



BRISBANE, 10 OCTOBER 2016 AT THE WORLD WATER CONGRESS AND EXHIBITION

Water Scarcity & Drought Summit

The world's first action oriented initiative dedicated to building resilience to water scarcity and drought: DroughtAction





Dr. Gary Jones,
Chief Executive,
Australian Water Partnership



Dr. Ger Bergkamp,
Executive Director,
International Water Association

The World Economic Forum ranks the water crisis as the greatest risk facing societies, economies and businesses globally over the next decade. Severe water scarcity and drought affect four billion people throughout Africa, Asia, Latin America, the Americas and Europe. The chronic problem of water scarcity impairs people, cities, industries, agriculture and the environment.

Water scarcity and drought know no national boundaries. But tension is rising between states competing over water claims, a precious resource. There is an increasing need to strengthen regional cooperation on water related challenges and solutions, particularly in water scarce and drought affected areas.

Building resilience to water scarcity and drought requires us to collaborate across sectors and stakeholders. Given the size and scale of the challenge, we need global leadership that brings together actors from across a range of sectors and work pro-actively to address water scarcity and drought.

We need to build systems that are more resilient to water scarcity and drought. This means improving both water supply, and managing demand. It requires us to look beyond infrastructure and develop new policies, regulations and incentives that change the behavior of all major water users. We need to look at public-private partnerships that deliver practical solutions that can be implemented and scaled-up. We need to learn from each other and share our best practices.

The UN Sustainable Development Goals (SDGs) and the Paris Agreement renewed commitment to act on water scarcity and drought. Today we have a unique opportunity to build on the momentum across the world, across stakeholders and across sectors. It is only with a sustained and innovative effort that we will be able to tackle water scarcity and drought for the benefit of humanity and sustainable business.

To act upon this unique opportunity The International Water Association and the Australian Water Partnership are inviting 200 leaders from the public and private sector, including ministers, business leaders, scientists and civil society, to take part in a historical summit: the world's first multi-stakeholder Water Scarcity and Drought Summit on 10 October 2016 in Brisbane as part of the World Water Congress and Exhibition.

Through keynotes, roundtable and plenary discussions, The Water Scarcity and Drought Summit will:

- Create climate preparedness and resilience by discussing effective policy, planning, regulations and incentives; evaluating existing institutions and how to enforce adaptation to our water scarce situation.
- Establish portfolios of water supply and demand management through discussions of best approaches and exposing participants to modern technologies that reduce water demand and losses, reuse water, desalinate, replenish water stores in groundwater and refill reservoirs. These technologies span across energy, agriculture, cities and industrial sectors.
- Strengthen mechanisms to measure data and exchange knowledge on water scarcity and drought.
- Share best practices and solutions to share information; knowledge and experiences necessary create a water wise world.
- Mobilise public and private investments: focus on resources that can be used to upgrade existing institutions and create new ones in addition to improving infrastructure to manage water scarcity and drought.

We need your leadership and decisive action to tackle global water scarcity and drought.

The Summit will launch the world's first public-private action-oriented initiative solely dedicated to water scarcity and drought: DroughtAction.

We hope to see you at the Water Scarcity and Drought Summit!

Water scarcity and drought: A problem for 40% of the world's population



The World Economic Forum ranks the water crises as the greatest global risk facing societies, economies and businesses over the next decade.

The world's growing population, economic development and the impact of climate change, such as extreme weather, and inadequate water allocation policy are increasing the demand for water. Climate change also makes long-term water availability forecasting harder. This makes designing and investing in future water infrastructure increasingly difficult.

Water scarcity affects more than 40% of the global population. Severe water scarcity and drought in Africa, Asia and Latin America impact four billion people daily.

Water scarcity and drought impact poverty and economic growth, health and well-being, gender inequality, and the environment. Crops fail, livestock die, families face food shortages and famine, people are forced to migrate and conflicts arise. Cities affected by water scarcity, strain the existing infrastructure with increasing costs for citizens, businesses and government. Industries seriously impaired by water scarcity, such as food, agriculture, energy and mining, need to develop new business models and make changes throughout their whole value chain to reduce risks, create resilience and remain competitive in the future.

Negative effects will compound over time

Climate change will increase the frequency and severity of water scarcity and drought. Water scarcity will worsen in countries where it is already a significant problem. And it will extend to new areas. While these pressures are an enormous challenge they are also a great opportunity to invest in our water systems and management.

“The effects of water scarcity and drought will only intensify if we do not act”

Dr. Ger Bergkamp,
Executive Director,
International Water Association

- Jordan is below the water poverty line. High population growth and climate change are widening the gap between water supply and demand. Water losses in Jordan reach about 50% and studies show Jordan can overcome the water shortage problem by adopting a water demand management strategy.
- El Nino and record-high temperatures have had catastrophic effects on crops and rainfall. Today 36 million people face hunger due to drought across southern and eastern Africa.
- Natural rubber production in Thailand has fallen 50% from January to April year-on-year due to drought.

