

SDG INDICATOR 6.3.2 REPORTING GUIDANCE DOCUMENT No. 1:



LEVEL 1 REPORTING

This document provides guidance on the reporting of SDG Indicator 6.3.2 Level 1. It is a companion to the Level 1 Reporting Template. The template and all supporting documents are available on the Indicator 6.3.2 Support Platform $^{\frac{1}{2}}$.

The United Nations Environment Programme (UNEP) is the custodian agency for SDG indicator 6.3.2 and the Global Environment Monitoring System for Freshwater (GEMS/Water) is the implementing partner. All of the Goal 6 indicators are coordinated by UN Water under the Integrated Monitoring Initiative for Goal 6 (IMI-SDG6).

Introduction

SUMMARY OF THE CHANGES INTRODUCED SINCE THE FIRST DATA DRIVE IN 2017

- Reporting of SDG Indicator 6.3.2 (Proportion of bodies of water with good ambient water quality) and 6.6.1 (Change in the extent of water-related ecosystems over time) are now reported separately.
- Countries now have the option to report the results of indicator 6.3.2 assessment either at national, reporting basin district or water body level.
- Countries have the option to report indicator 6.3.2 results retrospectively on the first global data drive of 2017 by selecting the appropriate reporting period.
- Countries can now define individual targets for water bodies or reporting basin districts, if needed, or set national targets.

OVERVIEW OF THE REPORTING STEPS

- 1) Enter information on the submitting country and organization, reporting period and reporting level.
- 2) Report the water quality assessment results and associated metadata at the previously selected reporting level (i.e. national, reporting basin district or water body level).
- 3) Provide necessary information on the target values that were used to classify the water quality status.

REPORTING OF SPATIAL UNITS

Depending on the availability of data, the practitioner may choose to report Indicator 6.3.2 at one of three spatial disaggregation levels. Each of these levels have a different type of underlying spatial unit. These units are listed in Table 1.

¹ https://communities.unep.org/display/sdg632





Table 1: Dependency of the quality of information and the level of complexity on the Spatial Units.

Reporting Level	Spatial Unit	Level of complexity	Information quality
National	Country	Simplest	Lowest
Reporting Basin District	Reporting Basin District	Intermediate	Intermediate
Water body	Water body	Complex	Highest

These spatial units have an inherent hierarchical structure that resembles a "one-to-n" relationship between the different types of units, as shown in Figure 1. Each country may contain one or many Reporting Basin Districts (RBDs). Each of the RBDs in turn may consist of one or many water bodies.

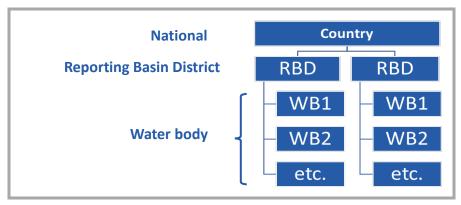


Figure 1: Hierarchical structure of the Spatial Units in the SDG 6.3.2 reporting.

The following sections offer a short introduction to the spatial unit concept, together with the different types of information that need to be provided when reporting at each level.

NATIONAL

This National reporting level uses the Country as the spatial unit. This level is the minimum requirement that allows for the final calculation of the "proportion of bodies of water with good ambient water quality". Countries are encouraged to go beyond this level of reporting and choose either the RBD or the water body level.

National reporting does not provide information on the spatial distribution of ambient water quality, nor does it provide detailed insight of water quality of national portions or transboundary river basins.

At this level the practitioner is required to enter:

- the <u>number of water bodies</u> assessed,
- the proportion of water bodies

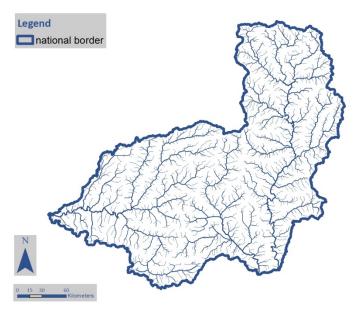


Figure 2: The Spatial Unit of "Country" only allows for nationally aggregated reporting on water quality, without any spatial context or the possibility to inform on transboundary waters.





- classified as good water quality,
- the total number of monitoring locations, and
- the <u>total number monitoring values</u> that were used in the classification of each of the water body types (lake, river and groundwater).

