



Australian
National
University

Institute for
Water Futures

Strategic Plan 2022-2024



The Institute for Water Futures acknowledges the traditional custodians of Country throughout Australia. We pay our respects to Elders and celebrate the diversity of First Nations peoples and their ongoing cultures and connections to the lands and waters of Australia.



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Who we are

The Institute for Water Futures is an initiative of the Australian National University. We are a team of dedicated and independent researchers, working within and across disciplines and in collaboration with inspirational partners. We bring together researchers from across the ANU[1], combining excellence and depth in disciplinary expertise from: earth, engineering, mathematical, hydrological and ecological sciences; social sciences, economics and policy; and cybernetics, integrated systems and participatory modelling.

Collectively, we work at the forefront of social, biophysical and integrative sciences to co-develop forward-looking knowledge, methods and tools. Our active partnerships grow capabilities across the water sector to help make decisions today that anticipate our increasingly complex, uncertain and contested water futures.

1: ANU College of Science; ANU College of Asia and the Pacific; ANU College of Engineering and Computer Science, Fenner School of Environment and Society; Research School of Earth Sciences; Mathematical Sciences Institute; Crawford School of Public Policy; School of Cybernetics, Institute for Climate, Energy and Disaster Solutions



Our vision

Understanding change | Enabling action

*Sustainable and just water futures for all,
empowered through collaboration,
innovation, integrity and influence.*



Our values

The Institute for Water Futures supports the diverse social, cultural, environmental and economic values of water. We integrate these values across our programs, guided by principles of interdisciplinarity, collaboration with partners and communities, mutual learning and respect.



Innovation



Integrity



Influence



Innovation

Goal

Our work draws cutting edge technology, emerging data sources and integrative systems modelling together with sophisticated understanding of socio-political challenges and opportunities to enable sustainable, informed and future-focused water decision-making.

Actions

- i. We explore and develop new ways to advance understanding of water systems, including quantity and quality, dynamics, use, environmental, social and cultural needs and management, through inter- and trans-disciplinary projects.
- ii. We demonstrate and grow our research excellence through academic publishing, participation in national and international research communities and fora, representation on national and international scientific bodies, and other areas of academic excellence.
- iii. We grow new capability for future-oriented decision-making, including systematic approaches toward managing risk and opportunity in the context of uncertainty, both within and beyond academia.
- iv. We develop new ways of engaging with diverse water actors, to integrate futures thinking and institutional and technological change into emerging processes of innovation and change.
- v. We integrate advances in cutting-edge Earth observation and modelling technologies to better inform decision-makers.
- vi. We balance ‘blue sky’ and goal-oriented water research, take risks, experiment and learn.
- vii. We equip the next generation of water decision-makers with advanced futures, cybernetics, and technical skills.



Integrity

Goal

We operate with transparency in our values, balance leadership and listening; demonstrate, promote, respect and embrace social and cultural diversity; and foster trust within and beyond the Institute.

Actions

- i. We shape discourse on water futures by fostering constructive public debate, demonstrating research excellence and academic leadership.
- ii. We develop and respond to opportunities for Indigenous peoples to actively shape our water research in a spirit of mutual learning.
- iii. We respect data sovereignty and promote ethical and transparent protocols for all social, cultural and biophysical data and associated outputs.
- iv. We prioritise inclusion, diversity, equity and access in employment and opportunity, including identifying or creating pathways for Indigenous peoples' participation and leadership in research and education.
- v. We advocate and seek to mobilise change in partnership with diverse and marginalised communities, where we have research-based evidence and community authority to do so.
- vi. We reject opportunities that may restrict or compromise our ability to act independently and/or do not accord with our values.
- vii. We include explicit presentation and discussion of our integrity, values and ethics as a foundational aspect of education and outreach, and model values-led research throughout teaching and learning.



Influence

Goal

We are regarded as the “go-to” source of new knowledge, ideas, exploration and anticipatory actions, enabling positive change across social, economic, cultural, and environmental outcomes across the water sector.

Actions

- i. We explicitly and collaboratively explore, consider and communicate the ways in which our research is intended to contribute to sustainable and just water futures.
- ii. We systematically assess, develop and contribute in ways consistent with our vision and values to public policy processes, public-private partnerships, advocacy coalitions and relationship-building with partners.
- iii. We respectfully challenge outdated thinking and engage decision-makers in developing cutting edge understanding.
- iv. We co-design new opportunities for policy and practice through diverse methods, tools and platforms to create new options for water futures.
- v. We support implementation of innovative programs through independent assessment, evaluation, and reviews.
- vi. We foster the futures thinking capabilities of water professionals and collaborative water leadership through engagement in research, education, and professional development.
- vii. We exemplify and demonstrate engaged, collaborative modes of research throughout our education activities.
- viii. We proactively communicate our research to the broader public to enhance collective understanding of diverse social, cultural, economic, and environmental values and politics of water governance



Focus areas

Strategic intent

The Institute for Water Futures engages with partners from diverse contexts in ways that reflect the specific needs and challenges of that community, enterprise, landscape or region. Place-based research is seen as essential to resolve contextual water problems and accrue the learnings for assessing water futures more widely across the globe.

