

# **The SDG ABC's**

## **How Animal Protection Impacts All 17 Sustainable Development Goals**



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## INTRODUCTION

# Animal Protection and the 2030 Agenda for Sustainable Development

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- “I love animals! Yet it has nothing to do with my work.”
  - Most common reaction to Animal Issues Thematic Cluster (AITC) booth by delegates to the U.N. High Level Political Forum
- Animal issues have *everything* to do with sustainable development, across all of its component issues
- Case studies of animal protection projects directly advancing SDGs in *Animal Protection and Sustainable Development: An Indivisible Relationship*





## End poverty in all its forms everywhere

- Economic reliance on working animals
  - 650 million people worldwide directly reliant on animals for income
  - In Mali, families with donkeys earn up to 3 times average monthly income
  - Theft and illegal slaughter of donkeys for ejiao leaves their keepers without livelihood
- **Poverty a major driver of wildlife crime**
  - 80% of poachers motivated by poverty and/or food insecurity
  - 96% would give up poaching if alternative livelihoods available (Knapp et al. 2017)



End hunger, achieve food security and improved nutrition and promote sustainable agriculture

- More than 800 million people suffer from chronic hunger worldwide
- **Animal agriculture resource inefficient**
  - 1 pound of grain can feed 5 times more people if eaten directly than if used to fatten a chicken; 20 times more people than if used to fatten a cow
  - More than half of all agricultural plant protein is used as animal feed worldwide
- Food forests can provide up to seven layers of plant foods (floor to canopy) while also sequestering carbon and providing wildlife habitat



## **Ensure healthy lives and promote well-being for all at all ages**

- One Health – OIE framework recognizing link between human and animal health
  - 60% of human pathogens of animal origin
  - Ill health in farm and working animals leads to economic losses for people
  - One Welfare – animals healthier if treated with respect for welfare needs
- **Factory farms breeding grounds for diseases**
  - Mad cow disease, avian flu, swine flu, SARS
  - Overuse of antibiotics to keep animals alive selects for resistant strains
  - Cannibalism – animals fattened on own species' meat
  - Overall extreme crowding, low sanitation
- Medical research largely reliant on animal experiments
  - 92% of drugs tested on animals fail in human trials (U.S. FDA 2004)
  - Need for non-animal methods more relevant to human health
- People exposed to nature and animals less prone to depression, anxiety, and other mental health issues



**Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**

- **Humane education: teaching compassion, respect, and proper care for animals**
  - Children taught kindness to animals more altruistic toward people as well
  - Improved student learning
- Children exposed to animal cruelty more likely to commit violent acts
- Veterinary professionals without animal welfare training less equipped to treat animals, educate keepers, or contain zoonotic disease outbreaks



## Achieve gender equality and empower all women and girls

- Many women worldwide reliant on animals for livelihood
  - 2/3 of livestock keepers living in poverty are women (The Brooke 2014)
- **Domestic violence and animal abuse strongly linked**
  - Up to half of U.S. survivors stay with abusers rather than abandon pets (RedRover 2015)
- Exploitation of women and animals often linked in popular culture (Carol Adams, *The Sexual Politics of Meat*)
- Majority of people working in animal protection are women!



**Ensure availability and sustainable management  
of water and sanitation for all**

- **Water footprint of animal agriculture**
  - Beef requires twenty times as much water per calorie to produce as cereals or root vegetables
  - Livestock waste pollutes community reservoirs, can create dead zones (over 14,000 square km. in Gulf of Mexico)
- **Pollution of waterways disastrous for ecosystems**
  - Trace amounts of pharmaceuticals and illegal drugs in rivers a threat to European eel, U.S. Pacific salmon, and Australian platypus



**Ensure access to affordable, reliable, sustainable  
and modern energy for all**

- **Energy production methods sustainable on global scale can still be harmful to local ecosystems**
  - Some solar power stations cause higher direct wildlife casualties than coal plants
  - Accounting for animals in design, e.g. fish ladders in hydroelectric dams, can reduce wildlife deaths and ecological harm
- **Use of working animals over machines potentially less energy-intensive, ecologically destructive**
  - Dependent on high standards of animal welfare and care to reduce mortality and increase work output
  - High-tech machines (e.g. hydrogen tractors) potentially lower-energy than either and wouldn't require animal use



**Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all**

- 650 million people worldwide directly reliant on animals for livelihoods, 1.6 billion on forest ecosystems (WSPA 2009; FAO 2016)
- **Wildlife tourism a major industry worldwide, while economic role of consumptive tourism (hunting and fishing) exaggerated**
  - Wildlife watching tours 88% of tourist revenue across Africa (UNWTO 2015); trophy hunters no more than 2%, may deter non-violent tourism (Murray 2017)
  - \$156 billion spent on wildlife activities in U.S. in 2016, record high with more wildlife watching and less hunting (7:1) than ever before (USFWS 2016)



## Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

- Growth in alternatives to animal use
  - Replacing animal research
    - Tests using human cells, chemistry, or computer models often more accurate than animal testing
    - Animal testing for cosmetics banned in E.U. since 2013, Taiwan 2019
  - **Alternative protein industry (plant-based and cellular replacements for meat, dairy, and eggs) worth \$2.2 billion USD worldwide**
    - Could grow to \$140 billion, or 10% current meat industry, within ten years (Barclays 2019)
- Need to mitigate impact of infrastructure growth on wildlife and habitats
  - Rout highways and train lines around wilderness areas instead of through them, restrict size of buffer zones
  - Installing overpasses and underpasses for wildlife reduces roadkill, fragmentation of habitat



