Doughnut Economics - Incorporating Animal Welfare

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Abstract:

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Background

Doughnut Economics is a ground-breaking system developed to change an outdated development paradigm based on endless economic growth, as measured by Gross Domestic Product (GDP), replacing this by a new paradigm that is fit for the 21st century context and challenges, and which meets the needs of all people within the means of the living planet.

Diagrammatically, it is represented like this:

The model consists of two concentric rings:

- A social foundation – to ensure that no one is left falling short on life’s essentials.
- An ecological ceiling – to ensure that humanity does not collectively overshoot the planetary boundaries that protect Earth’s life-supporting systems.

Between these two boundaries lies a doughnut-shaped space that is both ecologically safe and socially just – a space in which humanity can thrive.

The focus on society and the living world recognises that the economy is embedded within, and dependent upon, the thriving of society and the living world.
Taking a “bigger picture” holistic view of development moves us away from focussing solely on economic growth and monetary values, and places much greater emphasis on ensuring that economic activities are genuinely sustainable and equitable and meet societal goals.

More about Doughnut Economics:
https://doughnuteconomics.org/about-doughnut-economics
Informative TED Talk by Kate Raworth, who developed Doughnut Economics:
https://www.youtube.com/watch?v=Rhcrbcg8HBw

Animals and Animal Welfare

Doughnut Economics provides an excellent model for charting our post-COVID-19 economics future. We have only one cause for concern. Among its 21 planetary boundaries and societal objectives there is currently no room for animal well-being. COVID-19 has taught us that ignoring how we treat animals is dangerous (as well as unethical). Accordingly, we make the case for the addition of animal welfare/animal issues to Doughnut Economics, as set out in our proposal below.

*Animal welfare is how an animal is coping with the conditions in which he/she is living. For animal welfare to be satisfactory, the animal must be in a state of overall well-being, which is a condition of physical, mental and emotional harmony, and which includes the ability to live naturally and to meet all species-specific and ethological needs.*

Note that animal welfare incorporates animal health, as one of its components.

**The Five Freedoms**

The basic and universally-recognised requirement for animal welfare is that the Five Freedoms are met. In brief, these are:

1. Freedom from Hunger and Thirst and Malnutrition;
2. Freedom from Fear and Distress;
3. Freedom from Physical and Thermal Discomfort;
4. Freedom from Pain, Injury and Disease; and
5. Freedom to Express Normal Patterns of Behaviour.

For a fuller explanation of the Five Freedoms and other fundamental provisions of animal welfare, see Section 6 of the Model Animal Welfare Act, [here](https://www.modelanimalwelfareact.org).

Animal issues go beyond animal welfare, to consider the interrelationships between animals, humans and the environment. The use/treatment of animals in society has a multitude of impacts which need to be considered in holistic policy-making.

The social foundation of the Doughnut model is based on the Sustainable Development Goals (SDGs)¹, which are largely anthropocentric. They never did truly reflect the aspirations of UN General Assembly resolution 70/1, “Transforming our world: the 2030 Agenda for Sustainable Development”², in which the international community envisaged a world in which “humanity lives in harmony with nature and in which wildlife and other living species are protected”.

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¹ [https://sdgs.un.org/goals](https://sdgs.un.org/goals)
² [https://undocs.org/en/A/RES/70/1](https://undocs.org/en/A/RES/70/1)
The 2019 Global Sustainable Development Report (GSDR)\(^3\) highlighted animal welfare as one of the key issues which had been identified as missing from the SDGs. Animal issues/animal welfare can, however, contribute to the achievement of most, if not all, of the other SDGs\(^4\). The Human Development Report 2020 entitled “The Next Frontier: Human Development and the Anthropocene”\(^5\), adjusted the Human Development Index to reflect the impact on planetary pressures of that development, but also explored the ethical dimensions of human relationships with nature and animals. This included questioning anthropocentric world views which are blinding humanity to the consequences of our actions, and noted that “the future of the planet and its sentient beings is one of the largest ethical issues facing humanity going forward.”

A significant body of animal welfare work has been developed in a separate policy silo, under the aegis of the World Organisation for Animal Health (OIE)\(^6\), including the development of international animal welfare standards, and guiding principles on animal welfare, agreed by all 182 OIE member states; and global and regional animal welfare strategies.

