## Annex 1: Overview of proof of concept contact persons

The coordinators guide the process linked to 'their' indicator. They have identified which organisations can support the data gathering and provided feedback on the methodologies together with experts.

For more information, please e-mail Proof of Concept coordinator Monique Berendsen (Monique.berendsen@minienm.nl), or GEMI implementation coordinator Ronald van Dokkum (ronald.van.dokkum@rws.nl).
They are supported by the Netherlands Central Bureau of Statistics, Cor Graveland - c.graveland@cbs.nl and Kees Baas - k.baas@cbs.nl.

| **Indicator** | **Name – Organisation** | **E-mailaddress** |
|---|---|---|
| Overall focal point and process coordinator for the GEMI proof of concept period | Monique Berendsen - Ministry of Infrastructure and Environment<br>Supported by the Netherlands IHP-HWRP Committee | Monique.berendsen@minienm.nl<br>ihp.hwrp@unesco.nl |
| GEMI implementation coordinator | Ronald van Dokkum - Rijkswaterstaat | ronald.van.dokkum@rws.nl |
| 6.1 & 6.2 | Jelka Appelman - Ministry of Infrastructure and Environment | Jelka.appelman@minienm.nl |
| 6.3.1 Proportion of wastewater safely treated | Meinte de Hoogh - Ministry of Infrastructure and Environment - European Water Framework Directive | meinte.de.hoogh@minienm.nl |
| 6.3.2 Proportion of bodies of water with good ambient water quality | Marcel van den Bergh, Rijkswaterstaat | marcel.vanden.berg@rws.nl |
| 6.4.1 Change in water-use efficiency over time | Job Kleijn (Ministry of Foreign Affairs) | job.kleijn@minbuza.nl<br>*Please direct questions to Statistics Netherlands: c.graveland@cbs.nl, Kees Baas - k.baas@cbs.nl* |
| 6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources | Ellen van Lindert - Ministry of Infrastructure and Environment - Delta programme fresh water | ellen.van.lindert@minienm.nl<br>*Please direct questions to Statistics Netherlands: c.graveland@cbs.nl, Kees Baas - k.baas@cbs.nl* |

| Indicator | Name – Organisation | E-mailaddress |
|---|---|---|
| 6.5.1 Degree of integrated water resources management implementation (0- 100) | Jentse Hoekstra, supported by Inge Koolen (Ministry of Infrastructure and Environment, policy department) | Jentse-hoekstra@minienm.nl |
| 6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation | Jos Timmermans (University of Wageningen)<br>Carien van Zwol (Ministry of Infrastructure and Environment) | jos.timmerman@wur.nl, Carien.van.Zwol@minienm.nl |
| 6.6.1 Change in the extent of waterrelated ecosystems over time | Marcel van den Bergh, Rijkswaterstaat | marcel.vanden.berg@rws.nl |
| 11.5 Water related disasters | Cees van de Guchte (Deltares), Eva Baron (Ministry of Infrastructure and Environment) | Cees.vandeGuchte@deltares.nl, Eva.Baron@minienm.nl |

# Annex 2: Draft Kovacs paper

## Confessions of a GEMI proof of concept country: Piloting water related SDG implementation in the Netherlands

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**Abstract.** GEMI is the UN-sponsored initiative aiming at establishing and managing a coherent monitoring framework for the implementation of the Sustainable Development Goals (SDGs). It contributes to country progress through well-informed decision-making on water, based on harmonized, comprehensive, timely and accurate information. Six proof of concept countries were invited to test the methodologies developed by UN organisations to measure the indicators linked to Sustainable Development Goal 6.3 to 6.6. The Netherlands accepted the invitation to act as proof of concept country. Implementing GEMI in the Netherlands has benefited the Dutch water sector as it created new alliances between Dutch water organisations, encouraged discussions on sharing data between organisations, and provided a best practice example for the monitoring of other SDGs.

