

Healthy People, Healthy Ecosystems

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April 8, 2017

Washington, DC



Healthy Animals, Healthy People, Healthy Ecosystems

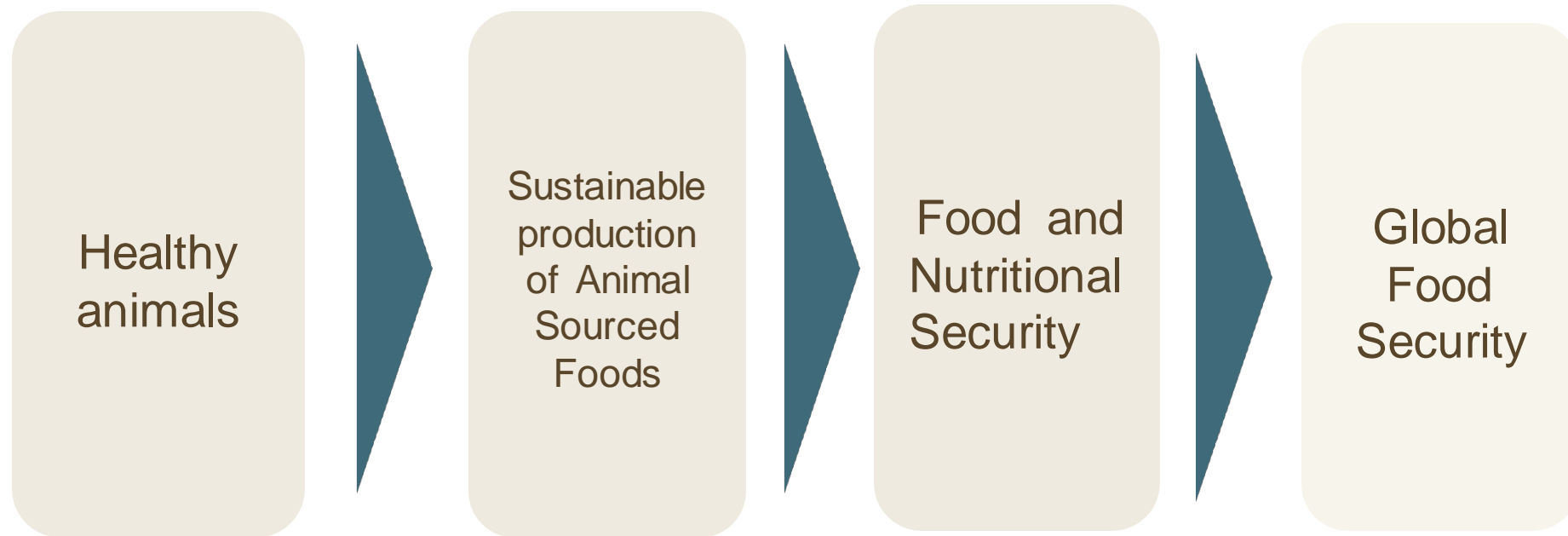
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Food security, as defined by the USAID, means having, at all times, both physical and economic access to sufficient food to meet dietary needs for a productive and healthy life.

