

GHANA

Filed Questionnaire for Indicator 6.5.1

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

Introduction

UN Environment is supporting countries in monitoring and reporting on Sustainable Development Goal (SDG) 6, including target 6.5: “By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate”¹. The target supports the equitable and efficient use of water resources, which is essential for social and economic development, as well as environmental sustainability.

Indicator 6.5.1 is: Degree of integrated water resources management implementation (0 – 100). Please refer to the “[Step-by-step Monitoring Methodology for Indicator 6.5.1](#)” for a full description of indicator 6.5.1, which provides additional guidance on completing the questionnaire, data collection, management and use.

The indicator score calculated using the responses to this questionnaire represents the current degree of IWRM implementation, on a scale from 0 to 100. The process of completing the questionnaire, including national multi-stakeholder workshops, supports countries in identifying barriers or delays to further progress, thereby providing a starting point for considering possible correcting actions towards achieving the IWRM target. The actions to achieve target 6.5 directly underpin the various other water-related targets within SDG-6.

The IWRM Focal Point is responsible for submitting the final completed questionnaire to UN Environment for formal submission. 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 either electronically or via post or fax:

HelpDesk at UN Environment

Email: lwrn.Sdg6survey@unep.org

¹ This is being done as part of the GEMI initiative, coordinated by UN-Water, for monitoring and reporting of SDG targets 6.3 - 6.6, 6a and 6b. Support is provided in close collaboration with a number of UN-Water members and partners.

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.

About the Questionnaire

The questionnaire contains four sections, each covering a key component of IWRM:

- 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 has two sub-sections covering the “National” and “Other” levels. Various levels are covered to address the target 6.5 wording “... at all levels.” “Other” levels include sub-national, basin, local and transboundary (see glossary). Questions relate to these levels depending on their relevance to the particular aspect of IWRM.

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)’. 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 must also be addressed in the higher thresholds for that question.

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.

Respondents are strongly encouraged to add their justification for the score given in the space provided after each question, referencing evidence wherever possible (e.g. quoting reports, laws, plans etc.). This will significantly increase the robustness and objectivity of the questionnaire. It will help different stakeholder groups within the country to reach agreement on responses to each question; help countries analyse what is required to reach the next threshold; help countries to track progress over time; and allow for standardisation 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 required to provide a brief justification for this.

Indicator 6.5.1 is calculated as follows:

1. Calculate the average score of each of the four sections by averaging all questions scores in each section.
2. Calculate the average of the four section scores to give the overall score for indicator 6.5.1.

If 'not applicable' is selected for any question, this will not be included in the indicator calculations, and therefore will not reduce the average score. All questions should be given a score, unless 'n/a' is selected. It is not possible to omit questions.

Glossary

- **Authorities / organizations /institutions / departments:** administrative units.
- **Basins:** Includes rivers, lakes and aquifers, unless otherwise stipulated. 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.
- **‘Most significant’ interstate basins:** **For federal countries only.** Basins that cross state/provincial borders and are of reasonably high significance to those states and/or the country.
- **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 federated countries, these are likely to be provinces or states. Non-federated 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.
- **Stakeholders:** In this questionnaire, 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 has regard to 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. Generally, in this questionnaire, WRM activities (e.g. policies, laws, capacity development), must be based on IWRM approaches to score 40 and above.

Transboundary questions:

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. 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. 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.

	Important basin / aquifer
1.	Volta Basin]
2.	Tano Basin
3.	Bia Basin

1. 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 IWRM². 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. You are strongly encouraged to provide the justification and references to evidence for the score in the grey cell to the right of the score. 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 required are provided. You may also provide further information you think is relevant, or links to further documentation. If 'Very high (100)' or 'n/a' is selected, a justification should be provided.

