

A controversial desertification myth rebutted

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<https://www.youtube.com/watch?v=vpTHi7O66pl>

In London in 2014 a Zimbabwean ecologist and livestock farmer called Allan Savory held a Ted Talk advocating 'holistic management' of arid areas to prevent desertification. Against scientific thinking he essentially called for more livestock, not less, to tackle climate change. His claims have been strongly rebutted as baseless and lacking empirical evidence.

Answer the following questions on his controversial suggestion to desertification.

1. What are the 3 big challenges?
Rising populations towards 10 billion people, land turning to desert (desertification) and climate change. Fossil fuels are by no means the only thing causing climate change.
2. What's the main cause?
Over grazing of livestock; 'mostly cattle, sheep and goats'.
3. What did Allan Savory do in Zimbabwe?
His programme to control desertification involved the killing 40,000 elephants in an orchestrated cull over an extended period of time.
4. What did he say about grazing animals?
Historically in the past animals have had to form herds to graze and protect themselves against predators. In doing so they trampled grass, defecated and therefore were forced to migrate.
5. How is water linked to carbon?
Savory claims that if grasslands don't decay biologically, they go through a slow oxidation process which smothers the grass creating bare soil and ultimately releasing carbon.
6. What's the 'only one option left' for climatologists and ecologists to address climate change and desertification?
They could use bunched-together livestock to move as a proxy for former herds, to 'mimic nature'. This would trample grass and – bizarrely – would retain water, carbon and methane as a result.
7. What have researchers done in Patagonia to combat desertification?
They have used 'livestock to mimic nature' with the planned grazing of 25,000 sheep.
8. What does climate change and desertification cause?
'Hunger, poverty, violence, social breakdown and war'.
9. What wild carbon calculations are estimated by Savory to finish?
Savory states that enough carbon could be taken and stored in half of the world's grasslands which will reduce atmospheric carbon to 'pre-industrial pollution levels'.

Suggested further work

<https://www.theguardian.com/environment/georgemonbiot/2014/aug/04/eat-more-meat-and-save-the-world-the-latest-implausible-farming-miracle>



1. In his retort to Allan Savory's claim that the 'algal crust is the cancer of desertification' George Monbiot explains this is a falsehood. What was this algal crust found to be?
A rich, diverse and ancient ecosystem. It stabilises the soil, increases organic matter and absorbs water. These crusts are 'fragile, highly susceptible to trampling, and are slow to recover from trampling impacts'. Loss of these crusts results in increased erosion and reduced soil fertility.

2. In response to Savory's claim that his approach can reverse the build-up of atmospheric carbon, which RealClimate say 'is simply not reasonable' – and scientifically impossible, what does grazing livestock do to carbon storage?
Holistic management seems to have the opposite effect: the evidence strongly suggests that livestock reduce carbon storage, rather than raising it. In terms of total greenhouse gas emissions, the intensive grazing of cattle on grasslands can be even worse than producing them in feedlots. This is hidden in testimonials – which Savory relies on, rather than basing his assertions on scientific study.