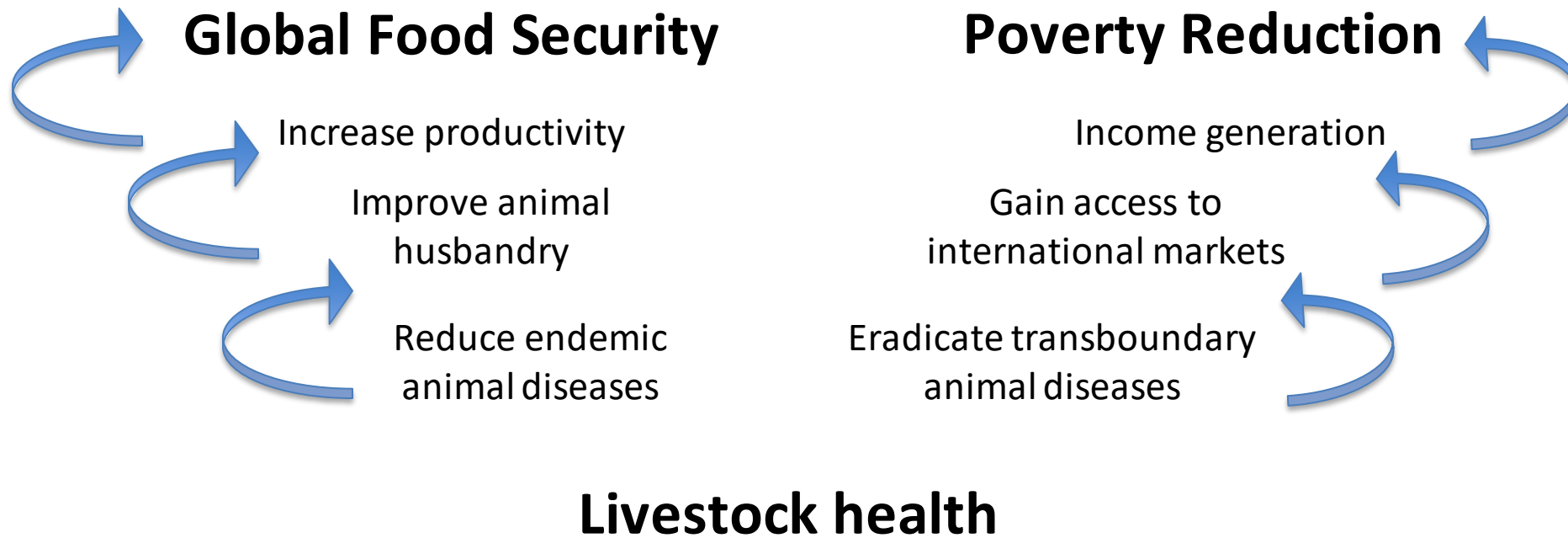


Healthy Animals

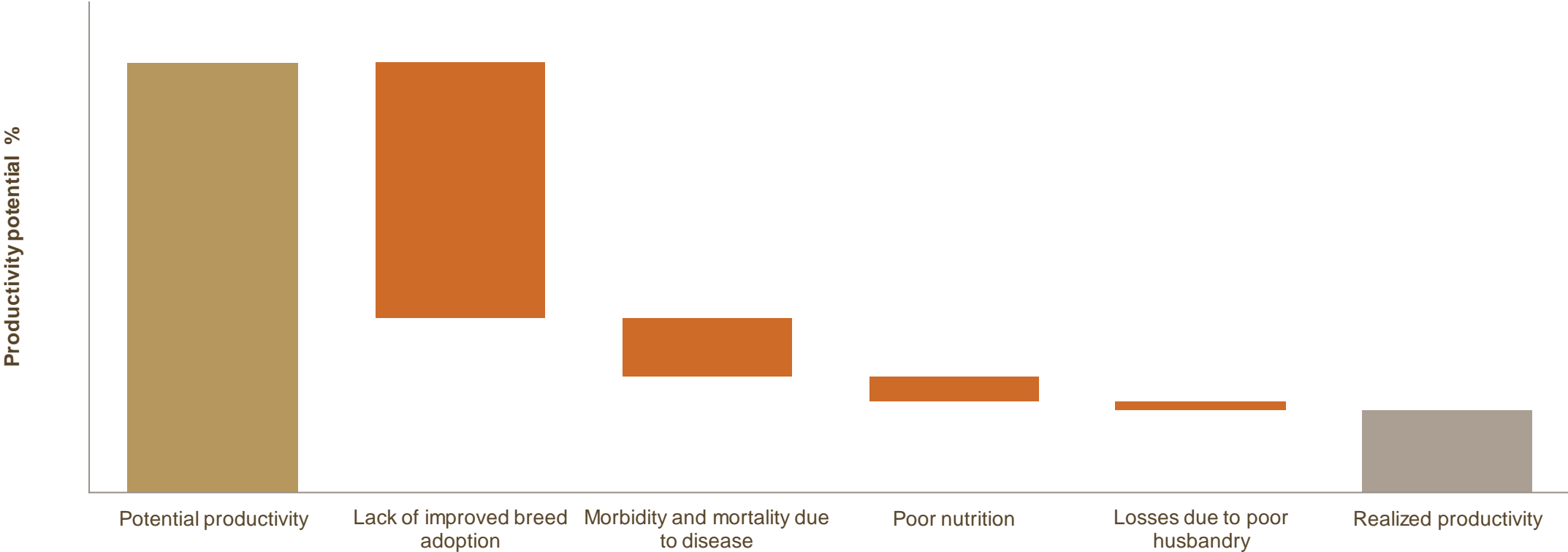
Global Food Security

Poverty Reduction

Livestock health

