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Water for Development and Development for Water: Realizing the Sustainable Development Goals (SDGs) Vision

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Abstract

The inclusion of the Water Goal in the United Nations 2015 Development Agenda recognizes that water is at the heart of all aspects of sustainable development rather than being secondary to other sectors, where it risked becoming neglected and therefore no-one's responsibility. It puts water management firmly in the hands of the water and water-using sectors. This paper suggests that for all the Sustainable Development Goals (SDGs) to be successful, a major shift in conceptual thinking about water management is needed. It must be recognized that there is no single approach for sequencing portfolios of investment to improve water security and that a high degree of flexibility will be needed to embrace the unique economic, social and environmental circumstances that will determine a nation's pathway towards water security and prosperity. Above all, governments must accept and embrace interconnectedness and take an integrated approach to water management. But the big question now facing many countries is how to best put an integrated approach into practice.

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Introduction

The new United Nations (UN) development agenda fully recognizes the importance of managing water for sustainable development, and the need for the water and water-using sectors to collaborate and move beyond traditional sectoral 'silos' if the world's limited water resources are to be used wisely. This recognition is a major

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breakthrough. The future looks rosy but only if governments and the corporate sector recognize and take a number of crucial steps.

The UN Sustainable Development Goals (SDGs) agenda is an unprecedented effort that embodies universal aspirations for a better, more just, equitable, peaceful, and sustainable future. The SDGs agenda provides a framework that fosters collaboration across countries, mobilizes all stakeholders and inspires action. It invites us to accept and embrace comprehensiveness and interconnectedness.

1. The ‘Water Goal’

Growing global concerns over water resources, highlighted in 2015 by the World Economic Forum (WEF, 2015), are closely reflected in the SDGs, not only in terms of SDG 6 (see Table 1), which specifically addresses water resources (the ‘Water Goal’), but also in recognizing that water affects the entire development agenda. Water connects us all. Water is embedded in almost all the other SDGs, particularly those dealing with food, energy and the environment. Water is the gossamer that links the web of the 17 SDGs and their 169 targets. No longer can water be addressed as a separate element in isolation from the other goals. But this interconnectedness has important implications. It means that the Water Goal will only be achieved if the other goals are attained, and in turn, that other SDGs will only be achieved if the Water Goal is attained.

Table 1. The Water Goal

SDG6	Ensure availability and sustainable management of water and sanitation for all
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 at least doubling recycling and safe reuse globally
6.4	By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of fresh water 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 co-operation as appropriate
6.6	By 2020 protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
6.6a	By 2030, expand international co-operation 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
6.6b	Support and strengthen the participation of local communities for improving water and sanitation management

From the beginning of the SDGs development process, we at the Global Water Partnership (GWP) felt that the way water was fragmented across a set of SDGs, failed to recognize both the scale and the complexity of the huge, multi-dimensional water challenge. Water was perceived as a ‘slave’ to other sectors rather than as a limiting factor. This mind-set promoted the thinking that water was everyone’s responsibility, which of course it is, but by embedding water in a fragmented way across SDGs, water resources were in danger of becoming no-one’s responsibility and therefore neglected, apart from water supply and sanitation, as in the Millennium Development Goals (MDGs).

GWP has always emphasized the need to take account of the synergies between long-term water resources management and meeting the needs of water and sanitation services, food production and energy generation, and supporting ecosystems. We have pointed to the problems that a ‘silo’ approach creates and we have highlighted the importance of developing a dedicated Water Goal, which would champion the need for an integrated water

resources management (IWRM) approach. Today, we are gratified to have this goal in place, particularly SDG Target 6.5, which mandates nations to “implement integrated water resources management at all levels, including through transboundary co-operation as appropriate”.

Recent research led by Oxford University (Sadoff *et al.*, 2015) initiated by GWP in collaboration with the Organisation for Economic Co-operation and Development (OECD), has also positioned water at the centre of economic development. The research clearly established the symbiotic links between water and development – that water is essential for sustainable socio-economic development and, in turn, that development provides the necessary resources to invest in improving water security, water infrastructure and water institutions. Thus, notions of the importance of water in development are no longer intuitive; the evidence base is strong and puts water at the heart of the development process.

But the multiple challenges related to managing water are huge. A changing climate, rapidly growing populations, social and economic development, globalization and urbanization currently shape our world. Global, regional and local water issues are becoming more complex, stemming in large measure from the increasingly important interactions between water, energy, food and ecosystems.

Achieving sustainable development will be the result of a complex mix of multiple economic, social, psychological, cultural, ecological, political and legal actions. Thus, a systems approach to development will be essential, otherwise the complexity of the task to change course for sustainability is likely to be underestimated.

If we continue to pursue the prevailing ‘business-as-usual’ approach, serious problems will undoubtedly arise. As flagged by WEF, managing water resources will become a critical issue for society. Others have already spoken about a ‘perfect storm’ (Beddington, 2009) in the 2030s as the issues of population growth, food production and energy reach crisis proportions.

