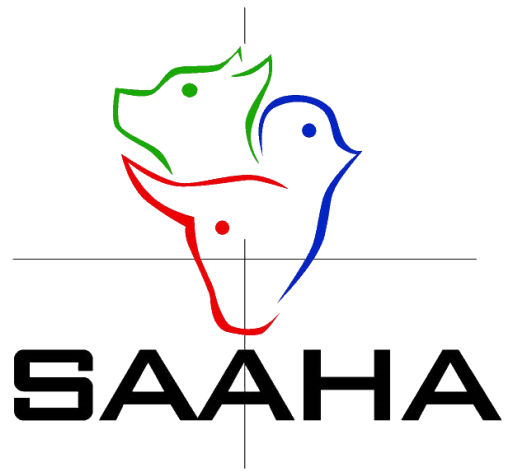




Animal Health and Sustainability

A Global Data Analysis



Animal Health and Sustainability – A Global Data Analysis

New report by Oxford Analytica, a leading independent research and analysis firm, commissioned by HealthforAnimals.

Key Results

Oxford Analytica created a unique model & research to measure effects of livestock health on sustainability. This produced findings such as:

- **Economic:** Livestock disease losses cause \$358.4B in lost production per year.
- **Environment:** A fall in livestock disease of 10 percentage points is associated with an 800 million tonne decrease in greenhouse gas (GHG) emissions.
- **Social:** Globally, on average, every two cattle vaccinated is associated with one person avoiding hunger.

Animal health is a sustainability solution

Data demonstrates that better animal health means higher productivity, lower emissions and fewer people going hungry.

Download the report at HealthforAnimals.org/AHSustainability



Economic Sustainability

Core Finding: Animal disease significantly reduces global livestock productivity each year, having a measurable impact on revenue for producers.

Disease significantly reduces production. In 2018 alone

- Global poultry production was likely reduced 2.8 million tonnes due to disease.
- Egg production was likely reduced by 3 million tonnes, equal to a loss of US\$5.6B - equivalent of wiping out the UK's £1.2B egg market nearly 4x over.

Vaccination is associated with production increases

- A 60% global vaccination rate for beef cattle is associated with a 52.6% rise in production... equivalent to the beef consumption needs of 3.1 billion people.

Livestock disease reduces food availability and farm income

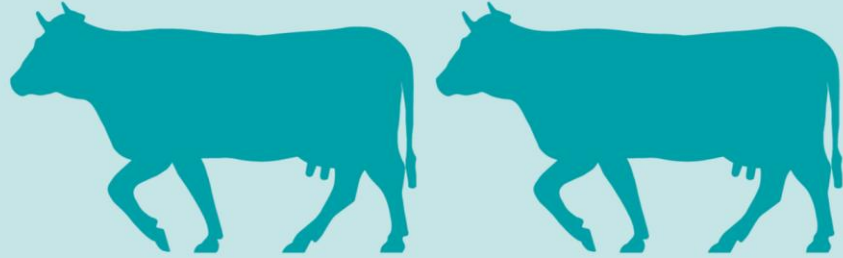
- 80 billion kg of meat, 179.5 billion kg of dairy are lost to disease each year...
- Costing producers \$358.4 billion.

For every 1 percentage point reduction in global livestock disease levels

- Beef production would rise enough to meet the average consumption needs of 317 million people and increase producer revenue by 3.2 billion.



Every 2 cattle vaccinated



is associated with



1 person
avoiding hunger

A 40% vaccination rate for Brazilian cattle is associated with a

12.8%
reduction

in land use for livestock



Environmental Sustainability

Core Finding: Disease is associated with significant increases in livestock GHG emissions and land use, while vaccination correlates to reductions in both.

Better health reduces livestock emissions

- A reduction in global livestock disease levels of 10 percentage points...
- Leads to a drop of more than 800 million tons of GHG emissions...
- Equivalent to the average annual emissions of 117 million Europeans.

Health affects the amount of land required for production. In a given year:

- If 20% of poultry are hit by disease, land use rises 8.6% to maintain production.
- A 40% global vaccination rate for cattle is associated with a 5.2% reduction in land required for production...In Brazil it rises to a 12.8% reduction.

We can serve 9+ billion without increasing emissions through better health

- Analyzing UNFAO data shows how livestock can sustainability meet future protein needs through better health & husbandry.



Environmental Sustainability

Core Finding: Disease is associated with significant increases in livestock GHG emissions and land use, while vaccination correlates to reductions in both.

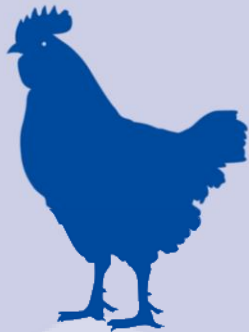
Analysis of UNFAO data on GHG reductions found that....

1. Increased uptake of existing **health and husbandry tech can reduce livestock emissions** intensity by 18-30%, according to UNFAO calculations.
2. This means **farmers could increase production by 46.7 billion kg**, equal to the needs of 1.6B more people, while holding overall emissions at current levels.
3. Therefore, livestock could **serve the needs of 9+ billion in 2050 without increasing emissions** through better health & husbandry.



Effects of disease on egg production in 2018 were modelled at

\$5.6 billion
in losses



Equivalent to almost
4 times
the UK's £1.2bn,
egg market¹

In 2018, diseases caused global poultry production to fall by

2.8 ↓
million tons

Social Sustainability

Core Finding: higher rates of disease among livestock are associated with higher levels of undernourishment and food insecurity among the world's population.

Livestock disease can increase hunger

- Modelling found that poultry disease was associated with a 2% increase in global hunger in 2018 and 5% in 2019....
- This is equal to global hunger rising by 13.6 million people in 2018 and 34.39 million in 2019.

Better livestock health can improve nutrition

- Modelling found that, on average, every two cattle vaccinated is associated with one person avoiding hunger at a global level.

Spotlight: Reducing food insecurity in Nigeria

- A vaccination rate of 40% for cattle in Nigeria in a given year...
- Is associated with a reduction in severe food insecurity of 8.1%...
- Equal to lifting 2.4 million people out of severe food insecurity.



A reduction in global livestock disease levels of **10** percentage points

Leads to a drop of more than **800** ↓ million tons of GHG emissions

Equivalent to the average annual emissions of **117 million Europeans**
based on EU estimate of 6.8 tonnes of CO₂ per person²



In Nigeria, a country-level vaccination rate of

40% for cattle in a given year



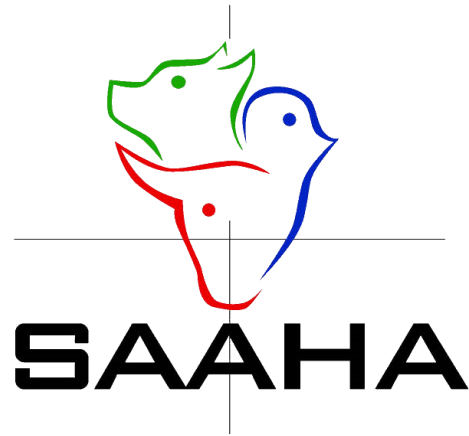
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