

## The Water Resources Group Phase 2



### The Pressing Issue of Water Security

Water security is one of the most tangible and fastest-growing social, political, environmental and economic challenges the world faces today. Analysis suggests a 40% shortfall globally between forecast demand and available water supply by 2030. Within the next 15-20 years, the worsening water security situation risks triggering a global food crisis, with shortfalls of up to 30% in cereal production. In addition, the overall outlook causes concerns that emerging economies will be unable to meet their need for water to generate energy and support industrial growth. Accordingly, and because of the interlinked economy, accelerating stress on the world's water will affect food and energy systems around the world, as well as global economic growth.

Trade-offs between the agricultural, industrial and municipal sectors and choices about investment and technology allocation across the economy – balanced with questions of equity and access – are required. Whether and how a government chooses to tackle these difficult questions has important implications for economic growth, development and long-term competitiveness. Unless there is a step change in how available water resources are managed, these trade-offs create an impossible demand-supply conundrum for governments to resolve.

The inherent public good and common property characteristics of water (unlike energy) and the close links to food security, health and well-being make finding solutions to the water challenge more difficult. While government is the ultimate custodian of the national water resource, it is unable to solve the issue of water security on its own. Government can play a role in setting frameworks, but many other stakeholders have a role to play in delivering solutions. This multistakeholder challenge means that coalitions are required: public-private-civil society coalitions focused on meeting the water security challenge, with each member leveraging its own expertise within a common policy framework to support governments to meet this challenge.

In its first phase from 2007 to 2010, **the World Economic Forum Water Initiative** focused on raising awareness among governments, businesses and the expert community about the challenge of managing future water needs, and on piloting public-private-expert platforms for reform. As of spring 2010, Strategic and Industry Partners of the Forum participating in the initiative included: CH2M HILL, Cisco, The Coca-Cola Company, The Dow Chemical Company, Halcrow, Hindustan Construction Company, Nestlé, PepsiCo, SABMiller, Siemens, Standard Chartered Bank, Syngenta International and Unilever. As well as arranging water security discussions at all Forum events since 2007, the initiative helped publish a book in January 2011 outlining the water-food-energy nexus that connects water security issues across the economy. For further information, see [www.weforum.org/water](http://www.weforum.org/water).

**The 2030 Water Resources Group (WRG)** was formed in 2008 to contribute new insights to the increasingly critical issue of water resource scarcity. Members include McKinsey & Company and the World Bank Group (led by the International Finance Corporation, IFC) with a consortium of business partners: The Barilla Group, The Coca-Cola Company, Nestlé, New Holland Agriculture, SABMiller, Standard Chartered Bank and Syngenta International. Veolia Environnement joined the group for the second stage. WRG published a landmark report in October 2009, *Charting Our Water Future*, which analyses the global water supply-demand gap to 2030 and economic options to close the gap. Detailed case studies considered in the report include India, South Africa, and the state of São Paulo in Brazil. For further information, see [www.2030waterresourcesgroup.com/water\\_full](http://www.2030waterresourcesgroup.com/water_full).

## Background and Objectives for WRG Phase 2

Since the Annual Meeting 2010, the World Economic Forum Water Initiative has aligned with the 2030 Water Resources Group to form the Water Resources Group Phase 2. It has been supporting various governments through a strategic combination of high-class analytics as demonstrated by the WRG and the multistakeholder convening capabilities and experience of the World Economic Forum to catalyse coalitions to design and action practical national water sector transformation strategies.

As a result, several governments facing severe water challenges have been engaging in a more substantive public-private-expert dialogue on water security and water management reform. This includes India, Jordan and Mexico, among others. This is a significant development. Many stakeholders agree: against the context of impending scarcity, we could now be on the cusp of developing new normative approaches to water management.

The goal of this alignment is to build a demand-driven platform of world-class advisory expertise, which can support governments to **ACT**: engage in **A**nalysis,

Convene multistakeholder collaborations and undertake public-private Transformations in the water space. The project idea was endorsed in a high-level private meeting at the World Economic Forum Annual Meeting 2010, encapsulated as the Davos Initiative.

This high impact public-private approach follows two steps at the country-level:

**Step 1 – Initial diagnostic.** Building on the cost curve methodology and toolkit of WRG Phase 1, the diagnostic creates a comprehensive fact base on the water supply-demand balance the country faces to 2030 and the economics of options available to address any gaps.

**Step 2 – Country-level support.** Multidisciplinary assistance is offered through a public-private advisory platform that helps the government shape and test concepts and governance processes, which seek to close the identified future water volume gaps. The ultimate objective is to improve water resource management in a river basin, country or region and to inform national or regional water adaptation planning. The country-level support will likely entail the establishment of a nationally-run multidisciplinary

## Current WRG Phase 2 Country-level Engagement

### Jordan

WRG Phase 2 is working with the Government of Jordan and other partners to analyse the water scarcity challenge in Jordan, the economic and technical choices available to increase water productivity and increase supply, and their implications on economic, social and sustainability objectives. Jordan's strategic economic choices, and choices that the country makes on agricultural crop mixes, export-orientation and employment focus will have significant implications for its growth aspirations and investment requirements. The initial phase of work focused on water supply and agricultural and municipal demand. The analysis reveals that a water-enabled growth pathway is possible, even in Jordan's severely water constrained context.

