GROUNDWATER IN THE SUSTAINABLE DEVELOPMENT GOALS
Emphasizing Groundwater in the Negotiation of the Final Goals

Position Paper No. 2

igrac
International Groundwater Resources Assessment Centre

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This position paper is the second in a three-part series. This series spans the Post-2015 Sustainable Development Goals (SDG) process and is designed to discuss strategic points of intervention related to groundwater prior to the development of the draft SDGs (Position Paper No. 1); after the release of the draft and during the negotiation of goals by UN member states (Position Paper No. 2); and after the entry into force of the final SDG text (Position Paper No. 3). The objective of this series is to emphasize the critical role that groundwater has in the Post-2015 development agenda and ensure that relevant stakeholders make "the invisible resource", visible in their policy, planning and monitoring activities over the next 15 years.

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INTRODUCTION: GROUNDWATER AND SUSTAINABLE DEVELOPMENT

Groundwater is the most abundant source of fresh water on earth, accounting for approximately 97% of non-frozen fresh water. Approximately 50 percent of the world's population drinks groundwater every day.[1] The importance of groundwater in sustaining rural populations that are located away from surface water and piped infrastructure cannot be understated. Further, groundwater is also vitally important for agriculture and is estimated to contribute to over 40 percent of the world's production of irrigated crops and to irrigating nearly 100 million hectares of arable land.

Annually over 200 times more groundwater water is abstracted from the earth than oil.[1] Overall, the economic benefits of abstracting groundwater exceed those of surface water per unit volume. This is because of local availability of the resource, reliability during droughts, and the fact that groundwater generally requires little treatment. Its importance is particularly pronounced in arid and semi-arid areas where groundwater is a significant source of fresh water. But also in some countries in temperate climates, such as Denmark and the Netherlands, over 80 percent of drinking water originates from groundwater resources. Groundwater is also important for the 1.7 billion people who live in overdrawn river basins and might rely on it for secondary supply.

Groundwater also sustains ecosystems, maintains baseflow of rivers and stabilizes land in areas with easily compressed soils. Aquifers play an important role as natural and man-induced storage for groundwater and can also buffer impacts resulting from long-term and short-term climatic variations. Consequently, groundwater is a very important natural resource and element of the environment, which greatly contributes to human development.

In IGRAC's first position paper entitled "Groundwater and the Sustainable Development Goals: Including Groundwater in the Draft Goals," we highlighted five areas in which groundwater relates to sustainable development. These were:

- The role of groundwater in universal access to drinking water, sanitation and hygiene;
- Groundwater quality and sanitation/wastewater management;
- Sustainable use and development of groundwater resources;
- Groundwater and disaster risk management; and
- Groundwater governance, rights & equity, peace & security.

This paper showed that neither of the Millennium Development Goal targets for water nor sanitation has actually been met - although officially the water target (7.c) was.[a] However, *universal* access to drinking water, sanitation and hygiene cannot be achieved without the development and proper management of groundwater resources, especially since half of the world's population already relies on groundwater as their potable supply. The number of places relying on groundwater may substantially increase post-2015, given that the rate of extraction is rising by 3 percent annually and that surface water resources are increasingly polluted and/or overdrawn.

There is a close link between the availability of safe drinking water, groundwater quality, and sanitation/wastewater management. Cautions should be taken so that providing access to sanitation and hygiene does not occur at the expense of the quality of groundwater resources, especially those that are used for drinking water supply. Groundwater contamination due to untreated sanitation and wastewater management is an increasing problem in particular where wastewater quickly infiltrates into aquifers without natural attenuation of contaminates. Emerging organic contaminants are also of growing concern.[2] Problems associated with use of aquifers as disposal and remediation sites and contamination resulting from the mining and petroleum industries - and the related consequence of hydraulic fracturing - require additional attention, as groundwater contamination constitutes de facto groundwater depletion.