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 or n/a:	[60]	Justification/evidence	[The National Water Policy was adopted in 2007 and is yet to be revised. Policy actions for focus areas such as capacity building and public awareness, planning and research, international cooperation and IWRM have guided implementation at the national and basin levels]- http://www.gwcl.com.gh/national_water_policy.pdf			
b	National water resources law(s)	Development not started or not progressing.	Exists, but not based on IWRM .	Based on IWRM, approved by government and starting to be applied by authorities.	Being applied by the majority of relevant authorities.	All laws are being applied across the country.	All laws are enforced across the country, and all people and organizations are held accountable.
	Score or n/a:	[40]	Justification/evidence	[There is no clear cut national water resources law. However, there is the ACT 522 of 1996 that establishes the Water Resources Commission (WRC) and empowers same to regulate and manage the country's water resources. Other water-related regulatory institutions such as the Environmental Protection Agency, Minerals Commission and Forestry Commission, collaborate in the administration of regulations by the WRC. However, there is weakness in enforcement of regulations by the District authorities] http://laws.ghanalegal.com/acts/id/224/water-resources-commission-act			

² For examples of good practices of policies, laws and plans, please see: GWP (Editor) (2004): Catalyzing Change: A handbook for developing IWRM and water efficiency strategies. Stockholm: Global Water Partnership (GWP).

		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 or not 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 or n/a:	[60]	Justification/evidence	[National IWRM in place since 2012. Action sheets have been prepared and implementation ongoing. However, the Plan objectives yet to be fully achieved]. http://doc.wrc-gh.org/pdf/National%20IWRM%20Plan.pdf			
1.2 What is the status of policies, laws and plans to support IWRM at other levels?							
a	Sub-national³ 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 relevant authorities to guide work.	Policy objectives consistently achieved by a majority of authorities .	Objectives consistently achieved by all authorities, and periodically reviewed and revised .
	Score or n/a:	[n/a]	Justification/evidence	[This is inconsistent with the path of water resources management in the country since water resources management is devolved to the basin level].			
b	Basin/aquifer management plans⁴ or similar, based on IWRM	Development not started or delayed in most basins/aquifers of national importance.	Being prepared for most basins/aquifers of national importance.	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 or n/a:	[60]	Justification/evidence	[Between 2007 and 2013, seven (7) river basin IWRM have been developed and being implemented. Three of the plans have been reviewed as at 2016]. http://www.wrc-gh.org/documents/reports/			

³ Sub-national includes jurisdictions not at national level, such as: states, provinces, counties, regions, or departments.

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.

		Very low (0)	Low (20)	Medium-low (40)	Medium-high (60)	High (80)	Very high (100)
c	Arrangements for transboundary water management in most important basins / aquifers⁵	Development not started or not progressing.	Being prepared or negotiated.	Arrangements are adopted.	Arrangements' provisions are partly implemented.	Most of the arrangements' provisions are implemented.	The arrangements' provisions are fully implemented.
	Score or n/a:	[60]	Justification/evidence [There is the multilateral agreement on the Volta Basin (Volta Basin Authority convention signed in 2007 and in force since 2009) that drains 70% of Ghana and which the country shares with 5 other riparian countries. Ghana also has Memorandum of Understanding with Burkina Faso on the Joint Technical Committee for IWRM on the Volta operational since 2007].				
d	FEDERAL COUNTRIES ONLY: Provincial/state water resources laws.	Development not started or delayed in most states.	Exist in most jurisdictions, but not necessarily based on IWRM.	Based on IWRM, approved in most states and starting to be applied by authorities in the minority of states.	Some laws being applied in the majority of states.	All laws being applied in the majority of states.	All laws being applied in all states, and all people and organizations are held accountable.
	Score or n/a:	[n/a]	Justification/evidence [Ghana is a unitary state]				
Average 'Enabling Environment' score			[56]	In case of 'n/a' for any questions, they should be omitted from the average calculation.			

⁵ An arrangement can be a bilateral or multilateral treaty, convention, agreement or other arrangement (e.g. memorandum of understanding) 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.

2. Institutions and Participation

This section is about the range and roles of political, social, economic and administrative institutions that help to support the implementation of IWRM. It includes some of the most typical institutions at different levels of society for 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 business sector. Note that public participation is also addressed in the ‘means of implementation’ Target 6.b: “Support and strengthen the participation of local communities in improving water and sanitation management”, which is monitored by indicator 6.b.1: “Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management”.