The next stage will develop a more complete picture of the water supply-demand gap: the economic choices and priority measures at the national and governorate level. Multistakeholder meetings will then help prioritize and implement strategic interventions. The government has already formalized a public-private vehicle catalysed earlier by the World Economic Forum Water Initiative – the Jordan Business Alliance on Water, JBAW – to help coordinate this advisory function.



### Mexico

In collaboration with the national water commission, CONAGUA, WRG Phase 2 has been working to develop a fact base on a sustainable water pathway for climate adaptation and increased water resource variability. Despite localized regions of high vulnerability to water scarcity, application of the cost curve through a range of transformation levers (infrastructure investment, technical measures or process optimization, behavioural change and risk transfer for those extreme, and rare, weather events) demonstrates that a climate-adapted pathway for agriculture is achievable. The conclusions of the analysis were presented at a workshop co-convened with CONAGUA at the recent United Nations COP16 climate meeting in Cancun.

The next stage, if invited by government, is to construct a public-private advisory vehicle to help CONAGUA to develop a robust project pipeline and ensure financing for critical investments, as well as offer advice on how best to shape regulations and adapt institutions to the challenge.

### India

Building on a WRG Phase 2 collaboration with the Confederation of Indian Industry (CII) and the Council on Energy, Environment and Water (CEEW) to host a series of India water dialogues in 2010, a partnership with the State Government of Karnataka was established; a formal launch came at the World Economic Forum's India Economic Summit in November 2010. This partnership with Karnataka is to help the government develop a water action plan for the transition from an agricultural to industrial economy.

As water security in Karnataka is closely linked to food production, this water action plan needs to enhance water efficiency in irrigation, increase productivity of agriculture, and improve demand management and water use efficiency in the municipal and industrial sectors.

A key driver for the government's decision to engage with WRG Phase 2 is the opportunity to leverage best-in-class private sector expertise to help inform their reform agenda and create a series of bankable project vehicles to deliver this change.

contact group to work with government to help it implement concepts.

By engaging governments and undertaking such activities, WRG Phase 2 will illustrate – by the end of 2011 through country examples (India, Jordan, Mexico) – that its unique two-step public-private approach can work and that governments will embrace it. This proof of concept will also help WRG Phase 2 to design and launch a new public-private entity to undertake the work in the long term. By proving the value proposition in a few geographies and in a comprehensive, learning-by-doing manner, WRG Phase 2 will inform how such an entity should best function for future partners.

The timeframe for conducting the work of WRG Phase 2 is clear and bound:

- **To pursue reform programmes in three countries during 2011**, building on work that commenced during 2010 to validate the approach and confirm its value to governments
- **To design and launch a global WRG entity before the end of 2011** – this entity, housed in the IFC, would lead future work; the Forum Water Initiative will continue to have a link to the new WRG entity (for example, through a seat on the board)
- **To present its results at a meeting in Davos in January 2012** – this presentation will include the proposed structure and governance of the new global WRG entity; throughout 2011, the progress on the above issues will be discussed at Forum regional events as well as at regional multistakeholder workshops

### Progress and Achievements of WRG Phase 2

At the Annual Meeting 2011, business leaders from multiple sectors together with government, international organization and development agency representatives and water sector experts reviewed progress to date and discussed the next stage of work. Over 100 people took part in the session, illustrating not only the growing awareness of the issue of water security as a critical component of economic and social development, but also the increasing interest in taking collaborative action.

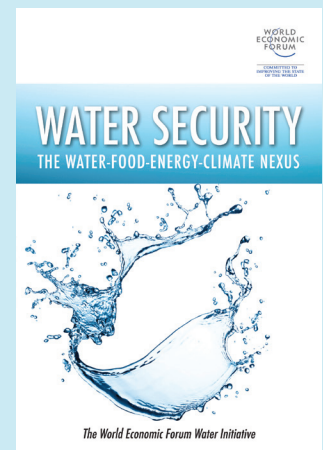
The progress in raising funds to undertake these activities has been good, particularly in the blend of public and private support, including from participating governments. It is notable that funding to date has been a 50:50 mix from public and private sources, which demonstrates the common interest and commitment to the work.

A full report of the progress can be downloaded at: [http://www3.weforum.org/docs/WaterResourcesGroup\\_BackgroundActivitiesOutlook\\_Report\\_2011.pdf](http://www3.weforum.org/docs/WaterResourcesGroup_BackgroundActivitiesOutlook_Report_2011.pdf)

### Water Security: The Water-Food-Energy-Climate Nexus

Responding to a call to action on water at the World Economic Forum Annual Meeting 2008 to raise awareness and develop a better understanding of how water is linked to economic growth across a nexus of issues, this book collects perspectives on the water challenge from many opinion leaders in governments, religious groups, businesses and NGOs, as well as academics, entrepreneurs, financial experts, journalists, trade specialists and many others. They examine the complex challenges over the next 20 years and the implications on the social, political and economic well-being if there is failure to act.

