

STEP-BY-STEP MONITORING METHODOLOGY FOR SDG INDICATOR 6.5.1

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

1. INTRODUCTION

This Monitoring Methodology provides a guide for national governments to monitor the status of Integrated Water Resources Management (IWRM), target 6.5 under Sustainable Development Goal 6 on water and sanitation (SDG 6). It is based on a self-assessment questionnaire to be completed every three years.

The methodology seeks to use and build on existing monitoring efforts at the country level, allowing countries to begin monitoring efforts at a level in line with their national capacity and available resources, and from there advance progressively.

The questionnaire can be accessed from [here](#). Details on how to submit the questionnaire and how to ask for help if you have any questions can be found in sections 5 and 6.

1.1 INTRODUCTION OF THE INDICATOR AND QUESTIONNAIRE

Target 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.

Indicator 6.5.1 Degree of integrated water resources management (IWRM) implementation (0-100).

The indicator is determined from the results of a questionnaire on integrated water resources management (IWRM) comprising of four sections:

- 1. Enabling Environment:** Creating the conditions that help to support the implementation of IWRM, which includes the most typical policy, legal and strategic planning tools for IWRM.
- 2. Institutions and participation:** The range and roles of political, social, economic and administrative institutions and other stakeholder groups that help to support the implementation of IWRM.
- 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 from various sources.

Each section contains two sub-sections, the first covering the national level, and the second covering 'at all levels', which includes sub-national, basin/aquifer and transboundary levels as appropriate.

1.2 TARGET LEVELS FOR THE INDICATOR

For each question, a score between 0 and 100 may be selected, in increments of 10. The score selection is guided by descriptive text for six thresholds, which are specific to each question. Threshold descriptions are provided for the scores of 0, 20, 40, 60, 80, 100, but if a respondent judges the national situation to lie between two thresholds, the increment of 10 between the two thresholds may be selected. Thus the potential scores that may be given for each question are: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.

The question scores in each section are averaged to provide a section score. The four section scores are then averaged to create the indicator score on a scale of 0 – 100, which represents the degree of IWRM implementation. While the ultimate target level for any country is 100, indicating full implementation of IWRM, it is recognized that countries are at different stages of development and scores are expected to range quite considerably.

One of the main benefits of the questionnaire to countries lies in the possibility to disaggregate the data by component and by question, which can be used by countries to provide a quick assessment of which aspects of IWRM are progressing well, and which aspects may require increased effort. A general interpretation of the overall score may be given as follows, based on the ‘degree of implementation of IWRM’. **However, more specific interpretation for each question is provided in the questionnaire.**

- 0 – <=10 : Very low: development of elements of IWRM has generally not begun, or development has stalled.
- >10 – <=30 : Low: implementation of elements of IWRM has generally begun, but with limited uptake across the country and potentially low engagement of stakeholder groups.
- >30 – <=50 : Medium-low: elements of IWRM are generally institutionalised and implementation is underway.
- >50 – <=70 : Medium-high: capacity to implement elements of IWRM is generally adequate and elements are generally being implemented under long-term programs.
- >70 – <=90 : High: IWRM objectives of plans and programmes are generally being met, and geographic coverage and stakeholder engagement is generally good.
- >90 – <=100 : Very high: the vast majority of the elements of IWRM are fully implemented, with objectives consistently achieved, and plans and programmes periodically assessed and revised.

Section 4 provides more detailed information on how the indicator is calculated.

2. PROPOSED MONITORING METHODOLOGY

2.1 MONITORING CONCEPT AND DEFINITIONS

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 the three key dimensions of sustainable development:

- Economic efficiency to use water resources in the best way possible;
- Social equity in the allocation of water across social and economic groups;
- Environmental sustainability to protect the water resource base, as well as associated ecosystems.