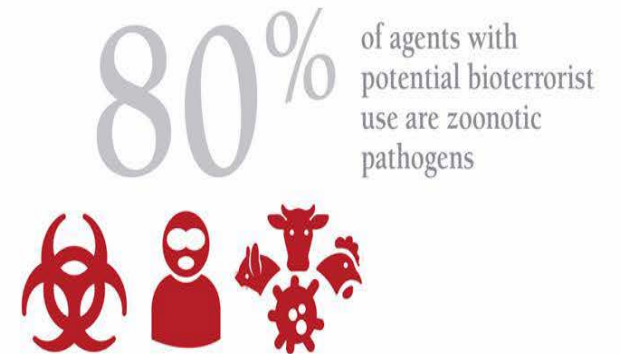
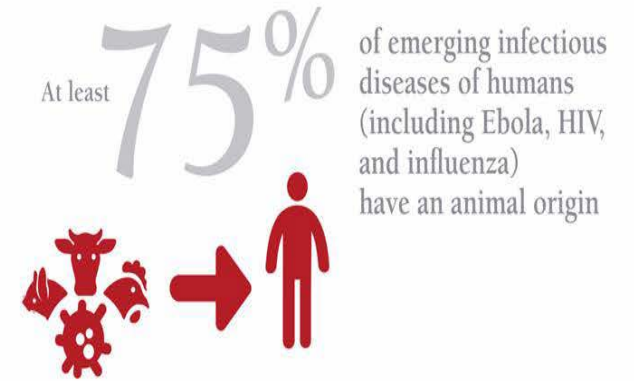
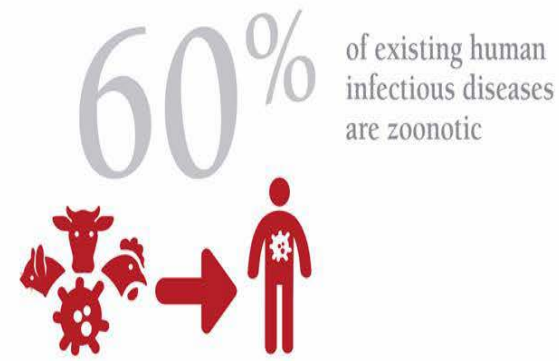
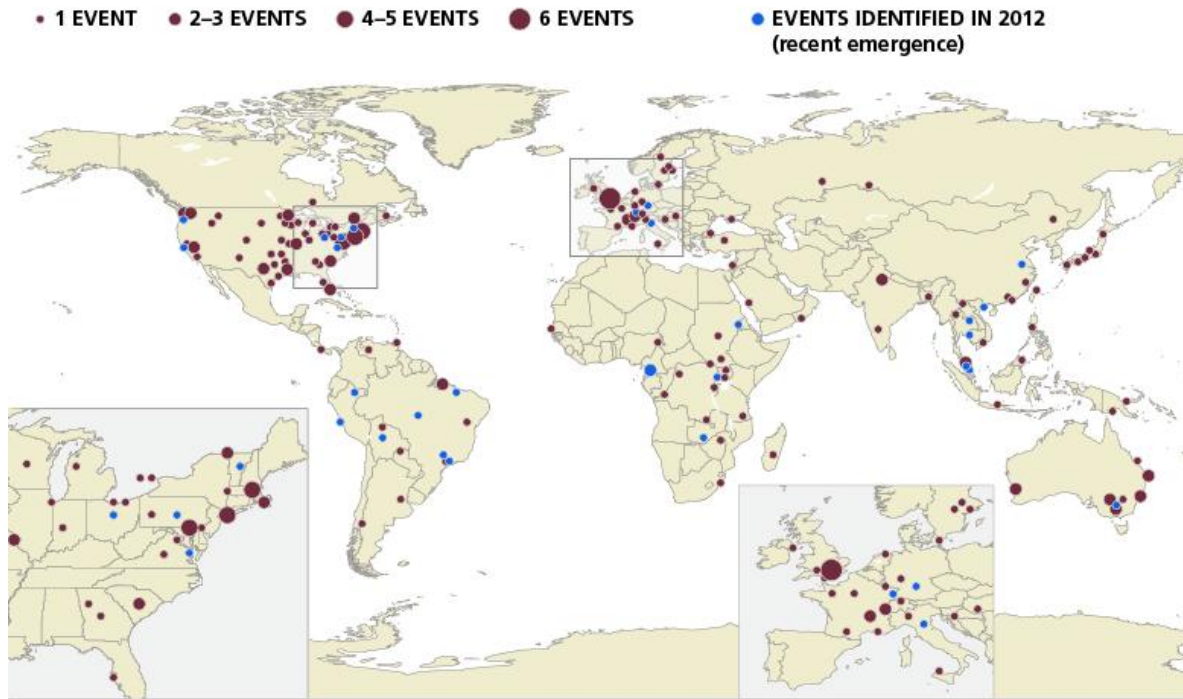