REPORTING BASIN DISTRICTS

Reporting Basin Districts (RBDs) are the spatial units that provide a more detailed overview of the water quality in a country, while also accounting for the state of transboundary river basins.

An RBD could represent a major river basin or a system of smaller river basins. In both cases the RBDs should contain one or more water bodies. As shown in Figure 3, the RBD borders should be defined by boundaries of hydrological basins.

The practitioner is required to provide some additional information on the RBDs in the worksheet "RBD Water Quality" with:

- a <u>unique identifier code</u>,
- its name and
- its area (in km²).

Additionally, it should be indicated whether:

- the RBD <u>contains a transboundary river basin</u> which can be selected from a list of basin names that is based on the Transboundary Freshwater Dispute Database,
- the number of assessed water bodies,
- the number of water bodies classified as good ambient water quality,
- the total number of monitoring locations, and
- the <u>number of monitoring values</u> for each water body type should be entered per RBD.

Indicator 6.3.2 results reported at Reporting Basin District level allow for an aggregation of the RBD indicator score up to national level, while allowing for a more differentiated view on the distribution of water quality in a country for policy making and management purposes. It does not, however, offer detailed information on the state of individual water bodies that it contains, only the overall proportion of water bodies with good water quality in the RBD.

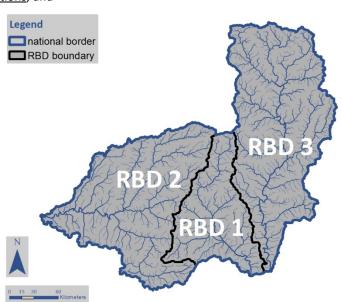


Figure 3: Delineation of Reporting Basin Districts with regards to hydrological basin boundaries and country borders.





WATER BODIES

Water bodies are the spatial units of highest resolution, for which assessment results for indicator 6.3.2 can be reported. Each **Water bodies** that the indicator is to be reported for is required to be part of a previously defined **Reporting Basin District (RBD)**.

The water bodies are defined in worksheet "Water Body Water Quality" by providing:

- a <u>name</u> and a <u>unique identifier code</u> for the Water body,
- as well as defining the water body type (i.e. lake, river or groundwater).

Additionally, the practitioner is asked to indicate whether:

- the Water body is an <u>artificial water body</u>, or whether it is a <u>transboundary water body</u>.
- Then, the Reporting basin district code of the RBD where the Water body is located is to be assigned.

To report on the indicator at the water body level, the following information is required per **Water body**:

- the <u>classification</u> of the water quality (good or not good),
- the <u>number of monitoring locations</u> that contributed to the classification,
- the <u>number of monitoring values</u> that the classification was based on, and
- depending on the water body type, the practitioner is also asked to provide the water body area (in km²) for lakes and groundwater, or the length of the river water body (in km).

For example, in Figure 4 three RBDs are shown with river water bodies delineated for each. These RBDs could also contain lake water bodies and groundwater bodies, which are not shown.

Indicator 6.3.2 results reported at water body level allow for an aggregation of the indicator score up to the Reporting Basin District and the national level, while allowing for the highest degree of detail with regards to the distribution of water quality in the country for policy making and management purposes.

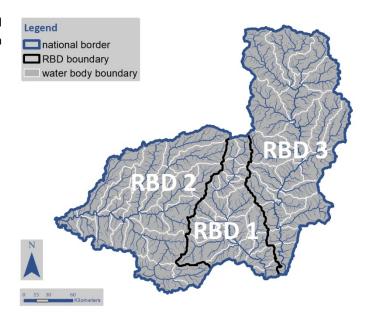


Figure 4: Example of water body spatial units, shown here nested within three Reporting Basin Districts.





REPORTING OF LEVEL 1 MONITORING

This section provides a short overview of the indicator 6.3.2 reporting templates, followed by more detailed guidance below.

OVERVIEW OF THE STRUCTURE OF THE 2020 REPORTING CONTENTS

The reporting is based on an Excel template that contains a number of worksheets, which fulfil different roles and can be accessed by the coloured tabs at the bottom of the Excel window.

Worksheets 1 - 3 are for information purposes and provide a short description of the template, as well as concept definitions and a description of the table fields that should be entered. These worksheets may be taken by the practitioner as a reference throughout the process of compiling an Indicator 6.3.2 Level 1 submission.

