Country Survey Instrument for SDG Indicator 6.5.1

Degree of integrated water resources management implementation (0 – 100)

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| **Submission Form** | |
| **Country** | **AUSTRALIA** |
| Date this document was submitted | 12.08.2020 |
| **National SDG 6.5.1 Focal Point information** | |
| Name | KIRSTY BUNFIELD |
| Organisation | AUSTRALIAN GOVERNMENT DEPARTMENT OF AGRICULTURE, WATER AND THE ENVIRONMENT |
| Title | ASSISTANT SECRETARY, NATIONAL WATER POLICY BRANCH, WATER DIVISION |
| Are you the national Focal Point for any other SDG indicator (apart from 6.5.1)? **If yes, please insert ‘X’ for all that apply:** \_\_6.1.1 \_\_6.2.1 \_\_6.3.1 \_\_6.3.2 \_\_6.4.1 \_\_6.4.2 \_\_6.5.2 \_\_6.6.1 \_\_6.a.1 \_\_6.b.1 \_\_Other SDG indicator(s) (please specify here): | |
| **SDG 6.5.1 in-country data collection and reporting process overview** *(Please provide further details on the consultation process in Annex E)* | |
| Were other institutions/stakeholders involved and consulted in the reporting process for this indicator? \_X\_Yes \_\_No | |
| If yes, please indicate the mode(s) of consultation (please provide further details in Annex E): \_X\_Phone calls \_X\_Email exchanges \_\_In-person meetings \_\_Dedicated stakeholder workshop(s) \_\_Other (please specify): | |
| **Contact person regarding further questions/clarifications relating to this submission** | |
| \_\_SDG 6.5.1 Focal Point listed above \_\_Other (please specify contact details here): | |

## Part 1 – Introduction

This is the official survey instrument for country reporting on Sustainable Development Goal (SDG) indicator 6.5.1: “Degree of integrated water resources management implementation (0 – 100)”. The indicator measures progress towards target 6.5: “By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate”. The target supports the equitable and efficient use of water resources, which is essential for social and economic development, as well as environmental sustainability. The actions to achieve target 6.5 directly underpin the other water-related targets within SDG-6: “Ensure availability and sustainable management of water and sanitation for all”. Further guidance on completing this survey instrument is provided in the SDG indicator 6.5.1 [monitoring guide](http://iwrmdataportal.unepdhi.org/). Both this survey instrument and the monitoring guide are available from UN Environment in six UN languages (Arabic, Chinese, English, French, Russian and Spanish), and Portuguese through the Help Desk by emailing [iwrmsdg651@un.org](mailto:iwrmsdg651@un.org).

### About the indicator:

Indicator 6.5.1 represents the degree of integrated water resources management (IWRM) implementation, on a scale of 0 – 100. It is calculated based on scores from approximately 30 questions covering different aspects of IWRM.

### About the survey instrument

The primary purpose of the survey instrument is global monitoring and reporting on indicator 6.5.1. It has been designed to also be useful as a simple diagnostic tool for countries to identify strengths and weaknesses of different aspects of IWRM implementation. It measures implementation in incremental steps, which allows countries to identify barriers and enablers to furthering IWRM. The completed survey instrument can be used as an input to planning and working towards target 6.5.

The survey contains four sections, each covering a key dimension of IWRM (see definition in Annex A: Glossary):

**1. Enabling environment:** Policies, laws and plans to support IWRM implementation.

**2. Institutions and participation:** The range and roles of political, social, economic and administrative institutions and other stakeholder groups that help to support implementation.

**3. Management instruments:** The tools and activities that enable decision-makers and users to make rational and informed choices between alternative actions.

**4. Financing:** Budgeting and financing made available and used for water resources development and management (apart from drinking water supply and sanitation) from various sources.

Each section has two sub-sections covering the “National” and “Other” levels, to address the target 6.5 wording “… at all levels.” “Other” levels include sub-national, basin, local and transboundary (see Annex A - Glossary). Questions relate to these levels depending on their relevance to the particular aspect of IWRM. For most “other level” questions, the score should reflect the situation in most of the basins/aquifers/jurisdictions, unless specified otherwise. For the transboundary level questions, the score should reflect the situation in most of the ‘most important’ transboundary basins / aquifers, which should be listed in the table in Annex B. Filling out that table: increases the transparency of the transboundary questions; makes the information more useful for dialogue with neighbouring countries; and enhances coordination with [SDG indicator 6.5.2](http://www.sdg6monitoring.org/indicators/target-65/indicators652/) on arrangements for transboundary cooperation. It is recognised that water resources management in federal countries may be more complex due to responsibilities at different administrative levels. You may further explain any specific circumstances relating to the level of decentralization of water resources management and responsibility in your country (e.g. federal countries and other large countries) in Annex C.

### How to complete the survey

**Scoring:** For each question, a score between 0 and 100 should be selected, in increments of 10, unless the country judges the question to be ‘not applicable (n/a)’. It is not possible to omit questions. The score selection is guided by descriptive text for six thresholds, which are specific to each question. If a country judges the degree of implementation to be between two thresholds, the increment of 10 between the two thresholds may be selected. The potential scores that may be given for each question are: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.

The thresholds for each question are defined sequentially. This means that the criteria for all lower levels of implementation must be met in order for a country to respond that it has reached a specific level of implementation for each question. Furthermore, if an aspect of IWRM is specified in a lower threshold, it is implicit that this aspect is also addressed in the higher thresholds for that question. **Bold** text in the thresholds helps the reader differentiate between thresholds.

**The thresholds are indicative and are meant to guide countries in choosing the most appropriate responses, i.e. selected responses should be a reasonable match, but do not have to be a perfect match, as each country is unique**.

Instructions on how to calculate the overall indicator 6.5.1 score are provided in section 5.

**Narrative responses:** for each question, there are two free-text fields: “Status description” and “Way forward”. General guidance on the type of information that countries may find useful to include in each field is as follows:

**Status description:** e.g. refer to relevant activities/initiatives/laws/policies/plans/strategies or similar; comment on the degree of implementation as it relates to the threshold descriptions; barriers/enablers; and reflect on progress since the first round of reporting on SDG indicator 6.5.1 (baseline in 2017/18). Where possible, provide a brief explanation of why the score is different to the baseline. If reporting was not submitted for the SDG baseline, reflect on recent rates of implementation of relevant activities.

**Way forward:** e.g. already planned or recommended activities to advance implementation of that aspect of IWRM, including identifying barriers and enablers. Include draft interim target-setting for each question where appropriate (e.g. consider actions or recommendations for making progress). Any actions or recommendations provided in this field are neither binding nor comprehensive, but may be used as inputs to country planning processes.

Specific additional guidance is provided in each field for each question. Experience from baseline reporting shows that the free-text responses to each question are important, as they: increase the robustness, transparency and objectivity of the indicator scores; facilitate stakeholder consensus on each question score; help countries track progress between reporting periods; and help countries to analyse what is required to reach the next threshold.

In each field, enter the narrative response by replacing “xxx”. It is recommended that the guidance text is left in the free-text fields during the data collection process, but that this guidance text is deleted before final submission.

### Progress and differences since baseline reporting

172 countries established a baseline for indicator 6.5.1 in 2017/18. This is the second round of data collection. Where available, countries should refer to the baseline survey responses, available here: <http://iwrmdataportal.unepdhi.org/>. Countries are encouraged to consider progress, or lack of progress, since the baseline, in the ‘Status description’ fields, and give reasoning for differences in scores.

The current survey version is highly comparable, though not completely identical, to the baseline survey. Some minor amendments have been made following a review process, and noteworthy changes to the baseline are described in footnotes for relevant questions. A summary of changes is provided in the SDG indicator 6.5.1 [monitoring guide](http://iwrmdataportal.unepdhi.org/).

### Data collection and submission

A broad stakeholder engagement process is encouraged to complete the survey instrument. This helps to increase stakeholder participation and ownership of water management and decision-making processes, and makes the completed survey instrument a more robust and useful diagnostic tool for further discussions and planning. Country Focal Points are asked to fill in the Reporting Process Form in Annex E to increase transparency and increase stakeholder confidence in the results at all levels. The extent and mode of stakeholder engagement is up to each country, and further guidance is provided in the monitoring guide. Coordination with Focal Points for other SDG indicators is encouraged where feasible and relevant.[[1]](#footnote-2)

The national IWRM Focal Point is responsible for the Quality Assurance and formal submission of the completed survey instrument to UN Environment. The survey instrument should be emailed to the IWRM Help Desk at UN Environment: [iwrmsdg651@un.org](mailto:iwrmsdg651@un.org).

Upon request, the Help Desk will provide support to the national IWRM focal points on matters such as interpretation of questions and thresholds, the appropriate level of stakeholder engagement in countries, and support to submitting the final indicator scores.

# Part 2 – The survey

# Enabling environment

This section covers the enabling environment, which is about creating the conditions that help to support the implementation of IWRM. It includes the most typical policy, legal and planning tools for IWRM[[2]](#footnote-3). Please refer to the glossary for any terms that may require further explanation. **Please take note of all footnotes as they contain important information and clarification of terms used in the questions and thresholds**.

Enter your score, **in increments of 10**, from 0-100, or “n/a” (not applicable), in the yellow cell immediately below each question. Enter free text in the “Status description” and “Way forward” fields below each question as advised in the Introduction in Part 1. This will help achieve agreement among different stakeholders in the country, as well as help monitor progress over time. Suggestions for the type of information that may be useful are provided. You may also provide further information you think is relevant, or links to further documentation.

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| **1. Enabling Environment** | | | | | | | |
|  | | Degree of implementation (0 – 100) | | | | | |
|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) |
| **1.1 What is the status of policies, laws and plans to support Integrated Water Resources Management (IWRM) at the national level?** | | | | | | | |
| **a.** National water resources **policy,** or similar. | | Development **not started** or not progressing. | **Exists**, but not based on IWRM. | Based on IWRM, **approved** by government and starting to be used by authorities to guide work. | Being **used** by the majority of relevant authorities to guide work. | Policy objectives consistently **achieved.** | Objectives consistently achieved, and periodically **reviewed** and revised. |
| Score | 90 |
| **Status description**: Australia operates under a federal system of government. In Australia, State and Territory governments have primary responsibility for regulating and managing Australian water resources.  Local government also plays a crucial role in water management, particularly managing storm water, and in some instances water supply and wastewater treatment. The Australian Government provides national leadership, coordination and support to progress water reform.  At the national level, water resources policy reform are delivered through a number of policy frameworks including the National Water Initiative 2004 (NWI). Building on the Council of Australian Governments (COAG) Water Reform Framework, the NWI is a shared commitment by governments across Australia to increase the efficiency of Australia’s water use, leading to greater certainty for investment and productivity, for rural and urban communities, and for the environment. Progress on implementation of the NWI was reported by the former National Water Commission in 2007, 2009, 2011 and 2014. Under the Commonwealth *Water Act 2007* (the Water Act), the Productivity Commission (PC) is now required to undertake triennial assessments into the progress made towards achieving the objectives and outcomes of the NWI and the need for any future reform. The first PC assessment was undertaken in 2017 with the report published in 2018.  The assessment found that there has generally been good progress by States and Territories in implementing the NWI, and most of its objectives and outcomes have been met.  Further, the National Water Quality Management Strategy (NWQMS) is a joint national approach to improving water quality in Australia and New Zealand waterways. This strategy provides the information and tools to help communities manage their water resources to meet current and future needs. It provides policies, a process and a series of national guidelines for water quality management identifying the most cost-effective and timely projects for investment by all parties including Commonwealth, state and local governments. | | | | | | | |
| **Way forward:** The Australian Government is supportive of a renewed NWI and continues to work in partnership with jurisdictions to implement the current NWI and progress reform priorities identified in the 2017 PC report to further improve integrated water resource management in Australia. Priority areas identified for renewal include urban water, Indigenous Australian’s water needs, environmental water management, and investment in new infrastructure.  However, some states and territories have fallen behind and there remains further work for governments to complete unfinished business from the NWI, including fully implementing planning and entitlement reforms and economic regulation in some jurisdictions. In addition, governments need to respond to the challenges posed by community expectations, population growth and climate change. The Commonwealth and jurisdictions are working on renewing the NWI by December 2021.  Work is ongoing to maintain the relevance, currency, functionality and scientific rigour of the NWQMS and its guidelines. | | | | | | | |
| **b.** National water resources **law(s)**. | | Development **not started** or not progressing**.** | **Exists**, but not based on IWRM. | Based on IWRM, **approved** by governmentand starting to be applied by authorities. | **Being applied** by the majority of relevant authorities**.** | Alllaws are being **applied** across the country. | Alllaws are **enforced** across the country, andall people and organizations are held accountable. |
| Score | 90 |
| **Status description:**  The Water Actcommenced in 2008 and implemented key reforms for water management in Australia. The key features of the Water Act included establishing: the Murray–Darling Basin Authority (MDBA), a national framework to manage Murray–Darling Basin (the Basin) water resources, including the adoption of the Murray-Darling Basin Plan 2012 (the Basin Plan), and the Commonwealth Environmental Water Holder (CEWO). The Water Act also provided for water charge rules to be developed, for national water information to be provided and for enforcement mechanisms that support compliance. Enforcement mechanisms include injunctions, enforceable undertakings, civil penalties and enforcement notices for contravening a provision of the Water Act, the Water Regulations 2008, water charge rules and the Basin Plan.  The Basin Plan was developed as a requirement of the Water Act and a major step in the management of the Basin. The Basin Plan became law in 2012 and sets out the management objectives and outcomes to be achieved for the Basin. This includes the long-term average sustainable diversion limits on the amount of water that can be extracted for consumptive use in the Basin, an Environmental Watering Plan, a Water Quality and Salinity Management Plan, the requirements with which Basin state water resource plans must comply to be accredited by the Commonwealth, provision for critical human water needs, rules for trading and transfer of water rights and a program for monitoring and evaluating the effectiveness of the Basin Plan.  The Water Act and Basin Plan provide mechanisms for adjustment and improvement, including periodic reviews and reviews requested by Basin jurisdictions. The Water Act and Basin Plan also give effect to Australia’s obligations under relevant international agreements, such as the Ramsar Convention on Wetlands of International Importance.  The Commonwealth *Water Efficiency Labelling and Standards Act 2005* (WELS Act) established a scheme to apply national water efficiency labelling and performance standards to certain water-use products. The WELS Act aims to encourage uptake of water efficient products and appliances in domestic and commercial areas while maintaining individual choice and accounting for regional variations in water supply. The WELS Act is enforced across the country through tools such as monitoring, investigations, education, warning letters, infringement notices, enforceable undertakings, and seeking civil sanctions and penalties.  In addition, Australia's national environment law, the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), was amended in June 2013, to enshrine water resources as a matter of national environmental significance, in relation to coal seam gas and large coal mining development. The water trigger allows the impacts of proposed coal seam gas and large coal mining developments on water resources to be comprehensively assessed at a national level. | | | | | | | |
| **Way forward:**  The Australian Government is currently developing legislation to strengthen the compliance and enforcement powers in the Water Act and to introduce criminal offences for conduct such as water theft, meter tampering and the illegal construction of works.  These proposed changes have stemmed from a current lack of public confidence in the Basin’s compliance and enforcement systems, particularly since allegations that irrigators were illegally taking water throughout the northern Basin aired in 2017.  It is expected that legislating to strengthen compliance and enforcement powers and to introduce criminal offences to the Water Act will provide a deterrent to illegal water take, thereby enhancing the protection of water rights for all water users.  The Australian Government is also considering legislation to establish a statutory role that provides independent oversight and monitors the progress of Basin state and Commonwealth agencies’ progress in delivering their commitments under Commonwealth water legislation.  Strengthening the compliance and enforcement powers under the Water Act forms part of the government’s commitment to increase transparency and accountability in the management of the Basin’s water resources. | | | | | | | |