OPTIMISING LIVESTOCK PRODUCTIVITY AND PRODUCTION



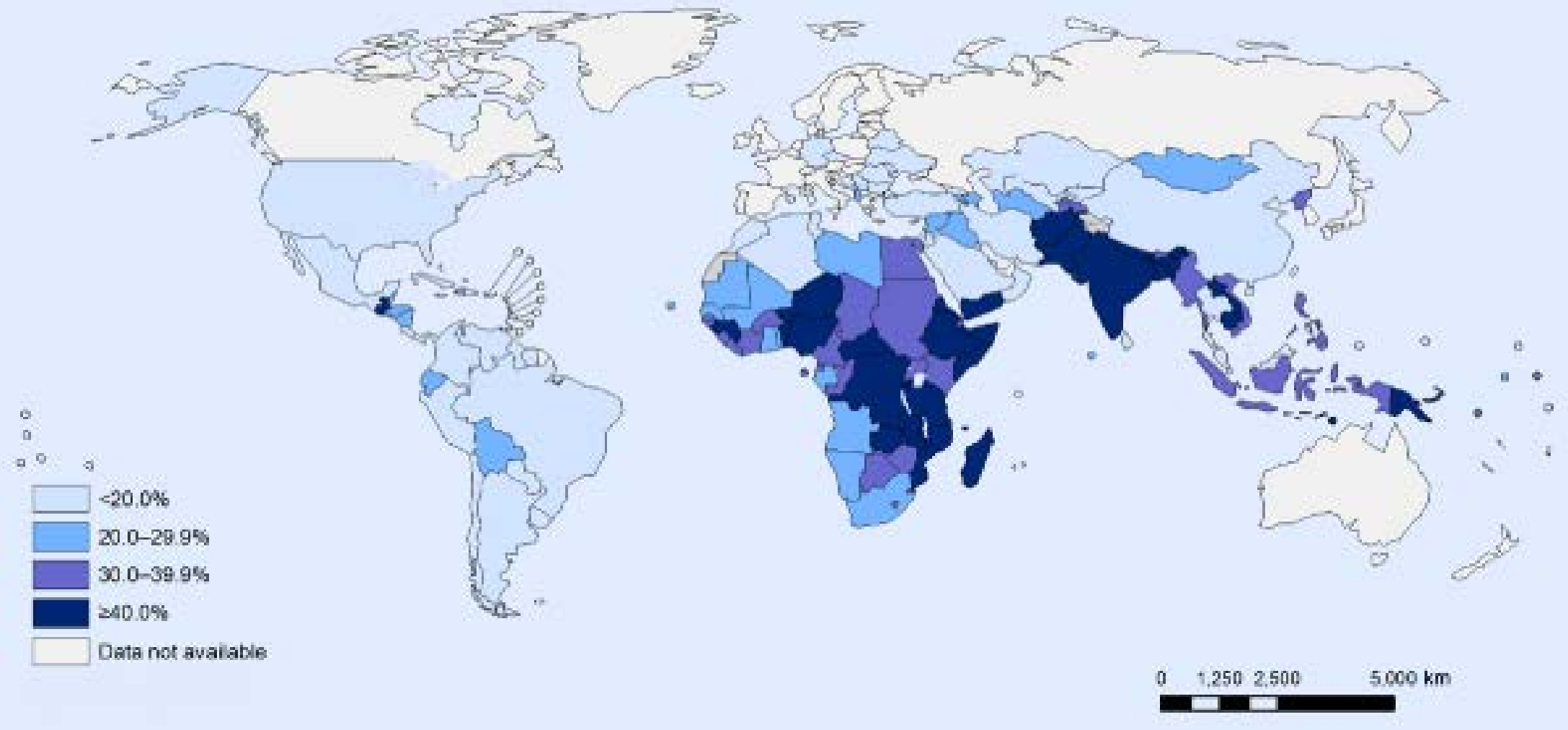
Animal Health and minimizing risk from disease related losses is essential to incentivize investment to improve genetic potential