Overview / Concepts / Data Description

Worksheet 4 asks for information on the submitter of the template and their institution. It also provides an option to select the reporting period, for which the indicator results are submitted, as well as an option to select the spatial unit type.

Submission Information

Worksheets 5 – 7 are where indicator results can be reported. Depending on which spatial unit was previously chosen for reporting on the indicator, (national, RBD or water body), only one or two of these tables will be relevant for data entry.

National Water Quality RBD Water Quality Water Body Water Quality

Worksheet 8 asks for the "Water Quality Targets" that were used to classify water quality.

Water Quality Targets

Worksheets 9 – 12 consist of Code Lists, which define acceptable entries for a number of table fields, like country names or units of measure. These Code Lists are not intended for data entry and should be ignored for the purposes of indicator 6.3.2 submission.

CL_Country / CL_ReportingType / CL_WaterBodyType / CL_TransboundaryRiverBasin / CL_Qu

DATA VALIDATION

The template uses data validation mechanisms, either by offering a drop-down selection list of acceptable entries, or by providing feedback to the practitioner if certain requirements for an entry are not met.

Examples for both types of data validation are shown in Figure 5.

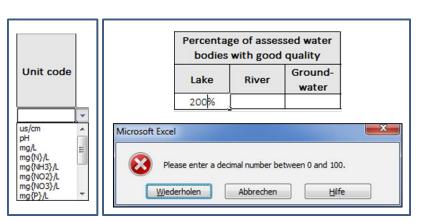


Figure 5: Example of a drop-down selection list, containing accepted units of measure (left). Error message presented to the practitioner, after entering a percentage of lake water bodies with good water quality, that is out of accepted bounds (right).

MISSING VALUES



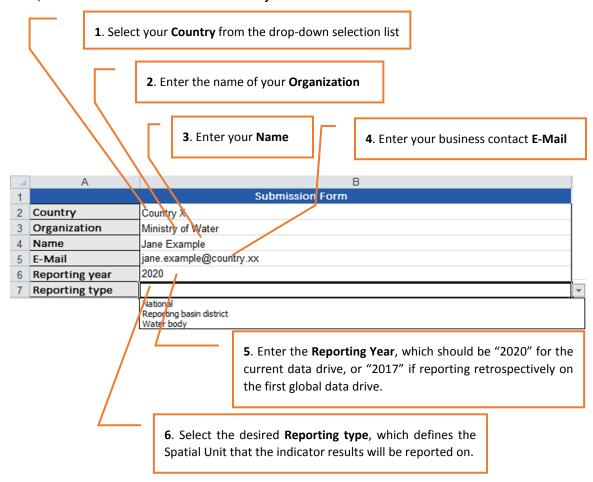
The practitioner may encounter cells that do not apply to their report, or where data are not available. In these cases, it is asked that the practitioner leaves the field empty, indicating a missing value. An example for this can be seen in Figure 6. The first of the Reporting Basin Districts had no lakes or groundwater bodies assessed; therefore, the percentage of lakes or groundwater bodies with good quality has been left empty.

Number of assessed water bodies			Percentage of assessed water bodies with good quality		
Lake	Lake River		Lake	River	Ground- water
0	3	0		33,33%	
2	3	2	50,00%	66,66%	50,00%

Figure 6: Example of missing data representation no lakes or groundwater bodies were assessed.

SUBMISSION INFORMATION AND REPORTING TYPE

To provide information on the submitting institution and to select the reporting type with regards to the Spatial Units, first select the worksheet "Submission Information".