Launched at the World Economic Forum Annual Meeting 2011, the book explores breakthroughs in the development of a new economic fact base on water for governments and highlights positive experiences in developing public-private-expert coalitions to take action on water and addressing the scarcity challenge that lies ahead. The first extract of book is freely available on the Internet: [www.weforum.org/reports/water-security-water-energy-food-climate-nexus?fo=1](http://www.weforum.org/reports/water-security-water-energy-food-climate-nexus?fo=1)



### Outlook and Vision for 2011

The work in Jordan, Karnataka, India, and Mexico is now reaching Step 2: multistakeholder in-country engagement. At the invitation of government, WRG Phase 2 will offer support through a public-private advisory platform to help the government shape and test concepts and governance processes that seek to close identified future water volume gaps, improve water resource management and inform the development of national or regional water adaptation plans. The activities in 2010 have generated interest from other country governments to engage with WRG Phase 2 and partnerships with China, Mongolia, and South Africa are being explored this year.

Forum Water Initiative Partners and other Forum partner companies and organizations are invited to collaborate to build a global catalogue of best practices, help develop communication strategies to foster even broader engagement, and engage regional company representatives in country actions with governments to reinforce public-private cooperation.

**Helping to build a global catalogue of best practices.** There is a need to create an openly accessible global catalogue of best practices displaying advisors, suppliers, specific projects and partnering arrangements, as well as technical and policy solutions to support governments as they implement water sector reforms.

The design of the catalogue will be developed in 2011 using the information demands of Jordan, Karnataka State and Mexico, which can act as starting points. Forum Water Initiative members are consequently invited to contribute examples and engage in the discussion on the design of the catalogue, to create the most impactful tool possible.

**Developing communication strategies.** WRG Phase 2 requires an ongoing communications programme to build further awareness; maintain momentum and international interest in the ongoing process; chart, record and share success stories; and monitor progress at the national and global levels. Communication should focus on the improved water management needed to support growing demands across the water-food-energy nexus to support economic growth, as this is perhaps the most important global dimension of the water crisis that WRG Phase 2 is helping to reveal. Forum Water Initiative Steer Board members and other partner companies and organizations interested in this work are invited to engage to help build innovative messages and disseminate the impacts of the work, as well as to ensure complete consistency of messages with government partners.

**Engaging regional company representatives.** The work with government partners in the countries will continue throughout 2011. The network of Strategic Water Partners and other partner companies and organizations are invited to provide national or regional expertise and resources from their networks to build the local advisory capacity of WRG Phase 2 to help governments as and when invited to do so. For each pilot engagement, public-private workshops have been held since spring 2011. These will be working, not advocacy, meetings, and therefore technical and local specialists will be required.

To sustain in-country support and engagement as the government embarks on reform, a more permanent public-private national working group or roundtable will need to be established, led and managed. This is an opportunity for sustained national leadership from representatives of companies, international organizations and NGOs. In each case, the national group or roundtable will form, grow and manage itself, following initial support from WRG Phase 2.

While the primary focus is to create impact and proof of concept in several key regions, the project will also design a new global entity under the leadership of IFC that can drive such work forward on a permanent basis for any other government that might want help with its water strategy in the future. The entity is to be launched by the end of 2011. As the "order book" of new countries keen to engage with WRG Phase 2 is filling, it is crucial to advance the concept of the new entity further to develop an institutional mechanism to take forward the work.

## Partners engaged in WRG Phase 2 to date







### Strategic Water Partners

- Cargill Inc.
- CH2M HILL
- Cisco Systems Inc.
- Diageo Inc.
- Ecolab Inc.
- Halcrow Group Ltd
- Heineken International
- Hindustan Construction Company Ltd
- International Federation of Agricultural Producers
- McKinsey & Company
- Nalco Company
- Nestlé SA
- Novozymes A/S
- PepsiCo Inc.
- Rio Tinto Group
- SABMiller plc
- Standard Chartered Bank
- Syngenta AG
- The Coca-Cola Company
- The Dow Chemical Company
- Unilever
- World Wide Fund For Nature

### Development Agencies and Multi-Lateral Agencies Involved



### 2011 Country-level Engagement

-  China:  
To be nominated
-  India:  
State Government of Karnataka and potentially the National Planning Commission and the State Government of Maharashtra
-  Jordan:  
Minister of Water and Irrigation; Minister of Planning and International Cooperation
-  Mexico:  
National Water Commission of Mexico (CONAGUA)
-  Mongolia:  
Office of the President
-  South Africa:  
Minister of Water and Environmental Affairs