[a] The United Nations Secretary General's Advisory Board on Water and Sanitation states that this number is significantly underestimated and that, realistically, between 2 and 4 billion people lack access to safe drinking water.

The original framework of Integrated Water Resources Management (IWRM) includes groundwater, but in practice groundwater is often excluded from IWRM implementation efforts. Full integration of groundwater into sustainable use and development schemes will determine the viability of the water resources for human use into the future. A necessary first step in IWRM is having a baseline representation of the groundwater resource. Unfortunately, there are severe data and capacity limitations with respect to groundwater. River basin organizations that are pre-eminently suitable to include groundwater in IWRM need capacitating on groundwater. Further, issues such as equitable utilization and planned depletion of non-renewable aquifers demand special attention. While models exist that can estimate the available quantities of groundwater, real data gathered and shared by nation states is requisite for ensuring that groundwater can continue to contribute to human security far into the future.

The Intergovernmental Panel on Climate Change has acknowledged the link between groundwater and climate change. There are also clear links between groundwater and ocean and/or atmospheric circulation and groundwater stored in aquifers is a natural buffer against climate variability.[1,3] In many locations, climate change resilience and decreased disaster risks can be enhanced by taking groundwater into account. Groundwater is intimately connected to global change phenomena and can play an important role in disaster risk management for drought and in some cases flooding. Conjunctive use and managed aquifer recharge schemes are emerging in environments experiencing increased climate variability (especially drought) and/or reduced access to surface water resources. Using these approaches can improve the sustainability of groundwater resources and mitigate disaster risk by augmenting the quantity or improving the quality of groundwater resources; reducing the effects of seasonal and climate variability; and managing excessive or unpredictable surface water flows by inducing recharge.

Water governance is receiving increasing attention with the understanding that many problems related to lack of access are a result of poor governance rather than physical water scarcity.[4] Bringing attention to water governance within the context of the SDGs also allows the issues of rights and equity as well as peace and security to be addressed. The discussion of groundwater governance is just beginning, as a result of data and capacity limitations at the national and sub-national levels as well as lack of a global governance framework at the international level. Nevertheless, proper groundwater governance based on sound hydrogeological data is necessary for developing equitable rights and allocation regimes, conflict prevention, and groundwater quality protection in the long term.

CURRENT STATUS OF SDG PROCESS

The Sustainable Development Goals (SDGs) are a proposed set of targets related to the future of international development. UN member states will use the SDGs to guide development policies and agendas from 2016-2030. The commitment to develop the SDGs was an outcome of the 2010 United Nations Rio +20 Summit and a follow-up of the Millennium Development Goals (MDGs), which were designed to be achieved by the end of 2015. The MDGs are generally viewed as an important focal point for countries' development policies and programs aimed at poverty eradication and economic advancement. However, not all goals have been met. Going into the Rio +20 Summit, there was a sentiment that the MDGs were too narrowly focused on economic development and that the relationship between environment and development needed to be brought to the fore.[b]

The process of designing the SDGs is about 65% complete at the time this position paper is published (see Figure 1). The United Nations Post-2015 "The Future We Want" civil-society consultation, the UN Open Working Group on SDGs, the High-level political forum and the Expert Committee on Financing all made significant contributions to the design of the SDGs in 2013 and 2014. In July of 2014, the UN Open Working Group released a set of draft recommendations, which is now the basis of negotiation between UN member states on the final SDGs and underlying targets. This negotiation process started on 19 January 2015 and will continue through September 2015 after which the SDGs will be

[b] See as an example the discussion in: Griggs, D., et al. (2013). Policy: Sustainable development goals for people and planet. Nature, 495, 305–7. doi:10.1038/495305a.