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|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) | |
| **c.** National integrated water resources management (IWRM) **plans**, or similar. | | Development **not started** ornot progressing**.** | **Being prepared**, but not approved by government. | **Approved** by government and starting to be implemented by authorities. | Being **implemented** by the majority of relevant authorities. | Plan objectives consistently **achieved**. | Objectives consistently achieved, and periodically **reviewed** and revised. | |
| Score | 80 |
| **Status description:**  In 2012, the Basin Plan became law, setting out management objectives and outcomes for the Basin, including long-term average sustainable diversion limits on the amount of Basin water extracted for consumptive use, an Environmental Watering Plan, and a Water Quality and Salinity Management Plan. The Basin Plan also outlines the requirements with which Basin state water resource plans must comply in order to be accredited by the Commonwealth, provision for critical human water needs, rules for trading and transferable of water rights and a program for monitoring and evaluating the effectiveness of the Basin Plan.  The Water Actand Basin Plan provide mechanisms to review the Basin Plan including periodic review requests by Basin jurisdictions. The Basin Plan is to be reviewed on a regular basis to ensure that current terms and conditions of the Basin Plan are suitable to enable environmental improvements to the Basin’s rivers and wetlands, taking into account the socio-economic impact to the communities that are reliant on the Basin.  The Great Artesian Basin Strategic Management Plan 2019 (GAB Plan) which was released in July 2020, outlines how communities, businesses, traditional owners and governments in the Basin can use the resource sustainably. It includes seven principles with values and objectives to help improve water security in the Basin over the next 15 years. The GAB Plan has been prepared by a committee comprising of Australian and relevant state and territory governments and members of the Great Artesian Basin Coordinating Committee (GABCC) representing community and industry stakeholders. | | | | | | | | |
| **Way forward:** A cornerstone of the strategy for managing water resources in the Basin is adaptive management – ‘learning as you go’ by trialling techniques, monitoring, and making changes as needed.  Water managers must be flexible and dynamic to ensure the best possible outcomes are achieved. This is the modern way of managing natural resources. Adaptive management allows governments and communities to adjust their approach in response to current climatic conditions, new information and local knowledge when planning for the future. Regular 10-yearly reviews of the Basin Plan are required, which allow for emerging climate change patterns, new information, tools and techniques to be considered. These reviews could result in changing water limits or other water management arrangements. The first review will be conducted in 2026.  The GAB plan is accompanied by a 5-year ‘rolling’ implementation plan, outlining projects and activities that support the GAB plan principles. This plan has been agreed on by Commonwealth and relevant state governments. | | | | | | | | |
| **1.2 What is the status of policies, laws and plans to support IWRM at other levels?** | | | | | | | |
| **a. Sub-national**[[3]](#footnote-4)water resources **policies** or similar. | | Development **not started** or delayed in most sub-national jurisdictions. | **Exist** in most jurisdictions, but not necessarily based on IWRM. | Based on IWRM, **approved** by the majority of authorities and starting to be used to guide work. | Being **used** by the majority of relevantauthorities to guide work. | Policy objectives consistently **achieved** by a majority of authorities. | Objectives consistently achieved by all authorities, and periodically **reviewed** and revised. |
| Score | 80 |
| **Status description:**  All jurisdictions within Australian have water resources policies and plans, although the statutory nature of these arrangements varies across the states and territories. These frameworks include policies for water resource assessment and planning, policies for take and use of water and policies for protecting the environment.  Examples of state policies:   * Tasmania’s State Policy on Water Quality Management 1997 * Western Australia’s Waterwise Perth Action Plan is a two-year action plan with a ten-year strategy to transform Perth into a Waterwise city at multiple levels. * Australian Capital Territory Water Strategy 2014 -2044: Striking the Balance * Queensland Water Act 2000 and its subordinate legislation, being the water plans and the Queensland Environmental Protection (Water Policy 2009) * South Australian Licenced Water Use Metering Policy 2019 * Victoria’s *Water for Victoria* which sets out a policy and framework to guide smarter water management, bolster the water grid and support more liveable Victorian communities. Victorian legislation is also in place that sets out clear requirements for planning and management of water resources including long term water resource assessments and the development of sustainable water strategies. | | | | | | | |
| **Way forward:** | | | | | | | |
| **b**. **Basin/aquifer management plans**[[4]](#footnote-5) or similar, based on IWRM. | | Development **not started** or delayed in most basins/aquifers of national importance. | **Being prepared** for most basins/aquifers. | **Approved** in the majority of basins/aquifers and starting to be used by authorities. | Being **implemented** in the majority of basins/aquifers. | Plan objectives consistently **achieved** in majority of basins/aquifers. | Objectives consistently achieved in all basins/aquifers, and periodically **reviewed** and revised. |
| Score | 80 |
| **Status description:** There are 33 water resource plan areas across the Basin, which include groundwater and surface water areas. Each water resource plan area will have a water resource plan that outlines how a particular area within the Basin will be managed to align with the Basin Plan. Basin states are currently preparing water resource plans within their jurisdictions for assessment and accreditation by the Australian Government. As at August 2020, thirteen of the required water resource plans have been accredited and are currently operational.  The new GAB Plan, developed by Australian state and territory governments, outlines how communities, businesses, traditional owners and governments in the Basin can use the resource sustainably was released in July 2020.  Examples of state and territory planning include:   * In Western Australia, there are 25 water allocation plans covering priority groundwater and surface water resources at catchment or sub-basin scale. Additional new or replacement groundwater and surface water plans are being developed in response to climate change, new industry initiatives and/or to protect natural systems. Consultation is underway for a new water allocation plan for the Fitzroy River catchment to support the government position of no dams and sustainable development. A replacement groundwater allocation plan for the Gnangara groundwater system, the State’s most important groundwater resource, is in preparation, with a policy focus on transitioning water users to adjust to the impacts of climate change. Depending on the location, water allocation plans may be complemented by water quality improvement plans, water source protection plans, healthy waterways plans, and drainage plans – all at a smaller scale than water allocation plans. * In South Australia, water allocation plans have been developed for 31 of the 39 prescribed groundwater, surface water or watercourses that provide the framework for the sustainable take and use of the water resources. Plans are in development for another five of the prescribed water resources, with the remaining three resources being saltwater intakes that are not currently subject to active management. * In the Northern Territory, the Water Act 1992 allows for effective water resource management through the development and implementation of Water Allocation Plans which cover specific regions within designated Water Control Districts. Water Allocation Plans are developed through technical and scientific assessments, and extensive community participation and consultation. | | | | | | | |
| **Way forward:**  Water resource plans will continue to evolve and be adapted over time as new information, including information relating to climate variability, becomes available. They may need to be reaccredited in the future as they are adjusted and improved. | | | | | | | |

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|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) |
| **c**. **Arrangements for transboundary water management.**[[5]](#footnote-6) | | Development **not started** or not progressing. | **Being prepared** or negotiated. | Arrangementsare **adopted**. | Arrangements’provisions are **partly** **implemented**. | Arrangements’provisions are **mostly** **implemented**. | The arrangements’ provisions are **fully implemented**. |
| Score | n/a |
| **Status description:**  Transboundary matters are not applicable to Australia. | | | | | | | |
| **Way forward:** | | | | | | | |
| **d.** **Sub-national** water resources **regulations**[[6]](#footnote-7)(laws, decrees, ordinances or similar).[[7]](#footnote-8) | | Development **not started** or delayedin most sub-national jurisdictions. | **Exist** in most jurisdictions, but not necessarily based on IWRM**.** | Based on IWRM, **approved** in most jurisdictions and starting to be applied by authorities in some jurisdictions. | **Some** regulations **being applied** in the majority of jurisdictions. | **All** regulations **being** **applied** in the majority of jurisdictions. | All regulations being applied and **enforced** in all jurisdictions, and all people and organizations are held accountable. |
| Score | 90 |
| **Status description:**  All state and territory jurisdictions within Australia have water resources laws. For example:   * New South Wales – *Water Management Act 2000* and the *Water Act 1912* * Victoria – *Water Act 1989 and Catchment and Land Protection Act 1994* * South Australia – *Natural Resources Management Act 2004* and the *Landscape South Australia Act 2019* (the latter will supersede the *Natural Resources Management Act 2004* in July 2020). *River Murray Act 2003.* * Queensland – *Water Act 2000* * Tasmania – *Water Management Act 1999* * Western Australia – currently working to consolidate 6 Acts into 1 Act * Northern Territory – *Water Act 1992* * Australian Capital Territory – *Water Resources Act 2007* | | | | | | | |
| **Way forward:** | | | | | | | |

# Institutions and participation

This section is about the range and roles of political, social, economic and administrative institutions that support the implementation of IWRM. It includes institutional capacity and effectiveness, cross-sector coordination, stakeholder participation and gender equality. The 2030 Agenda stresses the importance of partnerships that will require public participation and creating synergies with the private sector.

The burdens of water-related work carried out predominantly by women have been acknowledged for decades,[[8]](#footnote-9) which has led to a focus on women’s practical needs around water, especially in relation to carrying water and managing it within the home. In the context of water resources management, there has been growing recognition that, a strategic and practical focus on increasing women’s voice and influence, at all levels of decision-making, must become a priority. Furthermore, mainstreaming gender in the water sector supports a range of targets in the SDGs, including under Goal 5 on achieving gender equality and empowering all women and girls.[[9]](#footnote-10) Including a gender-related question in this survey (q.2.2d) also addresses the call for gender disaggregated data in the 2030 Agenda.[[10]](#footnote-11)

**Please take note of all footnotes as they contain important information and clarification of terms used in the questions and thresholds**. Please refer to the glossary for any terms that may require further explanation.

Enter your score, **in increments of 10**, from 0-100, or “n/a” (not applicable), in the yellow cell immediately below each question. Enter free text in the “Status description” and “Way forward” fields below each question as advised in the Introduction in Part 1. This will help achieve agreement among different stakeholders in the country, as well as help monitor progress over time. Suggestions for the type of information that may be useful are provided. You may also provide further information you think is relevant, or links to further documentation.

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| **2. Institutions and Participation** | | | | | | | | |
|  | | Degree of implementation (0 – 100) | | | | | | |
|  | | Very low (0) | Low (20) | Medium-low (40) | | Medium-high (60) | High (80) | Very high (100) |
| **2.1 What is the status of institutions for IWRM implementation at the national level?** | | | | | | | | |
| **a.** National **government authorities**[[11]](#footnote-12) for leading IWRM implementation. | | **No** dedicated government authoritiesfor water resources management. | Authorities **exist**, with clear mandate to lead water resources management. | Authorities have clear mandate to lead IWRM implementation, and the capacity[[12]](#footnote-13) to effectively lead IWRM plan **formulation**. | | Authorities have the capacity to effectively lead IWRM plan **implementation**. | Authorities have the capacity to effectively lead periodic monitoring and **evaluation** of the IWRM plan(s). | Authorities have the capacity to effectively lead periodic IWRM plan **revision**. |
| Score | 100 |
| **Status description:**  The Australian Government Department of Agriculture, Water and the Environment (DAWE) provides national leadership in water reform and integrated water resource management.  The Murray-Darling Basin Authority (MDBA) and Commonwealth Environmental Water Holder (CEWH) were established in 2008 under the *Water Act 2007* (the Water Act).   * The MDBA has a lead role in the delivery of Basin reforms including the development and implementation of the Murray-Darling Basin Plan (Basin Plan). Under the legislated framework for monitoring and evaluating the effectiveness of the Basin Plan, the MDBA leads a range of review cycles for components of the Basin Plan (e.g. the Environmental Watering Plan framework) five-yearly evaluation reviews. * The CEWH manages water recovered by the Australian Government so as to protect and restore environmental assets such as rivers, wetlands and floodplains consistent with the Basin Plan Environmental Watering Plan. The MDBA and CEWH have capacity and expertise as well as practical river operations experience and advanced modelling systems to monitor the delivery of environmental water and evaluate the environmental outcomes achieved through its use. * The Australian Bureau of Meteorology (BoM) contributes to national social, economic, cultural and environmental goals by providing observational, meteorological, hydrological and oceanographic services and by undertaking research into science and environment related issues in support of its operations and services. BoM also provides a suite of national water assessments, an annual overview report of Australia’s water situation, an interactive portal for annual water resource information at temporal and spatial scales and monthly updates of recent rainfall and streamflow across Australia. This water data and information supports the water resources management and decision making processes.     The Australian Competition, and Consumer Commission (ACCC), under the Water Act and the *Competition and Consumer Act 2010*(the CCA), has several functions in water. The ACCC has monitoring, enforcement, advisory and, in some cases price setting roles, for the water market rules and water charge rules made by the Commonwealth Water Minister under the Water Act.  The National Water Grid Authority (NWGA) was established by the Australian Government to play a key role in shaping national water infrastructure policy and investment.   * This includes leading the development of a National Water Grid – a series of region-specific systems that will help secure reliable supplies of water now and into the future. * The NWGA works in partnership with state and territory governments to identify, plan and invest in water infrastructure projects across the country that will support thriving regions by growing our agriculture sector, increasing water security and building resilience. | | | | | | | | |
| **Way forward:**   * The Australian Productivity Commission (PC)—the government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians—undertake audits of the Basin Plan and water resource plans on a five-yearly basis. The last review report—Murray–Darling Basin Plan: Five-year assessment, Productivity Commission Inquiry Report, No.90, 2018—was released to the public on 25 January 2019. It reported on progress to date in implementing the Basin Plan and provided recommendations on actions required to ensure effective achievement of Basin Plan outcomes. The PC found that significant progress has been made in implementing the Basin Plan and that, overall, it is progressing well. Most of the recommendations involve incremental improvements to the current arrangements. Others are to provide the strong foundations needed for the Basin Plan to succeed—sound governance, good planning, and effective and adaptive management. * The reports over the past couple of years have highlighted that successful implementation of the Basin Plan will require increased attention in the following areas: * responding to climate change * engaging Aboriginal peoples for positive cultural outcomes * building resilient communities and strengthening economic outcomes * enhancing environmental outcomes * restoring confidence in the Basin Plan. * A Joint Murray-Darling Basin (the Basin) government response to the PC inquiry report addresses key themes raised by this and other review reports. The response is from all six governments of the Basin and represents a commitment to continue the task of implementing the Basin Plan in full and without delay.   Under the Water Act*,* the PC is required to undertake three-yearly inquiries into the progress of reform in Australia’s water resources sector. The PC are undertaking the second such inquiry during 2020. It will look at the progress of all Australian governments in achieving the objectives, outcomes and timelines of reform directions proposed in the 2004 Intergovernmental Agreement on a National Water Initiative (NWI). Practical advice is also expected to be provided on ways in which the NWI might be improved including what institutional, governance and policy changes should be included in the NWI renewal to address known issues and any perceived or emerging gaps from stressors and threats to water security. The report is due in 2021. | | | | | | | | |
| **b. Coordination between** nationalgovernment authorities representing **different sectors**[[13]](#footnote-14) on water resources, policy, planning and management. | | **No information** sharedbetween different government sectors on policy, planning and management. | **Information** on water resources, policy, planning and management is made available between different sectors. | | **Communication:** Information, experiences and opinions are **shared between** different sectors. | **Consultation:** Opportunities for different sectors to **take part** in policy, planning and management processes. | **Collaboration:** Formal **arrangements** between different government sectors with the objective of agreeing on collective decisions on important issues and activities. | **Co-decisions and co- production:**  Shared power between different sectors on joint policy, planning and management activities. |
| Score | 90 |
| **Status description:**  Currently there are several working groups and committees where government authorities representing different sectors participate in water resources policy, planning and management. For example, the Murray-Darling Basin Community Committee (established under the Water Act) represents the diverse interests of Basin communities including water users, industry groups and First Nation Representatives. The Murray-Darling Basin Officials Committee (also established under the Water Act) facilitates cooperation and coordination between the federal government, the Basin states and MDBA in funding works, managing the Basin water resources and implementing the Basin Plan.  The Murray Darling Basin Ministerial Council (the Council) comprises Water Ministers from each of the Basin states and the Commonwealth, with the Federal Minister chairing the council. The Council has policy and decision-making roles for matters such as state water shares, and the funding and delivery of natural resource management programs, as set out in the Murray–Darling Basin Agreement. MDBA is required to prepare an annual corporate plan for approval by the Ministerial Council in relation to these matters. The Council also has a policy and decision-making role regarding issues relating to critical human needs as provided for in the Water Act.  The Australian Government along with the States and Territory Governments meet to discuss national water reform matters and developments through the National Water Reform Committee (NWRC) and its sub committees including the Urban Water Reform Committee (UWRC).  Interim NWRC and sub-committee arrangements were established in 2014 to continue cooperative national water reforms across all jurisdictions. Jurisdictional Water Ministers agreed to the formalisation of the NWRC in March 2017. Sub-committees are tasked with delivering priority reform projects e.g. developing a National Groundwater Strategic Framework.  Established in 2004, the Great Artesian Basin Coordinating Committee (GABCC) provides advice from community organisations and agencies to Ministers on efficient, effective and sustainable whole-of-resource management, and coordinates activity between stakeholders. The GABCC will disband on the release of the Great Artesian Basin Strategic Management Plan (GAB Plan). The Great Artesian Basin Stakeholder Advisory Committee (GABSAC) will be established in its place.  The Lake Eyre Basin Community Advisory and the Lake Eyre Basin Scientific Advisory Panel provide community views and expert science advice to Ministers on matters affecting the health of the basin.    The National Performance Roundtable group report on water utilities and the inter-jurisdictional Water Efficiency Standards and Labelling Group.  There is also the Independent Expert Scientific Committee that provides advice for coal seam gas and large coal mining projects which required a federal environmental assessment, including assessments of significant impacts on water resources.  Geoscience Australia is working with national government departments and authorities (for example DAWE, the Department of Industry, Science, Energy and Resources, the NWGA and BoM) on a range of groundwater-related projects that facilitate coordination between government agencies on water resource understanding, planning and management. Geoscience Australia also provides groundwater-related advice to regulatory authorities that are involved in the planning and management of water resources and participates in a number of the national water resource coordination activities and meetings discussed in this document.  Geoscience Australia in collaboration with State/Northern Territory government agencies, research and industry partners is finalising the Exploring for the Future Programme, which is a four-year geoscience data and information collection programme that aims to better understand the groundwater resource potential of Northern Australia. The groundwater programme focuses on addressing groundwater resource knowledge gaps to underpin future opportunities for irrigated agriculture, mineral and energy development and community water supply. | | | | | | | | |
| **Way forward:**  The Australian Government appointed an independent panel to assess social and economic conditions in rural and regional communities across the Basin and identify the social and economic impacts of the water reforms on Basin communities and their development potential. The Panel delivered their findings in early 2020 and the Government is currently considering options to respond to the recommendations made in relation to drivers and impacts in other sectors.  The GABSAC is being established to enable Basin ministers, responsible for Great Artesian Basin matters to be fully advised of the views of industry, communities and other stakeholders on water matters concerning the Great Artesian Basin. The Committee is to work together with Great Artesian Basin governments to provide advice to support ministers’ decision making on whole-of-Basin matters. Members of the Committee will have skills-based expertise in relevant fields including groundwater science, economic development, environmental matters, water resource policy, social matters and community education and engagement.  The Australian Government directed the ACCC to conduct an inquiry into markets for tradeable water rights in the Basin. The ACCC will be asked to recommend options to enhance markets for tradeable water rights, including options to enhance their operations, transparency, regulation, competitiveness and efficiency. | | | | | | | | |