Most (75%) emerging diseases come from animals and cost up to US \$ 6 billion annually





Stunting among children under 5



ANIMAL SOURCED PROTEIN: AN ESSENTIAL PART OF THE SOLUTION

Nutritional Benefit of Livestock Products

Nutrient	Best Source	Why ASFs are unique
Vitamin A	Dairy, eggs	One egg yolk can provide 1/3 of a woman's recommended daily intake
Iron	Meat (all)	Meats contain heme iron, which facilitates the absorption of non-heme iron from plant sources
Zinc	Meat (all)	Zinc found in meat is more bioavailable than from plant sources
Folate	Eggs, poultry meat	
Calcium	Dairy	Moderate levels of intake can fully meet the recommended calcium requirements for children and women
Riboflavin	Dairy, eggs	
Vitamin B12	Meat, eggs, dairy	ASFs are the only food-based source. Vitamin B12 deficiency results in poor cognitive function, neural tube defects, and some types of anemia.
IGF-1	Diary	Only found in dairy, studies show that insulin growth factor 1 improve child growth
Amino acid score	Dairy, eggs, goat and poultry meat	Exceeds 100 (high quality) for all of these sources

- Animals and vegetation have co-evolved
- Old grasslands depend on animal grazing
- Extensive grazing is the only possibility to produce agricultural products
- Pastoralism and agro-pastoralism are key production systems
 - 44% of global sheep, 29% of goats and 20% of cattle
 - Provide 22% of global beef production, and 16% of milk



Demand for livestock commodities in developing economies will be met –
the question is *how*

Scenario #1

Meeting livestock demand by
importing livestock products

Scenario #2

Meeting livestock demand by
importing livestock industrial production know-how

Scenario #3

Meeting livestock demand by
transforming smallholder livestock systems



Research Paper

Rob Bailey, Antony Froggatt and Laura Wellesley
Energy, Environment and Resources | December 2014