THE PROPOSED SUSTAINABLE DEVELOPMENT GOALS

1. End poverty in all its forms everywhere
2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
3. Ensure healthy lives and promote wellbeing for all at all ages
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
5. Achieve gender equality and empower all women and girls
6. ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL
7. Ensure access to affordable, reliable, sustainable and modern energy for all
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all
9. Build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovation
10. Reduce inequality within and among countries
11. Make cities and human settlements inclusive, safe, resilient and sustainable
12. Ensure sustainable consumption and production patterns
13. Take urgent action to combat climate change and its impacts (taking note of agreements made by the UNFCCC forum)
14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss
16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
17. Strengthen the means of implementation and revitalise the global partnership for sustainable development

BOX 1

finalized and enter into force in January 2016. Also in 2015, technical experts in areas relevant to each of the goals are gathering to propose sets of monitoring criteria for them.

The UN Open Working Group proposed 17 SDGs and within them 169 targets (see Box 1). They range in scope between poverty eradication, improvements in public health, eliminating violence again women, increasing access to energy and food security, as well as ensuring "availability and sustainable management of water and sanitation for all." Many stakeholders - governments in particular - are pleased with the content of the goals. However, some have taken issue with the number of goals saying that they are too "unwieldy" for implementation or communication with the public.[5] Even UN Secretary General Ban Ki-moon indicated that he would like the SDGs to be clustered into six "essential elements" of dignity, prosperity, justice, partnership, planet, and people.[6] Nevertheless, the number of goals is unlikely to change, although the number of targets might.

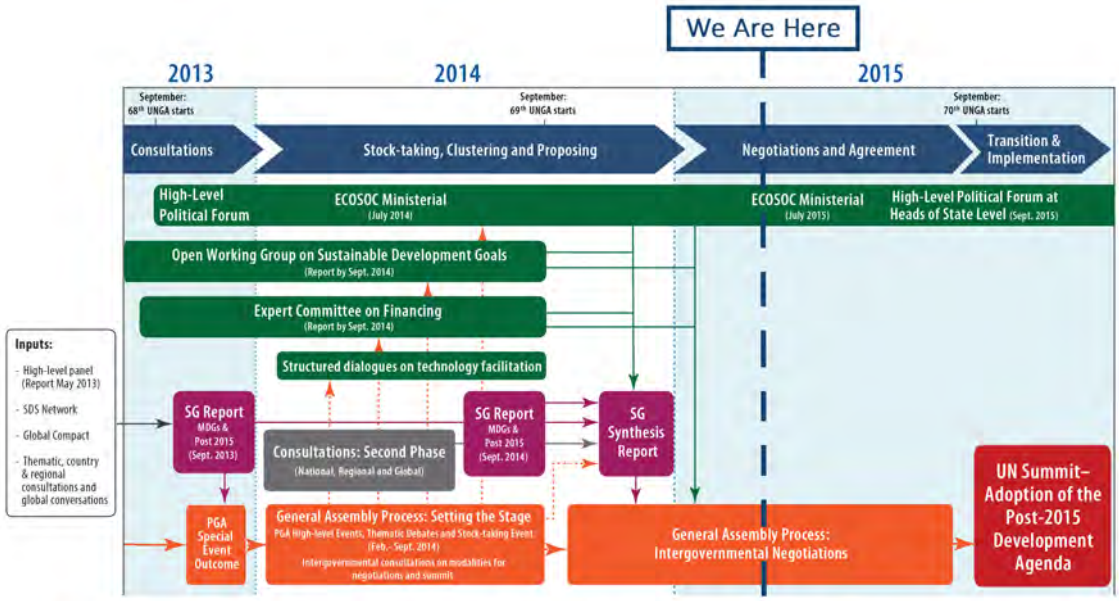

FIGURE 1 - Source: http://www.beyond2015.org/sites/default/files/Process%20visual.pdf

GROUNDWATER IN THE DEDICATED WATER GOAL

A DEDICATED WATER GOAL

Leading up to the publication of the draft SDG proposal by the UN Open Working Group there were numerous governments, NGOs and civil society groups advocating for a dedicated water goal. As of March 2014, there were over 15 sets of recommendations regarding water in the Sustainable Development Goals provided by various stakeholders across the globe. The overarching areas of concern presented by these groups included access to drinking water and sanitation; sustainability of water resources; disaster risk management; climate resilience, adaptation and mitigation; management and governance; rights and equity; economic benefits of allocation; monitoring of water resources and SDG targets; and cross-cutting issues such as the water-food-energy nexus. Only a few of the recommendations explicitly included or took into consideration the role of groundwater resources.

