



Long-term Vision & Mission

One Water Vision Initiative



Long-term Vision

Long version

One Water Vision envisions a world where **water is safeguarded as a common good**, essential for ecosystems, and users: accessible, fairly shared, and sustainably managed for the benefit of all.

In response to the **accelerating disruption of the water cycle caused by climate change, ecological degradation and growing human pressures**, the initiative promotes the **integration of satellite-based information, advanced modeling approaches, and digital twins** into water strategies at **all scales**: local, national and transboundary; and at **different time horizons**, ranging from immediate response to extreme events (floods, droughts) to long-term planning in the face of climate change.

OWV is grounded in the conviction that access to **FAIR** (Findable, Accessible, Interoperable and Reusable) **environmental data** is fundamental to environmental justice and to achieving the Sustainable Development Goals, such as the SDG 6 (clean water and sanitation for all).

By democratizing access to information, OWV empowers decision-makers, scientists, transboundary cooperations, national and transboundary basin organizations, institutions and communities to protect ecosystems, improve water use efficiency in agriculture, strengthen resilience, and ensure water security not only in terms of availability and drought, but also quality

Our approach is **multidisciplinary, inclusive and internationally** coordinated. By connecting space technologies with ground monitoring and ecological knowledge, OWV builds a comprehensive and contextualized understanding of water dynamics, particularly in data-scarce regions and fragile environments.

Ultimately, the initiative seeks to transform water governance toward **anticipation, integration, and inclusiveness**, becoming a trusted reference for satellite- and model-informed decision-making that benefits both people and nature.



Mission

Long version

To realize this vision, the **international community must work together** to make satellite- and model-informed water governance a reality: equitable, accessible, ecologically sound, and effective. This includes strengthening resilience in **regions under climate stress**, supporting **sustainable agriculture**, protecting and restoring **land** and **water ecosystems**, and providing solutions where **monitoring networks and funding are limited**.

One Water Vision animates an international research consortium fostering **scientific cooperation** and **operational uptake** of satellite data and modeling as complementary, and in some context's standalone, solutions to water challenges, addressing both quantity and quality dimensions of water security.

Through its collaborative platform, OWV will, **promote real-world use cases** demonstrating environmental and agricultural impact, implement **calibration/validation sites**, highlight innovations from the field that **support ecosystems and users**, support the **integration of satellite** data into planning, management and early warning systems, at multiple scales.

Capacity building is at the heart of OWV's mission: equipping institutions, practitioners, and communities with the skills to access, interpret and use FAIR Earth observation data to protect ecosystems, optimize agricultural water use (evapotranspiration, water use efficiency, rainfed interactions) and anticipate climate impacts.

OWV actively builds synergies between missions and programs, such as SWOT for surface water and TRISHNA for evapotranspiration and temperature, to strengthen data interoperability, ecological insight and collective efficiency.

By mobilizing a **diverse community of scientists**, space agencies, basin authorities, governments, private sector and civil society, OWV aims to build resilient, inclusive and environmentally responsible water governance systems.



Long-term Vision & Mission

Short versions

Vision:

One Water Vision (OWV) envisions a world where **water is safeguarded as a shared, sustainable resource**: accessible, fairly distributed, and managed for the benefit of all.

By integrating **satellite data, advanced modeling, and digital tools**, OWV helps address the growing pressures, of climate change, ecological degradation, and increasing demands across agriculture, ecosystems, and society.

Grounded in FAIR data principles, OWV promotes an **inclusive, multidisciplinary, and internationally coordinated approach** to water governance. Its ambition is to strengthen resilience, protect ecosystems, improve efficiency, and ensure water security and quality for both people and nature, across scales and time horizons.

Mission:

To realize this vision, OWV animates an **international research consortium** that fosters scientific cooperation and ensures the operational uptake of satellite data and modeling as complementary, and in some contexts standalone, solutions to water challenges.

OWV brings together **scientists, agencies, governments, basin organizations, cooperations, and communities** to make satellite- and model-informed water governance a reality: equitable, accessible, ecologically sound, and effective.

Its mission is to drive **real-world applications**, from **capacity building** to the **integration of FAIR satellite data** into planning, management, and early warning systems. By promoting **use cases** and **synergies across missions, programs, and stakeholders**, OWV builds inclusive, resilient, and environmentally responsible water governance.