

*"If current patterns of consumption continue unabated, two-thirds of the world's population will be facing water shortages as a daily reality by 2025."*

Evo Morales, President of Bolivia (1)

## Introduction to the problem and scale

- About 70% of the Earth's surface is water. The volume of available freshwater is only a fraction of that total, at just 1%. (2)
- A third of the world's biggest groundwater systems are already in distress (3) meaning water is extracted faster than it can be replenished.
- Water use has been growing at more than twice the rate of population increase, over the past 100 years (4), its usage has been driven by population growth, socio-economic development, and changes to consumption patterns. (5)
- Climate change could also have significant impacts on the water cycle, threatening rainfed agricultural production which currently supports 80% of global crop land and accounts for 60% of global food production. (6)
- Globally, water pollution is increasing and harming the ability of ecosystems to sustain themselves and meet human needs. (7)
- Over two billion people live in countries already experiencing high water stress (8) and this number is expected to increase with population growth and increasing urbanisation.
- By 2030, 700 million people worldwide could be displaced by intense water scarcity (9) and the world could face a 40% global water deficit. (10)
- The challenges of water scarcity, unequal distribution, and contamination are all potential causes for future conflict.
- The total cost of water insecurity to the global economy is estimated at US\$500 billion annually. (11)

## Link to intensive animal farming

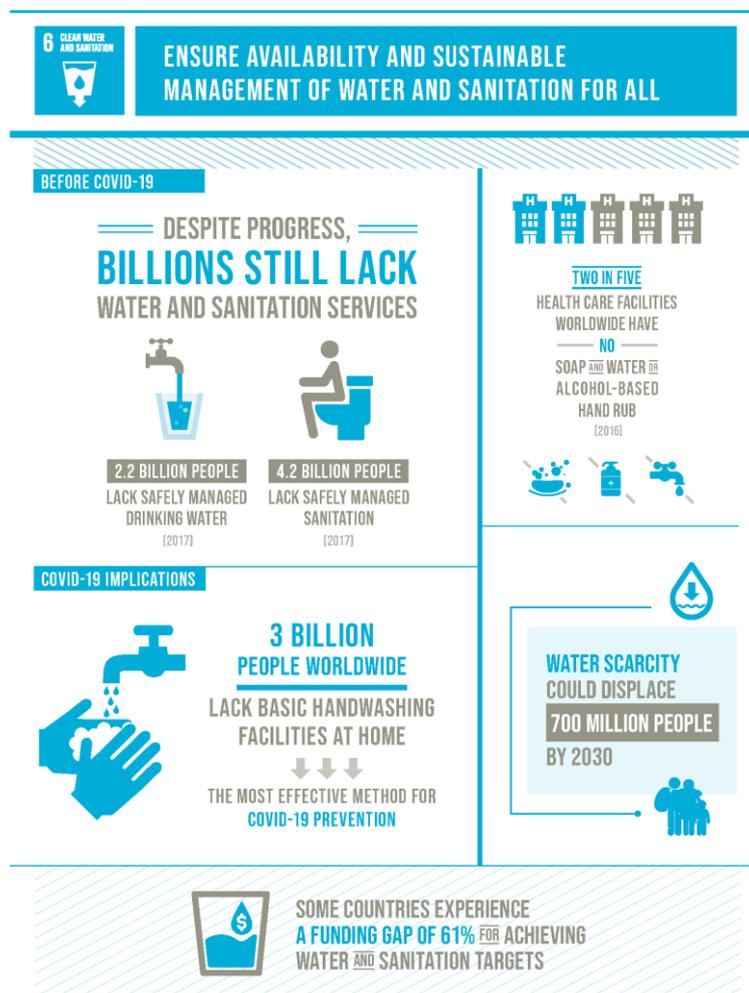
- "Agriculture (including irrigation, livestock and aquaculture) is by far the largest water consumer, accounting for 69% of annual water withdrawals globally." (12)
- Industrial livestock production generally uses and pollutes more surface and groundwater than grazing or mixed systems (13) due to industrial systems' dependence on grain-based feed. Producing 1kg of animal protein requires 100 times more water than producing 1kg of grain protein. (14)
- The water footprint of any animal product is larger than the water footprint of crop products with equivalent nutritional value. (15)
- Less intensive outdoor livestock systems can utilise rainfed pasture, demanding far smaller volumes of water extracted from aquifers. (16)
- "Intensive livestock production is probably the largest sector-specific source of water pollution" UN World Economic social survey. (17) Large quantities of nitrogen fertilisers are

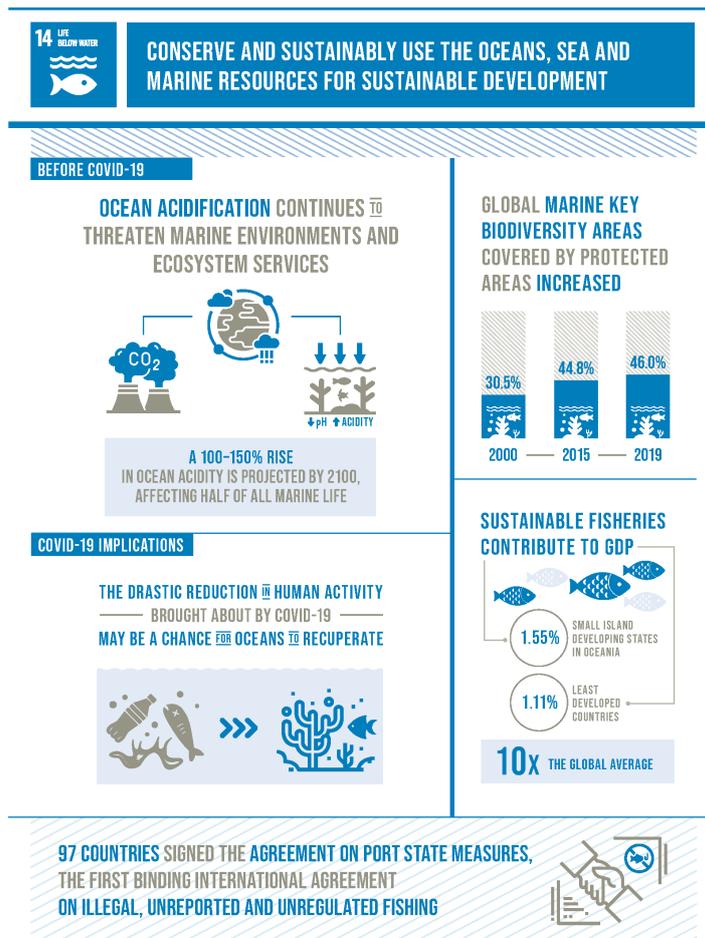
used to grow feed, but only 30-60% of this nitrogen is taken up by feed crops; 40-70% is lost to water or the atmosphere. (18)

- Feed given to industrial livestock has high levels of nitrogen. Pigs and poultry assimilate less than half of the nitrogen in their feed; most is excreted in manure, which is the primary source of nitrogen and phosphorous to surface and groundwater and leads to hypoxic zones. (19)

Link to the relevant SDG(S)

- **SDG 6:** Clean water and sanitation: Ensure availability and sustainable management of water and sanitation for all (20)
- **SDG 14:** Life below water: Conserve and sustainably use the oceans, sea and marine resources for sustainable development (21)





<https://unstats.un.org/sdgs/report/2020/>

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