The role of groundwater in sustainable development was mentioned in several high-level consultations and working groups. The co-chairs of the UN Open Working Group made the most direct proposal, suggesting a target for "sustainable development, management and use of surface and groundwater resources, respecting ecosystems requirements." The Post-2015 Water Thematic Consultation Report mentions the role of groundwater in sustainable

GOALS AND TARGETS RELEVANT TO GROUNDWATER RESOURCES

GOAL 6:	Ensure Availability and Sustainable Management of Water and Sanitation for All
Target 6.1	By 2030, achieve universal and equitable access to safe and affordable drinking water for all
Target 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
Target 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 increasing recycling and safe reuse by x% globally
Target 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
Target 6.5	By 2030 implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
Target 6.6	By 2030 protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
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
Target 6.B	Support and strengthen the participation of local communities for improving water and sanitation management

INTRODUCTION PARAGRAPH 7

In the outcome document, …[t]he importance of freedom, peace and security, respect for all human rights, including… including the right to food and water… reaffirmed.

OTHER TARGETS

Target 3.9	By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
Target 11.5	By 2030, significantly reduce the number of deaths and the number of people affected and decrease by [x] per cent the economic losses relative to gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations
Target 12.4	By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
Target 14.2	By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans
Target 15.1	By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

BOX 2

development nine times.[7] The April 2013 recommendations from the Government of Switzerland proposed an overarching goal of "A Water-secure World" with three key targets, one of which included groundwater, stating "Groundwater and surface water is managed sustainably to satisfy human needs while respecting ecosystems requirements." Others mentioned the potential for increased stress on groundwater due to excessive use of surface water resources but fell short of tying this problem into a specific target or recommendation.

The final recommendations of the UN Open Working Group, published in July 2014, included a dedicated water goal - Goal 6: Ensure Availability and Sustainable Management of Water and Sanitation for All.[8] Within this goal are eight targets. The targets primarily address the social and environmental aspects of sustainable development as they relate to water resources. In particular, they focus on access to drinking water and sanitation, water quality, water use efficiency, water scarcity, water management and cooperation, and water-related ecosystems. Target 6.6 explicitly mentions groundwater resources, calling for the protection and restoration of water-related ecosystems, including but not limited to aquifers. However, the proposed framing of the goal does not link human development and groundwater directly. This is a deviation from the previous proposal of the UN Open Working Group, which directly linked sustainable (human) use and groundwater resources.

In addition to the dedicated water goal, paragraph 7 of the UN Open Working Group's introduction and eight other targets mention water. The issues addressed include the human right to water; ending epidemics linked with water-borne diseases; reducing deaths from water pollution; reducing deaths from water-related disasters; reducing release of chemicals and wastes into water; conserving, restoring, and sustaining freshwater ecosystems; sustainably managing marine and coastal ecosystems; and reducing impacts of invasive species in aquatic ecosystems. In these targets, some have stronger relevance to groundwater resources than others and some overlap with the issue areas targets proposed under Goal 6. Obviously, there are some clear remaining opportunities to strengthen the linkages between groundwater and sustainable development and there is also a clear imperative to do so.