Livestock – Climate Change’s Forgotten Sector

Global Public Opinion on Meat and Dairy Consumption



**CHATHAM
HOUSE**
The Royal Institute of
International Affairs





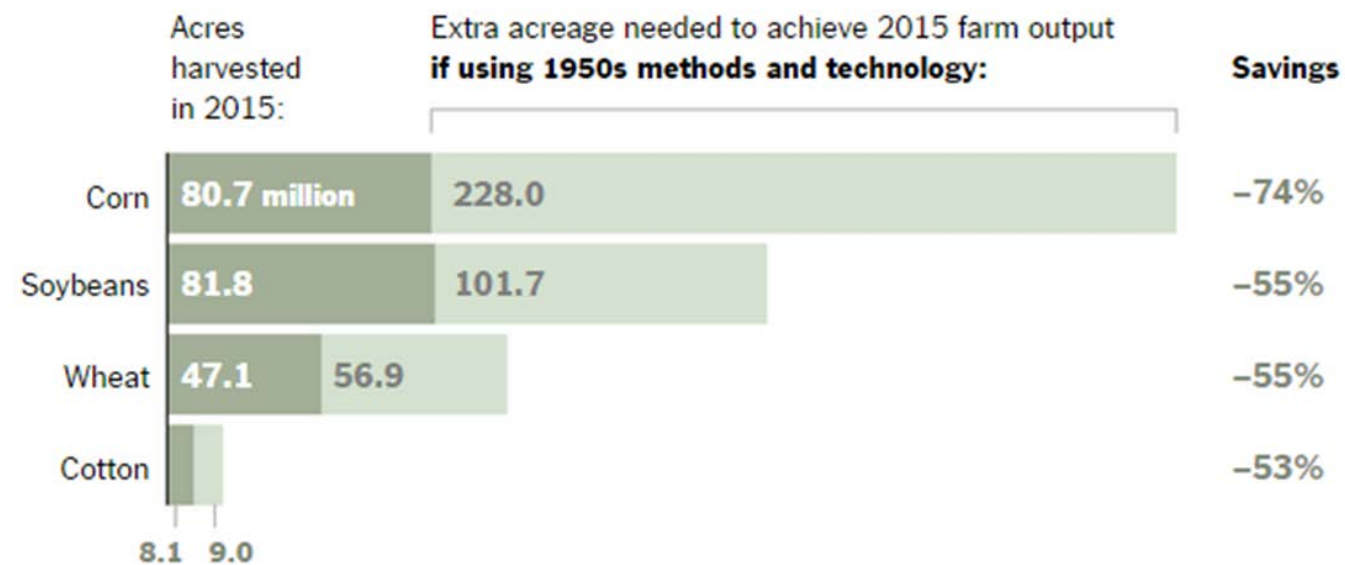
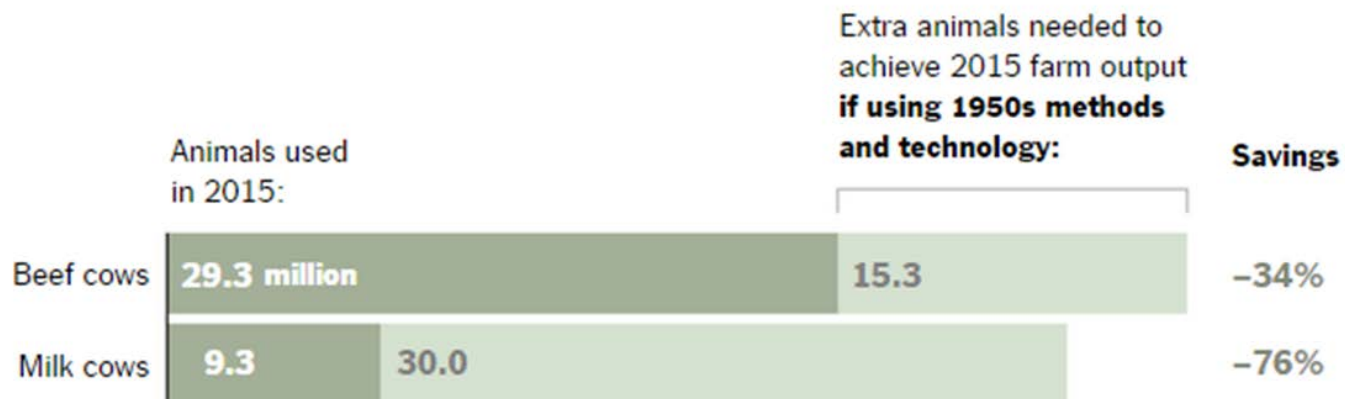
Why Industrial Farms Are Good for the Environment

By JAYSON LUSK SEPT. 23, 2016



Plows Into Sensors

Estimates of savings in animals and farmland by using modern techniques rather than the technologies and methods of the 1950s.