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|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) |
| **c.** **Public participation**[[14]](#footnote-15) inwater resources, policy, planning and management at national level. | | **No information** sharedbetween government and the public on policy, planning and management. | **Information** on water resources, policy, planning and management is made available to the public. | **Communication:**  Government authorities **request** information, experiences and opinions of the public**.** | **Consultation:**  Government authoritiesregularly **use** information, experiences and opinions of the public. | **Collaboration:**  **Mechanisms**[[15]](#footnote-16) established, and regularly used, for the public to take partin relevantpolicy, planning and management processes. | **Representation:** Formal representation ofthe public in government processes contributing to decision making on important issues and activities, as appropriate. |
| Score | 90 |
| **Status description:**  The Water Act sets out a legislated consultation process, which the MDBA is required to follow, for the preparation of amendments to the Basin Plan. Public consultation has also occurred during previous reviews, such as the 2014 Water Act Review, the ACCC review into the water charge rules and BoM’s water information review. Reviews such as these regularly allow members of the public to make a submission as part of the review process. The ACCC also provided multiple opportunities between 2015 and 2016 for stakeholders to participate as part of the review of the water charge rules prior to finalising its advice to the Minister for consideration. These reviews and other inquiries undertaken by Australia’s Parliamentary Committees provide opportunities for stakeholders to participate and provide contributions for consideration.  The Water Act also requires the PC to undertake a five-yearly assessment of the effectiveness of implementation of the Basin Plan and Water Resource Plans and a triennial assessment of progress of parties to the National Water Initiative (NWI). A legislated consultation process must be followed for the Basin Plan assessments and assessments of NWI progress require, by legislation, the establishment of a stakeholder working group.  Efficiency Measures programs are developed in consultation with business, government, industry and community stakeholders. In mid-2015, the then Department of Agriculture and Water Resources sought advice from key stakeholders in the development of a draft program design for the first of these programs the Commonwealth On-Farm Further Irrigation Efficiency (COFFIE) program, and in late 2015 the department sought comments about the draft program design through a broad public consultation process.  The Water Efficiency Program was established to address additional socio-economic criteria agreed by the Murray-Darling Basin Ministerial Council. These criteria were established in response to feedback from the community in relation to potential adverse socio-economic impacts associated with the delivery of Efficiency Measures programs. The Water Efficiency Program also includes a public comment process for each proposed water savings project.  Water programs are subject to a high level of internal and external scrutiny through audits conducted by the Australian National Audit Office (ANAO), internal audits, parliamentary and other inquiries and reviews.  Currently an independent review of the Efficiency Measures programs funded under the Water for the Environment Special Account is being undertaken to determine the progress made towards achieving the outcomes as required by the Water Act.  The Commonwealth Environmental Water Office (CEWO) employs six local engagement officers that live within local communities throughout the Basin and who consult extensively with stakeholders regarding delivery of the Commonwealth environmental water portfolio. Each year the CEWO provides opportunities for local communities to take part in the planning and management of the Commonwealth environmental water portfolio through input into the development of annual Portfolio management plans.  Formal representative groups include:   * Northern Basin Advisory Committee and Northern Basin Aboriginal Nations, which participated in the recent Northern Basin Review. * Lake Eyre Basin Community Advisory Committee and Lake Eyre Basin Scientific Advisory Panel, which maintain close contact with communities and groups in the basin and provide advice, representation and feedback on matters relevant to the management of water and related natural resources in the Lake Eyre Basin Agreement area. * Murray-Darling Basin Community Committee provides a community perspective on a wide range of water resource, environment, culture and socioeconomic matters in relation to Basin Plan implementation * GABCC provides advice from community organisations and agencies to Ministers on efficient, effective and sustainable whole-of-resource management, and coordinates activity between stakeholders. The GABCC will be replaced by GABSAC in late 2020. * During the development phase of the Basin Plan the MDBA consulted widely to draw on people’s knowledge, experience and expertise. * The MDBA invited people to make submissions on the proposed Basin Plan. The invitation was published in metropolitan and regional newspapers in the Basin, on the MDBA's website, and in a Special Gazette. * During this time the MDBA also organised a wide range of meetings and events to engage with many different stakeholder groups in the Basin. * Engagement with Aboriginal people has occurred over the past couple of decades through the Murray Lower Darling Rivers Indigenous Nations and in the last ten years, with the Northern Basin Aboriginal Nations. Engagement with traditional owners is increasing with involvement in capacity-building projects such as cultural flows research and their participation in formal consultative process for the proposed Basin Plan. Local traditional owners have been consulted by state agencies in the development of catchment-based water resource plans that sit under the Basin Plan.   Community and private sector engagement is an essential part of processes for state water resource management planning, as outlined in the NWI Policy Guidelines for Water Planning and Management: <https://www.agriculture.gov.au/water/policy/nwi/guidelines-water>.  The Western Australian Government released the Waterwise Perth Action Plan which sets out the direction for transitioning Perth to a waterwise city by 2030. The plan includes numerous actions to be implemented by state agencies, industry, business and the community to deliver water use efficiencies and the development of alternative water supplies to ensure Perth’s lifestyle and business opportunities are maintained in a changing climate. | | | | | | | |
| **Way forward:**  An Independent Murray-Darling Basin Social and Economic Assessment Panel (the Panel) was recently established to deliver a report on the social and economic conditions in the Basin. The Panel sought public feedback on its Terms of Reference during late July and August 2019 and undertook a substantial community engagement roadshow during October 2019. The final report was submitted 30 of April 2020.   * The Panel sought public feedback on its Terms of Reference during late July and August 2019 and undertook a substantial community engagement roadshow during October 2019.   The Interim Inspector-General of Murray–Darling Basin Water Resources, Mick Keelty AO, has undertaken an Inquiry into the management of the Basin’s water resources.   * The Interim Inspector-General has consulted with stakeholders across the Basin to inform aspects of the Inquiry. * This Inquiry was conducted independent to DAWE. The Inquiry was completed with a report provided to the Minister on 31 March 2020.   On 7 August 2019 the Government directed the ACCC to conduct an inquiry into the operation of water markets in the Basin. The ACCC will be asked to recommend options to enhance transparency, regulation, competitiveness and efficiency of the water markets.   * The ACCC has consulted with a wide range of water market participants and other persons involved in water markets in the Basin.   The ACCC is required to complete the inquiry and provide a final report to the Treasurer by 30 November 2020. The Australian Government continues to work in partnership with jurisdictions to implement the current NWI and progress reform priorities identified through the PC’s first inquiry into water reform in 2017. The PC will undertake its second triennial assessment in 2020 and this will help inform future reform efforts. | | | | | | | |
| **d.** **Private sector**[[16]](#footnote-17) **participation** inwater resources development, management and use. | | **No information** sharedbetween government and private sector about water resources development, management and use. | **Information** made available between government and private sector about water resources development, management and use. | **Communication** between government and private sector about water resources development, management and use. | **Consultation:** Government authorities regularly involve the private sector in water resources development, management and use activities. | **Collaboration: Mechanisms**[[17]](#footnote-18) established, and regularly used, for private sector involvement and partnership. | **Representation:** Effective private sector involvement established for water resources development, management and use activities. |
| Score | 90 |
| **Status description:**  Community and private sector engagement is an essential part of processes for state water resource management planning, as outlined in national guidelines. It is usual practice for Australian government agencies to consult with the private sector.  Australia regularly engages with private sector stakeholders through peak bodies that are involved and regularly engaged on water resource policy, management and programs. Examples of these peak bodies include the Australian Water Association, Water Services Association of Australia, National Irrigators’ Council, National Farmers Federations, Australian Conservation Foundation, Murray Lower Darling Rivers Indigenous Nations and the Northern Basin Aboriginal Nations etc. Stakeholders are also engaged individually through private and public meetings.  Infrastructure programs regularly seek feedback from industry bodies to improve implementation of funding rounds or in the development of new programs.  The Water Efficiency Program also uses Delivery Partners, which may be a part of a State Government, to develop, manage and implement projects with industry and individuals.  The ACCC inquiry into the operation of water markets in the Basin has included meetings with businesses and the community as well as a call for submissions for publication during the inquiry. The interim inquiry reports will also be available for community consideration. The ACCC commenced the inquiry in August 2019 and will finish it in November 2020, allowing sufficient time for business consideration. BoM also undertook a review of the water information function and engaged with the regulated community, including industry and government.  In 2017, the Northern Basin Taskforce held discussions with various business organisations as part of its consultation process. In particular, feedback was sought on recommendations from the Murray-Darling Basin Authority’s Northern Basin Review. There were also many local organisations and groups that participated including Environment Victoria, Namoi Water, Border Rivers Food & Fibre etc.  The Western Australian Government released the Waterwise Perth Action Plan which sets out the direction for transitioning Perth to a waterwise city by 2030. The plan includes numerous actions to be implemented by state agencies, industry, business and the community to deliver water use efficiencies and the development of alternative water supplies to ensure Perth’s lifestyle and business opportunities are maintained in a changing climate.  The South Australian Government is actively working with the local water sector to support new market and investment opportunities within the State and internationally. The Government provides a brokerage service to connect the water industry with local and global partners to enable:   * The supply of products and services; * Inward business investment; * Research and development collaboration; * Education and training. | | | | | | | |
| **Way forward:**  Australian government agencies will continue to consult with the private sector to ensure water resource management policies are developed with consideration of perspectives.  Under the Water Act, the PC is required to undertake three-yearly inquiries into the progress of reform in Australia’s water resources sector. As part of this inquiry, an issues paper was released on 26 May 2020 to guide people in preparing a submission. It outlines a range of issues on which the Commission is seeking information and feedback. Participants are asked to provide evidence to support their views, including data and specific examples where possible.  As an example, the Australian Government will shortly commence consultation with peak bodies, including the National Irrigators’ Council and First Nations groups, on the proposed amendments to the Water Act that will strengthen the compliance and enforcement powers of the MDBA. This will provide peak bodies with an opportunity to shape the legislation prior to its introduction to Parliament.  South Australia is continuing to develop a dedicated water industry development plan to support the further growth of this sector and to build private capacity as a foundation to continuously adapt to water related climate change impacts on the environment, economy and society. This strategy will identify and enable programs to leverage all industry development avenues, including delivering products and services that align with the Governments overarching water management policy agenda. | | | | | | | |

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|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) | |
| **e. Developing IWRM capacity**.[[18]](#footnote-19) | | **No** capacity development specific to water resources management. | **Occasional** capacity development, generally limited to **short-term** / ad-hoc activities. | **Some long-term** capacity development initiatives are being implemented, but geographic and stakeholder coverage is **limited**. | **Long-term** capacity development initiatives are being implemented, and geographic and stakeholder coverage is **adequate**. | Long-term capacity development initiatives are being implemented, with **effective** outcomes, and geographic and stakeholder coverage is **very good**. | Long-term capacity development initiatives are being implemented with **highly effective** outcomes, and geographic and stakeholder coverage is **excellent.** | |
| Score | 90 |
| **Status description:**  Australia has committed to various programmes aiming to provide long term capacity development, including:   * Indigenous Rangers – Working on Country * Murray-Darling Basin Authority’s Aboriginal Waterways Assessment Programme which provides a tool that consistently measures and prioritises river and wetland health so that Traditional Owners can more effectively participate in water planning and management in the Basin. Traditional owners from several parts of the Basin have participated in this program as applied to their area/part.   There are a number of capacity-building initiatives being undertaken to improve outcomes for First Nations in Murray-Darling Basin water management. The MDBA have partnership agreements with the Northern Basin Aboriginal Nations (NBAN) and the Murray Lower Darling Rivers Indigenous Nations (MLDRIN). These are independent, self-determining, Traditional Owner-based organisations with a primary focus on natural resource management. Through consistent support and engagement, these representative bodies have continued to mature and increase their capacity for participation in water management. There are now a number of initiatives focused on building capacity of First Nations, including in relation to two-way knowledge sharing for First Nations’ environmental watering objectives to be incorporated in environmental water planning, and a National Cultural Flows Research Project, which established a national framework for cultural flows (water entitlements for Aboriginal peoples).  Additional MDBA capacity-building initiatives include:   * International engagement with other countries in basin planning and IWRM. The MDBA is a member of the Australian Water Partnership, has a MoU arrangement with the Mekong River Commission, and provides briefings to visiting country delegations (e.g. Pakistan, Nepal) and presents at international conferences to share knowledge of IWRM in Australia. * Development and distribution of educational material for primary and secondary school students on a broad range of issues around IWRM, including traditional and modern management mechanisms and environmental systems.   There are also significant capacity building activities carried out by sub-national governments, including regionally based authorities with responsibility to engage with local communities on natural resource management activities. | | | | | | | | |
| **Way forward:** Inclusion of MLDRIN and NBAN representatives in environmental water decision making forum to continue building capacity of these organisations to meaningfully participate in water planning and decision-making.  The MDBA continues to develop a suite of water management factsheets to improve public understanding of IWRM arrangements in the Basin.  Geoscience Australia is committed to further developing national IWRM capacity by developing guidelines and resources to support nationally consistent approaches to understanding Australia’s groundwater systems. | | | | | | | | |
| **2.2 What is the status of institutions for IWRM implementation at other levels?** | | | | | | | | |
| **a.** **Basin/aquifer level**[[19]](#footnote-20) **organizations**[[20]](#footnote-21) for leading implementation of IWRM. | | **No** dedicated basin authorities for water resources management. | Authorities **exist**, with clear mandate to lead water resources management. | Authorities have clear mandate to lead IWRM implementation, and the capacity[[21]](#footnote-22) to effectively lead IWRM plan **formulation**. | Authorities have the capacity to effectively lead IWRM plan **implementation**. | Authorities have the capacity to effectively lead periodic monitoring and **evaluation** of the IWRM plan(s). | | Authorities have the capacity to effectively lead periodic IWRM plan **revision**. |
| Score | 100 |
| **Status description:** The Council of Australian Governments (COAG) was the former peak intergovernmental forum in Australia. COAG was comprised of the Prime Minister, State Premiers, Territory Chief Ministers and the President of the Australian Local Government Association and sought to initiate, develop and monitor the implementation of policy reforms that are of national significance and which require cooperative action by Australian governments. On 29 May 2020, the Prime Minister announced that COAG will cease and a new National Federation Reform Council (NFRC) will be formed, with National Cabinet at the centre of the NFRC.    The Murray-Darling Basin Ministerial Council (Ministerial Council) was established by the Murray-Darling Basin Agreement which forms Schedule 1 to the Water Act and comprises of Ministers from each of the Basin states and the Commonwealth who also chairs the Ministerial Council. Ministerial Council’s roles and responsibilities are defined in the Water Act and includes policy and decision-making roles for matters such as state water shares and the funding and delivery of natural resource management programs, as set out in the MDBA. The Ministerial Council is supported by the Basin Officials Committee and various senior officials working groups.  The Lake Eyre Basin Ministerial Forum comprises Ministers from each of the Basin states and territory and the Commonwealth who also chairs the forum. The Ministerial Forum will develop or adopt policies and strategies for the management (water and related natural resources) of the Lake Eyre Basin Agreement Area in accordance with the purpose and objectives set out in the Lake Eyre Basin Agreement to avoid or eliminate so far as reasonably practicable adverse cross-border impacts.  The MDBA and CEWH were established in 2008 under the Water Act.   * The MDBA has a lead role in the delivery of Basin reforms including the development and implementation of the Basin Plan. The Basin Plan has various mechanisms which support evaluation and review. The MDBA undertakes an annual review of the effectiveness of the Basin Plan consistent with the Water Act. There are two ‘built-in’ formal evaluations of the Basin Plan. The MDBA conducted a preliminary evaluation in 2017 to monitor progress and shape future management decisions and will conduct five-yearly evaluations of the Basin Plan from 2020. * A formal 10-yearly review will take place in 2026, informed by the results of the five-yearly evaluations. * In recent years, the MDBA has commenced its compliance program to monitor and enforce compliance with the Basin Plan. The MDBA regulates the state water agencies who have the front-line responsibility for water planning, river operations and water compliance. In undertaking this role, the MDBA has a range of powers and tools available to detect and manage non-compliance, including auditing and investigations (including the use of contemporary technology such as remote sensing). The Independent Assurance Committee (IAC) for Compliance provides expert advice on the design, implementation and adequacy of the MDBA’s Basin Plan compliance program. * The CEWH manages water recovered by the Australian Government to protect and restore environmental assets such as rivers, wetlands and floodplains consistent with the Basin Plan Environmental Watering Plan. The MDBA and Commonwealth Environmental Water Holder have capacity and expertise as well as access to practical river operations experience and advanced modelling systems. | | | | | | | | |
| **Way forward:**  In 2019 the Water and Environment Research Program was announced. This is a four-year research program worth $20 million to improve scientific knowledge of the Basin to help inform decision and outcomes. The WERP provides an important opportunity to strengthen knowledge and research partnerships, enabling a sound evidence-base for evaluations and to address the complex challenges facing Basin water management.  The MDBA is beginning preliminary planning for the review of the Basin Plan in 2026. | | | | | | | | |