Terminology used in the questions:

- **Government authorities:** could be a ministry or ministries, or other organizations/institutions/agencies/bodies with a mandate and funding from government.
- **Capacity for leading implementation:** 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, technical facilities and skills, including planning, rule-making, project management, finance, budgeting, data collection and monitoring, risk management and evaluation. It should include the ability to manage potential conflicts of interest between different sectors and/or stakeholder groups, particularly at the basin/aquifer level.
- **Sectors** 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.
- **Stakeholder** includes all interested parties who are, or may be, affected by any water resources issue or intervention. It includes organizations, institutions, academia, civil society and individuals. While definitions of stakeholders typically include the private (or business) sector, this particular stakeholder group is dealt with separately in this questionnaire (see below).
- **Business** includes private for-profit groups. It does not include government or civil society.

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. You are strongly encouraged to provide the justification and references to evidence for the score in the grey cell to the right of the score. 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 required are provided. You may also provide further information you think is relevant, or links to further documentation. If ‘Very high (100)’ or ‘n/a’ is selected, a justification should be provided.

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 ⁶ capacity ⁷ for leading implementation of national IWRM plans or similar	No dedicated government 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 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.	Authorities have the capacity to effectively lead periodic IWRM plan revision.
	Score or n/a: [60]	Justification/evidence	[The WRC is specifically set up with the mandate and capacity to effectively lead plan formulation and implementation]				
B	Coordination between national government authorities representing different sectors ⁸ on water resources, policy, planning and management	No communication between different government sectors on policy, planning and management.	Communication: Information on water resources, policy, planning and management is made available between different sectors.	Consultation: Information, experiences and opinions are shared between different sectors.	Participation: Opportunities for different sectors to take part in policy, planning and management processes.	Representation: Formal consultation 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 or n/a: [80]	Justification/evidence	[The governing organ of WRC serves as a formal consultation and coordination platform. It is made up of different sectors including major water users, water related regulatory institutions, data management institutions, civil society, women groups, and traditional authorities. Meets at least once every quarter of the year].				

⁶ ‘Government authorities’ could be a ministry or ministries, or other organizations/institutions/agencies/bodies with a mandate and funding from government.

⁷ ‘Capacity for leading implementation’ 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 management and evaluation. Beyond having the capacity to lead implementation of the activities listed in the thresholds, authorities must also actually be leading the implementation of these activities.

⁸ 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.

		Very low (0)	Low (20)	Medium-low (40)	Medium-high (60)	High (80)	Very high (100)
C	Public participation in water resources, policy, planning and management ⁹ at national level.	No communication between government and stakeholders on policy, planning and management.	Communication: Information on water resources, policy, planning and management is made available to stakeholders.	Consultation: Government authorities occasionally request information, experiences and opinions of stakeholders.	Consultation: Government authorities regularly request information, experiences and opinions of stakeholders.	Participation: Regular opportunities for stakeholders to take part in relevant policy, planning and management processes.	Representation: Formal representation of stakeholders in government processes contributing to decision making on important issues and activities, as appropriate.
	Score or n/a:	[80]	Justification/evidence	[Stakeholders are involved in all policy, planning and management processes without exception. For instance, stakeholders participated in the developing the national water policy in 2007, and the buffer zone policy in 2013. All stakeholder from users, managers and practitioners are offered the opportunity and participation has been high].			
d	Business¹⁰ participation in water resources development, management and use at national level.	No communication between government and business about water resources development, management and use.	Limited communication between government and business about water resources development, management and use.	Regular consultation between government and business about water resources development, management and use.	Limited opportunities for private sector involvement established for water resources development, management and use activities.	Regular opportunities for private sector involvement established for water resources development, management and use activities.	Effective private sector involvement established for water resources development, management and use activities.
	Score or n/a:	[40]	Justification/evidence	[Involvement of the business sector has been limited to recent regular consultation to encourage corporate social responsibility]			
e	Gender-specific objectives for water resources management at national level. ¹¹	Gender not explicitly addressed throughout national laws, policy or plans.	Gender partially addressed throughout national laws, policies or plans.	Gender addressed in national plans but with limited budget and implementation.	Gender addressed in national plans, partially funded and objectives partly achieved.	Activities adequately funded and objectives mostly achieved.	Objectives fully achieved and adequately address gender issues.
	Score or n/a:	[40]	Justification/evidence	[A Gender and Water Resources Management Strategy (2011) exists and also articulated in the National IWRM Plan and the Water Sector Strategic Development Plan (2012-2025), but with limited budget and implementation]. www.wrc-gh.org/dmsdocument/22			