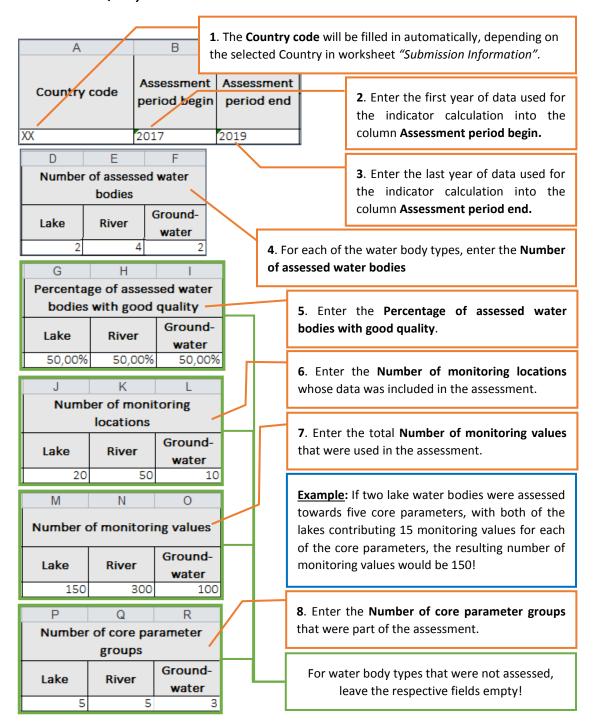


Depending on the selection made in step 6, parts of the reporting template tables that are not applicable will be greyed out. Please continue with the appropriate section below.



REPORTING AT NATIONAL LEVEL

If the "National" **Reporting type** was selected in worksheet "Submission Information", switch to the worksheet "National Water Quality".



The reporting of indicator 6.3.2 results at "National" level is finished. The next step is to <u>proceed to section</u>

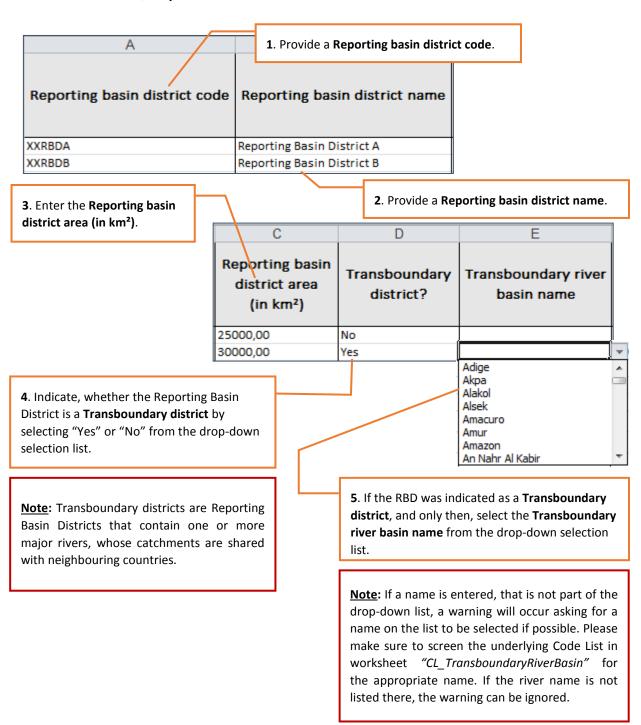
<u>REPORTING OF WATER QUALITY TARGETS</u> to provide information on the threshold values that were used during the assessment.





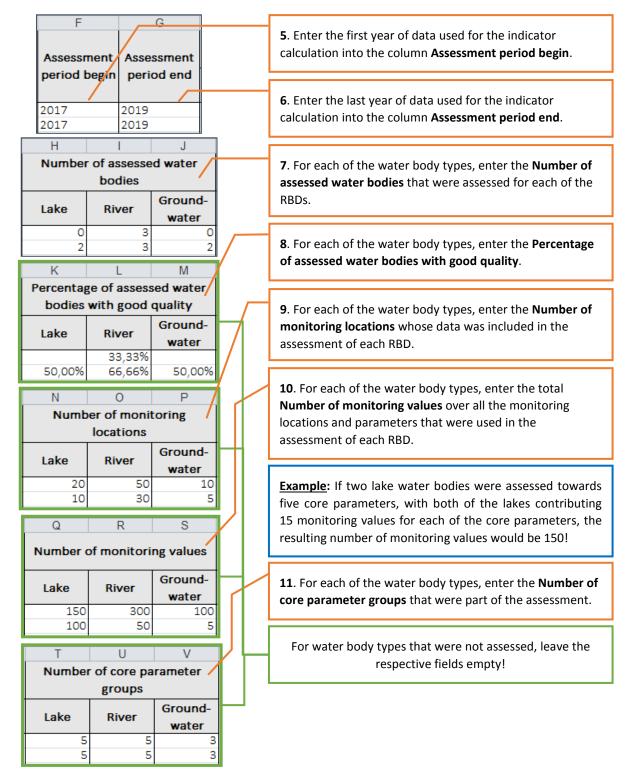
REPORTING AT REPORTING BASIN DISTRICT LEVEL

If the "Reporting basin district" **Reporting type** was selected in worksheet "Submission Information", switch to the worksheet "RBD Water Quality".