### 1 Introduction

The water theme is well represented in the Sustainable Development Goals (SDG), which were accepted by the UN General Assembly in 2015. Within the framework of the predecessor of the SDGs, the Millennium Development Goals (2000-2015), drinking water, sanitation and health were included as targets. Within the framework of the SDGs, more water-related topics have been included, such as water quality, water use, Integrated Water Resources Management, and ecosystems. All together, these six topics form eight targets in SDG Goal 6. This means that new systems for implementation as well as indicators and monitoring-methods have to be developed for the new targets and the eleven indicators[27]. In the framework of the SDGs and under the motto ´no one left behind´, all countries are invited to join the implementation and monitoring of the Goals. The United Nations organisations working with water (a.o. UNEP, UN-Habitat, UNICEF, FAO, UNESCO, WMO, and WHO), with UN Water as coordinating organisation, have taken up the assignment to develop methodologies to monitor the 'new targets' using the indicators developed by the Inter Agency Expert Group. [28] This process of developing the methodologies and monitoring the targets is called GEMI, which complements the already existing Joint Monitoring Programme on

27 Indicators and Monitoring, available via http://www.unwater.org/sdgs/indicators-and-monitoring/en/, accessed 3 October 2016.
28 Inter-agency Expert Group on SDG Indicators available via http://unstats.un.org/sdgs/iaeg-sdgs/, accessed 3 October 2016.

Water Supply and Sanitation (JMP) for targets 6.1 and 6.2, and GLAAS which covers the two means of implementation, 6a and 6b. [29]

To test whether the methodologies they are fit for national realities, countries were invited to function as a proof of concept for GEMI. The Netherlands is one of the six volunteering countries. This representative role was not taken lightly. This article provides insight in the Netherlands proof of concept process, the approach taken, and outcomes for the Netherlands which appear to have a positive effect on the water sector, even beyond the GEMI related activities.

## 1.1 Water Related SDG targets

The Netherlands has adopted an integrated approach to monitoring the water related SDG targets. This entails that the monitoring of SDG target 6.1 and 6.2 as well as 11.5 (disasters) have been included in the process. Target 11.5 on water-related disasters has been included for its extreme relevance in the Netherlands. SDG target 6.1 and 6.2 have not been monitored in the Netherlands before, and as the SDGs are inclusive and global, The Netherlands has to provide data on all indicators. The following are thus the targets that will be monitored in an integrated manner, Note that for each target, one or more indicators have been defined for which a monitoring methodology was designed[30]:

- 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all"
- 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
- 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
- 6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
- 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
- 11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

29 A coherent framework for global monitoring of SDG 6, available via http://www.unwater.org/gemi/global-monitoring/en/, accessed 3 October 2016.
[30] The methodologies can be found via http://www.unwater.org/publications/publications-detail/en/c/434399/ accessed 3 October 2016.


**Figure 1: The Water Cycle in the Sustainable Development Goals (UN Water)**

## 1.2 GEMI

As described on the UN Water website[31] 'the long term goal of GEMI is to (i) establish and manage, by 2030, a coherent monitoring framework for water and sanitation to inform the post-2015 period, and (ii) contribute to country progress through well-informed decision-making on water, based on harmonized, comprehensive, timely and accurate information. The GEMI framework allows Member States to pursue national monitoring interests with flexibility, and address national and regional issues while maintaining compatibility with global monitoring efforts. The methodologies will also combine traditional and innovative data collection.'

According to UN Water,[32] the objectives of GEMI are to:

- Integrate and expand existing monitoring efforts, to ensure harmonised monitoring of the entire water cycle
- Engage Member States and enhance their capacity in water sector monitoring
- Provide Member States with a monitoring guide for SDG targets
- Report on global progress towards SDG targets

GEMI builds on four principles:

- Importance of integrated data
- Harmonisation
- Steps of progressive monitoring
- Leaving no-one behind – a call for data disaggregation

## 2. Implementation

The draft methodologies prepared by the different UN organisations in their role of custodian of an indicator, have been discussed and reviewed in the Netherlands. UN Water has prepared a review framework which countries can use to monitor the different indicators and related methodologies. The framework invites countries to provide insight in:

- Technical steps taken in testing the monitoring methodology of the indicator
- Resources and capacity required
- Feedback on