⁹ Stakeholder includes all interested parties who are, or may be, affected by any water resources issue or intervention. It includes organizations, institutions, academia, civil society and individuals.

¹⁰ Business includes private for-profit groups. It does not include government or civil society.

¹¹ Gender-specific objectives at national level can include: 1) Presence of designated ministerial responsibility for gender in relation to water policies. Presence of designated ministerial responsibility for water in the gender-equality ministry or related designated agency for gender; 2) Gender Parity of male and female participants in meetings of national decision-making authorities (counting the number of women and men participating in meetings); and 3) The presence of gender-specific objectives and commitments (or gender

		Very low (0)	Low (20)	Medium-low (40)	Medium-high (60)	High (80)	Very high (100)
F	Developing IWRM capacity¹² at the national level	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 or n/a:	[40]	Justification/evidence	[There are clearly some long-term capacity development initiatives but coverage seems to be limited]			
2.2 What is the status of institutions for IWRM implementation at other levels?							
A	Basin/aquifer level¹³ organizations¹⁴ for leading implementation of IWRM plans or similar.	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 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.	Authorities have the capacity to effectively lead periodic IWRM plan revision.
	Score or n/a:	[60]	Justification/evidence	[There are River Basin Management Boards and their secretariats deriving their mandates and capacity from the WRC to effectively lead basin specific plan formulation and implementation]			

strategies) in national strategies, national plans and national laws regarding national water policy.

Source: adapted from WWAP 2015 “Questionnaire for collecting sex-disaggregated water data” <http://unesdoc.unesco.org/images/0023/002345/234514E.pdf>

¹² 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.

¹³ 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.

¹⁴ Could be organization, committee, inter-ministerial mechanism or other means of collaboration for managing water resources at the basin level.

		Very low (0)	Low (20)	Medium-low (40)	Medium-high (60)	High (80)	Very high (100)
B	Public participation ¹⁵ in water resources, policy, planning and management at the local level ¹⁶	No communication between local government and stakeholders on policy, planning and management.	Communication: Local level information on water resources, policy, planning and management is made available to stakeholders.	Consultation: Government authorities occasionally request local level information, experiences and opinions of stakeholders.	Consultation: Government authorities regularly request local level information, experiences and opinions of stakeholders.	Participation: Regular opportunities for stakeholders to take part in relevant local level policy, planning and management processes.	Representation: Formal representation of stakeholders on local authority processes contributing to decision-making on important local issues and activities, as appropriate.
	Score or n/a: [80]	Justification/evidence	[Each Basin Management Board serves as a formal participation and coordination platform. It is made up of different sectors that have interest in the use of water and management of the basin. Composition therefore differs from basin to basin. Basin Boards meet at least once every quarter of the year].				
c	Gender-specific objectives at sub-national levels ¹⁷	Gender not explicitly addressed throughout sub-national laws, policy or plans.	Gender partially addressed in sub-national laws, policies or plans.	Gender addressed in sub-national plans but with limited budget and implementation.	Gender addressed in sub-national plans, partially funded and objectives partly achieved.	Activities adequately funded and objectives mostly achieved.	Objectives fully achieved and adequately address sub-national gender issues.
	Score or n/a: [40]	Justification/evidence	The Gender IWRM Strategy is in place and also articulated in the Water Sector Strategic Development Plan (2012-2015), but there is limited budget and implementation.				
d	Gender-specific objectives and plans at transboundary level ¹⁸	Gender not explicitly addressed in transboundary policies or plans.	Gender partially addressed in transboundary policies or plans.	Gender addressed in transboundary plans but with limited budget and implementation.	Gender addressed in transboundary plans, partially funded and objectives partly achieved.	Activities adequately funded and objectives mostly achieved.	Objectives fully achieved and adequately address transboundary gender issues.
	Score or n/a: [20]	Justification/evidence	[Gender is only partially addressed in transboundary plans]				

¹⁵ Stakeholder includes all interested parties who are, or may be, affected by any water resources issue or intervention. It includes organizations, institutions, academia, civil society and individuals.