The questionnaire is used to generate information on progress towards the IWRM target. A balance has been made between providing sufficient information to cover the main aspects of IWRM, and the length of the questionnaire. Countries are encouraged to provide additional information on each question, which may help others to better understand the choice of score. The questionnaire process is to be repeated every three years.

2.2 RECOMMENDATIONS ON COUNTRY PROCESS FOR MONITORING AND REPORTING

Monitoring progress on meeting SDG 6.5 is the responsibility of national governments, with support from the United Nations. For Target 6.5.1 UN Environment has been designated as the UN agency with the responsibility of supporting national and global monitoring and reporting processes. Following a dialogue with countries, the following process has been agreed upon:

1. UN Environment contacts a national government ministry who is asked to help establish national responsibility for overseeing the IWRM review process, completion of the questionnaire, and reporting to a central database. An individual from an appropriate ministry is assigned the role of national “IWRM Focal Point”.
2. The IWRM Focal Point has the responsibility of managing a process that results in one completed questionnaire, which reflects the country’s current IWRM implementation status. The questionnaire should be completed based on a consultative process that is appropriate to the country. It is up to the national IWRM Focal Point to decide on the most appropriate process, considering resources available and time constraints. The following elements should be considered in the design of the process:
 - **Stakeholder groups:**
 - Government: representatives from the main ministry/ministries responsible for water resources, as well as those from other ministries involved in water resources (e.g. agriculture, energy, environment, tourism, urban planning, finance).
 - Basin and aquifer level: e.g. organizations with responsibility for water resources management at river basin, lake basin, or aquifer level.
 - Other stakeholders: community groups, water user associations, private sector, academia, NGOs, environmental organizations and water resources management practitioners.
 - **Engagement process:** Facilitated workshops are likely to yield the most robust results, complemented by emails, phone calls and other meetings. Considerations include the number of workshops, location of workshops across the country, and stakeholder representation (including considerations of gender equality and representation of minority / disadvantaged groups).
 - **Development of responses:** Depending on the engagement process, responses may either be developed ‘in series’, or ‘in parallel’, or a combination of these approaches. With the series approach, consecutive drafts of the questionnaire may be developed, with different stakeholder groups. For example, a first draft may be developed by a few key government institutions, a second draft by a wider group of government institutions, and a third draft by other stakeholders. In the parallel approach, different stakeholder groups are asked to fill out responses to a blank questionnaire. Different responses should be combined into a single final response. This may be done at one or more facilitated workshops, and consensus can be reached through discussion.
 - **In-country engagement tools:** UN Environment makes the questionnaire available to the IWRM Focal Points in two formats (content is identical):
 - A questionnaire in Microsoft Word
 - An online questionnaire in SurveyMonkey is available on request subject to available resources – see section 6 “Helpdesk”). SurveyMonkey enables a wide range of stakeholders to respond to a

national questionnaire, and also facilitates analysis of the spread of responses. Experience with SurveyMonkey would be an advantage.

The IWRM Focal Point is responsible for administering different responses to the questionnaire and in developing the final responses (depending on the Engagement Process and Development of Responses – see above). Familiarity with Microsoft Excel would be an advantage, as it can be used to analyze the variance of results for each question, as well as for each section, and the overall score. For questions with a wide variance, more time may be needed to understand different responses and to arrive at a consensus on the final score.

- **Language:** this step-by-step guide and the questionnaire are available from UN Environment in six UN languages (Arabic, Chinese, English, French, Russian and Spanish).

Box 1: Inspiration from Uganda’s country process during piloting

The national process was coordinated by the Directorate of Water Resources Management (DWRM) of the Ministry of Water and Environment.

Step 1: A Task Team was established with representatives from a spectrum of sectors and stakeholders.

Step 2: The questionnaire was filled out by a number of stakeholders in numerous formal and informal consultations using email, phone calls, and manual filling.

Step 3: The results from the various questionnaires were compiled by the Task Team and analysed, including the variation in responses to individual questions.