Australia - national

Murray-Darling Basin

Great Barrier Reef catchments

Indigenous-led initiatives

Indo-Pacific region

Global engagement



Australia - national

Goal

IWF contributes effectively to national policy agendas and reform.

Actions

- i. We support Indigenous peoples' efforts to raise water justice on the national agenda and undertake collaborative and interdisciplinary research and education to support the achievement of water justice
- ii. We engage with national water agendas and policy development across the public service, including reviews of the National Water Initiative.
- iii. We seek opportunities to scale up learning from local and regional projects to inform national water policy, regulation and practice, including by working actively with national agencies such as CSIRO, Bureau of Meteorology, Geoscience Australia, peak bodies, research and development corporations etc.
- iv. We develop methodologies, tools and models that have national application, as well as state/territory/local government departments and agencies.



Murray-Darling Basin

Goal

IWF is an effective and respected partner for scientific, technological, social, cultural, economic, environmental and integrative work to inform MDB decision-making.

Actions

- i. We make significant research-based contributions to the 2026 review of the Basin Plan, including enhancing understanding of risks and opportunities in subsequent planning and implementation processes.
- ii. We address gaps in observation data, and identify and translate new data sources into effective models or other tools for use by Basin and sub-Basin scale decision-makers.
- iii. We work with Indigenous peoples to examine issues of water values, water access, and water quality relevant to communities and to improve knowledge and understanding to inform sound and respectful decision making that impacts communities.
- iv. We work actively with MDB policy-makers across the public service, catchment management organisations, businesses, farmers, cooperatives, and community sectors to enhance capacity for long-term planning and adaptation in the face of uncertainty, including with respect to climate change adaptation and mitigation.
- v. We collaboratively explore policy, practice and planning options beyond the 2026 review of the Basin Plan to establish longer-term goals, strategies and decision making.
- vi. We enhance the futures literacy of current and future decision-makers in public, private and community sectors through collaboration, education and professional development.



Great Barrier Reef catchments

Goal

IWF fosters and facilitates capacity for holistic, long-term thinking and planning across a growing range of GBR partners in support of effective adaptive governance and management with regard to, but not limited by, the Reef 2050 Long-Term Sustainability Plan.

Actions

- i. We enable decision-makers to engage explicitly and constructively with uncertainty in monitoring, modelling and management, with a focus on water quality.
- ii. We assess, evaluate, and provide independent advice on existing water management programs and planned infrastructure projects.
- iii. We work actively with GBR catchment communities and government agencies to develop future-oriented models and other tools to respond to high priority management issues.
- iv. We enhance the futures literacy of current and future decision-makers through workshops, collaborative modelling and professional development.



Indigenous-led initiatives

Goal

IWF supports Indigenous leaders and communities in reaching their goals with regard to management of Country, economic development, cultural and ecological conservation and water justice.

Actions

- i. We engage proactively in Indigenous-led discussions around the development of ANU and partner contributions to just and sustainable management of country, including in collaboration with the ANU First Nations Portfolio and the Water Justice Hub.
- ii. We grow IWF's capacity in human resources, financial resources, and cultural awareness to support Indigenous-led organisations and with consideration of potential to mobilise partnerships to achieve shared goals.
- iii. We invest in relationships over the long term.
- iv. We create opportunities to enhance the futures literacy of current and future decision-makers through workshops and professional development.



Indo-Pacific region

Goal

IWF explores existing relationships and regional partnerships to identify synergies and opportunities, and develop future collaborations.

Actions

- i. We engage in regional forums and networks to understand current needs and assess possible areas of collaboration
- ii. We facilitate sharing of Indigenous peoples' experiences in relation to water needs and water justice
- iii. We foster knowledge exchange and mutual learning on water policy and practice across different countries, cultures and governance systems.
- iv. We create opportunities to enhance the futures literacy of current and future decision-makers through workshops and professional development.



Global engagement

Goal

IWF is an active and respected contributor to global water-related networks, in academia and non-academic sectors.

Actions

- i. We make our research findings available in the context of their global relevance by actively participating in international and global forums and networks that align with our vision and aspirations.
- ii. We are recognised as world leaders in bringing future-oriented thinking, tools and methods to water issues.
- iii. We contribute to achieving the Sustainable Development Goals through effective provision of data, information and knowledge.