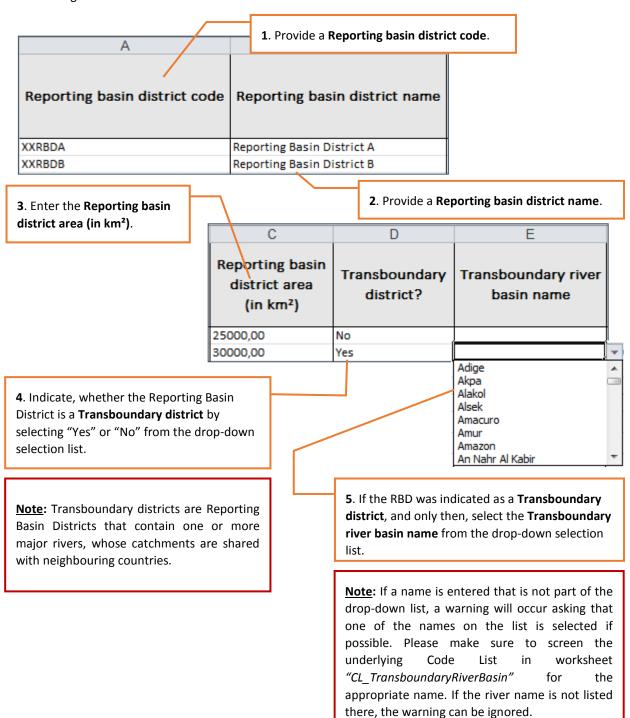
With this, the reporting of indicator 6.3.2 results at "Reporting basin district" level is finished. The next step is to proceed to section REPORTING OF WATER QUALITY TARGETS to provide information on the threshold values that were used during the assessment.





REPORTING AT WATER BODY LEVEL

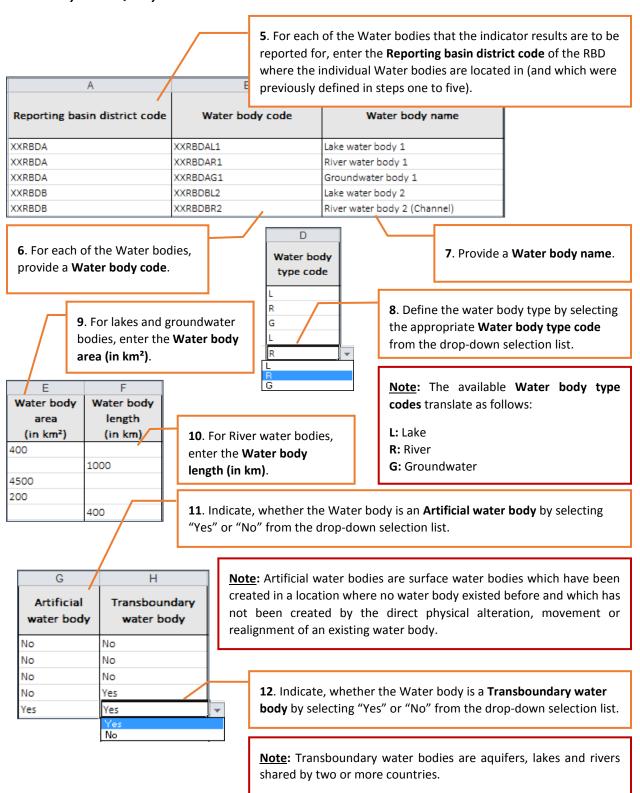
If the "water body" **Reporting type** was selected in worksheet "Submission Information", the Reporting Basin Districts that contain the individual water bodies need to be defined. Once complete, information on the individual Water bodies can be entered and the indicator results on Water body level may be reported. To accomplish this, first switch to the worksheet "RBD Water Quality". That part of the table is greyed out, and only the columns intended for general information on the RBDs are active