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|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) | |
| **b.** **Public participation**[[22]](#footnote-23) inwater resources, policy, planning and managementat the **local** **level.**[[23]](#footnote-24) | | **No information** sharedbetween government and the public on policy, planning and management. | **Information** on water resources, policy, planning and management is made availabletothe public**.** | **Communication:**  Government authorities **request** information, experiences and opinions of the public**.** | **Consultation:**  Government authoritiesregularly **use** local level information, experiences and opinions of the public. | **Collaboration:**  **Mechanisms**[[24]](#footnote-25) established, and regularly used, for the public to take partin relevantpolicy, planning and management processes. | **Representation:** Formal representation of the public in local authority processes contributing to decision making on important issues and activities, as appropriate. | |
| Score | 90 |
| **Status description:**  The Water Act and the Basin Plan set out the consultation requirements for the development of state Water Resource Plans (WRPs), the environmental watering plan and annual environmental watering priorities. These include specific requirements for consultation on Indigenous values and uses of water resources. Sub-national governments conduct public consultation and engagement in various ways, such as:   * Western Australia’s Department of Water undertook extensive public consultation in 2012 on proposed changes to State water legislation outlined in the publication of Securing Western Australia’s water future – a position paper. The public was invited to submit written responses to the position paper. The department also conducted workshops in metropolitan and regional areas with water licensees and interested stakeholders. A Water Resources Management Bill is being drafted to incorporate government policies and address issues identified during the consultation phase of the proposed new legislation. Public participation is part of all local water planning processes. * The Australian Capital Territory undertook community consultation on its draft water resource plan in 2016. * Queensland announced the public consultation process on its draft environmental values and water quality objectives via gazette notice in 2017 and subsequent public notices in local newspapers. Consultations drafts were available for comment online via a survey for each project region. Queensland’s Warrego-Paroo-Nebine Water Resource Plan was recently accredited and it demonstrated extensive consultation with the local community, including the Indigenous community, during the preparation of the WRP. * New South Wales has undertaken extensive public consultation in its water resource plan development process, including inviting key stakeholders to make submissions on initial discussion papers on the issues in each catchment, conducting targeted and on-going engagement with locally-based stakeholders through established Stakeholder Advisory Panels and Environmental Water Advisory Groups in each catchment, extensive consultation with First Nations groups, and public exhibition of draft statutory instruments. * Victoria, South Australia and the Australian Capital Territory also undertook similar consultation and engagement processes as part of the development of their water resource plans. * Victoria has placed formal obligations on catchment management authorities and water corporations requiring extensive public consultation when undertaking water resources, policy, planning and management at the local level. This includes requiring engagement with traditional owners. * In South Australia, the regional natural resources management boards (soon to be replaced by landscape boards under the *Landscape South Australia Act 2019)* have a community-based membership. The boards are responsible for undertaking community consultation during the development or amendment of water allocation plans for the prescribed water resources in their region.   Since 2018, the Murray-Darling Basin Authority has employed a number of Regional Engagement Officers located in Basin communities. This growing regional network regularly engage with local stakeholders to improve the flow of two-way communication between communities and the MDBA.  Basin Community Committee (BCC) provides a community perspective on a wide range of water resource, environmental, cultural and socioeconomic matters. They report on community concerns and issues around Basin Plan implementation and provide information to Basin communities on different programs. To assist in its advisory role the BCC forms irrigation, environmental water and Indigenous water subcommittees.  CEWO recently employed an additional six local engagement officers that live within local communities throughout the Basin and who consult extensively with stakeholders regarding delivery of the Commonwealth environmental water portfolio.  The Lake Eyre Basin Community Advisory Committee and the Scientific Advisory Panel who provide community views and expert science advice to Ministers on matters affecting the health of the Basin. | | | | | | | | |
| **Way forward:**  The Australian Government is relocating one third of MDBA staff to regional offices in the Basin by 2021. Further regionalising the MDBA creates opportunities to strengthen understanding of the Basin and its stakeholders, improve stakeholder relationships, and enhance its regional water management connections. There may also be opportunities for the MDBA to facilitate improved information flow and coordination of Australian Government initiatives at the local level.  Recent MDBA initiatives such as the development of a Native Fish Recovery Strategy have a strong focus on local engagement to build enduring partnerships with communities to design and implement on-ground actions. | | | | | | | | |
| **c.** **Participation of** **vulnerable groups** in water resources planning and management.[[25]](#footnote-26) | | Participation of vulnerable groups **not explicitly addressed** in laws, policies, or plans. | Vulnerable groups **partially addressed,** butno explicit proceduresin place.[[26]](#footnote-27) | **Some procedures in place**, but limited budget and human capacity for implementation. | Procedures in place, with **moderate participation** of vulnerable groups (moderate budget and human capacity). | **Regular participation** of vulnerable groups (sufficient budget and human capacity, and participation is monitored). | | **Meaningful[[27]](#footnote-28) and regular participation** of vulnerable groups, as appropriate. |
| Score | 70 |
| **Status description**:  The National Water Initiative recognises the water needs of Indigenous Australians by the necessity to consider these needs in water access planning and management. These involve:   * + the inclusion of Indigenous representation in water planning;   + developing water plans that incorporate Indigenous social, spiritual and customary objectives, and strategies for achieving these objectives;   + water planning processes that consider the possible existence of native title rights to water and the allocation of water to native title holders; and   + accounting for water allocated to native title holders for traditional cultural purposes.   Indigenous involvement has been improving over the past couple of decades with increased representation and, more recently, commitments to provide legal access to water for cultural and social purposes. More recently, engagement with Aboriginal nations was undertaken during the development of WRP’s under the Basin Plan.  In the 2017 review of National Water Reform, the PC made several recommendations regarding the need to revisit the NWI revising policy settings to address the needs of Indigenous Australians.   * The PC found that some states and territories had progressed consultation with Indigenous communities in water planning processes, but this did not extend to explicitly including details of Indigenous cultural values and outcomes in water plans. The final report found all jurisdictions needed to undertake further work in this area. * While some jurisdictions have made provisions for Indigenous access to water for economic use and development purposes, the NWI does not explicitly address the need to provide Indigenous Australians water for economic development purposes. * Indigenous communities may source water entitlements for consumptive use through standard entitlement frameworks; however, without removal of historical barriers, access remains a key area that needs to be addressed by government policy.   In 1998, the Murray Lower Darling Rivers Indigenous Nations (MLDRIN) confederation was established to pursue Aboriginal interests in water resource management in the southern half of the Murray-Darling Basin. The Northern Basin Aboriginal Nations confederation was formed in 2010 to represent Aboriginal nations in the northern part of the Murray-Darling Basin. The Water Act provides for BCC’s to provide a community perspective on water resource, environmental, cultural and socioeconomic matters. The BCC includes two dedicated Aboriginal committee members and an Indigenous subcommittee, who provide advice on matters relating to Aboriginal interests in the Basin.  The Water Act was amended in September 2019 to provide for the appointment of an Indigenous Authority member on the board of the MDBA.  The Australian Government has taken action to improve water access for Aboriginal people in the Basin by establishing the Murray-Darling Basin Aboriginal Water Entitlements Program. This program will provide $40 million over 4 years to help Indigenous communities invest in water for cultural and economic activities.   * The Australian Government has also funded research to inform our understanding of Aboriginal values relating to water. The National Cultural Flows Research Project is also developing tools to better integrate Aboriginal water requirements and preferences into water policy making and decisions. | | | | | | | | |
| **Way forward:** Governments have, on a no regrets basis, committed to explore renewing the way in which Indigenous water interests and uses are reflected in the NWI. The PC are currently undertaking the next review of the NWI and it will consider how jurisdictions have improved Indigenous involvement in water planning, the achievement of cultural outcomes, and progress made towards providing water for economic purposes.  The Birrarung Council was appointed by the Government in August 2018 as prescribed by the Yarra River Protection (Wilip-gin Birrarung murron) Act 2017 (the Act) to be the independent voice of the Yarra River as a living entity and to provide independent advice to the Government on the implementation of the Act.  Traditional Owners have a permanent voice through the Act’s requirement that at least two members of the Birrarung Council must be nominated from the Wurundjeri Woi-wurrung Cultural Heritage Aboriginal Corporation. The Birrarung Council will champion the interests of the Yarra River as one living and integrated natural entity, as reflected in the 50-year Community Vision and the Wurundjeri Woi-wurrung people’s place based water policy response to the Act; (Nhanbu narrun ba ngargunin twarn Birrarung) | | | | | | | | |

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|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) |
| **d.** **Gender included in laws/plans or similar** within water resources management.**[[28]](#footnote-29)** | | Gender considerations **not explicitly included** in national/ subnational laws/plans or similar. | Gender considerations **partially included** in laws/plans or similar. | Gender considerations **included** (but limited implementation, budget or monitoring)**.** | Gender **objectives[[29]](#footnote-30) partly achieved** (activities partially monitored and funded). | Gender objectives **mostly achieved** (activitiesadequately monitored and funded). | Gender objectives **consistently achieved** and effectively address gender issues (activities and outcomesreviewed and revised). |
| Score | 80 |
| **Status description**:  The Australian Government has an obligation under international law to respect, protect and fulfil human rights including gender equity. Australian legislation, policies and practice must comply with international human rights law and each new Bill introduced into Federal parliament is accompanied by a Statement of Compatibility with Australia’s international human rights obligations. Community input is an important part of government decisions on water, and the Australian Government engages with stakeholders through local, national and international forums. Women are engaged in development and implementation of water policies, initiatives and programs to ensure gender equality. There have been multiple benefits from the implementation of water infrastructure works in Australia including increased jobs and work life balance. The funding agreements also mention gender equality in relation to contracting.  There are no requirements under the Water Act or the Basin Plan to include gender considerations.  The Victorian Government’s *Water for Victoria* policy includes a focus on gender equity and to develop programs in support of women wanting to lead at the highest level. Gender balance in the sector will enrich discussions and see diverse perspectives result in better decision making and good legacy outcomes. The number of women on water sector boards has increased to more than 50 per cent of all positions, including 18 out of 29 chair positions. The Victorian Government has extended this into executive levels. Women currently represent only 20 per cent of managing director and chief executive officer positions in water corporations and catchment management authorities. A 12-month program was launched in 2019 that will support and guide women working in the water sector and related fields to develop their leadership skills to best position them for future executive roles | | | | | | | |
| **Way forward:** | | | | | | | |
| **e**. **Organizational framework for transboundary water management**.[[30]](#footnote-31) | | **No** organizational framework(s). | Organizational framework(s) **being developed**. | Organizational framework(s) **established**. | Organizational framework(s)’ mandate is **partly fulfilled**. | Organizational framework(s)’ mandate is **mostly fulfilled**. | Organizational framework(s)’ mandate is **fully fulfilled**. |
| Score | n/a |
| **Status description:**  International transboundary matters are not applicable in Australia. | | | | | | | |
| **Way forward:** | | | | | | | |

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|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) |
| **f.** **Sub-national**[[31]](#footnote-32) **authorities** for leading IWRM implementation.[[32]](#footnote-33) | | **No** dedicated sub-national authoritiesfor water resources management. | Authorities **exist**, with clear mandateto lead water resources management. | Authorities have clear mandate to lead IWRM implementation, and the capacity[[33]](#footnote-34)to effectively leadIWRM plan **formulation**. | Authorities have the capacity to effectively lead IWRM plan **implementation**. | Authorities have the capacity to effectively lead periodic monitoring and **evaluation** of the IWRM plan(s). | Sub-national authorities have the capacity to effectively lead periodic IWRM plan **revision**. |
| Score | 90 |
| **Status description:** All Australian jurisdictions have the capacity to effectively lead water resource plan revisions. For example, all Basin states already undertake water resource planning to meet their own legislative requirements as well as ensuring that their state water resource plans are consistent with the Basin Plan. For example, Victoria has statutory water corporations and catchment management authorities with independent boards responsible for the formulation, implementation, evaluation and revision of plans for the management of water resources in their defined districts and catchments. | | | | | | | |
| **Way forward:** As part of the Basin Plan, all Basin States are required to develop catchment-based WRP’s which set limits on the amount of water that can be extracted from the Basin water resources. As part of the accreditation process undertaken by the Commonwealth, assessments are made against a range of criteria which includes a consideration of cross-boundary issues and integrated management approaches. | | | | | | | |

# Management instruments

This section includes the tools that enable decision-makers and users to make rational and informed choices between alternative actions. It includes management programs, monitoring water resources and the pressures on them, knowledge sharing and capacity development. Many of the questions in this section relate to other SDG 6 targets and indicators (see 6.5.1 [monitoring guide](http://iwrmdataportal.unepdhi.org/)), and coordination between different SDG reporting processes is encouraged where feasible.

**Terminology used in the questions:**

* **Limited, Adequate, Very good, Excellent:** Are terms used describe the status, coverage and effectiveness of the management instruments assessed in this section. Respondents should apply their own judgement based on the ‘best-practice’ descriptions of management instruments in the glossary, the section introduction, and through footnotes. For example, ‘adequate’ may imply that the basic minimum criteria for that particular management instrument are met. Please provide qualifying information to the question score in the ‘Status description’ cell immediately below each question.
* **Management instruments:** Can also be referred to as management tools and techniques, which include regulations, financial incentives, monitoring, plans/programs (e.g. for development, use and protection of water resources), as well as those specified in footnotes on questions and thresholds below.
* **Monitoring:** collecting, updating, and sharing timely, consistent and comparable water-related data and information, relevant for science and policy. Effective monitoring requires ongoing commitment and financing from government. Resources required include appropriate technical capacity such as laboratories, portable devices, online water use control and data acquisition systems. May include a combination of physical data collection, remote sensing, and modelling for filling data gaps.
* **Short-term / Long-term:** In the context of management instruments, short-term includes ad-hoc activities and projects, generally not implemented as part of an overarching program with long-term goals. Long-term refers to activities that are undertaken as part of an ongoing program that has more long-term goals/aims and implementation strategy.

