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We Probably Won't Fight Wars over Water

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> A cost of $1/m3 for seawater desalination and $0.6/m3 for brackish water would be feasible today. The costs will continue to decline in the future as technology progresses.
>
> - A study from 2005. We've more than halved the cost of desalination since then.

Much has been said about how wars of the future will be fought over water. This is probably true, but the scope of the conflict seem like they will be considerably smaller.

The majority of the earth's surface is covered in water and desalination is already extremely cheap [a] and has dropped ~50% in raw cost over the last decade.

One gallon of desalinated water costs ~1/6 of a penny ($0.0016) so even water-intense foods like growing an avocado (50 gallons) or one pound of beef (1,847 gallons) will be relatively unaffected (+ $0.08 / avocado or +$2.95 / lb for beef) even if the water needed was all desalinated.

Access to fresh water seems okay – at least if you're anywhere near an ocean…

Related reading:

The original study [b] that adds some additional cost to the transportation of water. Interestingly "A 100 m vertical lift is about as costly as a 100 km horizontal transport ($0.05–0.06/m3)." I wonder how long it will be before we have pipelines for desalinated water the way we have for oil (or even just aquifer water for places like LA lol).

Usually, the country downstream on a river is the one who gets screwed, but Egypt might be special. Ethiopia has dammed the Nile and Egypt has threatened to bomb the dam. [c] Egyptian identity is uniquely tied to Nile and 95% of its population lives near and relies on it. [d]

Links

a. humanprogress.org/desalinating-water-is-becoming-absurdly-cheap
b. agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2004WR003749
c. economist.com/middle-east-and-africa/2020/07/04/the-bitter-dispute-over-africas-largest-dam
d. vividmaps.com/population-density-egypt