KEY ISSUES FOR GROUNDWATER IN THE PROPOSED SDGS

After reviewing the SDGs as proposed by the UN Open Working Group and comparing them their content to the five key issues discussed in IGRAC Position Paper No.1, we identified several gaps between the necessary ingredients for sustainable groundwater development and the proposed SDGs. The relevant topics are once again discussed according to the categories presented above - access, quality, sustainable development, disaster risk, and governance - although the issues of groundwater access, sustainable use, and development are presented together. In the current framing of the proposed SDGs, there is ambiguity as to whether the UN Open Working Group intended for issues that directly address water resources to apply equally to surface and groundwater. At present there is only one explicit mention of groundwater resources (aquifers) in relation to their role in ecosystems. Based on the early drafts of the SDGs from the UN Open Working Group, it seems there intention was to explicitly mention groundwater resources where they felt they were applicable to the goals. However, in the final proposal for the SDGs this is only one in one target. Further there is no introductory text that indicates whether all mentions of water include both surface water and groundwater resources. The consequences of these ambiguities are discussed in turn below.

GROUNDWATER ACCESS, SUSTAINABLE USE, AND DEVELOPMENT

The issues of access to water resources, equitable allocation, and sustainable use are directly addressed in the SDGs. As discussed in our previous position paper, there are billions of people around the world using groundwater as the primary or sole source of water supply. Therefore, actualizing the targets as proposed by the SDGs will require special attention to the role of groundwater resources in these issues. However, as shown in Figure 2, below, there is no explicit mention of groundwater in relation to these targets. Also dealing with the complexities of intra and intergenerational equity when utilizing a non-recharging or non-renewable groundwater resource is left outside of the scope of the SDGs. In IGRACs practical experience, there are an increasing number of countries looking to expand their access to groundwater resources for the purpose of providing water to their citizens. Unfortunately, in some cases

there is a simultaneous tendency to skip over the crucial step of gathering and assessing groundwater data to ensure sustainable use and development of the resource. This persists for both practical and political reasons. Practically, gathering groundwater data can be very costly and requires significant infrastructure. But politically, the hidden nature of groundwater resources can allow a lack of transparency around allocation to persist. To some extent this is addressed at the transboundary level in the SDG target regarding international cooperation. At the national level, we hope to see the SDG monitoring protocols also push for increased transparency of groundwater data.

GROUNDWATER QUALITY

The proposed SDGs address groundwater quality from both upstream and downstream perspectives. At the upstream end, the targets require prevention and reduction of pollution from human waste as well as agricultural and industrial sources. On the downstream end, they address public health concerns related to water quality. These are both critical issues and we they feel have be properly addressed. At the same time, IGRAC has the concern that the linkages between provision of access to sanitation and hygiene and degradation of (ground)water quality have not been adequately conveyed in the SDGs. Given that the MGD sanitation target is one of the farthest from being met, we can optimistically expect a great measure of progress on this issue under the SDGs. However, in many regions of the world, lack of proper treatment and disposal of human waste has resulted in severe groundwater contamination. This of course, can undermine the goal of providing groundwater of a quality suitable for human consumption. If possible, these issues should be addressed in the final draft of the SDGs and associated monitoring requirements.

GROUNDWATER AND NATURAL RISKS

The SDGs take an expected approach to the issues surrounding natural risks and disasters. They focus on the consequences of droughts and flooding. However, there is no direct link made between the potential for unsustainable groundwater use during drought and the need to address groundwater in disaster risk preparedness plans. Further, some flood-prone areas are experimenting with managed aquifer recharge as a means of reducing flooding impacts down stream. Over the next 15 years, there is great potential for aquifers to play a role in flood risk management as well. While acknowledging the disastrous effect that large-scale natural disasters can have on societies, it is also important to recognize the cumulative affects of subtle and incremental shifts in weather patterns that can have noticeable effects on groundwater recharge and flow and thus food security and access to water resources. Target 6.A, mentions several mechanisms to alleviate the effects of natural risks through activities such as rainwater harvesting. Unfortunately, the opportunity to include managed aquifer recharge among these mechanisms was missed.