**Please take note of all footnotes as they contain important information and clarification of terms used in the questions and thresholds**.

Enter your score, **in increments of 10**, from 0-100, or “n/a” (not applicable), in the yellow cell immediately below each question. Enter free text in the “Status description” and “Way forward” fields below each question as advised in the Introduction in Part 1. This will help achieve agreement among different stakeholders in the country, as well as help monitor progress over time. Suggestions for the type of information that may be useful are provided. You may also provide further information you think is relevant, or links to further documentation.

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| **3. Management Instruments** | | | | | | | | |
|  | | Degree of implementation (0 – 100) | | | | | | |
|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | | High (80) | Very high (100) |
| **3.1 What is the status of management instruments to support IWRM implementation at the national level?** | | | | | | | | |
| **a.** **National monitoring of** **water availability**[[34]](#footnote-35) (includes surface and/or groundwater, as relevant to the country). | | **No** national monitoring systems in place. | Monitoring systems established for a **limited** number of **short-term** / ad-hoc projects or similar. | **Long-term** national monitoring is carried out but with **limited** coverage and limited useby stakeholders. | **Long-term** national monitoring is carried out with **adequate** coverage but limited useby stakeholders. | | Long-term national monitoring is carried outwith **very good** coverage and adequate useby stakeholders. | Long-term national monitoring is carried out with **excellent** coverage and excellent useby stakeholders. |
| Score | 90 |
| **Status description:** The Australian Bureau of Meteorology (BoM) provides a suite of national and regional water assessments, a National Water Account; online portals for accessing timeseries data on river flows, storage levels, water quality, and groundwater levels and chemistry; and interactive portals to explore water resource trends at different temporal and spatial scales. <http://www.bom.gov.au/water>  BoM also provides the Australian Landscape Water Balance, which an interactive website which provides an Australia-wide simulation of landscape water balance components including soil moisture, runoff, evapotranspiration, deep drainage and precipitation at a daily timestep. <http://www.bom.gov.au/water/landscape/#/sm_pct/Actual/Day/-39.00/130.40/4/Point/Separate///2017/7/2>  The information is available at a daily, monthly and annual time step from 1911 onwards, providing timely information for better water related decision making. [http://www.bom.gov.au/water/landscape](http://www.bom.gov.au/water/landscape/#/sm_pct/Actual/Day/-39.00/130.40/4/Point/Separate///2017/7/2). By the end of 2021, 10-day forecasts, six-month outlooks and decade projections of landscape water balance components will also be provided. Information can be visualised, investigated and downloaded at the continent, catchment and point scale with daily currency. | | | | | | | | |
| **Way forward:** BoM is currently developing new resources to provide a near-real time view of where water is in rivers, storages and on-farm, and a breakdown of what the water is for i.e. consumptive, managed environmental water, unregulated environmental water, conveyance water. These resources will combine visual satellite data, hydrometric data and modelled water balance data. The resources are being designed to meet the needs of compliance authorities, water users, environmental water managers and the public. | | | | | | | | |
| b. **Sustainable and efficient water use** **management[[35]](#footnote-36)** from the national level, (includes surface and/or groundwater, as relevant to the country). | | **No** management instruments being implemented. | Use of management instruments is **limited** and only through **short-term** / ad-hoc projects or similar. | **Some** management instruments implemented on a more **long-term** basis, but with **limited** coverageacross different water users and the country. | Management instruments are implemented on a **long-term** basis, with **adequate** coverage across different water users and the country. | Management instruments are implemented on a long-term basis, with **very good** coverage across different water users and the country, and are **effective**. | | Management instruments are implemented on a long-term basis, with **excellent** coverage across different water users and the country, and are **highly effective**. |
| Score | 100 |
| **Status description:**  The Commonwealth *Water Act 2007* (the Water Act) and Murray-Darling Basin Plan 2012 (the Basin Plan) provide for sustainable diversion limits (SDLs) that establish the amount of water that can be taken for consumptive use. The Water Actprovides a transparent and efficient mechanism to allow the Minister, on the advice of the Murray-Darling Basin Authority (MDBA), to adjust the SDLs within defined limits to achieve enhanced environmental and socioeconomic outcomes. Activities to be considered under the adjustment mechanism will either allow equivalent environmental outcomes to be achieved with less water or increase the volume of water available for environmental use with neutral or improved socio-economic outcomes.  Since 2007 the Australian Government has committed more than $15 billion for water reform activities. In addition, the current Australian Government has committed $500 million for the National Water Infrastructure Development Fund and $2 billion for the loans facility. Of this, $8 billion funds a range of activities aimed at increasing water use efficiency in the Murray-Darling Basin (the Basin). There are over 2,700 projects across the Basin that are helping farmers modernise and improve their on-farm water use efficiency and off-farm improvements are felt by more than 12,000 individual irrigators.  The Australian Government has also implemented a program with the States and Territories on water metering compliance. Recently the Commonwealth provided $27.6 million funds (on a matching basis by State/territory and industry) for the Improving Great Artesian Basin Drought Resilience program, building on the substantive investment of the former Great Artesian Basin Sustainability Initiative.  The *Water Efficiency Labelling and Standards (WELS) Act 2005* reduces urban water demand by providing household and commercial consumers with water-use information at the point of sale. Showers, taps, toilets, urinals, clothes washing machines, dishwashers and flow controllers sold in Australia must carry a water efficiency rating and consumption details so purchasers can make informed decisions. The WELS program is estimated to have saved 122 GL potable water in 2018 across Australia. These savings are anticipated to rise to over 230 GL/year in 2036. | | | | | | | | |
| **Way forward:**The third statutory independent review of the WELS scheme is planned to commence in 2020. The review will evaluate and report on the WELS scheme, with consideration to the ongoing appropriateness of the scheme objectives, administration, implementation, regulatory practices and opportunities for improvement to the operation of the WELS scheme. In parallel with the independent review the Commonwealth and jurisdictional intergovernmental agreement for the WELS scheme is planned to be reviewed and updated if required. | | | | | | | | |

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|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) |
| **c.** **Pollution control**[[36]](#footnote-37)from the national level. | | **No** management instruments being implemented. | Use of management instruments is **limited** and only through **short-term** / ad-hoc projects or similar. | **Some** management instruments implemented on a more **long-term** basis, but with **limited** coverageacross sectors and the country. | Management instruments are implemented on a **long-term** basis, with **adequate** coverage across sectors and the country. | Management instruments are implemented on a long-term basis, with **very good** coverage across sectors and the country, and are **effective**. | Management instruments are implemented on a long-term basis, with **excellent** coverage across sectors and the country, and are **highly effective**. |
| Score | 80 |
| **Status description:**  Under the Australian federal structure of government responsibility for the day-to-day management of water quality, including pollution lies with state and territory governments, and their local government shires and councils. These governments have their own guidelines (consistent with national guidelines such as those under the National Water Quality Management Strategy and the Australian Drinking Water Guidelines), regulations, policies, processes and standards for managing pollution and ensuring that water is fit for purpose. All state and territory governments have enacted environmental protection legislation. These include: regulations and developing their own water quality guidelines or adopting the Australian and New Zealand Guidelines for Fresh and Marine Water Quality; using economic tools such as trade waste fees and/or fees based on mass of pollutants in discharge; administering or undertaking watershed management; and administering or operating water quality monitoring and education programs. Most states and territories have developed regulatory and policy approaches to investigating and managing non-point pollution sources, including those from agriculture. States and territories, and some local governments also regulate the construction and operation of wastewater treatment plants, including planning-based decisions regarding the timing and placement of new plants as well as the capacities and capabilities of both new and existing plants. Some states have also developed and operate water quality trading programs. The most cited example of which is the Hunter River Salinity Trading Scheme: <http://www.epa.nsw.gov.au/licensing/hrsts/index.htm>.  The Basin Plan sets out a series of water quality targets that ensure the Murray-Darling Basin’s water is suitable for drinking, agricultural, recreational and environmental purposes. Water resource plans being developed under the Basin Plan include a water quality management plan. | | | | | | | |
| **Way forward:** Work is ongoing to maintain the relevance, currency, functionality and scientific rigour of the National Water Quality Management Strategy (NWQMS) and its guidelines. | | | | | | | |
| **d.** **Management of water-related ecosystems**[[37]](#footnote-38)from the national level. | | **No** management instruments being implemented. | Use of management instruments is **limited** and only through **short-term** / ad-hoc projects or similar. | **Some** management instruments implemented on a more **long-term** basis, but with **limited** coverageacross different ecosystem types and the country. | Management instruments are implemented on a **long-term** basis, with **adequate** coverage across different ecosystem types and the country. Environmental Water Requirements (EWR) analysed in some cases. | Management instruments are implemented on a long-term basis, with **very good** coverage across different ecosystem types and the country, and are **effective**. EWR analysed for most of country. | Management instruments are implemented on a long-term basis, with **excellent** coverage across different ecosystem types and the country, and are **highly effective**. EWR analysed for whole country. |
| Score | 90 |
| **Status description:** Under the Australian federal structure of government responsibility, the day-to-day management of water lies with state and territory governments, including water dependent ecosystems. These governments have their own guidelines, regulations, policies, processes and standards for managing water to ensure that issues associated with water dependent ecosystems are adequately addressed. State and territory governments also undertake monitoring, assessment and reporting of water dependent ecosystems relating to their extent and quality, over time. This information informs SDG indicator 6.6.1 – change in extent of water dependent ecosystems over time. However, there are several pieces of national legislation that are relevant to the protection of water related eco-systems and environmental water requirements, including the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act), the Water Act, and the *Great Barrier Reef Marine Park Act 1975*. The EPBC Act 1999 is the Australian Government’s principle piece of environmental legislation. It provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities, Ramsar wetlands and heritage places — defined in the EPBC Act as matters of national environmental significance. The Australian Government also manages marine reserves established under Australian environment law to help conserve the marine ecosystems.  In addition, every five years the Australian Government conducts a comprehensive review of the state of the Australian environment. The National State of the Environment report provides information about environmental and heritage conditions, trends and pressures for the Australian continent, surrounding seas and Australia's external territories. The State of the Environment includes assessment using drainage divisions as the fundamental spatial unit for assessing the state of the inland water environment. The reporting also includes assessments of rainfall and runoff, changing land use and management, climate change, ecological processes and species populations, groundwater resources and overviews of effectiveness of management of inland water and resilience of inland water. Further information is available at <https://soe.environment.gov.au/theme/inland-water>  The National Atlas of Groundwater Dependent Ecosystems (GDEs) published by BoM presents the current knowledge of groundwater dependent ecosystems across Australia. It displays ecological and hydrogeological information on known groundwater dependent ecosystems and ecosystems that potentially use groundwater. The Atlas is a tool to assist the consideration of ecosystem groundwater requirements in natural resource management, including water planning and environmental impact assessment. The Groundwater Dependent Ecosystems Atlas (GDE Atlas) was developed as a national dataset of Australian GDEs to inform groundwater planning and management. It is the first and only national inventory of GDEs in Australia. <http://www.bom.gov.au/water/groundwater/gde/map.shtml> | | | | | | | |
| **Way forward:** The Australian Government is currently developing a National Wetlands Inventory.  This will bring together the current understanding of the status and trends of wetlands across Australia and assist in informing planning and management of these ecosystems. The information contained in the National Wetland Inventory will also facilitate reporting against SDG indicator 6.6.1. | | | | | | | |

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|  | | Very low (0) | | Low (20) | | Medium-low (40) | | Medium-high (60) | High (80) | Very high (100) |
| **e.** **Management instruments to reduce impacts of water-related disasters[[38]](#footnote-39)** from the national level. | | **No** management instruments being implemented. | | Use of management instruments is **limited** and only through **short-term** / ad-hoc projects or similar. | | **Some** management instruments implemented on a more **long-term** basis, but with **limited** coverageof at-risk areas. | | Management instruments are implemented on a **long-term** basis, with **adequate** coverage of at-risk areas. | Management instruments are implemented on a long-term basis, with **very good** coverage of at-risk areas, and are **effective**. | Management instruments are implemented on a long-term basis, with **excellent** coverage of at-risk areas, and are **highly effective**. |
| Score | 90 |
| **Status description:**  In order to strengthen Australia’s national resilience, on 13 March 2020 the Council of Australian Governments (COAG):   * endorsed the National Disaster Risk Reduction Framework to guide national action to address existing disaster risks and minimise new risks; * signed the National Partnership Agreement for Disaster Risk Reduction and agreed to invest $261 million over five years for risk reduction initiatives; and * asked Emergency Management Ministers to expedite a National Action Plan to implement the Framework, in consultation with other COAG councils and forums.   In addition, the Government:   * has established a Critical Incident Planning capability to: * bolster our ability to prepare and effectively respond to critical incidents that have widespread impacts across our communities, and * better understand, and build resilience within, critical systems that provide essential services to Australians and first responders * has established the Emergency Response Fund to provide a sustainable way to funding disaster risk reduction effort; * is providing funding for the development of national telecommunications capabilities; * providing funding for the Household Resilience Program, which provides assistance to eligible home owners in coastal parts of Queensland to make practical improvements to reduce the impacts of cyclones; * has published resources to help key decision makers across all sectors to take action to reduce disaster risk; * is helping communities recover from disasters by investing in resilience through the joint Commonwealth-State Disaster Recovery Funding Arrangements (DRFA), including:   + allowing states and territories to use the savings they generate from rebuilding essential public assets under the DRFA towards mitigation projects; and providing flexibility for states and territories to restore damaged assets to a more resilient standard.   Water management plans such as the Basin Plan and state water resource plans are implemented so that the impacts of very dry conditions (such as Australia’s millennium drought) are minimised. In some areas, this covers critical human water needs. Extreme dry events trigger special management and operational responses to conserve remaining water supplies and limit the impacts that are otherwise unavoidable. | | | | | | | | | | |
| **Way forward:** The Department of Home Affairs is responsible for the ongoing implementation of the above activities through Emergency Management Australia. The Department of Home Affairs is also establishing a new national capability to ensure people have access to the best information and guidance needed to make risk-informed decisions so we can continue to be resilient in the future. | | | | | | | | | | |
| **3.2 What is the status of management instruments to support IWRM implementation at other levels?** | | | | | | | | | | |
| **a.** **Basin management instruments**.[[39]](#footnote-40) | | | **No** basin level management instruments being implemented. | Use of basin level management instruments is **limited** and only through **short-term** / ad-hoc projects. | **Some** basin level management instruments implemented on a more **long-term** basis, but with **limited** geographic and stakeholder coverage. | | Basin level management instruments implemented on a more **long-term** basis, with **adequate** geographic and stakeholder coverage. | | Basin level management instruments implemented on a more long-termbasis, with **effective** outcomesand **very good** geographic and stakeholder coverage. | Basin level management instruments implemented on a more long-termbasis, with **highly effective** outcomesand **excellent** geographic and stakeholder coverage. |
| Score | 90 | |
| **Status description:**  Water management plans are widely applied in Australia. The Basin Plan is a legislative instrument that supports detailed water resource plans for the river system.  Water trading is also well established in Australia with the most developed water market located in the southern part of the Basin. This market has been developing and maturing since the 1980s. Separate markets exist for water entitlements (long-term shares in available water supply) and water allocations (volumes of water for use in the current year). They play a vital role for the irrigation sector and allows the efficient reallocation of water between farming businesses in response to changes in supply and demand.  The Lake Eyre Basin Intergovernmental Agreement, signed by the Australian, Queensland, South Australian and Northern Territory Governments, provides for the sustainable management of the water and related natural resources associated with cross-border river systems in the Lake Eyre Basin to avoid downstream impacts on associated environmental, economic and social values. | | | | | | | | | | |
| **Way forward:**  The second Review of the Lake Eyre Basin Intergovernmental Agreement was completed in June 2018. A Ministerial Forum response to the Review’s recommendations is currently being developed.  The Australian Competition and Consumer Commission (ACCC) is undertaking a review of the Basin water market. This review, once finalised in 2020, may recommend actions for improving aspects of the market. | | | | | | | | | | |

