



## Embargo: 9 am EDT, Friday March 22 World Water Day 2013 International Year of Water Cooperation

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Advance interviews are available. The full text of the UN-Water analytical brief, "Water Security and the Global Water Agenda" is available for media preview online at <u>http://bit.ly/16DleHh</u>. UN-Water report authors and experts will conduct a media briefing Friday March 22 at 13:30 pm US Eastern Time, UN Secretariat Dag Hammarskjőld Library Auditorium. Webcast: un.org/webcast (live at 17:30 GMT)

## *"Water Security": Experts Propose a UN Definition on Which Much Depends*

Amid changing weather and water patterns worldwide and forecasts of more severe transformations to come, calls have been growing for the UN Security Council to include water issues on its agenda.

And there's rising international support for adopting "universal water security" as one of the Sustainable Development Goals -- a set of mid-term global objectives to succeed the UN's Millennium Development Goals, agreed by world leaders in 2000 for achievement by 2015.

But what does "water security" mean? The absence of a definition undermines progress in international forums. Marking World Water Day today at UN Headquarters in New York, a common working definition was published, forged by UN and international experts from around the world.

UN-Water, the United Nations' inter-agency coordination mechanism for all waterrelated issues, says water security should be defined as:

"The capacity of a population to safeguard sustainable access to adequate quantities of and acceptable quality water for sustaining livelihoods, human well-being, and socioeconomic development, for ensuring protection against water-borne pollution and waterrelated disasters, and for preserving ecosystems in a climate of peace and political stability."

Released within an analytical brief by a special UN-Water Task Force on Water Security, this working definition will facilitate critical work, its authors say.

Most immediately, it will be considered by a group of 30 member states, headed by Hungary and Kenya, tasked with drafting the post-2015 Sustainable Development Goals. That report, anticipated around mid-year, is then expected to be taken up at the annual UN General Assembly next September.

"In the past few decades, definitions of security have moved beyond a limited focus on military risks and conflicts," says Michel Jarraud, Chair of UN-Water and Secretary-General of the World Meteorological Organization (WMO).

"Security has now come to mean human security and its achievement through development. Water fits within this broader definition of security -- embracing political, health, economic, personal, food, energy, environmental and other concerns -- and acts as a central link between them."

"Common understanding has central importance in international discussions and water security can't continue to have a variety of meanings," says Zafar Adeel, co-chair of the UN-Water Task Force on Water Security and Director of the United Nations University's Canadian-based Institute for Water, Environment and Health.

"A shared and working definition is needed to get everyone on the same page. Only then can we collectively start to write a coherent response to the challenges."

"Access to safe water and sanitation is now a fundamental human right. But water management also requires realistic ways of recovering delivery costs. An agreed definition of water security is vitally important in that context."

Many observers have identified water as an "urgent security issue," a group that last year included both former US Secretary of State Hillary Clinton and the InterAction Council, an association of 37 former heads of state and government co-chaired by the Rt. Hon. Jean Chrétien, former Prime Minister of Canada, and H.E. Dr. Franz Vranitzky, former Chancellor of Austria.

According to Mr. Chrétien: "Nothing is more fundamental to life than water. Few issues, therefore, have the potential to create friction more than the management of water shared across international borders, especially now with serious scarcity problems in prospect."

In its analytical brief, UN-Water echoed its support for including water security on the UN Security Council agenda.

The brief also calls for:

\* Recognition of the need to include water security in the formulation of the Sustainable Development Goals;

\* A supportive policy environment including innovative financial mechanisms to achieve water security;

\* Increases in capacity development on a wide range of needs, from human to financial, institutional, technological and service provisioning.

In 2011, the UN Security Council recognized the serious implications of climate change, with water being the medium through which climate change will have the most effects.

By formally including water security on its agenda, the Council would recognize the direct impact of water on human security issues: either as a trigger, a potential target, or a contributing factor. Such recognition would acknowledge that water insecurity poses serious risk and that water security could contribute to achieving increased regional peace and security in the long term.

The analytical brief notes examples of the impact of disasters and conflicts on water resources and related ecosystems.

In 2011, for example, driven largely by water and food shortages linked to drought in the Horn of Africa, almost 185,000 Somalis fled to neighbouring countries. In Sudan, violence broke out in March 2012 in the Jamam refugee camp where large numbers of people faced serious water scarcity. And in South Sudan, entire communities were forced to leave due to scarce water resources as a result of conflict in 2012.