[31] Monitoring water and sanitation in the 2030 Agenda for Sustainable Development, available online http://www.unwater.org/gemi/en/, accessed 9 September 2016
[32] As presented during the GEMI workshop in Delft, The Netherlands, September 2016

    - Methodology
    - step-by-step guide
    - technical support provided
- usefulness for national and subnational levels
- links to existing processes
- appropriate frequency of measurement
- Specific questions related to the different methodologies for each indicator

### 2.1 The Netherlands approach to GEMI

None of the targets and related indicators have been monitored and reported on before in the framework of the MDGs or SDGs in the Netherlands. For each indicator, a coordinator working with the Dutch government was identified. This was specifically done to ensure that the process of monitoring will serve decision making processes and thus the implementation of the SDGs. The coordinator was invited to select a group of experts with in-depth knowledge of the topic and a large network in the water sector. These groups of experts came together for small workshops to discuss the proposed methodologies following the framework described under point 2.

In the Netherlands, we identified the following additional goals for our specific activities as proof of concept country:

- Provide feedback on the system of indicators and propose improvements if applicable.
- Identify which additional data is available in the framework of progressive monitoring – can we deliver data that provide additional insights related to the target set in a smart and efficient way.
- The experts were specifically asked to reflect on the feasibility of the exercise, and to identify if low cost alternative methods or technologies are available to monitor the proposed indicators.
- Provide suggestions how the Netherlands can support other countries in the implementation of the SDGs and GEMI.

The Netherlands Central Bureau of Statistics (CBS) played a special role in the proof of country process. The CBS supports the international process by being one of the 28 members of the Inter Agency Expert Group of ECOSOC which designs the global indicator framework. Nationally, the CBS identifies which data is already being gathered enabling the Netherlands to fulfil the monitoring responsibilities with regard to the SDG system. This exercise was also done for the water related SDGs. Due to the Dutch role in GEMI, this data was gathered more swiftly for the water related goals.

In the Netherlands it is believed that each team can learn from activities set up for the other indicators, as well as from experiences of other countries and monitoring requirements for other programmes.

### 2.2 Work in progress workshop

From 7 to 9 September 2016, the Netherlands hosted a Work in Progress Workshop to discuss the monitoring process of the Water SDGs in the framework of GEMI. The aim of the meeting was to discuss (1) whether the Proof of Concept process is on track, (2) share feedback and discuss the proposed methods and indicators, and (3) identify which additional actions need to be undertaken in the context of the Proof of Concept activities. Present at the workshop were the Dutch indicator coordinators, representatives of GEMI-Target Teams from UN organisations, key representatives of four other proof of concept countries (Senegal, Jordan, Uganda and Peru) and experts from the Netherlands and abroad. The workshop was organised by the Netherlands Ministry of Infrastructure and Environment, supported by the Netherlands IHP-HWRP Committee, the German IHP-HWRP Committee, and UNESCO-IHE. The GEMI team of UN Water and UNESCO-IHP as liaison of the Netherlands for GEMI provided inputs in the design of the programme.

The workshop also provided a good occasion for the Proof of Concept countries present to exchange experiences and share updates on the national processes and data that is already being gathered. The workshop provided a platform where both GEMI and POC representatives could discuss struggles as well as opportunities in an open manner.

### 2.3 Outcomes

The proof of concept process turned out to be more than a simple 'fill-in' exercise. There are several unexpected positive outcomes.

First, the process of bringing together different experts has proven to be very effective and resulted in several connections between experts and organisations which normally would not have met. This is remarkable as in the Netherlands, almost all organisations in the different water subsectors are familiar with each other. It was also not easy for the facilitators to guide the experts out of the meeting space after the discussions on the GEMI methodology were supposed to have been finalised - many found the conversations too interesting.

Second, the large and inclusive role of the Central Bureau of Statistics in the preparations provided inspiration for experts in the water sector who gained new insights in the work of the CBS. But also experts of the CBS gained as they were exposed to alternative calculation methods.

Third, water experts in the Netherlands gained more insight in the SDGs as GEMI provided a tangible activity for the SDGs.

This will enable the Dutch water-sector to support other Western and perhaps Southern countries alike in the implementation and monitoring of the water SDGs.