5 things you need to know about water scarcity and drought

1. Regions with drought can see their GDP decline by as much as 6% by 2050 – while regions with proper water-management can see their growth accelerate as much as 6%.
2. Less availability of freshwater and increased use could reduce the amount of water available in cities by as much as 2/3 by 2050.
3. Global water requirements are projected to be pushed beyond sustainable water supplies by 40% in 2030.
4. Food production will need to increase by 50% by 2030. This increase in food production corresponds to an estimated increase in water demand by 40 to 50%, while municipal and industrial water demand will increase by 50 to 70%.
5. The International Energy Agency estimates that energy consumption will increase by 85% by 2035. This has major consequences for abstracting and using water for production and cooling.



United Nations Sustainable Development Goals (SDGs)



A unique opportunity to act

The poor are the least equipped to deal with the negative effects of water scarcity and drought. Yet, they feel it the most. To bring those who rely on rainwater to irrigate their fields and run a high risk of contamination out of poverty and to achieve the UN Sustainable Development Goals (SDG), it is necessary to build resilience to scarcity and drought.

The UN Sustainable Development Goals and the Paris Agreement renewed global commitment to act on water scarcity and drought. The Paris Agreement aims to mitigate, adapt and finance the reduction of greenhouse gas emissions by 2020. To foster climate resilience, lower greenhouse gas emissions, and adapt to the adverse impacts of climate change, we must allocate resources to upgrade existing and new water infrastructure, and institutions.

Sustainable Development Goal 6.4:

“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”

Creating systems resilient to water scarcity and drought

The traditional way of solving water scarcity was to build and invest in complex water infrastructure, such as dams, pipelines and treatment plans, to store and increase water supply. Today, water scarcity and drought management need to go beyond infrastructure, technologies and create systems resilient to water scarcity and drought, focusing on pro-actively managing the increasing demand while improving supply.

To create resilient systems, we need to work on new policies, regulations and incentives and create new public-private partnerships that have a clear focus and are results oriented.

Decision makers sharing and working together

Collaborating across countries, industries, and expertise is the most effective way to address global risks and create resilience. Those seriously impacted by water scarcity and droughts are central to the solutions of tomorrow. This includes working closely with businesses affected by water scarcity, governments responsible for being pro-active on water scarcity and drought, those representing farmers, civil society groups and academia bringing new insight and foresight to the table.

The Water Scarcity and Drought Summit will host leaders from across the world from all parts of society, including CEOs, ministers, scientists, mayors, utility providers, and young leaders. Working together will help governments, business and civil society exchange ideas, learn about new approaches, and leverage technologies that can be scaled. Exchanging ideas and approaches will help us build on pre-established best practices, rather than reinventing what has already been tried and tested. The Water Scarcity and Drought Summit is the first global Summit to share best

practices, exchange knowledge, and start building new models of cooperation and partnership on water scarcity and drought preparedness and pro-active management.

Increasing awareness

Building resilience requires a change in how water is viewed and treated. Information about water as an increasingly scarce resource needs to reach all stakeholders because if it is managed well and made accessible it can provide significant economic value to nations, communities and industries.

“We rely a lot on Australia for our thinking. They have overtaken because of the depth of their crisis. We captured over two thirds [of the El Niño rains] but we need more storage of all kinds. Australia has done a remarkable job. We are trying to catch up with them”

Felicia Marcus,
chairwoman of the State Water Resources Control Board,
which regulates California’s water

Today, water scarcity and drought management need to go beyond infrastructure, technologies and create systems resilient to water scarcity and drought, focusing on managing the increasing demand while improving supply

Dr. Gary Jones, Chief Executive, Australian Water Partnership



The Water Scarcity and Drought Summit is an unprecedented opportunity to shed light on a global risk, bring together public and private sector for much-needed collective action, and create a shared understanding for how we can collectively address this global risk.

Getting accurate data

To be prepared and able to accurately forecast water availability over the short and medium term, we need data. To understand the potential the impact of different climate and water allocation scenarios, we need data.

Aggregating data will allow better predictions on water scarcity and drought. Shared data will help prepare and manage mitigation strategies including relief aid, agricultural subsidies, water allocation measures, insurance and drought credits.

Data will help us set clear targets. Clear targets are needed to commit budgets.

Mobilizing and accelerating investments

Today, water is inexpensive so there is a lack of incentives to invest in water. Yet, USD 10 billion is needed to fund initiatives that will create sharing best practice, improving policies and scaling successful projects. We need to review existing, and potentially create new drought and scarcity financing mechanisms. These financing schemes must be collaborative and available locally, regionally and globally.

