

5 innovative water filtration systems saving lives

SDG6 and water insecurity

Access to clean drinking water may seem like the most basic of human rights and yet billions of people do not have that. According to the [World Health Organisation](#) (WHO), 1 in 3 people do not have access to safe drinking water. One of the [Sustainable Development Goals](#) drafted by the United Nations to ensure a more sustainable future for all is Goal 6: Clean water and sanitation.

Although there has been progress in increasing access to clean water, a growing population facing a [40% shortfall in fresh water resources by 2030](#) calls for innovative technology to help solve the problem of contaminated water and an impending shortage.



ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

BEFORE COVID-19

DESPITE PROGRESS,
BILLIONS STILL LACK
WATER AND SANITATION SERVICES



2.2 BILLION PEOPLE
LACK SAFELY MANAGED
DRINKING WATER
(2017)



4.2 BILLION PEOPLE
LACK SAFELY MANAGED
SANITATION
(2017)



TWO IN FIVE
HEALTH CARE FACILITIES
WORLDWIDE HAVE
NO
SOAP AND WATER OR
ALCOHOL-BASED
HAND RUB
(2016)



COVID-19 IMPLICATIONS



3 BILLION
PEOPLE WORLDWIDE
LACK BASIC HANDWASHING
FACILITIES AT HOME
↓ ↓ ↓
THE MOST EFFECTIVE METHOD FOR
COVID-19 PREVENTION



WATER SCARCITY
COULD DISPLACE
700 MILLION PEOPLE
BY 2030



SOME COUNTRIES EXPERIENCE
A FUNDING GAP OF 61% FOR ACHIEVING
WATER AND SANITATION TARGETS

Image courtesy of the United Nations Sustainable Development Goals.
(<https://sdgs.un.org/goals/goal6>)

Innovative water filtration systems

THE DRINKABLE BOOK

The Drinkable Book is a collaboration between [WaterisLife](#) and researchers from Carnegie Mellon. Not only is each page a water filter (that can provide a user with clean water for up to 4 years!) it is also inscribed with educational information about hygiene and sanitation. Production of the book in different languages is in process.

LIFESTRAW

Vesterguard is a global leader in the war against diseases, especially those affecting particularly vulnerable populations. Working to contribute to a more sustainable planet, one of their innovative solutions is [LifeStraw](#). It's membrane microfilter removes bacteria, parasites, and microplastics which [can provide one person with drinking water for five years!](#)

Apart from striving to use sustainable materials in their products and packaging, LifeStraw is a [Climate Neutral Certified Brand](#) with a strong emphasis on humanitarian work. Very popular with hikers and campers, for every product sold, their [Giveback Programme](#) provides a child in need with safe water for one year.

THE SUNSPRING HYBRID

The Sunspring Hybrid is a low maintenance, portable water purification system powered by wind and solar. Invented by [Innovative Water Technologies](#), the Sunspring Hybrid can last up to 10 years and provide 20,000 L of water per day!

FOG CATCHERS

In areas where a water shortage rather than contamination is an issue, people are [making water out of air](#) using fog catchers. These large nets of [polypropylene mesh can catch fog droplets](#) and make them flow downwards into a trough. One of the great advantages of fog collection is that it can be done anywhere. In addition to this, it is low cost and maintenance compared to other systems. However, the water can become contaminated by natural elements.

DESALINATION

Desalination is not new technology. However, one of the main concerns about the process is that it is expensive. In addition to this, it is also energy intensive. Scientists from Australia have created a new water filter, [Graphair](#), that can make polluted seawater drinkable after just one pass. A startup by the name [G2O](#) is offering graphene-based water membranes that can be used on any existing water filter medium. The reductions in energy costs would translate to \$30 million a year.

The [WHO](#) reports that nearly 1,000 children die every day due to preventable water and sanitation-related diseases. Hence, the United Nations have set a goal of 'universal and equitable access to safe and affordable drinking water for all' by 2030. We need sustainable and innovative water filtration systems and strategies to secure these goals and ensure a [THRIVEable](#) future.

Visit *THRIVE* to learn more about [innovative business models](#) and what we can do to build a sustainable future!