

The Right to Water and Citizen Science in Cuba



CONVENCION
CIENTIFICA
INTERNACIONAL

2025
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International water situation:

2.2 million people lack access to safely managed drinking water (WHO/UNICEF 2023)

2 million people live in countries suffering from water scarcity (UN 2019)

80% of wastewater returns to the ecosystem without being treated or reused (UN Water 2018)

Agriculture accounts for 70% of global water withdrawal (FAO)

All Dates

Conflict Type:

Region:

Search

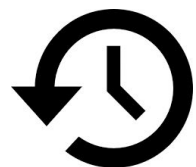
1634 Conflicts


Water conflicts until 2023

1. Lagash-Umma dispute in ancient Sumeria over water and irrigation leads to a century of conflict (2500 BC)
2. Tigris River dammed in ancient dispute in Babylon (1720-1684 BC)
3. Kishon River floods and contributes to the defeat of Sisera in the biblical battle between the Israelites and the Canaanites (circa 1300 BC)
4. Assyrian king Sargon II uses water as a weapon and target during multiple campaigns (720-705 BC)
5. Sennacherib razes Babylon and diverts an irrigation canal to wash over the ruins (705-682 BC)
6. Hezekiah stops springs in advance of Assyrian invasion led by Sennacherib (701 BC)
7. Assyrian king cuts off water of enemy in siege of Tyre (681-699 BC)
8. Assyrian king dries up enemy's wells in a war against Elam (669-626 BC)
9. Khosr River diverted by Babylonians to cause a flood to support an attack on Nineveh (612 BC)
10. Nebuchadnezzar uses Euphrates River as defense of Babylon (605-562 BC)
11. Assyrians poison wells of enemies (6th Century BC)
12. Athens poisons enemies' water (590-600 BC)
13. Forces under Nebuchadnezzar breach an aqueduct to end siege of the ancient city of Tyre (596 BC)
14. Cyrus diverts the Diyala River during his war against Nabonidus in Babylon (558-528 BC)
15. Cyrus diverts the Euphrates in his attack on Babylon (539 BC)
16. Spartans poison cisterns of Piraeus during the Peloponnesian War (430 BC)
17. Water is used as a weapon in the battle of Delium, 424 BC (424 BC)
18. Alexander tears down Persian dams and defensive weirs along the Tigris River (355-323 BC)
19. Parthian king Arsaces III destroys a water-supply system to slow the attacking army of Seleucid Antiochus (210 BC)
20. Wei River dams in China are intentionally breached in 204 BC (204 BC)
21. The Achaeans use water as a weapon in the siege of Phana (2nd century BC)
22. Water is used as a weapon in 101 BCE China in the siege of Fergana (Yuan) (101



Sustainable Development Goals of the United Nations 2030 Agenda



Millennium Development Goals, 7c



International legal instruments as water background from a legal perspective

General and regional approach

1948 Universal Declaration of Human Rights, Article 25

International Covenant on Economic, Social and Cultural Rights of 1976, Articles 11 and 12

Observation No. 15 of the Committee on Economic, Social and Cultural Rights of 2002

2007 Universal Declaration of Emerging Human Rights



"... the right of everyone to have sufficient, safe, acceptable, accessible and affordable water for personal and domestic use."

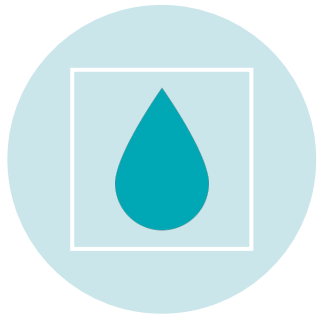
United Nations Assembly Resolution A/RES/64/292, 2010

(...) Pure drinking water and sanitation are essential to all human rights.

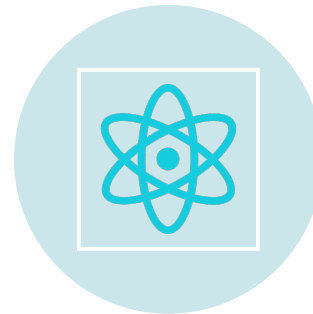


Legislative trends in the international constitutional framework of water

Challenges from the point of view of the realization of the right to water



Water governance



Citizen Science



Public policies



Legal norms in
accordance with the
water reality

Water situation in Cuba:



Lacks access to drinking sources

Existence of several water investigations from different approaches

Recent constitutional recognition

Regulatory dispersion

Implementation of Citizen Science in Cuba as a guarantee of the right to water

Community Environmental Education

Interdisciplinary collaboration that transcends researchers, authorities and citizens

Implementation of projects and promotion of technological innovation and digitalization in water management

Active participation of citizens in water management

Thank you!

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