Source: Jayson Lusk, Oklahoma State University

By The New York Times

Protein supports physical growth and cognitive development

Just one egg provides



of the recommended daily allowance of protein

&



of iron for developing children

ENOUGH™

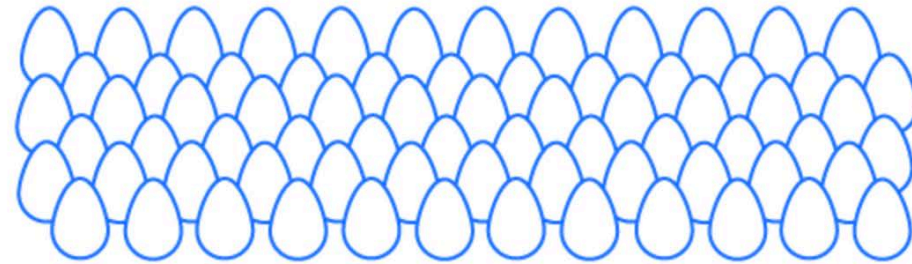
www.enoughmovement.com

Experts say we should be consuming an egg every other day, or roughly

4 eggs per person per week



By 2050, the global population will surpass 9 billion people



That equates to a demand of **1.9 trillion eggs** by 2050



There will be a 60% increase in demand for meat, milk, and eggs



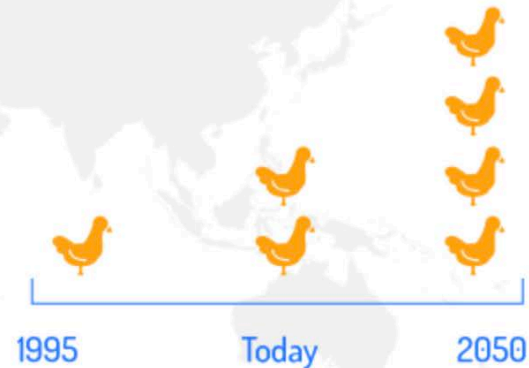
There are 6.5 billion
hens in the world today



Each hen produces
184 eggs a year.

The Production Opportunity

Today, we're meeting demand by adding hens. If we continue on this path, we will need to double the global number of hens to meet 2050's demand. Or, we can put innovation to work—and meet demand without adding hens.





Just ONE more egg per hen per year helps meet demand and requires 4 billion fewer hens



Using innovation rather than adding hens would save:



113 million tons of feed

74 billion gallons of water

65 million acres of land

Increasing agricultural output

With proper tools and investment to overcome barriers to increasing production, agricultural output from Africa could increase

from \$280 billion
per year in 2010



to \$880 billion
in 2030.

Source: The McKinsey Global Institute. "Lions on the Move: The Progress and Potential of African Economies." June 2010.

ENOUGH™

Smallholders: part of the solution

- Not sentimentality or a belief in “small is beautiful”
- Based on the evidence and the dual objectives of
 - increasing animal source food supply to consumers
 - supporting rural development and livelihoods
- The evidence:
 - They produce the bulk of the livestock (and half of crop) products in developing countries so need to be part of increase supply strategy
 - They continue to be competitive so wont go away on their own
 - Does not detract from investing in larger commercial systems



- 70% of the world's rural poor rely on livestock for important parts of their livelihoods
- Of the more than 600 million poor livestock keepers in the world, around two-thirds are rural women
- For the vulnerable, up to 40% of benefits from livestock keeping come from non-market, intangible benefits, mostly insurance and financing
- In the poorest countries, livestock manure comprises over 70% of soil fertility amendments
- 90% of animal products are produced and consumed in the same country or region




LIVESTOCK HEALTH AND FOOD SECURITY

Who benefits?

- **The poor:** with nearly 60% of population living with <\$2 / day own livestock
- **Smallholders:** the majority of livestock production comes from smallholders in both SSA and SA
- **Women:** there are numerous livestock interventions and opportunities that benefit women specifically (e.g., evening milk)

How do they benefit?

