

17 January 2013

Post-2015 Global Goals Towards a wastewater sub-goal of the Goal on Water

Options for indicators, targets and sub-goal

Working paper

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1. Purpose of this memo

Many people are working on the preparation of the global Goals that will succeed to the MDGs in 2015. A fully-fledged global goal on Water is being considered by many UN member states and the UN system. It is anticipated that this Goal will have 3 components:

- **Access** to drinking water and sanitation
- Water **resources** management and use
- Controlling **wastewater** pollution

This note aims to contribute to shaping the third ‘sub-goal’ on **wastewater** and the potential related ‘indicators’ and ‘targets’. It is a contribution to the current collective work on the matter. It is intended to be “food for thought” to stimulate discussion on the ways through which progress on wastewater management could be stimulated by the post-2015 global Goals. It should not be perceived as a position paper, since this is not at all the intent of its authors. All comments are welcome.

2. The wastewater issue

Almost every kind of water use results in a changed state in the quality of the water that is returned to the water cycle. Collection of used water, separation of polluted water from less polluted waters, prevention and management of wastewater pollution including treatment of used water become increasingly important to protect populations and ecosystems as well as to facilitate economic development.

In the face of the growing demands on finite water resources, it is also necessary to consider wastewater as an additional resource.

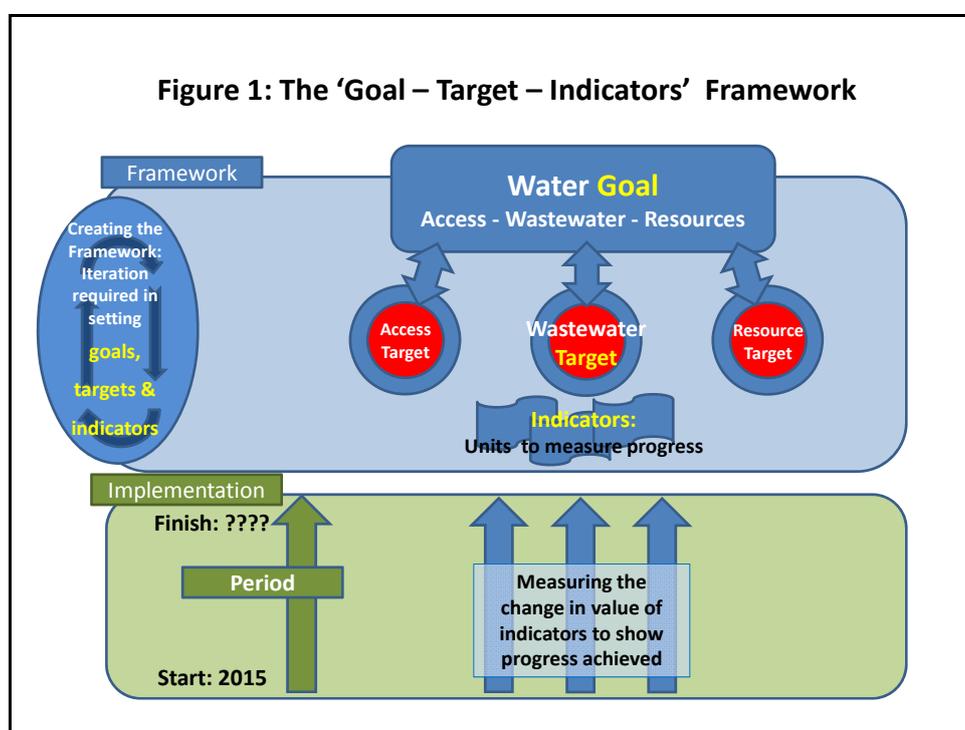
To date, there is no common objective on these matters at the UN level and national policies may not be consistent with each other. This gap has been recognized politically. At the 2012 World Water Forum, Country governments decided to “*prevent and reduce water pollution with*

a view to accelerating access to sustainable sanitation and improving the quality of water resources and ecosystems”. and to “promote a shared, innovative and integrated vision of urban, rural, industrial and agricultural wastewater management, including context-specific targets”. In the Rio+20 outcome document, they have stressed “the need to adopt measures to significantly reduce water pollution and increase water quality, significantly improve wastewater treatment and water efficiency”.

In this context, the challenge is to identify global targets for wastewater management that will stimulate progress in the field.

3. The ‘Goal, Targets and Indicators’ framework

The MDG framework has been powerful because it combined Goals, Targets and Indicators (Figure 1). The Targets are the quantified end point of progress of the Indicators to be achieved in the timeframe of a global programme. Achieving these Targets in due time will be considered to be a major contribution to the aspirational Goal.



The whole complexity of the Goal may not be covered by the selected Targets, which must be strictly limited in number. Action towards these Targets must not restrain action in complementary areas.

The post-2015 Goals will probably be organized in the same way. In the context of this note on “improving wastewater management” this means working on 3 inter-related building blocks:

- identifying Indicators that are measurable and therefore enable the progress towards the target to be assessed. This progress would mean a major advance in the area of wastewater management;
- for each indicator, identifying a Target that could be achieved realistically in the timeframe (unknown as yet) of the future global programme;
- formulating an aspirational wastewater component of the Water Goal that is convincing for decision-makers and the general public and for which achieving the proposed Targets would be a major contribution.

Coherence between these building blocks is necessary. Each one has to take the others into account. This requires an iterative process that considers the impacts of the goals, targets and indicators on each other. The general purpose of the goal is known, it is about improving

wastewater management. Let us explore what Indicators could be used to measure progress towards this goal.