Preparing new proactive public policy

Governments, donors and the private sector must work together to provide the right business environment necessary to reach the targets of the summit.

Decision makers need to improve policies, regulations and planning to welcome new solutions. We need to invest in policy and regulatory frameworks that manage demand and promote efficient allocation of resources. This can only occur by becoming more efficient in both the way water is allocated and how efficiently it is used.

Building skills and capacity

We lack capacity at policy and regulatory level, lack the ability to implement locally and are unable to enforce regulations. We need to share and develop tools, skills and processes to improve water project management.

Businesses taking a role

Business plays a major role in tackling water scarcity and drought. Businesses need to assess, manage and build resilience to water scarcity and drought throughout their entire value chain and engage in a broader approach to building resilient water systems.

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We are looking forward to hosting the World Water Congress in Brisbane next month. That will be an opportunity to continue supporting the actions needed to meet the needs of all.

PRIME MINISTER THE HON. MALCOM TURNBULL MP, AUSTRALIA

Over 30 African water ministers and high-level delegations from 53 African nations have adopted a roadmap aimed at achieving sustainable and universal access to safe water and sanitation in the continent to ensure coherence in policy implementation, increase gender, equity and social inclusion, and trans boundary cooperation in Africa.

H.E. AHMADOU MANSOUR FAYE, MINISTER OF HYDRAULICS AND SANITATION, SENEGAL

Water is the resource most impacted by climate change. Solutions do exist: conservation with smart technologies, reuse, desalination. This is our responsibility to implement them to protect water and ensure access to water supply and wastewater services.

MRS. MARIE-ANGE DEBON, GROUP SENIOR EXECUTIVE VICE PRESIDENT, INTERNATIONAL DIVISION CEO, SUEZ

As demand for water increases and stress on water sources intensifies, our business and the communities that host our facilities may face serious challenges. Coca-Cola is focused on conserving water in our operations and returning the equivalent amount of water we use back to communities and nature.

PAUL BOWEN, DIRECTOR SUSTAINABLE OPERATIONS, THE COCA-COLA COMPANY

With 9 provinces and regions along the 5,464-kilometres long river, we adopt a consultative approach to secure the support of the provincial governments and the people to equitably allocate water for domestic, industrial and agricultural uses, thus preventing abuse and overexploitation of water resources.

H.E. YUE ZHONGMING, COMMISSIONER (VICE MINISTER), YELLOW RIVER CONSERVANCY COMMISSION, CHINA

We managed to solve this drinking water problem partially, but now we are trying to convince donors through our response plan and resilience plan to move from crisis management into mid-term management so we can supply citizens and refugees with drinking water, protect the environment and reduce costs.

H.E. DR. HAZIM EL NASER, JORDAN

Without establishing and strengthening Transboundary Basin Organizations to realize the water Security among states, there is a risk that water resources management and development could lead to undesired consequences.

H.E. ENG. GERSON LWENGE (MP), MINISTER FOR WATER AND IRRIGATION, TANZANIA, / PRESIDENT AMCOW

We've inspected more than 4,400 km of water mains across the Perth metropolitan area in 2015-2016, detecting non-visible leaks and saving about the equivalent of 889 Olympic-sized swimming pools each year. Water has a lifecycle. Let's work together to not break it, but use it efficiently.

SUE MURPHY, CHIEF EXECUTIVE, WATER CORPORATION OF WESTERN AUSTRALIA, AUSTRALIA



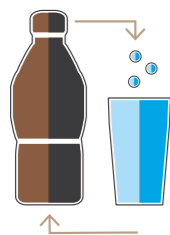
PHOTO: AUSTRALIA DROUGHT

Companies address water neutrality

Companies are investing in innovative technologies and processes to detect leaking infrastructure, reduce water consumption and reuse wastewater.

In 2015 Researchers at Imperial College London claimed that up to 200 litres of water could be involved in the download of a single gigabyte (GB) of data due to electricity production for the data centres and keeping them cool.

Facebook, Apple, Microsoft and Google have worked to improve their water footprint. Nike, Ikea and Adidas have used DyeCoo Textile Systems to reduce water consumption in their textile production. In the food and beverage industry, Nestlé has worked with more than 700,000 farmers on how to manage and conserve water and in 2015 Coca-Cola they reached their target early, returning 337.7 billion litres of water whilst using only 300.19 billion litres; a replenishment rate of 115%.



RETURNING 337.7 BILLION LITRES OF WATER WHILST USING ONLY 300.19 BILLION LITRES

Australia and the surviving the millennium drought

Australia suffered its longest drought on record from 1997 to 2010, known as the Millennium Drought.