- **Income:** an average 30% – 45% of annual income comes from livestock, with a maximum of 70% from dairy farmers
- **Nutrition:** livestock products provide micronutrients not found in other crops (e.g., zinc) that have been proven to improve school performance
- **Capital accumulation:** given high contribution of livestock as an asset, it helps develop financial security



Livestock also has the potential to go beyond simply **increasing income** in helping smallholder farmers develop both **financial security** and **food security**



BEHIND EVERY GREAT WOMAN IS ANOTHER ONE



TOGETHER WE CAN CHANGE THE WORLD

FOR MORE THAN

70

YEARS

Heifer International has partnered with and helped communities.

OUR THEORY OF CHANGE >

WE'VE WORKED IN

125

COUNTRIES

to attain sustainable livelihoods through community-owned interventions.

WHAT WE DO >

WE'VE HELPED

25

MILLION

families lift themselves out of hunger and poverty.

OUR ACCOMPLISHMENTS >

NEARLY

ONE

BILLION

people around the world still live in extreme poverty.

OUR ROADMAP >

OUR APPROACH

Transformation Begins at the Foundation

Heifer International works with communities to strengthen local economies. Our values-based, holistic and community development approach focuses on:

INCREASE IN
INCOME &
ASSETS



FOOD SECURITY
& NUTRITION



ENVIRONMENT



Two key foundational elements become the multiplier for change:

WOMEN'S
EMPOWERMENT



SOCIAL
CAPITAL



IMPROVED GLOBAL SUSTAINABLE LIVELIHOODS

We know that no single organization and no number of isolated projects can address the systemic causes of poverty and hunger. Our approach involves enhancing the capacity of vulnerable small-scale farmers, especially women, to secure their livelihoods. Multiplied by strong social capital and women's empowerment, our work results in a sustainable solution to world hunger and poverty.

Rabbits for Resilience



Rabbits for Resilience was started in rural Walungu Territory in 2013 as a response to the requests of rural parents who expressed concern about their children's development and participation in school as a result of the poverty and instability that rural villages have endured over the years of conflict.

Parents described youth as needing improved developmental opportunities, increased engagement in their family and community and the opportunity to regularly participate in school. Rabbits for Resilience is a livestock microfinance intervention that works with male and female youth, aged 10-15 years, and their adult parents/caregivers. Youth members,



Rabbits for Resilience



Why Rabbits?

- Rabbits reproduce frequently
- Food for rabbits is widely available in the villages
- There are no cultural taboos, age or gender-based responsibilities for raising or selling rabbits
- Rabbits are easy for youth to raise while participating in school and family and community activities





Pigs For Peace

- Loans in the form of a pig provide an opportunity to rebuild the rural economy in a way that is acceptable and familiar to villagers
- Pigs consume a wide range of foods that are locally available
- With the waste from the pigs, villagers can manage their personal compost, which can be used to cultivate their farms
- Pigs reproduce frequently (two to three times per year) and generally produce 6-12 piglets at each breeding
- Piglets are easy to sell on local markets for between \$25-50 depending on their size and age allowing the member to have access to money that they can invest in their family



Pigs for Peace microfinance is focused on reducing the negative health, economic and social needs of rural families and communities affected by poverty and conflict.





1 NO
POVERTY



2 ZERO
HUNGER



3 GOOD HEALTH
AND WELL-BEING



5 GENDER
EQUALITY



8 DECENT WORK AND
ECONOMIC GROWTH



15 LIFE
ON LAND



10 REDUCED
INEQUALITIES



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION





What's the point?



- The problems of wild animals, domestic animals, humans and the environment are intertwined.
- A holistic, integrated approach is required to solve complex problems.
- Appropriate livestock interventions are an essential component of sustainable, small-scale agriculture and a critical component in rural economic development.

- Livestock projects are an effective tool to empower women and strengthen civil institutions
- Creating economic opportunity and food security for the rural poor can reduce pressure on habitat and help protect endangered species