Step 4: A large workshop was held involving numerous stakeholders to discuss the results and achieve consensus on the final responses.

2.3 RECOMMENDATIONS ON SPATIAL AND TEMPORAL COVERAGE

Spatial Coverage: Each section of the questionnaire is into two sub-sections, the first covering the national level, and the second covering other levels which includes sub-national, basin/aquifer and transboundary levels as appropriate. The spatial coverage of the national level questions is relatively straightforward. It becomes more complicated for federal countries, where responsibility for water resources management may be split between the national level and the provinces or states. However, the national level questions are still relevant for federal states. And two additional questions are included for federal countries only.

Addressing the ‘at all levels’ part of the target is critical for providing a complete picture of IWRM implementation. The questions ‘at all levels’ cover both the degree of implementation and the different administrative or geographical levels. Guidance is provided in the text given for each of the six ‘thresholds’ for each question.

Temporal Coverage: A reporting cycle of three years is proposed.

3. DATA SOURCES AND COLLECTION

3.1 SOURCES OF DATA – SHORT AND LONG TERM

The information required to complete the survey questionnaire is expected to be held by government officials and a range of other stakeholders, which will be specific to individual countries. Respondents are strongly encouraged to add their justification for the score given in the space provided after each question. This will significantly increase the robustness and objectivity of the response to the questionnaire. It will facilitate different stakeholder groups within the country to reach consensus on responses to each question; help countries analyze what is required to reach the next threshold; facilitate countries to track progress over time; and allow for standardization of degrees of implementation between countries.

Countries are also welcome to provide additional relevant information or links to further documentation in the spaces provided after each question. Note that if 'Very high' or 'n/a' (not applicable) is selected as a response to any of the questions, the respondents are requested to provide a brief justification for this. The results of the questionnaire and accompanying justifications will be retained by the IWRM Focal Point (see section 2.2 above) and also be made available to countries from the centralized reporting system. This will also be important for future reference when repeating the monitoring process.

4. COMPUTATION OF THE INDICATOR

Each question has a response value of between 0 and 100, in increments of 10. Question values are averaged to form a score for each of the four sections. If a response of 'not applicable (n/a)' is given, this is not included in the calculation. The four values for each of the sections are then averaged to derive the indicator score for the country. Averaged values should be rounded to the nearest whole number.

Simple Calculation Steps for Degree of IWRM Implementation Score

Steps:

- 1) Calculate the average score for section 1** (this is total score for section 1, divided by total number of questions in section 1)
- 2) Calculate the average score for section 2** (this is total score for section 2, divided by total number of questions in section 2)
- 3) Calculate the average score for section 3** (this is total score for section 3, divided by total number of questions in section 3)
- 4) Calculate the average score for section 4** (this is total score for section 4, divided by total number of questions in section 4)
- 5) Calculate the total average score** (this is done by adding the results of steps 1, 2, 3 and 4 together, and then dividing by 4)

Total average score = National degree of IWRM implementation score

Please remember: Questions where the score is 0 (zero) must be included. However, questions that are not applicable must not be included.

5. SUBMISSION

1. **The IWRM Focal Point is responsible for submitting the final completed questionnaire to UN Environment.** This can be done by using one of the following options (content is identical):
Option 1: Complete and submit the online version of the questionnaire in SurveyMonkey from the link available here: <https://www.surveymonkey.com/r/LGLWVNH>
Option 2: Complete and submit the Microsoft Word version of the questionnaire to the HelpDesk (see section 6 below) electronically.

2. UN Environment then has the responsibility to:
 - Assist the country with any needed quality checks
 - Report data to the UN Statistics Division
 - Prepare global status report/s

6. HELPDESK

Government representatives are kindly requested to direct any questions or comments to the HelpDesk:

HelpDesk at UN Environment
Email: IWRM.Sdg6survey@unep.org

Upon request, the helpdesk may 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 uploading/submitting the final indicator scores.