Evidence from the 2012 UN survey (UN-Water, 2012) of 134 countries, in which the GWP network played a key role, indicated that 82 per cent had embarked on reforms to improve the enabling environment for water resources management and integrate approaches, 65 per cent had developed IWRM plans and 34 per cent said they were at an advanced stage of implementation. Many countries have now enshrined IWRM in policies and legislation, and have prepared legal and financial tools for implementation. But few countries have seriously moved to put plans into action. There is still a need for greater awareness among some countries that water links all socio-economic goals. Cross-sectoral cooperation is essential.

2. A new approach is needed

The question thus arises: are our current approaches to managing water still valid in the context of the SDGs? Delivering the SDGs vision requires setting in motion new strategies governing the way we all live and interact with our environment in order to ensure that there will be enough water to support, rather than constrain, development and inclusive well-being.

Realizing the SDGs vision is, first and foremost, the responsibility of countries, national governments and stakeholders. There is no ‘blueprint’ approach and no straightforward solution valid for all countries under all circumstances.

Success will come from deploying the right tools and approaches in a way that is sensitive to local circumstances. For water-insecure countries – 90 per cent are least developed countries (LDCs) – finding new development pathways will be challenging. Unlike OECD countries, most LDCs have poor water endowments, limited professional and institutional capacity, and experience extreme droughts and floods that require costly water-control infrastructure.

There is no single pathway for sequencing portfolios of investment in institutions and infrastructure to improve water security. Major shifts in conceptual approaches to water and sustainable development are called for, shifts that have a high degree of flexibility in order to embrace the unique economic, social and environmental circumstances that will determine a nation’s pathway towards water security and prosperity.

3. New approaches have implications

The implications of new approaches are two-fold:

First, we need to re-examine the current development paradigm and modify it so that national development strategies consider more explicitly the multifaceted role that water resources management plays in economic development, social well-being and environmental sustainability. Governments need to put water resources management in its proper place as a central and integral part of overall economic planning and development. Before 1973, energy was cheap and plentiful. But the oil crisis forced planners to position energy as a central component of economic policy. Water will soon take centre stage as current and future water crises highlight the need to integrate water in macro-economic planning.

Second, fundamental trade-offs will need clarifying. When water resources are limited and growing demand begins to exceed supplies, it is the state's responsibility to determine water allocations within the country's boundaries in a way that balances the objectives of high growth and a dynamic economy with societal notions of fairness and equity. The state must co-ordinate the actions of different water users and resolve water allocation conflicts among citizens. Failures of coordination and conflict resolution are perceived as failures of the state.

Trade-offs will not be zero-sum games. Compromises will be needed based not only techno-economic and environmental terms but also on socio-political and geopolitical considerations, which often vary from one country to another or from one region to another. Water resources management policies are the result of the complex interplay among influences in society. Sector self-interest (agriculture, energy, industry) can only be effectively pursued by taking account of mutual interests. There are growing mutual interests but whoever wants a bigger share of available water resources cannot be taken seriously given that countries' water endowments are physically limited.

4. An integrated approach – the only 'real show in town'

Governments must accept and embrace interconnectedness and take an integrated approach to water management. IWRM is at the heart of SDG 6 and is not just about the water sector. IWRM embraces all water users and is about understanding how water resources link with different societal sectors in order to clarify trade-offs and/or emphasize synergies. An integrated approach recognizes that decisions in one sector affect other sectors. This approach emphasizes making changes in policy/decision-making processes and governance to improve human welfare and equity, and to sustain growth and the environment.

Developing a rigorous analytical framework to facilitate decision-making and investment in the water sector is a prerequisite for efficiently allocating water and limiting water consumption to sustainable levels in the face of significant future uncertainty. There is no alternative but for governments to roll up their sleeves and do the hard analytical work required to understand complex hydrological systems, to determine the costs and benefits of specific policy interventions, and to make difficult decisions about the inevitable trade-offs involved in water management and development. Institutional capacities will need developing in order to strengthen institutional arrangements that function in increasingly complex situations, and cut across sectoral silos and sovereign boundaries. Institutions will need a new and evolving set of skills to support them.

Over the past 20 years, GWP has strived to promote and plan for IWRM through advocacy, knowledge sharing and networking. The new UN development agenda now focuses on implementation. But the big question now facing many countries is how best to apply an integrated approach into practice. The gaps between policies, science and practice still exist. Bridging the gap between planning and practice has long been GWP's *raison d'être*.

5. The future is rosy only if...

Implementing SDG 6 offers a rosy future, but only if countries:

- Assert their leadership role in guiding water resources development and management, including building stronger partnerships with the private sector and NGOs.
- Invest in portfolios of sequenced projects that combine institutions (agencies, rules and incentives), information systems (hydro-meteorological, economic and social) and infrastructure (natural and constructed) in managing water resources and water-related risks.

- Find ways to package tailored financing mechanisms to support countries most afflicted by water insecurity as many of these countries are not creditworthy enough to borrow their way out of water crises. Water resources management still needs greater political attention and dedicated financial mechanisms to stimulate water-efficient economies.
- Give high priority to overcoming water information and knowledge gaps in highly vulnerable countries by establishing regional knowledge platforms to help economically water-insecure countries meet their water agenda by facilitating collaboration, awareness, knowledge and capacity building.

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