The OIE guiding principles\(^7\) include important concepts of general application, such as the ‘five freedoms’ (see above); the internationally recognised ‘Three Rs’ (reduction in numbers of animals used, refinement of methods and replacement of animal use); and the key principle that “the use of animals carries with it an ethical responsibility to ensure the welfare of such animals to the greatest extent practicable”. They also underline the inextricable relationship between humans and non-human animals in various contexts, such as agriculture, education and research, for companionship, recreation and entertainment, and state that this makes a major contribution to the wellbeing of people.

There is now a strong commitment to a One Health\(^8\) approach (and/or the wider and preferable One Welfare\(^9\) approach) in international policy organisations, and these recognise that animal health/welfare, biodiversity and the environment, are directly connected to human health/welfare.

The COVID-19 crisis has also underlined the fact that to reduce the risk of future world-stopping pandemics, we must fundamentally reorientate our relationship with animals, from a relationship of exploitation to a relationship of mutuality, including the incorporation of animal health and welfare in all policy-making. As was stated in the report Preventing the Next Pandemic by UN Environment (UNEP) and the International Livestock Research Institute (ILRI)\(^10\):

“Pandemics such as the COVID-19 outbreak are a predictable and predicted outcome of how people source and grow food, trade and consume animals, and alter environments.”

\(^4\) https://static1.squarespace.com/static/5b2543425cfd79f3074bf90c/t/5d23d461aa0399000fbb109/1562629270666/Animal+Protection+and+Sustainable+Development+-+An+Indivisible+Relationship-compressed.pdf
\(^5\) http://www.hdr.undp.org/
\(^6\) https://www.oie.int/animal-welfare/
\(^7\) https://www.oie.int/index.php?id=169&L=0&htmfile=chapitre_aw_introduction.htm
\(^8\) https://www.oie.int/en/for-the-media/onehealth/
\(^9\) https://www.onewelfareworld.org/
\(^10\) https://www.unenvironment.org/resources/report/preventing-future-zoonotic-disease-outbreaks-protecting-environment-animals-and
There are also vital social and environmental implications flowing from the way in which humans use animals, particularly in the food system. These include major detrimental impacts on the environment such as climate change, biodiversity loss, water and air pollution, overuse of water, soil degradation and expansion of pastures for cattle and cropland to grow animal feed into forests, savannahs and other key ecosystems. Many of these environmental problems arise from the need to grow huge quantities of cereals and soy to feed industrially reared farm animals. Health issues that arise from the use of animals for food include the emergence of zoonotic diseases and global pandemics, non-communicable diseases and antibiotic resistance.

These are all solid reasons why animal issues/animal welfare must be included in any development paradigm, including Doughnut Economics.

Furthermore, animals are sentient beings and their welfare is an issue worthy of consideration and respect by all international organisations, Regional Economic Communities (RECs), and countries. Indeed, animal sentence is already recognised in the EU’s Lisbon Treaty\textsuperscript{11}, the Animal Welfare Strategy for Africa (under the African Union)\textsuperscript{12}, and the OIE’s Global Animal Welfare Strategy\textsuperscript{13}.

\textit{Sentience is the capacity to perceive or feel things. Sentient beings share with humans, consciousness, feelings, emotions, perceptions – and the ability to experience pain, suffering, fear, distress and states of well-being.}

\textbf{Economic implications of animal issues}

Failure to consider animal issues can result in measurable economic losses, while addressing animal issues can produce measurable economic benefits. For example, a wide range of studies calculate the costs arising from industrial livestock production and high meat diets. Antimicrobials are regularly used in industrial livestock systems to prevent the diseases that would otherwise be inevitable when animals are confined in crowded, stressful conditions. This contributes to the transfer of antimicrobial resistant bacteria to people, thereby undermining the treatment of serious human diseases.\textsuperscript{14} An OECD report found that in the 33 countries examined in the report, infections with resistant microorganisms could cost up to US$3.5 billion per year in the next 30 years.\textsuperscript{15}