GROUNDWATER GOVERNANCE

There were four main aspects of governance included in the proposed SDGs in relation to environment and in some cases directly in relation to water. These were capacity building, environmental law, international cooperation, Integrated Water Resources Management, and public participation. IGRAC believes these represent most of the key issues pertaining to both surface water and groundwater governance. Additional attention could be added to the aspects of water law that are unique from environmental law. Further, the specific attributes of groundwater resources that may require tailored governance provisions such as conjunctive management, protection of groundwater recharge and discharge areas, as well as use and access by women, youth, and indigenous peoples were not addressed in relation to (ground)water resources. These are cross-cutting environmental and social aspects of governance, whose linkages should be recognized in order to actualize sustainable development.

FIGURE 2 - Groundwater issues included and excluded from proposed SDGs

MONITORING OF THE SDGs

The UN Open Working Group recommendations recognized the need for increased capacity in data monitoring and enhanced quality of data. The High-level Panel on the Post-2015 Development agenda, among others, similarly called for a "data revolution" for sustainable development. In response, the UN Secretary General established an Independent Experts Advisory Group on the Data Revolution (Data Revolution IEAG). Their November 2014 report includes an urgent call for action that will (1) develop a global consensus on principles and standards on data; (2) share technologies and innovations for the common good; (3) provide new resources for capacity development; (4) bring about leadership for coordination and mobilization; and (5) exploit some quick wins on SDG data.[9] It also named nine key principles for the data revolution, which emphasized quality, transparency, usability, rights, protection and governance. In the context of the data revolution and of the knowledge gained from the monitoring of the Millennium Development Goals, the SDGs - as proposed by the UN Open Working Group - will be monitored according to no more than 100 indicators for all 17 goals. These indicators are being developed by expert groups separate from but in parallel to the ongoing negotiations of the final SDG text.

TASK TEAMS ESTABLISHED UNDER GEMI INITIATIVE

1. Domestic wastewater and reuse
2. Industrial wastewater and reuse
3. Water Quality
4. Water withdrawals and productivity
5. Water withdrawals and ecosystems
6. Integrated water resources development
7. Earth observations and data integration

BOX 3

The SDG indicators are designed as a management tool to help countries develop implementation and monitoring strategies as well as metrics to monitor progress towards achieving the SDGs. The metrics are quantitative where possible, while surveys and perception-based metrics derived from expert opinion or popular perceptions may also be used. The SDG monitoring process is led by the UN Statistical Commission who has called for a short list of indicators to be developed per target.

GEMI Indicators for Goal 6 as Proposed by the UN Open Working

OWG PROPOSED TARGET	QUANTIFIED ACTIONS IN OWG FRESHWATER-RELATED TARGETS	INDICATORS TO BE USED TO MEASURE PROGRESS TOWARDS QUANTIFIED SUB-TARGETS
6.1	Universal access to safe and affordable drinking water	Proportion of people with access to safely managed drinking water services
6.2	Achieve access to adequate sanitation, end open defecation	Proportion of people with access to safely managed sanitation services
	Achieve access hygiene for all,	Proportion of people with access to hygiene
6.3	Improve water quality	Water Quality Index
	Halving the proportion of un-treated waste water	%-age of waste water (domestic and industrial) safely treated
	Increasing recycling and safe reuse by x% globally	%-age of municipal waste water safely reused and industrial waste water recycled.
6.4	Substantially increase water-use efficiency across all sectors	Water Efficiency Index (% change)
	Ensure sustainable withdrawals and supply of freshwater	Natural Water Capital Index/Sustainable Water With-drawal Index (% change) (also used to measure progress to 6.6.)
6.5	Implement integrated water resources management at all levels	IWRM Implementation Index
6.6	Protect and restore water-relat-ed ecosystems	Wetland extent (% change)

TABLE 1

The Global Expanded Monitoring Initiative (GEMI) is focused on developing indicators as well as monitoring methods and procedures in anticipation of the adoption of the SDGs. The initiative is developed under the umbrella of UN-Water with support from the Swiss Development Cooperation, while the screening and scoping phase is led by the UN Environment Programme, UN-Habitat and World Health Organization. GEMI established seven task teams directly related to the targets that are elaborated under Goal 6 in its current form (see Box 3). These task teams first reported on progress at Stockholm World Water Week 2014 and since then have had three meetings to further refine their proposal.