¹⁶ Examples of 'local level' include municipal level (e.g. cities, towns and villages), community level, basin/tributary/aquifer/delta level, and water user associations.

¹⁷ Gender-specific objectives at sub-national level can include: 1) Proportion of seats held by male and female in local water authorities' executive boards; 2) Gender Parity of M/F participation in meetings of sub-national decision-making authorities (counting the number of women and men participating in meetings); 3) The presence of gender strategy in local plans and local implementation policies. Source: adapted from WWAP 2015 "Questionnaire for collecting sex-disaggregated water data"

<http://unesdoc.unesco.org/images/0023/002345/234514E.pdf>

¹⁸ Gender-specific objectives at the transboundary level: 1) Presence of a specific gender strategy in transboundary agreements, in other transboundary arrangements, in their implementation plans and in all transboundary water impact assessments; 2) Gender Parity of male and female participants in meetings of transboundary decision-making authorities

		Very low (0)	Low (20)	Medium-low (40)	Medium-high (60)	High (80)	Very high (100)
e	Organizational framework for transboundary water management for most important basins / aquifers ¹⁹	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 fulfilled for the most part.	Organizational framework(s)' mandate is fully fulfilled.
	Score or n/a: [60]	Justification/evidence	[Organizational framework(s)' mandate is partly fulfilled with the Volta Basin Authority as the joint body for transboundary cooperation. The two other transboundary waters, Tano and Bia, are in the process of having their organisational frameworks]				
f	FEDERAL COUNTRIES ONLY: Provincial / State authorities responsible for water resources management	No dedicated provincial/state 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 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.	Authorities have the capacity to effectively lead periodic IWRM plan revision.
	Score or n/a: [n/a]	Justification/evidence	[Ghana has always been a unitary state].				
Average 'Institutions and Participation' score			[55]	In case of 'n/a' for any questions, they should be omitted from the average calculation.			

(counting the number of women and men participating in meetings. Source: adapted from WWAP 2015 "Questionnaire for collecting sex-disaggregated water data"

<http://unesdoc.unesco.org/images/0023/002345/234514E.pdf>

¹⁹ An organizational framework can include the existence of a joint body, joint mechanism or commission for transboundary cooperation. Refers to international basins/aquifers only.

3. 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.

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. Respondents are encouraged to provide qualifying information to the question score in the ‘Justification’ 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. You are strongly encouraged to provide the justification and references to evidence for the score in the grey cell to the right of the score. 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 required are provided. You may also provide further information you think is relevant, or links to further documentation. If ‘Very high (100)’ or ‘n/a’ is selected, a justification should be provided.

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 ²⁰ (includes surface and/or ground water, 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 use by stakeholders.	Long-term national monitoring is carried out with adequate coverage but limited use by stakeholders.	Long-term national monitoring is carried out with very good coverage and adequate use by stakeholders.	Long-term national monitoring is carried out with excellent coverage and excellent use by stakeholders.
	Score or n/a: [40]	Justification/evidence	[There is national hydrologic monitoring system in place. However, most of the systems are broken down and yet to be replaced].				
B	Sustainable and efficient water use management ²¹ 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 coverage across 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 or n/a: [40]	Justification/evidence	[Some management instruments are implemented on a more long-term basis. For instance, a water allocation model is in place for granting water rights, Demand Management Plans are requested from major water, and conscious education is carried out on improving water-use efficiency at all levels].				

²⁰ See definition of monitoring in Terminology.

²¹ 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).