\textsuperscript{11} https://ec.europa.eu/food/animals/welfare_en
\textsuperscript{13} https://www.oie.int/fileadmin/Home/eng/Animal_Welfare/docs/pdf/Others/EN_OIE_AW_Strategy.pdf
\textsuperscript{14} http://www.who.int/mediacentre/news/releases/2011/whd_20110406/en/
High meat diets contribute to heart disease, obesity, type 2 diabetes and certain cancers\textsuperscript{16, 17}, as well as to high levels of greenhouse gas emissions.\textsuperscript{18} On a business-as-usual (BAU) basis, diet-related health costs linked to non-communicable diseases are projected by an FAO report to exceed $1,300 billion annually by 2030.\textsuperscript{19} The FAO also states that on a BAU basis costs arising from diet-related greenhouse gas emissions are projected to exceed $1,700 billion annually by 2030.

The FAO report compares current dietary patterns with four healthy alternatives each including less meat and dairy than current diets. It states that by 2030 the alternative healthy diets would reduce projected global costs of diet-related GHG emissions by 41–74\% and diet-related health costs by on average a staggering 95\%.

**Proposal for Including Animal Issues/Animal Welfare in Doughnut Economics**

For some years, UN Major Groups have been calling for a new development paradigm which prioritises the wellbeing/thriving of people, animals and nature. To reflect this in Doughnut Economics there are two options – either developing an entirely new ring for animal issues/animal welfare, or including these within the existing rings. There are pros and cons to each of these proposals, but our preference is to include these important issues within the existing framework, primarily because otherwise there remains the danger of these being retained in a separate silo, instead of included as an integral part of development policy and planning.

We propose that there should be a new segment of the inner ring to represent animal welfare. This is necessary because providing for animal welfare is a fundamental requirement for society, not a luxury but a baseline for a safe and ethical operating space. In addition, we propose a matching segment of the outer ring to represent the impacts of animal use and exploitation. At present, animal use has contributed to major ecological impacts, not only affecting species and individual animals, but also other burning environmental problems such as climate change, biodiversity loss, pollution and land use changes including deforestation. Both dimensions are needed – meeting animal welfare requirements and a re-evaluation of the exploitation and use of animals – in order to bring humanity’s relationship with animals back into a safe and ethical operating space, with no inessential uses (overshoot of use).

The Doughnut’s Green Ring should become a safe and just space for **humans, animals and nature**.


\textsuperscript{18} Clark et al, 2020. Global food system emissions could preclude achieving the 1.5\° and 2\°C climate change targets. Science 370, 705–708

In practice this will equate to the One Health\textsuperscript{20}/One Welfare\textsuperscript{21} approach, which is increasingly gaining traction in international policy streams, but now needs to be used more in proactive policy planning and development, and brought down to national and regional levels.

Policy-making at all levels needs to move away from silos, into systemic and holistic analysis. This will mean consideration of the impact of any action in one segment of the Doughnut on all others, across the board.

**What Would Policy Makers Need to Do to Implement This?**

The actions which policy-makers would need to undertake to include animal issues/animal welfare in Doughnut Economics would fall under three main strands:

**Re-assessment of the Animal Welfare Policy Environment (Direct Policy Interventions)**

This involves the establishment of a policy and regulatory environment designed to protect the welfare of animals, which would include:

- The inclusion of animal sentience and animal welfare in the country’s constitution. See World Animal Net’s Constitution Project for further information and resources.
- The introduction of modern animal protection legislation (or updating of existing laws). See World Animal Net’s Model Animal Welfare Act for further information and resources.
- The inclusion in domestic law and full implementation of regional and international animal welfare standards, including those under the aegis of the World Organisation for Animal Health (OIE).
- The introduction of education and awareness programmes, including in the school curriculum and further/higher education.
- The development of effective implementation structures, systems and processes.

See also the goals and indicators in World Animal Protection’s Animal Protection Index.

**Re-assessment of Animal Treatment and Uses and their Impacts**

This involves a systemic assessment of the way animals are used and the impact on animals, humans and the environment, followed by appropriate action. This would include:

- Research into the ways in which animals are used and the extent of their use.
- Assessment of animal uses taking into account whether such use is necessary, desirable and/or ethical, and whether animal welfare needs can be met.
- Assessment of any detrimental impacts of the use of animals on the other planetary and social components of the doughnut.
- Development of a policy strategy based on a 3 Rs approach.
- Implementation of an action plan to achieve the strategy.