LEVEL 1 REPORTING

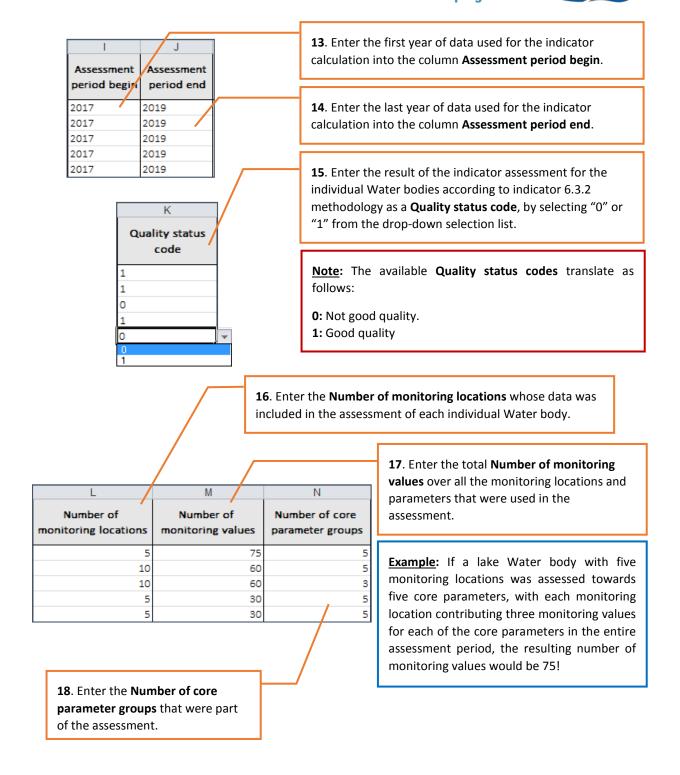


Having entered the necessary information for the definition of Reporting Basin Districts, switch to the worksheet "Water Body Water Quality".









With this, the reporting of indicator 6.3.2 results at "Water body" level is finished. The next step is to <u>proceed to section REPORTING OF WATER QUALITY TARGETS</u> to provide information on the threshold values that were used during the assessment.





REPORTING OF WATER QUALITY TARGETS

The last step in the indicator 6.3.2 reporting process is the documentation of water quality target values that were used in the assessment to classify the quality of water according to the Indicator 6.3.2 methodology. If required more details on the concept of target values are available in the SDG INDICATOR 6.3.2 TECHNICAL GUIDANCE DOCUMENT NO.2: TARGET VALUES, available on the Indicator 6.3.2 Support Platform (https://communities.unep.org/display/sdg632).

Target values are to be reported on a national level for each water body type. However, depending on the natural diversity of water bodies and the sophistication of national water quality protection standards, a country may have different water quality targets set for individual water bodies of the same type. This is acknowledged in the template by allowing the practitioner to provide target values also for individual water bodies or RBDs. These water body or RBD-specific targets overwrite the target values that were defined on a national level for exactly those Reporting Basin Districts or water bodies that they were defined for, while leaving the validity of all the other national target values untouched.

Example: A country has defined water quality targets for rivers and lakes on a national level, for the core parameters as shown in Figure 7. For the upland portion of one specific river, however, the country has defined significantly lower target values that may reflect the background concentrations at this location. The country may report the specific target values for this river and add a remark that these targets are only valid for the upland portion. By doing so, the national targets will be registered as a whole for all rivers and lakes in the country, while the specific targets will only be registered for the upland portion of the specified river. A similar approach can be utilized for additional specific target values for other water bodies, or Reporting Basin Districts as a whole, allowing for a high degree of freedom in reporting target values for different Spatial Units.