## Reduce inequality within and among countries

- Economic inequality a major driver of wildlife crime
  - In India, community development for Kalandar tribe ended bear dancing nationwide in 7 years, doubled average salary for men, and employed 2,000 women (Wildlife SOS)
- Exploitation of migrants and racial minorities in low pay, high risk jobs by meat industry
  - 2.6x more migrant non-citizens work as meat and poultry workers than in manufacturing in the U.S.
- **Harm of animals sometimes directly linked to histories of oppression**
  - 19<sup>th</sup> Century: U.S. government encouraged extermination of bison to starve Indigenous people into submission
  - Amazon rainforest fires: many deliberately set by ranchers (with tacit government support) to displace Indigenous people from desired farmland



**Make cities and human settlements inclusive,  
safe, resilient and sustainable**

- **Spay/neuter and vaccination programs**
  - Control populations of free-roaming dogs, cats, monkeys and other species, reducing rabies, zoonotic diseases, and attacks on humans
  - More effective than culling, which selects for aggression and creates void in habitat
- Reducing violence toward animals creates safer communities for people
  - Abuse of women and children in U.S. often discovered during animal cruelty investigations
  - Communities with slaughterhouses suffer higher rates of violent crime than those without (Fitzgerald 2009)



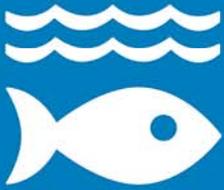
## Ensure sustainable consumption and production patterns

- Global population projected at 9.2 billion people by 2050
  - 60% increase in global food production required using current systems
- Alternatives to animal agriculture
  - 99% less water, 78-95% fewer emissions, to produce 1 kg. of grain vs. animal protein (McNally 2010)
  - 99% less land, 96% less water, 96% fewer omissions to produce cellular meat (Oxford University 2011)
- Plant agriculture can also have negative impact
  - Palm oil deforestation imperils wildlife in southeast Asia, South America, and Africa
  - More than half of agricultural plant protein used as animal feed
- **“Half Earth:” Half of Earth must be returned to nature to avert biodiversity crisis (E.O. Wilson)**
  - Rewilding the 30% of ice-free land currently used to support livestock, plus 25% currently wild, would achieve this



## Take urgent action to combat climate change and its impacts

- Animal agriculture produces 14.5% of emissions, second only to transportation sector (FAO 2011)
- Biodiversity impact
  - Climate change a key driver of species extinction
  - Animal migration worldwide affects distribution and risk of zoonotic diseases
  - Ocean acidification destroying coral, shellfish, bivalves worldwide
- **Communities and domestic animals at risk from increased climate-related disasters**
  - Droughts in Kenya kill up to half of all animals every year in some regions, place >1 million people at risk of severe hunger



**Conserve and sustainably use the oceans, seas and marine resources for sustainable development**

- Up to 2 trillion wild fish caught every year
- 33% of fisheries worldwide overfished, 60% at maximum sustainable rate (FAO 2018)
- Aquaculture accounts for nearly half of seafood industry (46.8% as of 2016)
  - One quarter of wild-caught fish used as feed for fish on farms, with less than 30% efficiency
  - Offshore prawn farms a major cause of mangrove deforestation, exposing coastal communities to natural disaster
- **Cell-cultured fish and shrimp already invented, currently in development for market release in Singapore, Hong Kong, and United States**



## SUSTAINABLE DEVELOPMENT GOAL #15

**Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss**

- Only ~25% of ice-free land still wild (ecosystems not human dominated)
  - Biomass of humans and domestic animals outweighs all wild land mammals 35x
- **Up to 1 million species at risk of extinction**
  - Wild vertebrate populations down 60% worldwide in past 40 years
  - Insect populations down up to 98% in Puerto Rico rainforests
- Most megafauna already extinct everywhere except Africa and south Asia



**Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels**

- **Wildlife crime the fourth largest illegal global trade, worth \$23 billion USD**
  - Enabled by corruption and weak governance
  - Nearly 600 rangers murdered by poachers between 2009 and 2016
- Violence toward animals and violence toward people strongly linked
  - Domestic violence correlates strongly with animal abuse in the same household
  - Communities with slaughterhouses suffer higher rates of violent crime than those without
  - Dehumanization of people by likening them to animals a tactic often used deliberately to justify warfare, police brutality, and other violence



**Strengthen the means of implementation and revitalize the global partnership for sustainable development**

- Animal welfare and conservation increasingly recognized in international policy
  - OIE animal welfare standards, African Union animal welfare strategy, SDGs 14 and 15
- In practice, governments vary widely in legislation, policy, and enforcement
  - Much of burden left to local and international NGOs
- NGOs possess wealth of knowledge, expertise, and other resources
- Private industry behind ecotourism, alternative proteins, low-emissions technologies, and other animal-friendly advances
- Forums like the Africa Animal Welfare Conference foster needed partnerships between all these parties



# More Information

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FREE BOOK DOWNLOAD



**Animal Protection and  
Sustainable Development:  
An indivisible relationship**  
**HLPF 2019**

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