 2024.
SHIKLOMANOV, IA **World Water Resources** - A new appraisal and assessment for the 21st century. St. Petersburg: State Hydrological Institute, 1998.
TUNDISI, JG; MATSUMURA-TUNDISI, T. **Water.** São Carlos: Scienza, 2020.
XAVIER, A.; BENTES, NMS. Limits, challenges and opportunities for participation in water resources management: an analysis of the international legal framework and an integrative literature review on participation in Brazilian river basin committees. **Direito Público,** Brasília, v. 17, 95, Available at https://www.portaldeperiodicos.idp.edu.br/direitopublico/article/n. view/4856. Accessed on: October 24, 2024.



This article is published in open access under the Creative Commons Attribution license, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.