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|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) |
| **b.** **Aquifer** **management instruments**.[[40]](#footnote-41) | | **No** aquifer level management instruments being implemented. | Use of aquifer level management instruments is **limited** and only through **short-term** / ad-hoc projects. | **Some** aquifer level management instruments implemented on a more **long-term** basis, but with **limited** geographic and stakeholder coverage. | Aquifer level management instruments implemented on a more **long-term** basis, with **adequate** geographic and stakeholder coverage. | Aquifer level management instruments implemented on a more **long-term** basis, with **effective** outcomesand **very good** geographic and stakeholder coverage. | Aquifer level management instruments implemented on a more **long-term** basis, with **highly effective** outcomesand **excellent** geographic and stakeholder coverage. |
| Score | 90 |
| **Status description:**  Currently, groundwater is managed under state law. Groundwater management plans vary across jurisdictions and may cover all aquifers or only a portion of aquifers in respective regions. The Australian Government has a leadership role for progressing national water reforms for both surface water and groundwater through the National Water Initiative. To support implementation of the National Water Initiative for groundwater, a National Groundwater Strategic Framework has been prepared.  The Australian Government also has legislative roles for both the Basin (under the Water Actand the Basin Plan) and the Lake Eyre Basin (*Lake Eyre Basin Intergovernmental Agreement Act 2001*) for management of groundwater.  The Basin Plan covers three groundwater areas including Eastern Porous Rock, Western Porous Rock and the Goulburn-Murray.  A new 15-year Great Artesian Basin Strategic Management Plan (GAB Plan) has been agreed and was released in July 2020.  South Australia and Victoria manage shared, cross-border groundwater resources through the *Border Groundwater Agreement 2005*. | | | | | | | |
| **Way forward:**  Western Australia prepares new or replacement groundwater allocation plans taking into account community and government objectives, measures to respond to climate change and current and projected information on hydrogeology, rainfall, water use, environmental and cultural considerations and land use changes. State-wide policies and the local policies outlined in water allocation plans are implemented through the Department of Water and Environmental Regulation water licensing process. | | | | | | | |
| **c.** **Data and information sharing within countries** at all levels.**[[41]](#footnote-42)** | | **No** data and information sharing. | **Limited** data and information sharingon an **ad-hoc** basis. | Data and information sharingarrangements **exist** on a more **long-term** basis between major data providers and users. | Data and information sharingarrangements **implemented** on a more **long-term** basis**,** with **adequate** coverageacross sectors and the country. | Data and information sharingarrangementsimplementedon a more **long-term** basis**,** with **very good** coverageacross sectors and the country. | All relevant data and information are online and freely accessible to all. |
| Score | 100 |
| **Status description:** Various Commonwealth and State agencies collect and share water information as well as making the data publicly available. For example:   * The Water Act gives the BoM **water information** data collecting and information sharing functions that are in addition to its existing functions under the Meteorology Act 1955, including:   + collecting, holding, managing, interpreting and disseminating Australia’s water information;   + providing regular reports on the status of Australia’s water resources and patterns of usage of those resources;   + providing regular forecasts on the future availability of Australia’s water resources;   + compiling and maintaining water accounts for Australia, including a set of water accounts to be known as the National Water Accounts;   + issuing National Water Information Standards; * BoM publishes water data received from Australian organisations under the Water Act through data portals (e.g. water data online, groundwater explorer) and a range of online products and dashboards which share information on water markets, water storages, water restrictions, urban water indicators and climate resilient water sources. * New South Wales provides real time data for river water levels and flows, dam storage elevations and volumes, groundwater and meteorology. The NSW Water Insight publishes dashboards with information about water allocations, trades and water resource availability outlooks for regulated and unregulated water sources. * South Australia makes real time water data available for surface water levels and flows, storage volumes and levels and groundwater levels. South Australia publishes information on water allocation trade price and volume, and allocation trades, updated daily via water trade dashboards. * South Australia also provides a range of water related information on the [WaterConnect website](https://www.waterconnect.sa.gov.au/Pages/Home.aspx) including status reports for groundwater and surface water resources, water trade information for prescribed water resources and aquatic ecosystem condition reports. * Tasmania’s Water Information System and web portals allow searches for data relating to water flow, water quality, and groundwater, freshwater ecosystem values and water entitlement and dam permits. * Northern Territory’s Water Data and Water Licensing portals deliver data specific to activities such flood monitoring, water allocation planning and aquatic health monitoring including real time data on groundwater levels, surface water levels/discharge and both groundwater and surface water licence registers. * Victoria’s Water Measurement Information System provides data and information on river and wetland health monitoring, groundwater monitoring and community water monitoring, and links to water storage and allocation information from water utilities. Victoria also publishes summary information about water market trading within regulated systems. * Western Australia’s Water Information Reporting portal and river level monitoring website provides surface water, groundwater and rainfall data and other information to developers, researchers and the broader community. An online water register gives the location of water licences to support trading. * Western Australia publishes a spatial data download tool to promote better water management, as well as up-to-date data for surface water level and flow, groundwater levels, water quality and rainfall through the Water Information Reporting tool. * Queensland’s Water Monitoring Information Portal has information regarding latest and historical stream height and stream flows, rainfall data and groundwater levels data. The Queensland Globe, an online interactive tool, turns physical, geographical and spatial data about a particular location into map format. * The Australian Capital Territory (ACT) provides water data to BoM, for publication via BoM’s water information products and services. The ACT continues to implement its Water Strategy, which focuses on managing the Territory's water resources to meet urban, environmental and regional objectives. * The Australian Government’s Bioregional Assessment Programme provides transparent scientific information to decisions makers about the potential cumulative impacts of coal seam gas and coal mining development on water resources and water dependent assets such as wetlands and groundwater bores.   The MDBA and sub-national governments and agencies hold information on storage volumes, river flows (including models), and water use accounts for the systems they are responsible for. The MDBA also relies on the BoM’s Australia-wide historic water dataset to inform its planning and operations.  There are reporting requirements in the Basin Plan for all departments and agencies to ensure information to evaluate the Basin Plan is provided to the MDBA for this purpose.  Geoscience Australia also collects groundwater-related data and information as part of the science and research programs it undertakes across Australia, the most recent being the Exploring for the Future Program. The data, information and analysis from these activities is made publicly available for use by governments, industry, communities and other interested stakeholders. | | | | | | | |
| **Way forward:**  Work is ongoing to maintain the relevance, currency, functionality and rigour of Australia’s water information systems.  Management of data across Basin jurisdictions and between federal government agencies is highly variable, and technology, format and frequency of measurement differ across different agencies. The standardisation of data management systems would help to improve data sharing arrangements and enable an adaptable and enduring Basin scale view informed by consistent and compatible water information. A number of initiatives to improve data sharing between government agencies are currently underway.  The BoM continues to host biannual water information reference group meetings with state and territory government water authorities to discuss strategies to coordinate and improve the flow of water information. A new non-urban water metering framework in New South Wales will increase the amount and availability of real-time water use information from telemetered water meters in that state. Other major initiatives in the Basin are proposed to increase transparency of near real time water availability, water use and compliance information through whole-of-basin water portals. | | | | | | | |
| **d.** **Transboundary data and information sharing between countries.** | | **No** data and information sharing. | **Limited** data and information sharingon an **ad-hoc** or informal basis. | Data and information sharingarrangements **exist**, but sharing is **limited.** | Data and information sharingarrangements **implemented adequately.** | Data and information sharingarrangements **implemented effectively.[[42]](#footnote-43)** | All relevant data and information are online and accessible between countries. |
| Score | n/a |
| **Status description:** | | | | | | | |
| **Way forward:** | | | | | | | |

# Financing

This section concerns the adequacy of the finance available for water resources development and management from various sources.

Finance for investment and recurrent costs can come from many sources, the most common being central government budget allocations to relevant ministries and other authorities. Finance from [Official Development Assistance (ODA)](https://www.oecd.org/dac/stats/officialdevelopmentassistancedefinitionandcoverage.htm) specifically for water resources should be considered part of the government budget. Note that the level of coordination between ODA and national budgets is tracked by the ‘means of implementation’ SDG indicator 6.a.1: “Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan”, as part of reporting on Target 6.a: “By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies”.

“Various sources” include fees and tariffs levied on water users, polluter fees or grants from philanthropic or similar organisations. In-kind support should not be included as it is not easily measurable but can be mentioned in the ‘Status description’ field.

**Investments should cover all aspects of water resources development and management but exclude any related to drinking water supply, sanitation and hygiene services** as they are covered in other monitoring processes.

**Please take note of all footnotes as they contain important information and clarification of terms used in the questions and thresholds**.

Enter your score, **in increments of 10**, from 0-100, or “n/a” (not applicable), in the yellow cell immediately below each question. Enter free text in the “Status description” and “Way forward” fields below each question as advised in the Introduction in Part 1. This will help achieve agreement among different stakeholders in the country, as well as help monitor progress over time. Suggestions for the type of information that may be useful are provided. You may also provide further information you think is relevant, or links to further documentation.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **4. Financing** | | | | | | | |
|  | | Degree of implementation (0 – 100) | | | | | |
|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) |
| **4.1 What is the status of financing for water resources development and management at the national level?** | | | | | | | |
| **a.** **National budget**[[43]](#footnote-44) for water resources **infrastructure**[[44]](#footnote-45)(investment and recurrent costs). | | **No budget** allocated in national investment plans. | **Some budget** allocated but only partly covers planned investments. | **Sufficient budget** allocated for planned investments but insufficient funds disbursed or made available**.** | Sufficient budget allocated and **funds disbursed for** **most** planned programmes or projects. | Sufficientfunds disbursed for investment and recurrent costs,and **being utilised in all** planned projects. | Budget **fully utilised** for investment and recurrent costs, post-project evaluation carried out, budgets reviewed and revised. |
| Score | 90 |
| **Status description:**  Australia is viewed as a world leader in water management with water reform achievements a direct result of the co-operation between Australian Federal, State and Territory Governments.    The Australian Government has been co-investing with state governments to accelerate the construction of major water infrastructure projects such as dams, weirs, pipelines, managed aquifer recharge, and waste water treatment and reuse schemes to provide affordable and secure water supplies to support the growth of regional economies and communities across Australia.  Since 2007, the Australian Government has committed more than $15 billion for water reform activities. Of this, $8 billion funds a range of activities aimed at increasing water use efficiency in the Murray-Darling Basin (the Basin). For example, more than 2700 on-farm projects across the Basin are demonstrating real water efficiency gains and helping farmers modernise and improve their on-farm infrastructure. More than 12,000 irrigators are benefitting from improvements to water delivery systems, with the modernisation of more than 2,500 kilometres of delivery network channels. The construction of 14 sustainable irrigation schemes across Tasmania has increased the potential irrigable area to over 200,000 hectares. This commitment is in addition to the $1.5 billion National Water Infrastructure Development Fund (NWIDF) and a $2 billion National Water Infrastructure Loan Facility which are available to state and territory governments to provide funding to support the identification and construction of new water infrastructure.  Through the National Water Infrastructure Development Fund (NWIDF) and the National Water Infrastructure Loan Facility (NWILF), the Australian Government has committed $1.53 billion to co-fund the construction of 22 water infrastructure projects with a total construction value of more than $2.74 billion. This is in addition to $132.99 million committed to 52 feasibility studies, including $96.46 million for 23 studies in Northern Australia. These studies will identify opportunities to develop new water infrastructure that will deliver new and affordable water, be economically viable and environmentally sustainable and enhance the productivity and profitability of regional economies.  Recently an additional $34.9 million of Australian Government funding has been made available for the Great Artesian Basin (building on the Great Artesian Basin Sustainability Initiative), and $50 million for the On-Farm Emergency Water Infrastructure Rebate Scheme program. | | | | | | | |
| **Way forward:**  Social and economic assessments of the impact of the Murray-Darling Basin Plan 2012 (the Basin Plan) have been (and are being) undertaken, with funding provided for programs to support communities with structural adjustment, such as the Murray-Darling Basin Economic Development Program ($40 million for Rounds 1 and 2). There is also a strong focus on the provision of funding for strengthening water compliance, including drafting of new statutory arrangements at the Commonwealth level. The Australian Government is also working with the state and territory governments to develop a national framework for investing in water infrastructure, supported by scientific research that provides the evidence base to underpin investment decisions. | | | | | | | |
| **b.** **National budget** for **IWRM elements**[[45]](#footnote-46) (investments and recurrent costs). | | **No budget** allocations made for investments and recurrent costs of the IWRM elements. | **Allocations** made for **some** of the elements and implementation at an early stage. | Allocations made for **at least half** of the elements but insufficient for others. | Allocations for **most** of the elements and some implementation under way. | Allocations include **all** elements and implementation regularly carried out (investments and recurrent costs). | Planned budget allocations for all elements of the IWRM approach **fully utilised**, budgets reviewed and revised. |
| Score | 90 |
| **Status description:**  The Australian Government is providing $13 billion to implement the Basin Plan, which includes funding for IWRM elements. As at 31 December 2019, $9 billion has been spent with $4 billion remaining to be spent to 30 June 2024.  Around $1 billion is being provided for recurring costs associated with water reform activities for the period of 2007-08 to 2023-24. This funding will also cover program delivery, implementation and Australian Government water policy functions. | | | | | | | |
| **Way forward:**  Ongoing and pro-active support for full implementation of the Basin Plan by the 30 June 2024 target is required by Basin jurisdictions. Adequate funding is essential to complete the task and this is constantly monitored and addressed by the Australian Government in Commonwealth budget cycles. | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) |
| **4.2 What is the status of financing for water resources development and management at other levels?** | | | | | | | |
| **a.** **Sub-national or basin budgets** for water resources **infrastructure[[46]](#footnote-47)** (investment and recurrent costs). | | **No budget** allocated in sub-national or basin investment plans. | **Some budget** allocated but only partly covers planned investments. | **Sufficient budget** allocated for planned investments but insufficient funds disbursed or made available. | Sufficient budget allocated and **funds disbursed for most** planned programmes or projects. | Sufficient funds disbursed**,** for investment and recurrent costs,and **being utilised in all** planned projects. | Budget **fully utilised**, for investment and recurrent costs, post-project evaluation carried out, budgets reviewed and revised. |
| Score | 90 |
| **Status description:**  In Australia, states and territories are primarily responsible for managing water resources in their jurisdiction, including making decision and building, operating and maintaining water infrastructure (e.g. dams, water supply and sewerage treatment systems). For example,   * The New South Wales (NSW) Government recently announced a $1 billion Safe and Secure Program. This program will target water and sewerage projects in regional NSW to ensure infrastructure meets contemporary standards for water security, public health, environmental and safety outcomes into the future. It will provide co-funding to successful applicants such as local councils, water utilities, water corporations and prescribed dam owners for detailed planning and construction activities to install, augment or decommission water and sewerage infrastructure. * Australia’s first full-scale Groundwater Replenishment Scheme is located in Western Australia and recharges recycled water in Perth’s aquifers. In 2016, the Western Australia Government committed $262 million to expand the Beenyup Wastewater Treatment plant used to recharge the aquifer system. * Queensland Government’s SEQ Water Grid is valued at around $9 billion and allows the movement of treated drinking water around the region. It consists of dams, treatment plants, a desalination plant, water reservoirs, supply pipelines and pump stations. * Victoria also has a Water Grid which consists of dams, reservoirs, weirs and the Victorian Desalination Project. In 2018, the Victorian Government established the Water Grid Partnership. The partnership builds on government investment including the $80.6 million South West Loddon Pipeline, $85.2 million East Grampians Pipeline and $43 million Lance Creek Water Connection. * In 2018, the Tasmanian Government committed $400 million into stormwater and sewerage infrastructure in Launceston. * Over a number of years in South Australia, a number of significant partnership programs between the Australian and South Australian Governments have been implemented or are underway, particularly focussed on measures to improve and support agricultural productivity, the long term resilience of wetlands and floodplains and improve the efficiency and effectiveness of environmental water use - with a particular focus on the Murray Darling Basin.   Decision making around the operation and use of infrastructure, particularly large environmental water infrastructure, requires investment in various forms of monitoring. State recurrent investment is often required for ongoing operations, maintenance and monitoring of infrastructure constructed under joint State and Australian Government programs to manage the asset portfolio, to cover resourcing, asset condition and maintenance strategies, and asset renewal.  The Australian Government has also been co-investing with state governments, through the NWIDF, to accelerate the construction of major water infrastructure projects such as dams, weirs, pipelines, managed aquifer recharge, and waste water treatment and reuse schemes to provide affordable and secure water supplies to support the growth of regional economies and communities across Australia. | | | | | | | |
| **Way forward:** | | | | | | | |
| **b.** **Revenues** raised for IWRM elements.[[47]](#footnote-48) | | **No revenues** raised for IWRM elements. | **Processes in place** to raise revenue but **not yet implemented**. | **Some revenue raised,** but generally not used for IWRM activities. | Revenues raised cover **some** IWRM activities. | Revenues raised cover **most** IWRM activities. | Revenues raised **fully cover** costs of IWRM activities. |
| Score | 80 |
| **Status description:**  In Australia, states and territories are generally responsible for managing water resources in their jurisdiction, including making decision and building, operating and maintaining water infrastructure (e.g. dams, water supply and sewerage treatment systems). The National Water Initiative (NWI) sets out pricing principles for the recovery of capital expenditure, urban water tariffs, recovering the costs of water planning and management activities, recycled water and storm water use. The framework for water pricing in the NWI has been generally deployed and implemented in most states, and the pricing approaches for urban, environmental and rural water users vary. Revenue raised from charges generally cover most IWRM activities although local nuances give rise to quite different outcomes. | | | | | | | |
| **Way forward:** | | | | | | | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | Very low (0) | Low (20) | Medium-low (40) | Medium-high (60) | High (80) | Very high (100) |
| **c.** **Financing for transboundary cooperation.**[[48]](#footnote-49) | | **No specific funding** allocated from the Member State (MS) budgets nor from other regular sources. | MS **agreement** on country share of contributions **in place** and in-kind support for the cooperation organisation/arrangement. | **Funding less than 50%** of that expected as contributions and by regulation. | Funding **less than 75%** of that expected as contributions and by regulation. | Funding **more than 75%** of that expected as contributions and by regulation. | **Full funding** of that expected as contributions and by regulation. |
| Score | n/a |
| **Status description:** International transboundary matters are not applicable in Australia. | | | | | | | |
| **Way forward:** | | | | | | | |
| **d.** **Sub-national or basin budgets** for **IWRM elements**[[49]](#footnote-50) (investment and recurrent costs). | | **No budget** allocations at sub-national or basin level for investments and recurrent costs of IWRM elements. | **Allocations** made for **some** of the elements and implementation at an early stage. | Allocations made for **at least half** of the elements but insufficient for others. | Allocations for **most** of the elements and some implementation under way. | Allocations include **all** elements and implementation regularly carried out (investments and recurrent costs). | Planned budget allocations for all elements of the IWRM approach **fully utilised**, budgets reviewed and revised. |
| Score | 90 |
| **Status description:** Since 2007–08, the Australian Government has committed almost $13 billion to implement water reforms in the Basin. Of this, more than $8 billion is committed specifically for irrigation infrastructure and efficiency programmes.  The Murray–Darling Basin Authority (MDBA) manages the works that are undertaken across the Basin. The MDBA is a corporate Commonwealth entity (CCE) under *The Public Governance, Performance and Accountability Act 2013* (PGPA Act) and does not receive direct appropriations. Instead, this funding passes through the Department of Agriculture, Water and Environment to the MDBA. The MDBA has two main sources of funding:   * Joint programs – where the MDBA receives funding to undertake activities on behalf of the Commonwealth and Basin States (New South Wales, Queensland, Victoria, South Australia and the Australian Capital Territory). A fixed contribution is made by Queensland and Australian Capital Territory Governments. The original parties contribute towards the joint program based on agreed principles which determine the cost shares of the annual budget depending on the consumption and benefit derived by each state. This ensures that the contributions by each Original Party is based on the objective of delivering benefits to the basin as a whole rather than a particular State. * Commonwealth only funding – where the MDBA receives funding to implement the Basin Plan. | | | | | | | |
| **Way forward:** To achieve the Sustainable Diversion Limits required under the Basin Plan, Basin States are responsible for implementing supply and constraints measures. All projects must be ready to enter into operation by 30 June 2024. The Australian Government is providing assistance of:   * up to $1.3 billion to support the implementation of the package of supply measures * up to $1.775 billion through the Water for the Environment Special Account for implementing constraints and efficiency measures | | | | | | | |