As concrete outcomes, the GEMI process led to:

- A consortium of organisations that is currently working on testing the value of different monitoring methods – surveys, satellite data, modelling – to gather data for indicators 6.4.1 and 6.4.2 linked to progressive monitoring. This project is funded by the Ministry of Infrastructure and the Environment.
- A consortium is assessing whether biomonitoring, and in particular fish species, can be added to indicator 6.3.2 as an additional or alternative water quality indicator. The presence of

certain fish species indicates that the basic ecological requirements (food, shelter, reproduction) and a minimum of water quality or habitat availability are being met.

As an additional spinoff of the workshop, The Netherlands is discussing with UN Water how to support the global roll-out of the GEMI process, including involving more countries in the monitoring of the water related SDGs.

**2.4 Lessons learned**

In the Netherlands, we have data readily available to monitor indicators 6.3.1, 6.4.1 and 6.4.2. For indicator 6.3.2, 6.5.1, 6.5.2, and 6.6.1, data are available but it needs to be gathered from different institutions. A necessary step to ensure The Netherlands will be able to provide data to the UN custodian agencies next year is to identify lead institutions for these indicators and to decide if the data will be provided through Statistics Netherlands (CBS) or through other organisations.

As proof of concept country, we have learned several lessons about what is needed to ensure to ensure that the water targets are effectively monitored such that it leads to enhanced implementation of policy and ultimately meeting these targets. These experiences were also shared during the work in progress workshop report, and will be shared in a final report for UN Water and the custodian agencies.

The indicators and methodologies proposed provide a good basis to work from. General feedback is given on a few definitions, norms and references used, as not all were immediately clear or understood in the same way by each proof of concept country. Clear concepts and definitions is critical for success and comparability of the results.

There are still questions that need answering; on who is responsible for what, and how will information be shared at the global level. This uncertainty influences and may inhibit countries to develop additional activities, such as providing open source information and developing innovative methods for implementation and monitoring of the SDGs. Therefore, there is a need for clarity on the bandwidth countries have to gather additional data, and how this will be shown at the global reporting level.

It needs to be re-emphasised that monitoring of SDG indicators is not about data gathering for the sake of data gathering, but to support decision making processes for improved implementation of the SDG targets. To facilitate this, data should be analysed comprehensively. The indicator methodologies of target 6.3 to 6.6 facilitate this to some extent, as some of the methodologies build on data of other indicators. The UN World Water Assessment Programme has started their work on a synthesis report for water related SDGs, which is scheduled to be presented in May 2018. The aim is to make an "analysis and combination of processed information and data with other information and intelligence for full interpretation to inform policy making".[33] This report will also contribute to comprehensive monitoring.

[33] Presentation S. Uhlenbrook, GEMI work in Progress Workshop, Delft, 8 September 2016.

**3. Strengthening the global architecture for water**

As said, the results of the GEMI exercise will be included in the synthesis report for water related SDGs. The report could provide valuable information on topics we have to prioritize in order to reach the ambitious water agenda. In the ideal world this discussion would take place at the global level, but a global structure is lacking at this moment. The final report of the UN Secretary-General's Advisory Board on Water and Sanitation highlights that there is currently a mismatch between the holistic and ambitious 2030 Agenda vision of water and sanitation management and the international political structures available to effectively contribute to its implementation. There are several reasons for this: The global water governance structure is highly fragmented. While a multitude of forums, including UN agencies, deal with water, they treat it as a sub-topic and/or look at it from single-issue perspectives. There is a disconnect between the water-specific processes that form the current international water policy on the one hand and the international political level on the other hand. Unlike for other themes, such as gender or food security, there is no dedicated UN intergovernmental body for water endorsed by UN Member States. Such a body is needed in order to deal with water in a comprehensive and integrated manner at the political level within the UN. The Netherlands amongst a growing number of countries is convinced that there is a need to reform the international institutional architecture for water, to make global water governance more efficient, inclusive, and politically viable. This will have positive effects on the implementation of the water related SDGs.

