



WORLD WATER DAY 2018: AN APPEAL TO STRENGTHEN GLOBAL GOVERNANCE TO ADDRESS THE FOOD-WATER-ENERGY NEXUS

"There is an intrinsic link between the challenge we face to ensure food security through the 21st century and other global issues, most notably climate change, population growth and the need to sustainably manage the world's rapidly growing demand for energy and water."

Professor Sir John Beddington, former UK government chief scientific adviser

As this quote implies, a multitude of factors are driving increased demand for water, energy and food; among them are population growth, rapid urbanisation and climate change, as well as changing diets and consumption patterns powered by the expansion of agricultural and livestock production brought by economic development.



Mario Arvelo, permanent representative of the Dominican Republic to the Rome-based UN agencies and chairman, Committee on World Food Security

A trade-off?

The concept of the food-water-energy nexus describes some of these challenges. The importance of water and energy in bringing food to our plates is relatively well-understood. However, what is probably less known is that agriculture is the largest consumer of the world's freshwater resources, accounting for over two-thirds of global use. About a third of global energy consumption occurs along food supply chains.

What if, in the not-too-distant future, we will have to choose between food, water and energy? Water on Earth is a finite resource. In using it to irrigate staple crops, we promote food production at the price of reducing river flows and hydropower potential. Watering bioenergy crops could provide cheaper fuel while decreasing the amount of water and land available for generating edible food. Converting drylands opens up space for all kinds of crops, but such expansion demands greater energy use.

What shall we do?

The sustainable management and conservation of ecosystems from the local to the global level is the key to ensuring present and future supplies of nutrient-rich, quality food, while efficiently using water and energy.

The scarcity of, and competing demands for, water and energy point to the need for strengthening all levels of governance. Effective governance is at the crossroads of competing policies, interests and actors from numerous sectors. The [Committee on World Food Security](#) (CFS), a UN platform that provides a neutral place for open, inclusive debate for policy coherence and convergence on food security and nutrition, has endorsed policy recommendations on [biofuels and food security](#) and on [water for food security and nutrition](#).

These sets of recommendations emanating from the CFS High-Level Panel of Experts on Food Security and Nutrition (HLPE) are science- and evidence-based and are being used by governments around the world, as well as by civil-society organisations, the private sector and other stakeholders working on the food-water-energy nexus. What is needed is for more policymakers to make use of these and other HLPE policy recommendations in designing and implementing strategies.

Our biggest challenge

Exploring and addressing the complex interrelationships between food, water and energy systems is crucial to ensuring that the rapidly growing world population will have nutritious food in quantity and quality. This is especially true in countries and regions where food insecurity is threatening the social fabric, triggering conflict and migration, and afflicting a disproportionate number of women, children and the elderly throughout the so-called Global South.

The 2030 Agenda for Sustainable Development brought together all UN member states in a commitment to [ending poverty and hunger in all their dimensions, everywhere](#). This promise necessitates the integration of economic, social and environmental dimensions, for example by an inclusive approach to the food-water-energy nexus in supporting progress towards achieving the Sustainable Development Goals (SDGs), including SDG 2 on zero hunger, as well as goals 6, 7 and 12 on water, energy, and responsible consumption and production. The SDGs will be reviewed at the [UN High-Level Political Forum](#) in July 2018. José Graziano da Silva, director-general of the UN's Food and Agriculture Organisation (FAO), has put it simply and bluntly by saying that we *can* eradicate hunger and malnutrition, but only if we do it *together*.

The importance of the SDGs and the need to address the interconnected food-water-energy nexus is highlighted by the [Food Sustainability Index](#), developed by The Economist Intelligence Unit with the Barilla Center for Food & Nutrition.

ABOUT THE AUTHOR

A lawyer, political scientist, writer, public speaker and career diplomat, ambassador Mario Arvelo is currently the permanent representative of the Dominican Republic to the Rome-based UN agencies and chairman of the Committee on World Food Security, an international and intergovernmental platform that reports to the UN General Assembly.

Since 2014 Mr Arvelo has been the first alternate chairperson of the Appeals Committee of the FAO and the World Food Programme, and is a member of the Governing Council and Executive Board at the International Fund for Agricultural Development. Before entering public service, Mr Arvelo worked in the private sector and civil society.