# Indicator 6.5.1 score

### How to calculate the indicator 6.5.1 score

Please complete the table below as follows:

1. Calculate the average score of each of the four sections by averaging all question scores in each section, rounded to the nearest whole number.

*Example: Section average of 41.5 should be rounded to 42. Section average of 70.2 should be rounded to 70.* If ‘not applicable’ is selected for any question, this should not be included in the indicator calculations, and therefore will not affect the average score. However, questions with a score of ‘0’ (zero) should be included.

1. Calculate the average of the four section scores (whole numbers) to give the overall score for indicator 6.5.1, rounded to the nearest whole number.

*Example: Calculating final IWRM score from four section scores: (81+ 63 + 47 + 58)/4 = 62.25. Final 6.5.1 score (rounded to a whole number) = 62.*

|  |  |
| --- | --- |
| **Section** | **Average Scores** (all values rounded to nearest whole number) |
| Section 1 Enabling environment | 85 |
| Section 2 Institutions and participation | 89 |
| Section 3 Management instruments | 91 |
| Section 4 Financing | 88 |
| **Indicator 6.5.1 score**  **= Degree of IWRM implementation (0-100)\*** | **88** |

\* Use rounded section average scores (to the nearest whole number), to calculate the indicator score, and round this to the nearest whole number.

**Interpretation of the score**

The score indicates the ‘degree of implementation of integrated water resources management’, on a scale of 0 to 100, with 0 signifying ‘very low’ implementation, and 100 signifying ‘very high’ implementation. However, the true value of the survey to countries lies within the scores, ‘status description’ and ‘way forward’ for each question, as this helps to identify which actions need to be taken to move towards a greater degree of implementation of IWRM. See the monitoring guide for further information on interpretation of scores and target setting.

# Annexes:

## Annex A: Glossary

* **Authorities:** could beministry or ministries, or other organizations/institutions/departments/agencies/bodies with a mandate and funding from government.
* **Basins:** Includes rivers, lakes and aquifers, unless otherwise specified. For surface water, the term is interchangeable with ‘catchments’ and ‘watersheds’.
* **Federal countries:** Refers to countries made up of federated states, provinces, territories or similar terms.
* **IWRM:** Integrated Water Resources Management (IWRM) is a process that promotes the coordinated development and management of water, land and related resources in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. IWRM is not an end in itself but a means of achieving three key strategic objectives:
  + efficiency to use water resources in the best way possible;
  + equity in the allocation of water across social and economic groups;
  + environmental sustainability, to protect the water resource base, as well as associated ecosystems.
* **National (level):** Refers to the highest level of administration in a country.
* **Sub-national / state (level):** refers to levels of administration other than national. For federal countries, these are likely to be provinces or states. Non-federal countries may still have sub-national jurisdictions with some responsibility for water resources management, e.g. regions, counties, departments.
* **Programs:** Nation-wide plans of action with long-term objectives, for example to strengthen monitoring, knowledge sharing and capacity development, with details on what work is to be done, by whom, when, and what means or resources will be used**.**
* **Transboundary:** Refers to surface and groundwater basins that cross one or more national borders (see Annex B).
* **Stakeholders:** In this survey, stakeholders are the main groups important for water resources management, development and use.Examples of stakeholders in each group are given in footnotes as they appear in the survey.
* **Water Resources Management** is the activity of planning, developing, distributing and managing the optimum use of water resources. Ideally, water resource management planning considers all the competing demands for water and seeks to allocate water on an equitable basis to satisfy all uses and demands. An integrated approach (see IWRM) is needed to ensure water resources management is not isolated within sector silos resulting to inefficiencies, conflicts and unsustainable resource use.

## Annex B: Transboundary level

The transboundary questions for indicator 6.5.1 focus on the degree of implementation of IWRM at the transboundary level, as relevant to implementation of IWRM ‘at all levels’, as specified in target 6.5. Countries sharing basins of transboundary waters (rivers, lakes or aquifers) should answer the questions on transboundary issues. This information is complemented by indicator 6.5.2 ‘Proportion of transboundary basin area with an operational arrangement for water cooperation’.

To enable tracking of progress over time and for transparency, in the table below please list the transboundary (or ‘international’) basins or aquifers that are included in this survey. The 6.5.1 baseline reporting may be used as a starting point. Only the most important transboundary basins or aquifers that are regarded as significant, in terms of economic, social or environmental value to the country (or neighbouring countries), need to be included in this survey. It is up to countries to decide which ones these are. Where feasible, basins/aquifers listed in this table, and the scores given, should be cross-referenced with tables and scores in the 6.5.2 reporting template ([www.sdg6monitoring.org/indicators/target-65/indicators652/](http://www.sdg6monitoring.org/indicators/target-65/indicators652/)), and the focal point for 6.5.2 should be consulted in this process. In the absence of 6.5.2 data or national databases, global databases on transboundary river basins (<http://twap-rivers.org/indicators/>), and transboundary aquifers (<https://www.un-igrac.org/ggis/explore-all-transboundary-groundwaters>), may be referred to. If you include a national (sub-basin) as part of a larger transboundary basin, please ensure to also include the name of the larger basin. When answering transboundary questions, the majority of the basins below must meet the criteria described in each threshold to achieve the score for that threshold.

The columns on the right of the table are optional though recommended. Filling them out would: provide countries with valuable information and a quick diagnostic tool for the status in each basin/aquifer; increase the transparency of the transboundary level responses in this survey for stakeholders both within and between countries; help countries reach consensus on scores for the transboundary questions; and provide a valuable cross-reference for indicator 6.5.2. For each basin/aquifer, a score should be given for each of the four transboundary questions in the survey, following the guidance and thresholds in the survey questions. To supplement this data, you are encouraged to provide a summary of the situation for the transboundary basins/aquifers in the ‘Status description’ and ‘Way forward’ fields to transboundary questions within Part 2 of this survey, to the extent feasible.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Annex not applicable. No transboundary waters in country.** | **OPTIONAL THOUGH RECOMMENDED\*** | | | |
|  | **Important transboundary basins** | **Arrangements (1.2c)** | **Institutions (2.2e)** | **Data sharing (3.2d)** | **Financing (4.2c)** |
| 1. | [Name] |  |  |  |  |
| 2. |  |  |  |  |  |
| 3. |  |  |  |  |  |
|  | Please add/delete rows as needed |  |  |  |  |
|  | **Important transboundary aquifers** |  |  |  |  |
| 1. |  |  |  |  |  |
| 2. |  |  |  |  |  |
| 3. |  |  |  |  |  |
|  | Please add/delete rows as needed |  |  |  |  |

\* These columns may be useful to countries in determining the approximate status for each transboundary basin/aquifer, and thereby be useful in discussions on the respective question scores in Part 2 of this survey instrument.

## Annex C: Barriers, enablers and next steps for furthering IWRM implementation

This section is not used in calculating indicator 6.5.1, but is designed to be useful for countries to identify the main challenges and next steps to further IWRM implementation. It builds on the free text fields for each question – “Status description” and “Way forward” – to identify the key issues.

The third question below aims to improve transparency by documenting the main differences in opinion between stakeholders. You may amend the structure to make it more useful to the planning process in the national context. For each question, you may consider aspects under each of the four IWRM dimensions in the survey, or you may identify aspects/issues that cut-across questions and IWRM dimensions. Some issues not addressed by the questions may also be brought up here.

1. What are the main challenges/barriers to progress of IWRM implementation in the country?

The Productivity Commission’s assessments into the progress made towards achieving the objectives and outcomes of the National Water Initiative (NWI) and the need for any future reform, identified key challenges to progress of IWRM implementation in Australia. These included:

* population growth and urbanisation — by 2050, there is expected to be an additional 8.3 to 13.3 million people living in Australia’s capital cities and the Australian population is expected to be between 34.3 and 41.9 million people
* climate change — rainfall and runoff have already declined in some regions, and CSIRO predicts future decreases in runoff across much of southern Australia as well as an increase in the frequency of extreme droughts
* changing community expectations — these have changed significantly in recent years, in many cases, reflecting community experience during the Millennium Drought. The drought highlighted the social dependence of urban and rural communities on water and water environments when many of these environments dried up and the related services ceased. Accordingly, there is now far more appreciation of the contribution that water management and water environments can make to amenity, liveability, recreation and regional tourism.

Furthermore, unfinished business from the NWI, including fully implementing entitlement and planning reforms, and economic regulation in some jurisdictions remains a barrier to IWRM implementation.

1. What are the main next steps to overcome challenges and further IWRM implementation?

The Productivity Commission’s National Water Reform inquiry report identified three key priorities for the next phase of water reform in Australia. These include:

* maintaining the key foundations of water management, preventing the re‑emergence of outdated policies and avoiding the erosion of hard‑won reforms through backsliding
* revising national policy settings in a range of areas, including entitlement and planning arrangements for extractive industries, and the water needs of Indigenous Australians
* significantly enhancing national policy settings in:
  + urban water management, including clearer roles and responsibilities for supply augmentation planning, improving economic regulation, enabling decentralised solutions and more outcomes‑focused environmental regulation
  + environmental water management, including better integration with waterway management, strengthened and streamlined institutional, governance and management arrangements, and improved monitoring and evaluation for adaptive management
  + new infrastructure, where the focus needs to be on ensuring environmental sustainability and financial viability *before* any government resources are committed for construction.

To ensure that Australia’s water resources are managed sustainably to meet changing community needs, the Productivity Commission recommended these priorities be incorporated into a renewed National Water Initiative (NWI) by 2020. The Australian Government supports the Productivity Commission’s recommendations and work is currently underway to renew the NWI.

1. What were the main points of difference in stakeholder opinion in answering the survey questions?
2. Additional comments

## Annex D: Priority water resource challenges

Please indicate the challenge level for each of the water resource issues below. This information will not affect the overall indicator score.

This checklist may be useful to countries in stakeholder discussions and planning. Over time, it can also help countries to evaluate whether the implementation of IWRM can help to reduce the challenge level relating to different water resources issues. The information will also help to develop regional and global oversight of key water resources challenges, and track progress of how challenge levels may change over time.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Water resource challenges** | **Level of difficulty associated with addressing the challenge** | | | |  | **Comments (optional):** |
| **Low** | **Medium** | **High** | **Not relevant** |
| **Water uses** | | | | |
| Water for agriculture |  |  |  |  |
| Water for domestic use |  |  |  |  |
| Water for industry |  |  |  |  |
| Water for energy |  |  |  |  |
| Water for ecosystems/environment |  |  |  |  |
| Water for growing cities |  |  |  |  |
| **Threats to the resource** | | | | |
| Water scarcity / over-abstraction (surface) |  |  |  |  |
| Water scarcity / over-abstraction (groundwater) |  |  |  |  |
| Water quality / pollution (surface) |  |  |  |  |
| Water quality / pollution (groundwater) |  |  |  |  |
| Water-related ecosystem degradation |  |  |  |  |
| Water-related ecosystem loss |  |  |  |  |
| **Threats to people and economic activity** | | | | |
| Floods |  |  |  |  |
| Droughts |  |  |  |  |
| Coastal vulnerability |  |  |  |  |
| Conflicts over water resources |  |  |  |  |

Note that ‘challenge level’ in this case refers to the level of difficulty associated with addressing each issue. For example, if effective and financed systems are in place for providing water for domestic use, then this may be assigned a ‘low’ challenge level, even though this issue would likely be classified as high priority / importance in most countries. ‘Low’, ‘Medium’ and ‘High’ are intentionally broad and intuitive categories.

## Annex E: 6.5.1 country reporting process form

A common query received after the baseline data collection period was on the reporting process and which stakeholders were involved in reporting.

