





Outcomes of methodology revision process

2nd Steering Committee Meeting 8-9 February 2017 WMO headquarters, Geneva



United Nations Environment Programme











6.3.1 Proportion of wastewater safely treated (WHO/UN-Habitat)



- Linkages between 6.2 and 6.3
 - A common methodology is proposed to streamline data collection. Outstanding issues on harmonized definitions of "safely treated"
- · Definitions of "safely treated"
 - A treatment ladder of data quality is proposed with highest rung most representative of safe from a public health perspective. Decreasing rungs are complicate with environmental indicators followed by installed technology.
- Lack of data on site sanitation and FSM
 - Simplified assumption applied in baselines in lieu of in situ data
- Definition of "safe treatment" vs national standards
 - A treatment ladder proposed. Initiated global search and analysis of national standards and regulator consultation.
- Percentage of population connected to various types of system. Use of coefficients
 - The metric for the household portion is measured in household. A BOD or population equivalent is proposed. USEPA and EC have coefficients that can be adopted.
- Short vs. long-term strategy, countries
 - Treatment ladder see above.
- Use of existing data for long-term viability of this monitoring.
 - The method maximized the use of secondary data including HH surveys, IBNET, Aquastat, and national system. Further the approach aims to strengthen these over time.





6.3.1 Proportion of wastewater safely treated (WHO/UN-Habitat)



- Non-household sources need to be estimated/measured
 - Included in revised methodology. Non household disaggregated at by WWTP influent
- Incorporation of greywater and storm water
 - Storm water and greywater co-disposed in sewers and septic tanks is captured by the methods.
- Assistance needed to support recycling and reuse of wastewater
 - Recycling and use is not included directly in the indicator but address in part of "safe treatment definitions". In addition a wastewater recycling effectiveness index being developed by UNU-Flores/UN-Habitat
- Clarity needed on classification of industrial/commercial wastewater
 - TA provided during capacity-development workshop on use of ISIC codes
- Classification of industrial/commercial wastewater
 - Additional references to ISIC codes included in step by step guide
- Use of data from industries on discharges
 - Ideas will be explored on use/QA on this data



6.3.2 Percentage of bodies of water with good ambient water quality (UNEP)



Simplifications were made to the required core parameters of the methodology:

- Are coliforms necessary in the core parameter list, they are not routinely monitored? Removed from core list Dissolved oxygen isn't relevant in groundwater monitoring Removed from core list The methodology is too inflexible and choice of core parameters is needed Core parameter concept was maintained but the number was reduced

A greater level of practical guidance is needed to:

- set target values provided •
- define the density of monitoring locations provided
- delineate waterbodies provided
- design and implement groundwater monitoring programmes provided

The proximity to target (PTT) method of indicator calculation is too complicated - Removed

The use of biological monitoring needs expansion -Expanded





Integrated Monitoring Initiative for SDG 6

6.4.1 Change in water use efficiency over time (FAO)



- Change the calculation of the indicator, to be based directly on percentage differences over time
- The service sector efficiency could be scrapped, and only agriculture and industry sectors should be used to compute the indicator, since efficiency in services is however high
- To reflect an increase in water use efficiency in irrigated production, it is paramount to use consumptive water use as input (not total water abstractions).
- This approach focuses attention to "blue water". Combined use of soil moisture and water from streams, lakes, reservoirs and aquifers should be considered for valid comparisons
- Water use (and its SEEA definition) should be used for this indicator, and returns not included



6.4.1 Change in water use efficiency over time (FAO)



- The name of the indicator is somehow misleading. Efficiency should be a ratio of volume over volume
- The data and information collected will be useful for policy making
- Disaggregating data by sector is useful to support better reporting
- The ratio between irrigated and rainfed agriculture needs to be refined, also considering sub-sectors like aquaculture and livestock
- The frequency of assessment should be annual (or every 5 years)
- The data needed are complex and sometimes difficult to obtain
- Inflation rate has to be considered
- Rainfed agriculture should be included



6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources (FAO)

- The indicator should be computed at sub-national level, particularly in basin or sub-basin units. The sub-national values should be aggregated by weighting, using one of the following parameters: area, TWW, by TRWR, by (TRWR – EFR) or by population
- If TWW and TRWR cannot be provided for subnational units by the countries themselves, it would be no problem extracting those values from global hydrological model output with a spatial resolution of 0.5° if spatial units >20,000 km² are defined
- It is not useful to consider long-term averages of TWW (water withdrawals). It is suggested to use temporal averages of TWW over approx. 5 years from the very beginning
- It is suggested to determine TRWR as 20-year averages.
- Temporal disaggregation stress may occur in particular months of the year and it is important to be aware of that in order to reduce the stress during the dry season
- For the calculation of environmental flow requirements, the indicator should provide more concrete guidance to ensure countries apply most recent scientific methodologies.