		Very low (0)	Low (20)	Medium-low (40)	Medium-high (60)	High (80)	Very high (100)
C	Pollution control ²² 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 coverage across 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 or n/a:	[40]	Justification/evidence	[A water quality monitoring program and a water quality index to determine the status of water pollution are in place since 2005; and raw water quality guidelines and criteria are being implemented. However, there are no laws and instruments to implement the polluter pays principle.]			
D	Management of water-related ecosystems ²³ 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 coverage across 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 or n/a:	[40]	Justification/evidence	[Some of the management instruments include Management Plans specifically for each major river and piloting of buffer zones for protection of rivers, and lakes. Examples are the buffers created in the White and Black Volta River Basins.			

²² Includes regulations, water quality guidelines, economic tools (e.g. taxes and fees), water quality trading programs, water quality monitoring, education, consideration of point and non-point (e.g. agricultural) pollution sources, construction and operation of wastewater treatment plants, watershed management.

²³ 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 the extent and quality of the ecosystems over time.

		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 disasters²⁴ 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 coverage of 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 or n/a:	[40]	Justification/evidence	[Management instruments in place include the Flood Early Warning System for the White Volta Basin. Another for the Oti River Basin is under development. Risk maps for vulnerable districts are in place to assist in development plans and target investments in disaster risk reduction]			
3.2 What is the status of management instruments to support IWRM implementation at other levels?							
A	Basin management instruments.²⁵	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-term basis, with effective outcomes and very good geographic and stakeholder coverage .	Basin level management instruments implemented on a more long-term basis, with highly effective outcomes and excellent geographic and stakeholder coverage .
	Score or n/a:	[60]	Justification/evidence	[The management principle is managing and developing water, using the river basin as the unit of planning and management. Groundwater is included though the level of integration is minimal. Implementation (at different levels) is currently visible in seven (7) of the 15 major river basins.			

²⁴ **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).

²⁵ 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 for the management of water resources. To achieve 'Very high (100)' basin and aquifer management scores, surface and groundwater management must be integrated.

		Very low (0)	Low (20)	Medium-low (40)	Medium-high (60)	High (80)	Very high (100)
B	Aquifer management instruments. ²⁶	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 outcomes and very good geographic and stakeholder coverage .	Aquifer level management instruments implemented on a more long-term basis, with highly effective outcomes and excellent geographic and stakeholder coverage .
	Score or n/a:	[40]	Justification/evidence	[Aquifer level management has been limited mostly to the three northern regions. A Groundwater Management Strategy (2011) is in place, but limited in implementation]. http://www.wrc-gh.org/documents/reports/			
C	Data and information sharing within countries at all levels ²⁷	No data and information sharing.	Limited data and information sharing on an ad-hoc basis .	Data and information sharing arrangements exist on a more long-term basis between major data providers and users .	Data and information sharing arrangements implemented on a more long-term basis, with adequate coverage across sectors and the country.	Data and information sharing arrangements implemented on a more long-term basis, with very good coverage across sectors and the country.	All relevant data and information are online and freely accessible to all.
	Score or n/a:	[40]	Justification/evidence	[Data and information sharing arrangements exist on a more long-term basis between the major data providers, i.e. the Hydrological Services Dept. (HSD), Ghana Meteorological Agency (GMet) and Water Research Institute (WRI) and users including the WRC and Volta River Authority (VRA). For instance, WRC has data service agreements with HSD, GMet and WRI]			
D	Transboundary data and information sharing between countries	No data and information sharing.	Limited data and information sharing on an ad-hoc or informal basis .	Data and information sharing arrangements exist, but sharing is limited .	Data and information sharing arrangements implemented adequately .	Data and information sharing arrangements implemented effectively . ²⁸	All relevant data and information are online and accessible between countries .
	Score or n/a:	[20]	Justification/evidence	[Data and information sharing is limited and mainly on ad-hoc basis. For instance, Ghana receives data from Burkina Faso on the levels of the Bagre dam only during the wet season]			
Average 'Management Instruments' score		[40]	In case of 'n/a' for any questions, they should be omitted from the average calculation.				

²⁶ See previous footnote on basin management instruments, which also applies to aquifers.