The GEMI proposed indicators are designed to create opportunities to build on ongoing monitoring activities at the national, regional and global levels. Further, they aspire to expand the current network of water monitoring activities occurring worldwide into an integrated monitoring framework that addresses all water-related SDG targets. GEMI also developed a tentative list of sub-indicators, several of which include groundwater resources. The Ambient Water Quality Index would be used as an indicator for targets 6.3 and 6.6. It would measure quantities of dissolved inorganic nitrogen, E. coli, and salinity in both surface water and groundwater. The Natural Water Capital and the Sustainable Water Withdrawal Indexes would be used as indicators for targets 6.4 and 6.6 and would integrate the Groundwater Capital Index and Sustainable Water Withdrawal Index, respectively. Unfortunately, these sub-indicators primarily address concerns related to the sustainability of the physical resource. Groundwater still lacks explicit inclusion in the social and economic aspects of monitoring for Goal 6 and the targets therein.

The indicator's parameters were designed such that countries would have the flexibility to monitor in accordance with their capacities and capabilities and to do so in congruence with their national interests and issues. There is also the ability to adopt the proposed monitoring framework as monitoring methods and procedures develop. The GEMI recommendations shown in Table 1 are expected to contribute to the broader SDG monitoring process. However, there is not yet a proposal from GEMI regarding indicators for water-related targets that are outside of Goal 6. Further additional, country-specific indicators may be developed at a later time.

IGRAC RECOMMENDATIONS AND COMMITMENT

In IGRAC's first position paper on groundwater and the SDGs, we advocated for a dedicated target for water that explicitly includes groundwater as a critical component to achieving sustainable development. We also stated that groundwater should be recognized as a cross-cutting issue that is relevant for targets developed in the areas of food supply/hunger eradication, and sustainable energy access. A review of the proposed goals and targets show that water resources in general were included in many key areas of sustainable development and that having a dedicated water goal allowed the elaboration of water-specific issues. However, we are concerned that the single mention of groundwater resource (aquifers) in the targets may result in groundwater remaining the hidden catalyst in many countries' development agendas - it may become not only the silent partner in growth, but also the tragedy of an ungoverned common. The proposed GEMI indicators perhaps lessen the potential impact of these issues by explicitly including groundwater resources in several of its parameters. Given that the products of the UN Open Working Group are the **"main basis for the Post-2015 intergovernmental process"** and that this process is ongoing...

IGRAC encourages all stakeholders vested in elaborating the role of groundwater in sustainable development within the final SDGs to seek:

- opportunities to engage with governments who are framing and refining the goals and targets to increase attention to the role of groundwater resources in sustainable development;
- strategic points of intervention for groundwater issues in both the process and outcomes; and
- venues to participate in discussions around the role of groundwater in SDG monitoring and implementation.

Leading up to the finalization of the SDGs in September 2015, IGRAC is committed to synthesizing and making available the knowledge necessary to refine the SDG targets and craft the monitoring indicators and parameters such that they take into account the role of groundwater in sustainable development. We also participate in collaborative actions leading up to and including the World Water Forum 2015 in Korea, where the finalization of the dedicated water goal will be further discussed. Once the SDGs, targets, indicators and parameters are finalized, IGRAC will mobilize the network of global groundwater professionals as required to help meet the SDG targets and satisfy the post-2015 development agenda. Additionally, IGRAC will work to improve capacity and the level of technical dialogue required for achieving the SDGs in an integrated way, with particular attention to issues of conjunctive use and management.

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