To improve transparency and increase confidence in results, you are invited to provide a brief overview of the reporting process. e.g. main actors involved; meetings/workshops held; other means of gathering inputs from stakeholders; and finalisation/approval processes. Also note the main challenges/strengths of the process. Use as much space as needed.

|  |  |
| --- | --- |
| Focal Point affiliation | Department of Agriculture, Water and the Environment |
| Brief process overview:  Collection of data for the SDG 6.5.1 indicator survey followed a consultation process conducted by the Department of Agriculture, Water and the Environment (DAWE). Input was sought from Commonwealth Government Departments, external agencies and state and territory governments. As primary responsibility for the management of water resources sits with state and territory governments, data collection from local governments and the private sector was handled by the appropriate state departments. Follow-up consultation was conducted via telephone calls and email as opposed to meetings and workshops due to the COVID-19 restrictions in place. | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Stakeholder groups** | **Level of engagement** (mark with ‘X’) | | | **Additional information** (e.g. which stakeholder organisations were involved) |
| **Low** (given opportunity to contribute) | **Medium** (some input) | **High** (discussion/ negotiation) |
| National water agencies |  |  | x |  |
| Other public sector agencies |  |  | x |  |
| Sub-national water agencies |  | x |  |  |
| Basin/Aquifer agencies |  |  | x |  |
| Water User Associations | x |  |  |  |
| Civil society | x |  |  |  |
| Private sector | x |  |  |  |
| Vulnerable groups | x |  |  |  |
| Gender expertise | x |  |  |  |
| Research/academia | x |  |  |  |
| Transboundary expertise |  |  |  |  |
| Other SDG focal points | x |  |  | *(e.g. FPs from other indicators)* |
| *Please add rows if required* |  |  |  |  |

1. Monitoring of 6.5.1 is being done as part of the UN-Water initiative on integrated monitoring of SDG 6. Support is provided in collaboration with UN-Water members and partners. For a list of questions that relate to other SDG indicators (mainly in section 3), please see the monitoring guide. [↑](#footnote-ref-2)
2. For examples of good practices of policies, laws and plans, please see case studies under ‘enabling environment’ in the Global Water Partnership (GWP) [IWRM ToolBox](https://www.gwp.org/en/learn/iwrm-toolbox/About_IWRM_ToolBox/). [↑](#footnote-ref-3)
3. Sub-national includes jurisdictions not at national level, such as: states, provinces, prefectures, counties, councils, regions, or departments. In cases where there are no explicit sub-national policies, please answer this question by considering how national policies are being implemented at sub-national levels. Responses should consider the highest, non-national level(s) as appropriate to the country. In the status description, please explain which level(s) are included in the response. [↑](#footnote-ref-4)
4. At the basin/aquifer level, please include only the most important river basins, lake basins and aquifers for water supply or other reasons. This question only refers to these basins/aquifers. These basins/aquifers are likely to cross administrative borders, including state/provincial borders for federal countries. The basins may also cross national borders, but this question refers to management of the portions of basins within each country. Question 1.2c refers specifically to transboundary arrangements for basins/aquifers shared by countries. [↑](#footnote-ref-5)
5. For ‘transboundary’ definition and guidance on how to fill out all transboundary level questions, see Annexes A and B. All transboundary level questions should reflect the situation in most of the ‘most important’ transboundary basins/aquifers, as listed in Annex B. An ‘arrangement’ should be a formal commitment, and may be referred to as a bilateral or multilateral agreement, treaty, convention, protocol, joint declaration, memorandum of understanding, or other arrangement between riparian countries on the management of a transboundary basin/aquifer. Refers to international basins/aquifers only. Arrangements may be interstate, intergovernmental, inter-ministerial, interagency or between regional authorities. They may also be entered into by sub-national entities. [↑](#footnote-ref-6)
6. Sub-national includes jurisdictions not at national level, such as: states, provinces, prefectures, counties, councils, regions, or departments. In cases where there are no explicit sub-national regulations, please answer this question by considering how national regulations are being implemented at sub-national levels. Responses should consider the highest, non-national level(s) as appropriate to the country. In the status description, please explain which level(s) are included in the response. [↑](#footnote-ref-7)
7. This question has replaced question 1.2d from the baseline survey instrument, which was for federal countries only. [↑](#footnote-ref-8)
8. E.g. Dublin Principle Nr. 3 (1992): “Women play a central part in the provision, management and safeguarding of water”. “[the] role of women … has seldom been reflected in institutional arrangements for the … management of water resources. Acceptance and implementation of this principle requires positive policies to address women’s specific needs and to equip and empower women to participate at all levels in water resources programmes, including decision-making and implementation, in ways defined by them.” [↑](#footnote-ref-9)
9. E.g. SDG target 5.5 “Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.” [↑](#footnote-ref-10)
10. E.g. SDG target 17.18 “By 2020, … increase … the availability of … data disaggregated by … gender, … and other characteristics relevant in national contexts.” [↑](#footnote-ref-11)
11. ‘Government authorities’ could be a ministry or ministries, or other organizations/institutions/agencies/bodies with a mandate and funding from government. [↑](#footnote-ref-12)
12. ‘Capacity’ in this context is that the responsible authorities should be adapted to the complexity of water challenges to be met and have the required knowledge and technical skills, including planning, rule-making, project management, finance, budgeting, data collection and monitoring, risk/conflict management and evaluation. Beyond having the technical capacity, authorities should also have the financial capacity to actually be leading the implementation of these activities. [↑](#footnote-ref-13)
13. Relates to coordination between the government authorities responsible for water management and those responsible for other sectors (such as agriculture, energy, climate, environment etc.) that are dependent on water, or impact on water. Coordination between groundwater and surface water development/management should also be optimised. The relevant sectors should be considered according to their importance for the country. [↑](#footnote-ref-14)
14. ‘The public’ includes all interested parties who may be affected by any water resources issue or intervention. They include organizations, institutions, academia, civil society and individuals. They do not include government organizations. The private sector is addressed separately in the next question. [↑](#footnote-ref-15)
15. Mechanisms can include policies, laws, strategies, plans, or other formal operational procedures for public participation. [↑](#footnote-ref-16)
16. Private sector includes for-profit businesses and groups. It does not include government or civil society. While this question is mainly focused at the national level, please respond at the level that is most relevant in the country context. Please explain this, including differences between implementation at different levels, in the ‘Status description’ field. [↑](#footnote-ref-17)
17. Mechanisms can include policies, laws, strategies, plans, or other formal operational procedures for private sector participation. [↑](#footnote-ref-18)
18. IWRM capacity development: refers to the enhancement of skills, instruments, resources and incentives for people and institutions at all levels, to improve IWRM implementation. Capacity needs assessments are essential for effective and cost-effective capacity development. Capacity development programs should consider gender balance and disadvantaged/minority groups in terms of participation and awareness. Capacity development is relevant for many groups, including: local and central government, water professionals in all areas - both public and private water organisations, civil society, and in regulatory organisations. In this instance, capacity development may also include primary, secondary and tertiary education, and academic research concerning IWRM. [↑](#footnote-ref-19)
19. At the basin/aquifer level, please include only the most important river basins, lake basins and aquifers for water supply or for other reasons. This question only refers to these basins/aquifers. These basins/aquifers likely cross-administrative borders, including state/provincial borders for federal countries. The basins may also cross national borders, but this question refers to management of the portions of basins within each country. Question 2.2e refers specifically to transboundary management of basins/aquifers shared by countries. [↑](#footnote-ref-20)
20. Could be organization, committee, inter-ministerial mechanism or other means of collaboration for managing water resources at the basin level. [↑](#footnote-ref-21)
21. For the definition of ‘capacity’ in this context, see footnote 12. Beyond having the capacity, authorities must also actually be leading the implementation of these activities. [↑](#footnote-ref-22)
22. ‘The public’ includes all interested parties who may be affected by any water resources issue or intervention. They include organizations, institutions, academia, civil society and individuals. They do not include government organizations. The private sector is dealt with separately in question 2.1d. [↑](#footnote-ref-23)
23. Examples of ‘local level’ include municipal level (e.g. cities, towns and villages), community level, basin/tributary/aquifer/delta level, and water user associations. [↑](#footnote-ref-24)
24. Mechanisms can include policies, laws, strategies, plans, or other formal operational procedures for public participation. [↑](#footnote-ref-25)
25. Vulnerable groups: groups of people that face economic, political, or social exclusion or marginalisation. They can include, but are not limited to: indigenous groups, ethnic minorities, migrants (refugees, internally displaced people, asylum seekers), remote communities, subsistence farmers, people living in poverty, people living in slums and informal settlements. Also referred to as ‘marginalised’ or ‘disadvantaged’ groups. While women are often included in definitions of ‘vulnerable groups’, in this survey gender issues are addressed separately in question 2.2d. The score given for this question should reflect the situation for the majority of the vulnerable groups. This question has been added since the baseline to capture an element of stakeholder participation which is important in the context of ‘leave no-one behind’ – one of the key principles of Agenda 2030. [↑](#footnote-ref-26)
26. ‘Procedures’ can include operational processes to, for example, raise awareness, reduce language barriers, and facilitate interaction with specific vulnerable groups. [↑](#footnote-ref-27)
27. ’Meaningful’ implies voices of vulnerable groups are heard, contribute to decision-making, and influence outcomes. It follows the UN Statement of Common Understanding on Human Rights-Based Approaches to Development Cooperation which provides for “Participation and Inclusion: … all peoples are entitled to active, free and meaningful participation in, contribution to, and enjoyment of civil, economic, social, cultural and political development in which human rights and fundamental freedoms can be realized.” [↑](#footnote-ref-28)
28. See gender discussion at beginning of section 2. Gender-responsive mechanisms can include laws, policies, plans, strategies or other frameworks or procedures aimed at achieving gender objectives related to women’s participation, voice and influence. Gender-responsive mechanisms may originate within the water sector or at a higher level, but if they are primarily addressed at a higher level, then there should be evidence of gender mainstreaming within the water sector to achieve scores in this question. In the baseline survey, national, sub-national, and transboundary levels were addressed in three separate questions. These questions have been merged into a single question, allowing countries to answer the question at the level which is most relevant in the national context. The situation at different levels can be explained in the ‘Status description’ cell, as appropriate. [↑](#footnote-ref-29)
29. Gender objectives ultimately refer to equal participation and influence in water resources management at all levels. Ways of monitoring this include (please identify any of these or similar in the ‘Status description’ field): 1) Presence of Gender Focal Point responsible for gender policy and gender concerns in authorities that deal with water resources; 2) Gender parity in decision-making processes at all levels (e.g. in meetings or board members/committee members); 3) Presence of gender-specific objectives and commitments in strategies, plans and laws related water policy; 4) Presence and role of local women’s groups/organizations receiving technical and/or financial support from government/non-government organizations involved in water resources management activities; 5) Budget allocation, and procedures for collection and analysis of sex-disaggregated data of local populations, when planning for water-related programmes / projects, including infrastructure; 6) Presence of measures for improving gender parity and equity in human resources (HR) policies of authorities. Source: adapted from [UNESCO WWAP Toolkit on Sex-disaggregated Water Data, 2019](http://www.unesco.org/new/en/natural-sciences/environment/water/wwap/display-single-news/news/the_2019_water_gender_toolkit_has_been_launched/). [↑](#footnote-ref-30)
30. An organizational framework can include a joint body, mechanism, authority, committee, commission or other institutional arrangement. Refers to international basins/aquifers. [↑](#footnote-ref-31)
31. Sub-national can include, but not limited to: provincial, state, county, local government areas, council. In this case, sub-national should not include basin/aquifer levels as this is dealt with in question 2.2a. Answer this question for the highest sub-national level(s) that are relevant in the country, and specify what these are. [↑](#footnote-ref-32)
32. This question has replaced question 2.2f from the baseline survey, which was for federal countries only. This is in recognition of the fact that many countries have sub-national authorities for water resources management, even if they are not federal countries. [↑](#footnote-ref-33)
33. For the definition of ‘capacity’ in this context, see footnote 12. Beyond having the capacity, authorities must also actually be leading the implementation of these activities. [↑](#footnote-ref-34)
34. See definition of monitoring in Terminology. [↑](#footnote-ref-35)
35. Management instruments include demand management measures (e.g. technical measures, financial incentives, education and awareness raising to reduce water use and/or improve water-use efficiency, conservation, recycling and re-use), monitoring water use (including the ability to disaggregate by sector), mechanisms for allocating water between sectors (including environmental considerations). [↑](#footnote-ref-36)
36. Includes regulations, water quality guidelines, water quality monitoring, economic tools (e.g. taxes and fees), water quality trading programs, education, consideration of point and non-point (e.g. agricultural) pollution sources, construction and operation of wastewater treatment plants, watershed management. [↑](#footnote-ref-37)
37. Water-related ecosystems include rivers, lakes and aquifers, as well as wetlands, forests and mountains. Management of these systems includes tools such as management plans, the assessment of Environmental Water Requirements (EWR), and protection of areas and species. Monitoring includes measuring extent and quality of the ecosystems over time. [↑](#footnote-ref-38)
38. ‘Management instruments’ can cover: understanding disaster risk; strengthening disaster risk governance; investing in disaster risk reduction; and enhancing disaster preparedness. ‘Impacts’ include social impacts (such as deaths, missing persons, and number of people affected) and economic impacts (such as economic losses in relation to GDP). ‘Water-related disasters’ include disasters that can be classified under the following: Hydrological (flood, landslide, wave action); Meteorological (convective storm, extratropical storm, extreme temperature, fog, tropical cyclone); and Climatological (drought, glacial lake outburst, wildfire). [↑](#footnote-ref-39)
39. Basin and aquifer management: involves managing water at the appropriate hydrological scale, using the surface water basin or aquifer as the unit of management. This may involve basin and aquifer development, use and protection plans. It should also promote multi-level cooperation, and address potential conflict among users, stakeholders and levels of government. To achieve ‘Very high (100)’ basin and aquifer management scores, surface and groundwater management should be integrated. [↑](#footnote-ref-40)
40. See previous footnote on basin management instruments, which also applies to aquifers. [↑](#footnote-ref-41)
41. Includes more formal data and information sharing arrangements between users, as well as accessibility for the general public, where appropriate. [↑](#footnote-ref-42)
42. E.g. institutional and technical mechanisms in place that allow for exchanging data as agreed upon in agreements between riparians (e.g. regional database or information exchange platform with a river basin organization including technical requirements for data submission, institutionalized mechanisms for QA and for analysing the data, etc.). [↑](#footnote-ref-43)
43. Allocations of funding for water resources may be included in several budget categories or in different investment documents. Respondents are thus encouraged to examine different sources for this information. When assessing the allocations respondents should take account of funds from government budgets and any co-funding (loans or grants) from other sources such as banks or donors. [↑](#footnote-ref-44)
44. Infrastructure includes ‘hard’ structures such as dams, canals, pumping stations, flood control, treatment works etc., as well as ‘soft’ infrastructure and environmental measures such as catchment management, sustainable drainage systems etc. **For this survey do not include infrastructure for drinking water supply or sanitation services.** Budgets should cover initial investments and recurrent costs of operation and maintenance. [↑](#footnote-ref-45)
45. ‘IWRM elements’ refers to all the activities described in sections 1, 2 and 3 of this survey that require funding, e.g. policy, law making and planning, institutional strengthening, coordination, stakeholder participation, capacity building, and management instruments such as research and studies, gender and environmental assessments, data collection, monitoring etc. [↑](#footnote-ref-46)
46. Infrastructure includes ‘hard’ structures such as dams, canals, pumping stations, flood control, treatment works etc., as well as ‘soft’ infrastructure and environmental measures such as catchment management, sustainable drainage systems etc. **For this survey do not include infrastructure for drinking water supply or sanitation services.** Budgets should cover initial investments and recurrent costs of operation and maintenance. [↑](#footnote-ref-47)
47. For ‘IWRM elements’, see above footnote. **Level**: revenues are likely to be raised from users at the local, basin, or aquifer levels, though may also be raised at other sub-national or national levels (please indicate which level(s) in the status description). **Revenue raising** can occur through public authorities or private sector, e.g. through fees, charges, levies, taxes and ‘blended financing’ approaches. E.g. dedicated charges/levies on water users (including household level *if* revenues are spent on IWRM elements); abstraction & bulk water charges; discharge fees; environmental fees such as pollution charges, Payment for Ecosystem Services (PES) schemes; and the sale of secondary products and services. [↑](#footnote-ref-48)
48. In this question “Member States (MS)” refers to riparian countries that are parties to the arrangement. “Contributions” refers to the annual share of funds agreed from MS national budgets to support the agreed TB cooperation arrangement. Regular funds obtained from for example, water user fees (e.g. hydropower charges) and polluter-pays fees based on existing regulation are also considered as sustainable funding. As variable and unsustainable, donor support should not be considered in the scoring, but may be referred to in the ‘Status description’ and ‘Way forward’ fields. [↑](#footnote-ref-49)
49. ‘IWRM elements’ refers to all the activities described in sections 1, 2 and 3 of this survey that require funding, e.g. policy, law making and planning, institutional strengthening, coordination, stakeholder participation, capacity building, and management instruments such as research and studies, gender and environmental assessments, data collection, monitoring etc. This question has been added since the baseline survey, acknowledging the importance of funding being available at more ‘operational’ levels. [↑](#footnote-ref-50)