

2050: Water supplies to dwindle in parts of the world, threatening food security and livelihoods

Policies and investments are needed, including adaptation of agriculture to climate change

7th World Water Forum, Daegu, Republic of Korea/Rome, Italy, Tuesday 14 April, 2015 - In 2050 there will be enough water to help produce the food needed to feed a global population expected to top nine billion, but overconsumption, degradation and the impact of climate change will reduce water supplies in many regions, especially developing countries, FAO and the World Water Council have warned in a paper published today.

“Towards a water and food secure future”, http://www.worldwatercouncil.org/fileadmin/world_water_council/documents/mailling/mail_wwf7_documents/FAO_WWC_Water_and_Food_WhitePaper.pdf, calls for government policies and investments by the public and private sectors to ensure that crops, livestock and fish are sustainably produced in ways also aimed at safeguarding water resources.

Such actions are essential in order to reduce poverty, increase incomes and ensure food security for many people living in rural and urban areas, the paper stresses.

“Food and water security are inextricably linked. We believe that by developing local approaches and making the right investments, world leaders can ensure that there will sufficient water volume, quality and access to meet food security in 2050 and beyond,” said Benedito Braga, President of the World Water Council, on the occasion of the launching of the paper at the 7th World Water Forum in Daegu and Gyeongbuk, Republic of Korea.

“The essence of the challenge is to adopt programs that involve investments in longer-term returns, such as the rehabilitation of infrastructure. Agriculture has to follow the path of sustainability and not the one of immediate profitability,” added Mr. Braga.

“In an era of accelerated changes unparalleled to any in our past, our ability to provide adequate, safe and nutritious food sustainably and equitably is more relevant than ever. Water, as an irreplaceable element of achieving this end, is already under pressure by increasing demands from other uses, exacerbated by weak governance, inadequate capacities, and underinvestment,” said Maria Helena Semedo, Deputy Director-General (Knowledge) at the Food and Agriculture Organization.

“This is an opportune time to re-visit our public policies, investment frameworks, governance structures and institutions. We are entering the post-2015 development era and we should mark it with solid commitments,” she added.

Agriculture will still account for most water consumption

By 2050 some 60 percent more food – up to 100 percent in developing countries - will be needed to feed the world while agriculture will continue to be the largest user of water globally, accounting in many countries for around two-thirds or more of supplies drawn from rivers, lakes and aquifers.

Even with increasing urbanization, in 2050 much of the global population and most of the poor will continue to earn their living in agriculture. Yet the sector will see the volume of water available to it reduced due to a competing demand from cities and industry, the FAO paper notes.

As such, through technology and management practice, farmers, especially smallholders, will need to find ways to increase their output on the limited land and water available.

Currently, water scarcity affects more than 40 percent of people in the world, a proportion set to reach two-thirds by 2050.

This is largely due to overconsumption of water for food production and agriculture. For example in large areas of South and East Asia, in the Near East, North Africa and North and Central America, more groundwater is used than can be replenished naturally.

In some regions intensive agriculture, industrial development and growing cities are responsible for polluting water sources, the paper adds.

Policy changes and investments essential

Improvements aimed at helping farmers increase food output using increasingly limited water resources -- including in the area of crop and livestock genetics -- are widely needed. Empowering farmers to better manage risks associated with water scarcity will also be critical, according to FAO and the WWC. This will require a combination of public and private investment as supportive training.

To address degradation and waste, water institutions should be more transparent in their allocation and pricing mechanisms, the two organizations argue. Crucially, water rights need to be allocated in fair and inclusive ways.

In particular the paper highlights the need to guarantee security of land and water tenure and access to credit in ways that enhance the role of women, who in Africa and Asia are responsible for much of farming.

Addressing climate change

The effects of global warming including unusual rainfall and temperature patterns and more frequent extreme weather events, such as droughts and cyclones, will have an increasing impact on agriculture and water resources in particular, today's paper warns.

Mountain areas provide up to 80 per cent of the world's water resources, but the ongoing retreat of glaciers as a result of climate change threatens the existence of those supplies in the future.

Forests on the other hand use water but also provide it -- at least one third of the world's biggest cities draw a significant portion of their drinking water from forested areas.

This underscores the importance of stronger efforts to protect forests and upland areas where much of the world's freshwater supply originates.

Today's paper calls for policies and investments to enhance adaptation at the watershed and household levels, such as improved water storage facilities, wastewater capture and reuse, as well as research that generates more resilient agricultural production systems for smallholders.

The World Water Forum (12-17 April) is the largest international event aimed at finding joint solutions to the planet's many water challenges. In addition to jointly producing the White Paper with the World Water Forum, FAO also teamed up with several partners and issued [The 2030 Vision and Global Framework for Action](#), a set of policy guidelines and recommendations to improve groundwater management.

How can we achieve a water and food secure future High Level Panel – Daegu, 14 April, 5:00 PM.

This White Paper was launched in the 'How can we achieve a water and food secure future' High Level Panel of the 7th World Water Forum on Tuesday 14 April 2015 from 5:00 to 7:00 PM at EXCO, 3F Room 324.

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About the World Water Council (WWC)

The World Water Council is an international multi-stakeholder platform organization, founder and co-organizer of the World Water Forum. The World Water Council's mission is to promote awareness, build political commitment and trigger action on critical water issues at all levels, including the highest decision making level, to facilitate the efficient conservation, protection, development, planning, management and use of water in all its dimensions on an environmentally sustainable basis for the benefit of all life on earth. The World Water Council, headquartered in Marseille, France, was created in 1996. It brings together over 300 member organizations from more than 50 different countries.

www.worldwatercouncil.org

About FAO

Achieving food security for all is at the heart of FAO's efforts – to make sure people have regular access to enough high-quality food to lead active, healthy lives.

FAO has three global goals: the eradication of hunger, food insecurity and malnutrition; the elimination of poverty and the driving forward of economic and social progress for all; and, the sustainable management and utilization of natural resources for the benefit of present and future generations. Five strategic objectives frame the organization's work in helping its Members reach the goals they have established: ending hunger, sustainably producing and managing natural resources, reducing rural poverty, making food systems more efficient and inclusive, and building resilience.

An intergovernmental organization, FAO has 194 Member Nations, two associate members and one member organization, the European Union. Its employees come from various cultural backgrounds and are experts in the multiple fields of activity FAO engages in. FAO's staff capacity allows it to support improved governance inter alia, generate, develop and adapt existing tools and guidelines and provide targeted governance support, as a resource to country and regional level FAO offices. Headquartered in Rome, Italy, FAO is present in over 130 countries.

About the 7th World Water Forum

Necessitating two years of collaborative preparation with stakeholders from around the world, the 7th World Water Forum consists of 4 preparatory processes: Regional, Political, Thematic and Science and Technology, within a common framework, so as to catalyze collective action and positive change.

The 7th World Water Forum will also be composed of cultural events, side events, a water exhibition, and a Citizen's Forum, including a Youth and Children's Forum, to raise awareness around water issues. The 7th World Water Forum is jointly organized by the World Water Council and the Republic of Korea together with the city of Daegu and the Province of Gyeongbuk.

More information and updates are available online at: http://eng.worldwaterforum7.org/program/program.asp?program_seq=413