The 3 Rs approach is modelled after the internationally accepted ‘3Rs’ (Russell and Burch’s 1959)\textsuperscript{22}. These are the ethical principle which was originally developed in relation to the use of

\textsuperscript{20} https://www.oie.int/en/for-the-media/onehealth/
\textsuperscript{21} https://www.onewelfareworld.org/
\textsuperscript{22} https://ccac.ca/en/three-rs-and-ethics/
animals for science. However, they are equally applicable to other uses of animals. The 3 Rs stand for:

- **Reduction**: Reduction of the numbers of animals used.
- **Refinement**: Improvements in the way in which animals are used – for example, improving animal welfare.
- **Replacement**: Replacement of animal use wherever possible (using alternatives).

### Re-assessment of the Impact of Policies on Animal Welfare

This involves a systemic assessment of all policies which may have an impact on animals and their welfare, including social, environmental and economic policies, followed by appropriate action. This would include:

- Research to identify all policies/programmes which may impact animals and their welfare (even indirectly).
- Assessment of the ways in which these policies could impact animals and their welfare.
- Development of a policy strategy to eliminate or minimise these impacts, based on a 3 Rs approach (as above).
- Implementation of an action plan to achieve the strategy.
- Implementation of an Animal Welfare Impact Assessment system to prevent any future policy measures being taken with detrimental impacts for animals and their welfare.

### What is Needed to Achieve This?

#### Government Bodies

Responsibility and accountability for animal issues/animal welfare must be assigned at the appropriate government level. This should include:

- A well-staffed and trained Ministry/Department specifically dedicated to animal issues/animal welfare.
- An Animal Welfare Committee to advise and assist the Minister, Ministry and/or Competent Authority on all animal welfare issues. This body should include representatives from animal protection organisations. For more information on the role and scope of this Committee see [this explanation](#) in the World Animal Net’s Model Animal Welfare Act.
- An Ombudsperson for animal welfare, acting as an independent arbiter for the welfare of animals and their individual interests, who is empowered to deal with complaints regarding the animal welfare policies/regulations of public bodies and their implementation.

#### Enforcement

An effective enforcement system should be designed, including:

- Well-trained enforcement officers
- Expert animal welfare officers
- A well-informed judiciary

Enforcement authorities should be well-staffed, and specifically tasked with ensuring compliance with all policies and regulation on animal welfare/animal issues. Enforcement
responsibilities should be given to all government officials whose work covers animal issues and/or education and awareness (including but not limited to: veterinary and agricultural inspectors and extension officers, nature conservation officers/wildlife officers, educators, government communication officers, police officers, customs officials and municipal stray management authorities); and should include appropriately-trained officials from cooperating animal protection organisations.

For further information, see the section on implementation and enforcement in World Animal Net’s Model Animal Welfare Act

Supportive Economic Policies and Financial Support

The government/authorities should provide financial resources towards the development and implementation of animal issues/animal welfare. Further, they should examine existing fiscal systems to ensure that revenues/taxes and other financial measures, including subsidies, are targeted in ways which support the development of animal issues/animal welfare. It is imperative to remove any subsidies or incentives which have any adverse impacts on animals and/or their welfare.

Research

Research facilities/capability in respect of animal issues/animal welfare – to both carry out national/regional research, and to keep updated on international research.

Animal Protection Movement and Societies for the Prevention of Cruelty to Animals (SPCAs)

The authorities should support the development of the animal protection movement, including SPCAs, ensuring that these are able to provide an effective contribution to the development and implementation of policies and legislation on animal issues/animal welfare.

Education/Awareness

There should be a comprehensive education-awareness campaign on animal issues/animal welfare, including:

- Public information/awareness messaging
- Awareness days and campaigns
- Labelling schemes to educate/inform consumers
- Extension officers (veterinary/agricultural/development) – to educate in the field

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[WAN has now merged into the World Federation for Animals, and Janice Cox is Policy Adviser.]

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Peter Stevenson is both an economist and a lawyer; and he received an OBE in October 2020 for “services to farm animal welfare”.