4. Requirements for indicators

The wastewater 'indicators' will be used to measure the progress achieved on selected key sub-themes. The 'targets' will be the objectives for the progress required for each of these parameters in the timeframe of the new global programme that the UN will determine.

It is essential that the 'indicators' and their related 'targets':

- a) can be used in national policies in a way that drives action and real progress in the field
- b) drive action that addresses the most urgent and important challenges that occur globally
- c) are very limited in number (if not, the wastewater sub-goal might be eliminated in the final negotiation)
- d) are effectively measurable in all countries in order to be able to be aggregated to measure global progress (and also to avoid the risk of being eliminated in the final stage)

5. Selection of indicators

5.1. *What kind of wastewater?*

Pollution discharged to the aquatic environment comes mainly from urban wastewater, industrial facilities, animal breeding and agricultural inputs. There is no particular reason for giving priority to any one of these sectors.

5.2. *What kind of action should be stimulated?*

The UN-Water task force on wastewater has already worked on this, identifying the needs for preventing pollution, reducing impact and re-using water after use.

5.3. *Selecting Priorities*

The above leads to the following table where an initial ranking of the importance of topics suggests to the following priority areas (■)

		Urban wastewater (point sources)	Main industrial and breeding facilities (point sources)	Agricultural inputs (diffuse sources)
Preventing pollution				■
Reducing impacts	Wastewater collection	■	■	
	Wastewater treatment	■	■	
Reusing water		■	■	

Table 1: priority areas where global progress should be stimulated

5.4. Identifying the most appropriate indicators

When looking at the diversity of local situations in the world, it seems that the most urgent and important actions to be stimulated are:

- Increasing collection and treatment of urban and industrial wastewater in developing countries (where 90% of wastewater is estimated to be discharged without any treatment).
- Improving control of nitrogen and phosphorous cycles (both as pollutants and nutrients) which requires a combination of urban, industrial and agricultural areas.

5.5. A draft proposal

Based on the above, a shortlist of indicators that satisfy the above criteria and priorities might be that shown in the following (Table 2).

There are 6 of them, which is too many. However, they can be presented as 4 targets on prevention, collection, treatment and reuse only.

It is highly probable that only 2 targets will be selected and merged into a single one. Those who are working on the wastewater target have to be prepared for this possibility.

Sub-themes		Urban wastewater <i>(point sources)</i>	Main industrial and breeding facilities <i>(point sources)</i>	Agricultural inputs <i>(diffuse sources)</i>
Preventing pollution		Quantity of nitrogen and phosphorous discharged into nature		
Reducing impacts	Wastewater collection	% of urban population whose wastewater is collected (in sewers or in on-site facilities that are managed properly)	% of industrial facilities not connected to public sewers that have their wastewater discharges identified (location, volume)	
	Wastewater treatment	% of urban population whose wastewater is treated in an off-site wastewater treatment plant supervised by public authorities	% of industrial wastewater flows that are treated before discharge	
Reusing water		% of water released by urban and industrial wastewater treatment plants that is reused (not discharged into nature)		

Table 2: Potential indicators for the wastewater component of the Goal on Water

5.6. The urgency of building monitoring mechanisms

None of the proposed indicators is available in all countries, which means that sound and reliable monitoring mechanisms have to be set up urgently at country and global levels. If the global indicators are not available in 2015, the related targets might be abandoned.

6. Wastewater targets

The targets have to aim at making significant progress, be ambitious but achievable.

They could be the values to be achieved globally in the 15 to 20 year timeframe of the future global programme. They might be formulated as absolute numbers or as improvements measured against the 2015 “benchmark” situation. In both cases, an estimate of the 2015 baseline would be necessary to adjust the targets to be reasonably ambitious.

The current intent seems to combine the voluntary commitments of each country to obtain the global target and not the other way round.

7. Wastewater component of the Goal on Water

The aspirational goal is the ultimate objective towards which the achievement of targets will pave the way.

It must be clearly understandable by non-water specialists and, even more, by decision-makers who have no special interest in water. It must be easily communicated and attractive.

As wastewater was almost absent from UN work up to the Rio+20 UNCS D 2012 and sanitation is wrongly understood by many to be limited to access to toilets. It is important that governments and the general public understand that the action promoted by this sub-goal is about pollution transported by wastewater. The word ‘wastewater’ must certainly be included in the formulation of the goal. The word ‘pollution’ would be useful too.

Several formulations have already been proposed in preparatory documents for the wastewater component of the Goal on Water:

- *“Water quality improved and safeguarded for all uses”* (WWTF, The Hague, Dec 2012) – However, ‘water quality’ would be understood by most people as the quality of their drinking water, which would lead to a serious misunderstanding. It is too far from the subject and the proposed targets.
- *‘All wastewater is adequately treated before discharge into the (aquatic) environment’* (unofficial Swiss paper, Sept 2012).

This last formulation would be consistent with progress on the indicators proposed above except that reuse is not included. Furthermore, the use of the word “all” is unrealistic when more than 80% of urban and industrial wastewater is currently discharged without any depollution.

A formulation that would be closer to the progress induced by the proposed indicators would be:

- ***‘Collect used water, manage wastewater pollution and maximise water re-use’***

Adding an indication of the level of treatment and reuse that is targeted in the period would be useful to ensure consistency with the other goals. However, this might be difficult for the wastewater sector for which a global vision has only just started to be built.