WATER Integrated Monitoring Initiative for SDG 6

6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources (FAO)

- Terminology should be aligned with SEEA
- Spatial disaggregation at sub-country (basin) level is needed
- Separate surface and ground water would be useful
- This indicator is useful for policy decisions
- Data on environmental flow requirements are usually missing at national level
- Capacity building and institutional support for monitoring is needed (also for 6.4.1)
- The combined use of statistics, remote sensing and models would provide more reliable results
- FAO support has been competent and effective. Guidelines should be refined and more detailed also 6.4.1





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



- The majority of responses to comments involved clarification of questions and thresholds to increase the objectivity and robustness of the questionnaire.
- For 6.5.1 several adjustments were made to the questionnaire to clarify the increments of progress on sub-components. A supporting document was prepared to explain how the in-country process of responding to the questionnaire by engaging several stakeholder groups was prepared.
- Overall, the draft survey instrument (the IWRM questionnaire) was found to be relevant and clear, and to provide useful support to countries to appreciate the importance of IWRM
- Many comments and suggestions were received on scope, phrasing and definitions within specific questions in the survey instrument
- All comments and suggestions have been addressed (31 pages response document from Dec 2016) and responses have been agreed in the 6.5 Target Team
- The pilot countries gave very useful feedback on how to best organize the 2017 baseline assessment in countries.
- In addition, following recommendations from Peru and the Netherlands, countries are now asked to provide justification for their scores to facilitate national consensus and assessment of progress over time.





R Integrated Monitoring Initiative for SDG 6

6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation (UNECE/UNESCO)



- Inclusion of sub-basins or portions of transboundary basins to be covered by operational agreements in the calculation.
 - Methodology revised accordingly; this will allow monitoring the change in areas covered especially in the case where there is no operational arrangement at the level of the assessed basin in its entirety.
- The regularity of meetings and of exchange of information should be specified
 - A minimum frequency of meetings, "at least once per year", was included in the text of the methodology
- Inclusion of additional factors to assess the quality of transboundary cooperation
 - Not included in the methodology; methodology based on the four criteria of arrangements' operationality of customary international water law; will be discussed in the roll-out
- Have only part of the four criteria to assess operationality of arrangements applied, to track the process of transboundary cooperation
 - Not included. To partially use the 4 criteria would require the indicator to be expressed as an index and not a proportion of area. IAEG-SDGs has expressed its reluctance towards indicator expressed as index.



6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation (UNECE/UNESCO)

11

- Alternative metrics to basin area (volumetric)
 - Not included; Volumetric assessment will require more data
- Effective cooperation without an agreement in place; section to explain the implications of the values of the indicator; when no activities in the shared basin is cooperation essential?
 - Not included
- Details on technical steps to be taken, institutional arrangements and resources and capacity mobilization in testing the monitoring methodology of the indicator
 - Not included but will be used for roll-out with aspects and challenges to strengthen the step-by-step approach to be presented in the technical webinar and tutorial.





Integrated Monitoring Initiative for SDG 6

6.6.1 Change in the extent of waterrelated ecosystems over time (UNEP)



- Most countries appreciated the value of the method and willingness to develop capacity to implement in future.
- POC countries were generally not able to carry out the full method as data was not available.
- However using progressive monitoring some results were successfully achieved, especially by Senegal and Peru.
- Detailed reviews were submitted by RAMSAR, WWF, SIWI, CEO-WM, UNCEEA. CBD, WCMC and Secretariat of GEO also gave approval. Review was generally positive and no fatal flaws were received. All comments were considered and incorporated or rejected with reasons given.
- The method was updated as follows:
 - Revision to the concept of Reference State for spatial extent
 - Negotiation and resolution with 6.3.2 on measurement of %change for the water quality component
 - Revision of the plan for progressive monitoring to a limited 3 subindicators (spatial extent, quantity and quality of water) as foundation level.
 - Ecosystem health was removed from calculation of 6.6.1 indicator although results will be captured separately
 - Revision of the targets to fit with Aichi Targets
 - There were many smaller issues that were included or rejected with reasons
 - Reordering of the 6.6.1 method was done to streamline and remove excess.



IN WATER Integrated Monitoring Initiative for SDG 6