It was most severely felt in the South-East where the four most populous cities reside; Sydney, Melbourne, Brisbane, and Adelaide. Stream flows reduced by over 80%, agriculturally rich areas could no longer produce food, and almost 3 quarters of floodplain forest were wiped out. The federal and state governments invested millions in infrastructure and education, managing the drought so successfully Australia is now seen as a possible roadmap for how the world can manage water scarcity.

The severity of the drought required country-wide conservation and efficiency programmes. The techniques used varied in both strategy and success. Innovative information campaigns, including showing real-time reservoir levels, inspired the public to use less. In Brisbane alone, the average person went from using 330 litres per person per day down to 124 litres per person at the peak of the drought. That has been maintained, and post-drought the average person uses 184 litres per day. In Sydney, the WaterFix programme allowed households to get water assessments, have leaks fixed and install efficiency taps. By the end of the drought 1 in 3 houses would have a rainwater tank. Seawater desalination capacity was increased; the number of industrial water treatment facilities increased; and the use of recycled water for agricultural and in urban areas increased. This 'portfolio approach' has proved to be highly effective.



1 IN 3 HOUSES WOULD HAVE A RAINWATER TANK



PHOTO: IDO MEIROVICH

The Red Sea-dead sea conveyance

The countries surrounding the Dead Sea are some of the most water stressed on earth.

The Dead Sea itself has been declining in volume at an alarming rate due to much of the water from its principle source, the Jordan River, being diverted for use in industry, agriculture and for drinking water.

Transboundary groundwater aquifers, already being used at an unsustainable rate, are being impacted by climate change. A water treaty has been agreed between Israel, Jordan and Palestine to commit to building a desalination plant in Aqaba, Jordan to provide 85 million cubic metres of fresh water a year. In this treaty, Jordan will sell 50 million cubic metres to Israel's Southern terrain in exchange for the same amount of water from Israel's Lake Tiberius being pumped to the north of Jordan.

The desalination plant is expected to be funded from international commercial sources, with multiple bids already received. The project faces challenges, particularly the agreement of Israel selling fresh water to Palestine, but this gives hope for the future of transnational agreements and climate diplomacy in the region.



DESALINATION PLANT PROVIDE 85 MILLION CUBIC METRES OF FRESH WATER A YEAR

The Water Scarcity and Drought Summit will launch DroughtAction:

the world's first action-oriented initiative dedicated to building resilience to water scarcity and drought involving a broad set of actors from around the world.

[#DroughtAction](#)

The Water Scarcity and Drought Summit is an unprecedented opportunity to bring together the public and private sector with other stakeholders for much-needed collective action, and create a shared understanding for how we can collectively address this global risk. Existing and new solutions to water scarcity significantly increase water system resilience. These solutions create enormous economic and social benefits. However, the broader uptake of these approaches is exceedingly slow.

Creating water scarcity and drought resilient water management systems require commitment from many actors: it requires them to be jointly committed and synchronized in their actions. However, knowing what to do alone is insufficient. We need to establish a range of successfully implemented solutions based on collaborations and building on past and recent successes. This requires actors to develop working relationships that build on successful prior work and supporting institutions that work towards tangible results.

Tackling water scarcity and drought in a more pro-active manner requires us to focus on building resilient water systems that address both demand and supply related challenges. This calls for a new model of collaboration between public and private sectors, working closely with civil society and knowledge partners.

DroughtAction is action-oriented to catalyze actions which bring relevant parties together focusing on specific solutions and building social and institutional capital to multiply the results.

DroughtAction is the catalyst to increase international cooperation and partnerships focusing on a pro-active approach to water scarcity and drought. The initiative will promote innovative ways to align (new) public policies and business objectives, establish creative ways to connect to civil society and knowledge institutions and help create business and investment opportunities.

DroughtAction creates an enabling system for cooperation through its partners. Public partners will include: central and decentralized government, state-owned companies, international organizations, state banks, research institutions, universities, and donors. Private sector partners will include utility providers, corporations, civil society, international organizations and third party contractors.

DroughtAction is to comprise, initially, leadership from over 20 companies, governments in 12 countries and organizations, civil society and academia. The companies, governments and organisations involved all have made or will make investments to tackle water scarcity and drought a major priority in their country or throughout their business value chain.



The world we are working towards

Systems that are resilient to water scarcity and drought, bring benefits to many stakeholders. By reducing water demand, and improving water supply, resilient systems enable:

- People to have access to safe drinking water, improving their health, wealth and well-being.
- Cities to secure supplies and be more resilient to droughts and floods, become more livable and continue as engines of economic growth.
- Industries to optimize their water use, reduce costs and give back to communities and nature the water they have taken out so they maintain their license to operate sustainably.
- Farmers to gain more crop and value per drop of water used while reducing overall consumption to create water security for crops, livestock and communities.
- Environment to benefit from restored river flows and replenishment of groundwater sources, nurturing healthy ecosystems and the services they provide.

Drought
Action