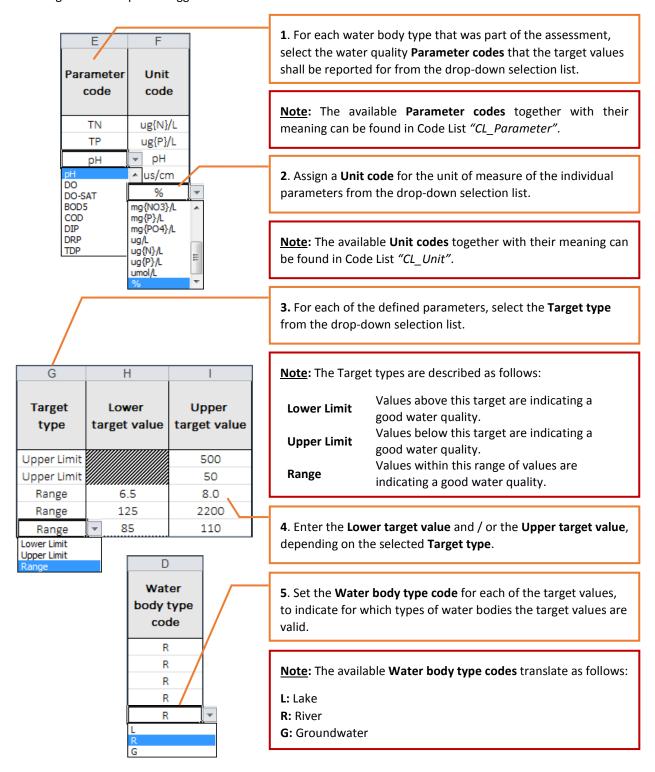
Α	В	С	D	Е	F	G	Н	1	J
Water body or RBD specific	Reporting basin district code	Water body code	Water body type code	Parameter code	Unit code	Target type	Lower target value	Upper target value	Remarks
No			R	TN	ug{N}/L	Upper Limit		500	
No			R	TP	ug{P}/L	Upper Limit		50	
No			R	рН	рН	Range	6.5	8.0	
No			R	EC	us/cm	Range	125	2200	
No			R	DO-SAT	%	Range	85	110	
No			L	TN	mg{N}/L	Upper Limit		350	
No			L	TP	mg{P}/L	Upper Limit		10	
No			L	рН	рН	Range	7	8.5	
No			L	EC	us/cm	Range	20	30	
No			L	DO-SAT	%	Range	80	110	
Yes		XXRBDBR1	R	TN	mg{N}/L	Upper Limit		250	Upland River portion
Yes		XXRBDBR1	R	TP	mg{P}/L	Upper Limit		20	Upland River portion
Yes		XXRBDBR1	R	рН	рН	Range	6.5	7.5	Upland River portion
Yes		XXRBDBR1	R	EC	us/cm	Range	30	350	Upland River portion
Yes		XXRBDBR1	R	DO-SAT	%	Range	90	110	Upland River portion

Figure 7: Example of a filled in Water Quality Targets table for two sets of national target values for rivers and lakes, as well as specific targets for the upland portion of a single river.

LEVEL 1 REPORTING

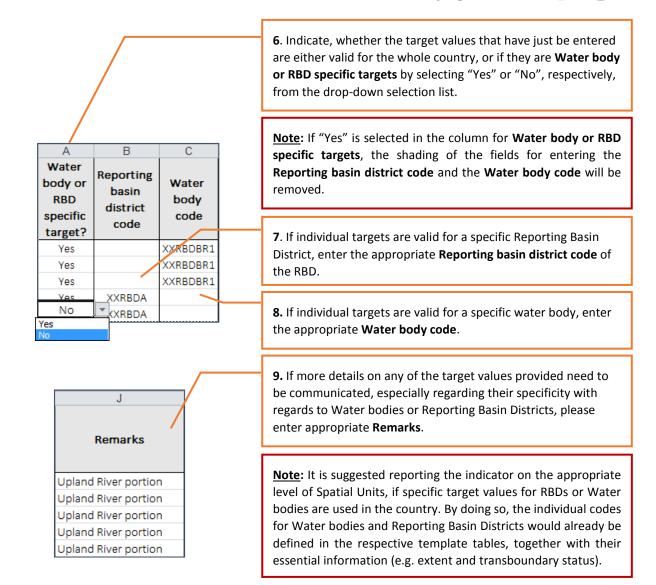


For the process of reporting target values in general, which is done in the worksheet "Water Quality Targets", the following order of steps are suggested:









Having finalized the definition of target values, the reporting on the Indicator 6.3.2 Level 1 Monitoring results is finished.

SUBMISSION AND HELP DESK SUPPORT

Submit the finalized template via e-mail to the SDG 6.3.2 Help Desk at sdg632@un.org. Also, any questions or requests for support can be sent to the same address. Please ensure to include your country's name in the subject line of the e-mail.

ADDITIONAL SUPPORT

The Global Environment Monitoring Programme for Freshwater (GEMS/Water) as the implementing partner for SDG indicator 6.3.2, on behalf of the United Nations Environment Programme, additionally offers the service of calculating the indicator results on Water body level to the member countries, based on sample analysis results for the core parameters. To avail of this service, please contact the Help Desk at sdg632@un.org.