²⁷ Includes more formal data and information sharing arrangements between users, as well as accessibility for the general public, where appropriate.

²⁸ E.g. institutional and technical mechanisms in place that allow for exchanging data as agreed upon in agreements between riparian (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.).

4. 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 Overseas Development Assistance (ODA) 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' 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".

"Other 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 'Justification/evidence' section.

Investments should cover all aspects of water resources development and management but exclude any related to drinking water supply and sanitation 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. You are strongly encouraged to provide the justification and references to evidence for the score in the grey cell to the right of the score. 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 required are provided. You may also provide further information you think is relevant, or links to further documentation. If 'Very high (100)' or 'n/a' is selected, a justification should be provided.

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 budget²⁹ for investment including water resources infrastructure³⁰.	No budget allocated in national investment plans.	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 all planned programmes or projects.	Funding available and all planned projects under implementation.	Planned programs completed , post-evaluation carried out and new funding cycle for programs underway.
	Score or n/a:	[40]	Justification/evidence	[Level of water development is low. A key reason is insufficient funds disbursed though budgets for planned investments are sufficient mostly from government (15%) and IDA sources (85%). Insufficient funds were made available due to late application of request from implementing agencies and the lengthy procedures and process for the release of funds]			
b	National budget for the recurrent costs of the IWRM elements³¹	No budget allocations made for recurrent costs of the IWRM elements.	Allocations made for only a few 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.	Planned budget allocations for all elements of the IWRM approach fully utilised .
	Score or n/a:	[40]	Justification/evidence	[Recurrent costs are financed from Government (15%), External Sources- ODA (30%) and Internally Generated Funds (55%). The funds are mostly insufficient to meet planned expenditure].			

²⁹ 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.

³⁰ 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.

³¹ '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.

		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 investment including water resources infrastructure .	No budget allocated in sub-national or basin investment plans.	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 all planned programmes or projects.	Funding available and all planned projects under implementation .	Budget fully utilised , programmes completed as planned and post evaluation carried out.
	Score or n/a:	[40]	Justification/evidence	[Basin budgets for water resources infrastructure reflect the situation at the national level]. Due to government inability to meet its revenue target for subsequent disbursement of all budgetary allotment			
b	Revenues raised from dedicated levies on water users at basin, aquifer or sub-national levels. ³²	No revenues raised at the sub-national level.	Processes in place to raise local revenue but not yet implemented .	Limited revenues raised from charges, but are not used for IWRM activities.	Limited revenues raised from charges cover some IWRM activities.	Revenues raised from charges cover most IWRM activities.	Local authorities raise funds from multiple sources and fully cover costs of IWRM activities.
	Score or n/a:	[60]	Justification/evidence	[Limited revenue of about 55% is from water use charges and used to cover IWRM activities at all levels].			
c	Financing for transboundary³³ cooperation³⁴	No specific funding allocated from the 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 or n/a:	[40]	Justification/evidence				
Average 'Financing' score			[44]	In case of 'n/a' for any questions, they should be omitted from the average calculation.			

³² For example, abstraction & bulk water charges, environmental fees such as pollution charges, Payment for Ecosystem Services (PES) schemes, and the sale of secondary products and services, significant contributors.

³³ Transboundary includes surface and groundwater basins that cross one or more national borders.

³⁴ 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 on the basis of existing regulation are also taken into account as sustainable funding. As variable and unsustainable, donor support is not considered.

5. Indicator 6.5.1 score

Please complete the following table based on scores calculated for the previous four sections.

The indicator 6.5.1 score is the average of each of the section scores.

Section	Average Score
Section 1 Enabling Environment	56
Section 2 Institutions and Participation	55
Section 3 Management Instruments	40
Section 4 Financing	44
Indicator 6.5.1 score = Degree of IWRM implementation (0-100)	48.75 ~ 49

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

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 no implementation, and 100 signifying complete implementation. However, the true value of the questionnaire to countries lies within the scores and justification provided for the individual questions, as this helps to identify which actions need to be taken to move towards a greater degree of implementation of IWRM.