Disasters and conflicts can also affect the physical infrastructure needed to access water, sanitation and hygiene services (water services infrastructure, treatment plants, drainage systems, dams, irrigation channels, etc.), reducing levels of water security.

Water insecurity, therefore, leads to cascading political, social, economic and environmental consequences, the brief says. (For a larger history of water-related conflicts, documented by The Pacific Institute: <u>http://worldwater.org/conflict.html</u>)

## Key Aspects of Water Security

A summary of core elements needed to achieve and maintain water security, synthesized from a broad range of sources, include:

- Access to safe and sufficient drinking water at an affordable cost in order to meet basic needs, including sanitation and hygiene, and safeguard health and levels of well-being;
- Protection of livelihoods, human rights, and cultural and recreational values;
- Preservation and protection of ecosystems in water allocation and management systems in order to maintain their ability to deliver and sustain functioning of essential ecosystem services;
- Water supplies for socio-economic development and activities (such as energy, transport, industry, tourism);

- Collection and treatment of used water to protect human life and the environment from pollution;
- Collaborative approaches to transboundary water resources management within and between countries to promote freshwater sustainability and cooperation;
- The ability to cope with uncertainties and risks of water-related hazards, such as floods, droughts and pollution, among others; and,
- Good governance and accountability, and the due consideration of the interests of all stakeholders through: appropriate and effective legal regimes; transparent, participatory and accountable institutions; properly planned, operated and maintained infrastructure; and capacity development.

The analytical brief chronicles several hopeful international developments in progress on achieving water security, such as the management of the Guaraní Aquifer, which extends over more than 1 million km<sup>2</sup> and spans Brazil, Paraguay, Uruguay and Argentina. A population of 15 million today relies on the aquifer because surface water, though abundant, is often polluted.

Each country sharing the aquifer has its own institutional framework for water resources management but, until recently, no clearly defined mechanisms for transboundary groundwater management existed.

In 2010, Argentina, Brazil, Paraguay, and Uruguay signed the Guaraní Agreement, establishing a foundation for the aquifer's coordinated management in an effort to prevent conflicts.

The brief details similar encouraging developments related to Lake Uromiyeh, Iran, Europe's vital Rhine River, shared by nine countries, and the Nile Basin, the main source of water in the north-eastern region of Africa and one of the world's most politically sensitive and vulnerable basins.

The brief calls for water security to figure prominently in the UN's post-2015 Sustainable Development Goals, including targets and indicators that reflect water's cross-cutting impacts on food, energy, and other priority development areas.

According to UN-Water, a majority of climate change effects will be felt through the water cycle: "higher climatic and hydrological variability, with important consequences for societies."

"Changes in the hydrological cycle will threaten existing water infrastructure, making societies more vulnerable to extreme water-related events and resulting in increased insecurity."

The brief cites predictions that rainfall variability alone could push over 12 million people into absolute poverty and that climate change could increase global malnutrition by up to 25% by 2080.

## Increasing water security through "natural infrastructure"

Water security depends on protecting "natural infrastructure" and the cost-effective ecosystem services it provides, according to the brief, citing several examples:

**Increase in drinking water supply:** Watershed management saved US \$5 billion in capital costs for New York City and US \$300 million annually and storage of Beijing's drinking water in Miyun watershed forests is worth US \$1.9 billion annually

**Improved sanitation and wastewater management**: The Nakivumbo swamp provides water purification for Kampala, Uganda worth US \$2 million per year compared to costs of US\$235,000

**Increased food security**: Tonle Sap lake and Mekong river fisheries supply 70-75% of people's animal protein intake in Cambodia; they are worth up to US \$500 million annually and employ 2 million people

**Reliable energy security**: Investments in soil conservation have significantly extended the life expectancy of the Itaipu dam in Brazil and Paraguay. And the value of watershed management on the Paute hydroelectric scheme in Ecuador has been estimated at US \$15-40 million.

**Drought management**: Watershed restoration on the Loess Plateau, China has eliminated the need for drought-related emergency food aid to a region that is home to 50 million people

**Climate change resilience**: With investment in developing skills and water institutions, people in the Pangani river basin, Tanzania, are negotiating 'environmental flows' to sustain the ecosystem services they need for climate change adaptation, food and water security

**Restored rivers**: In the USA, 15 jobs are created for every US \$1 million invested in river restoration

For more information: UN-Water: www.unwater.org