

An awareness raising campaign by the SDC Global Programme Water in support of the UN Food Systems Summit 2021





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Swiss Agency for Development and Cooperation SDC

Global Water Facts



While there is globally sufficient water to produce food for everyone, food and nutritional insecurity remain widespread. Source: UN Water, © Pixabay/Albrecht Fietz





In the last two decades, the annual amount of available freshwater per person has declined by more than 20%.

Blue-Green

Source: FAO, © Shutterstock/Photographer RM



To feed the expected 10 billion people in 2050, food production will have to increase by 50%, requiring much more water.

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Source: FAO, © Pixabay/Brian Merrill

On average, agriculture accounts for 70% of global freshwater withdrawals.

Source: AQUASTAT/ FAO, © Shutterstock/Philippe Montigny

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More than 3 billion people live in agricultural areas with high to very high water shortages or scarcity.

Source: UN Water/ FAO, © Shutterstock/KajzrPhotography

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More than 62 million hectors of crop and pastureland are under severe water stress and frequent drought.



Source: FAO, © FAO/ IIASA/ IFPRI

Water Footprint and Food Waste Facts



82% of Switzerland's water footprint is imported from less privileged countries, mainly through food-related products.





An avocado uses almost 230 liters of water to grow.

Source: Water Footprint Network, © Pexels/Valeria Burdyka

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A hamburger needs almost 2500 liters of water to be produced.



Source: Water Footprint Network, © Pixabay/Free-Photos



Around 15000 liters of water are required to produce 1kg of beef.



Source: Water Footprint Network, © Shutterstock/Xavier Boulenger



An estimated 1/3 of all food produced globally is lost or goes to waste. Reducing food waste reduces demand on agriculture, which is the biggest water consumer.



Source: UN Water, © ElasticComputeFarm



Bio-waste - mainly from food and garden - is key for a circular economy: It can be upcycled into clean water, bio-electricity and bio-fertiliser.



Source: WasteWater & Bio-Waste Exchange, © Pixabay/melGreenFR

Domestic and Productive Water Facts



Globally over 1 billion people provide water for themselves, often through private wells which are used for drinking AND for productive purposes.

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Source: Sutton, Butterworth, Saladin, IRC, Skat Foundation, RWSN, © AfricaAHEAD/Matimati



The Blue Schools pathway: Ensuring access to water is the starting point for WASH, but also school garden and environmental activities. Source: Swiss Water and Sanitation Consortium, © SWSC/Niguse





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13-year-old Fatiya is a gardener and a hygiene champion: At Caritas Blue School in Ethiopia, she learned to grow fruits and vegetables. She has also learned the rules of hygiene and built a latrine at home. Since then, her family gets sick less often.



Rainwater harvesting is a key source for livestock and crop production as well as for domestic uses in areas with little or no other water sources.



Source: FAO, © Pixabay/Nathan Zhang



Livestock feed accounts for 41% of agricultural water use.

Source: UN Convention to Combat Desertification, © Pixabay/Elsemargriet

Water and Nutrition Facts



Around 3 billion people are malnourished. Likewise, over 2 billion people do not have access to safely managed drinking water.



Source: UN / JMP, © Pixabay/Martinez



Clean water and sanitation can reduce malnutrition but:

- 2.2 billion people do not have safely managed drinking water services,
- 4.2 billion do not have safely managed sanitation services,
- 3 billion lack basic handwashing facilities.

Source: UNICEF, WHO, JMP, © Water RésEAU

Blue-Green



Blue-Green

In least developed countries, 74 % of rural people do not have access to safe drinking water, exposing them to waterborne diseases and malnutrition. Source: FAO, © Shutterstock/Tolak



No water, no inland fisheries: Inland fisheries provide essential animal protein and nutrition for over 200 million people.

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Source: IUCN FFSG, © IUCN FFSG Video



In Ethiopia, Caritas Switzerland works with children to plant vegetable gardens, improve water systems and teach children and educators about the connections between health, nutrition and climate.

Source: Swiss Water and Sanitation Consortium, © SWSC/Niguse

Blue-Green Climate Vulnerable, Rainfed Agriculture



Rainfed agriculture is extremely vulnerable to climate variability and climate change. It needs effective adaptation options.

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Source: ETH, © Pixabay/Couleur



Water harvesting, conservation, agro-ecological practices and irrigation could boost global rainfed kilocalorie production by more than 40%.

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Source: FAO, © Pixabay/Quang



In Ethiopia, the smallholder farming system accounts for about 95% of the cropland area in the country and is mostly reliant on rainfed agriculture.

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Just like every drop of rain matters for rain-fed crop production, so does the timely onset of the rainy season. This is, however, often underestimated.





128 million hectares (or 11%) of rainfed cropland are affected by recurring drought. They could greatly benefit from water-harvesting and water-conservation techniques.

Source: FAO, © Shutterstock/Book

Blue-Green

Facts Regarding Irrigation



Around 41% of current global irrigation occurs at the expense of environmental flow requirements.



Source: FAO, © Shutterstock/EcoPrint



Over the last century, global water withdrawal increased 1.7 times faster than world population.

Source: FAO/ AQUASTAT, © Shuttestock/Vallefrias



Irrigated land covers only 6.5% of the total land used for agriculture, but supports production of 40% of the world's food and fodder output. Source: World Bank, © Shutterstock/Trucos





In sub-Saharan Africa, irrigated areas are expected to more than double by 2050, benefiting millions of smallscale farmers.

Source: FAO, © Shutterstock/Boulenger

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Burkinabe farmer supplements drip irrigation by hand, to be on the safe side... We need good ideas to reduce over-irrigation with drip systems!

Blue-Green Water Conservation and Harvesting



Climate smart agriculture techniques are key options, to deal with the negative consequences of climate change and to ensure income generation for smallholder farmers.

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Source: Seanghak Khin, © Caritas Schweiz



Technologies that encourage to alternate between dry and wet rice fields, reduce use of irrigation water methane emissions in rice production



Source: Rahman, © Pixabay/Shakil



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Floating vegetable gardens in Bangladesh do not need any chemical fertilizers or pesticides, because the floating bed is fertile by nature.



The Water and Land Resource Centre rehabilitates degraded watersheds in Ethiopia. Recharged shallow groundwater can then be used for horticulture, which improves household nutrition.



Source: Water and Land Resource Centre © Gete Zeleke



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Blue schools in Cambodia: Small school gardens were set up as demonstration and practical learning of good land and water management practices. Source: Seanghak, © Caritas Schweiz Too Little OR Too Much Water



1.2 billion people – roughly 1/6 of the world's population - live in agriculutral areas that face severe water-constraints.

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Source: FAO, © Pixabay/Milada Vigerova



In some regions, the level of water stress has increased by 35% over the last two decades.

stress has decades. Source: UN-Water, © Shutterstock/Belikova Oksana



Too much water close to the plant roots: Waterlogging can restrict access to oxygen as these flood-damaged crops in Serbia demonstrate. Source: FAO, © FAO/Igor Salinger

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1/3 of land area in China faces high water stress. Its water-foodenergy nexus approach aims for biodiversity conservation, a green circular economy model and carbon neutrality by 2060.

Source: World Resources Institute, © Pixabax/Lachmann-Anke

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With DESPRO support, Snitkiv in Ukraine transitioned from a water-scarce village to a horticulture cluster of great business potential.

Source: Skat/ DESPRO, © Skat/ DESPRO

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without water - no food

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