# Annex3: Summary Work in Progress workshop

*For more information on the full report, please contact Monique Berendsen (Monique.Berendsen@minienm.nl)*

From 7 to 9 September 2016, the Netherlands hosted a Work in Progress Workshop to discuss the monitoring process of the Water SDGs in the framework of GEMI. The aim of the meeting was to discuss (1) whether the Proof of Concept process is on track, (2) share feedback and discuss the proposed methods and indicators, and (3) identify which additional actions need to be undertaken in the context of the Proof of Concept activities. The workshop also provided a good occasion for the Proof of Concept countries present to exchange pilot country experiences and share updates on the national processes and data that is already being gathered. The workshop provided a platform where both GEMI and POC representatives could discuss struggles as well as opportunities in an open manner.

Present at the workshop were the Dutch indicator coordinators, representatives of GEMI-Target Teams from UN organisations, key representatives of all Proof of Concept countries and experts from the Netherlands and abroad. The workshop was organised by the Netherlands Ministry of Infrastructure and Environment, supported by the Netherlands IHP-HWRP Committee, the German IHP-HWRP Committee, and UNESCO-IHE. The GEMI team of UN Water and UNESCO-IHP as liaison of the Netherlands for GEMI provided input in the design of the programme.

On the first day the SDG indicators 6.3.1, 6.3.2, 6.4.1, 6.4.2, 6.5.1, 6.5.2, 6.6.1, and indicators in target 11.5 were discussed separately during break-out sessions. Although 11.5 is not part of GEMI, the Netherlands takes special interest in this target since it deals with water-related disasters, and was therefore also discussed in the workshop. These sessions resulted in detailed feedback on the proposed methodologies for each GEMI indicator, including insights in the struggles and achievements of the separate Proof of Concept countries concerning these indicators. For some indicators additional data was discussed that could be suitable for the ladder approach.

During the second day, insights were gained in the lessons learned during the GEMI Proof of Concept implementation process from the perspective of Peru, Uganda, Senegal, the Netherlands and Jordan. How well could they relate to the challenges heard from colleagues; which specific challenges did they need to have clarified or did they see in the future; what role could they as Proof of Concept Countries play in the region?

Time was then dedicated to discuss how the experiences of the POC countries can benefit the further implementation of GEMI. These questions were; how do you make monitoring for SDG6 useful for policy; how do you build intersectional communication and what institutional arrangements are set up to facilitate this; what kind of technical support would be needed for base line reporting; and how do we get political support from countries for monitoring SDG6?

Eventually, all data provided, including data from SDG6, needs to be disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts. This was discussed by members of UN WWAP, GEMI, and Netherlands Statistical Bureau. The discussion was especially relevant since gender disaggregation is only explicitly mentioned in indicator 6.5.1, and options are not clear on how to implement it into the other indicators.



The last day was used to discuss and define next steps for GEMI and the Proof of Concept countries. This was done in groups separated by country, where follow up steps were defined for the next month until upcoming year. The presentation on the SDG synthesis report resulted in a lively discussion which showed the importance of a well-balanced and useful report, even though the process has just started.

Some main messages and remarks were mentioned several times during the workshop and are thus important to highlight:

- First of all, the indicators were often stated to be UN indicators, while they have been decided upon globally. It was requested to start talking about we, and stop using them and us.
- A general conclusion was that SDG data need to support policy and operations at a country level otherwise collecting the data is a waste of time. The way that it is used needs to be worked out at a country level however. 'Not collecting data for data, but data for policy'.
- It was stressed that the SDGs are not management tools, but management tools will grow from them at a country level.
- Reporting was another point of discussion, which showed the problem of not knowing how often to report in what fashion.
- The methodologies furthermore showed some terminology issues, which showed that they were not universally understood and that clear definitions are needed.
- A discussion started on including innovations and testing new technologies. Certainly not everybody agreed, mentioning that it should be kept in mind that validation is not the goal of the SDGs.
- Remote sensing as a source of data was regularly proposed, and often the question arose whether to offer the possibility for countries to use it, or add it to the data delivered by the countries to the UN.
- It was also remarked that the indicators give little feedback to policy makers on how to adjust policies and activities. This needs to be adjusted in the methodologies.
- Finally, it was mentioned and agreed upon that integration of the indicators under SDG 6 is key.