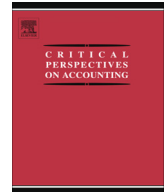




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Making the invisibles visible: Including animals in sustainability (and) accounting

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ABSTRACT

In this essay we draw attention to a crisis that touches upon a great number of individuals: the plight of non-human animals. Billions of farmed animals are slaughtered each year to produce for instance food and clothes, while wild animals experience various degrees of human-induced harms. Yet, non-human animals are largely invisible in discussions of sustainability and associated accounting efforts. This is due to a problematic ontology that leaves domesticated animals hovering between society and nature while grouping wild animals with their habitats and inanimate things. Our purpose is to consider how to make animals visible in sustainability (and) accounting. To that end, we first illustrate how sociology and philosophy, among other disciplines, have begun to shift towards the view that non-human animals are worthy of our moral, political and legal consideration. We then develop a view of sustainability that explicitly includes animals and introduce an accounting framework with examples of indicators to track progress from no rights to fundamental rights for non-human animals.

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1. Introduction

As we are two critical scholars, the title of this special issue to which we were invited to contribute – “The Environment in Crisis”, immediately raised questions. What environment? Which crisis? We speculated that the crisis the editors had in mind was associated with overstepping the planetary boundaries (Rockström et al., 2009; Steffen et al., 2015), especially in the form of the climate emergency and biodiversity loss. These phenomena occupy an increasingly prominent position in media and political discourse as states, cities, companies, and individuals come to understand them as acute threats to human existence. The vocal and visible expressions of concern are largely anthropocentric: decisive and urgent action must be taken so that natural systems are able to support the flourishing of our species. However, in this essay we would like to draw attention to an associated but largely invisible crisis that touches upon a far greater number of individuals: the plight of non-human¹ animals.

According to estimates, at least 21 billion chicken, 1.485 billion cattle and 1.169 billion sheep inhabit our planet currently (Cawthorn & Hoffman, 2014). The history of animal domestication is replete with unspeakable cruelty (Harari, 2011) that continues also today as more than 65 billion farmed animals are slaughtered annually to produce food and clothes

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¹ We prefer the less value-laden term ‘other-than-human animals’ but will here employ the term ‘non-human animals’ as it is in line with Latour’s (1987; 2005) terminology and might therefore be more familiar to accounting scholars. For the sake of brevity, we sometimes use the term ‘animals’.

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(Allievi, Vinnari & Luukkanen, 2015). In turn, the exponential increase of both human beings and farmed animals² is a major driver of "biological annihilation" (Ceballos et al., 2017), in other words the decline and extinction of wild animal species (Machovina, Feeley & Ripple, 2015; Díaz et al., 2019). Moreover, countless other wild animals, despite being neither threatened, vulnerable nor endangered, experience various degrees of harm due to human activities. Examples of such harm include light pollution from large cities, which tampers with birds' migration systems (Longcore & Rich, 2004), engine noise that disturbs the communication of whales (Tyack, 2008), and the potential anxiety caused in wild animals expelled from their habitats as forests are cleared for farming or construction.

Yet, despite all these observations, the plight of non-human animals is rarely explicitly discussed in the context of sustainable development (cf. Rawles, 2010; Vinnari & Vinnari, 2014) or sustainability accounting³ (cf. Atkins & Atkins, 2016; Vinnari & Laine, 2017). We argue that a fundamental philosophical reason for this is the way in which human beings conceive of the rest of the biosphere. Non-human animals, plants, bacteria, archaea, waterways, and the atmosphere are all treated as a monolith most often labelled as 'environment' or 'nature'. This can be seen in the traditional, 'weak' or 'light green' view of sustainable development with its three separate circles⁴ (society, economy, environment); the designation of a domain of research and practice (social and environmental accounting); and the title of this special issue (hence our question "What environment?"). The same applies also to the 'strong' or 'deep green' view of sustainability, which depicts three embedded circles to underscore that the economy is only a subsystem of society and that both the economy and society are very much a part of, and dependent on, the environment (Daly, 1992; Rees, 1995; Giddings, Hopwood & O'Brien, 2002). Regardless of which view of sustainability is being considered, such an ontology is problematic as it relegates domesticated animals to an existential limbo between society and the environment, while grouping wild animals together with inanimate beings such as rocks and rivers⁵ (see Tovey, 2003). As a result, domesticated animals are considered as part of the economic system or as one of the causes of environmental problems, whereas wild animals are only addressed in terms of species decline in the realm of nature. Such a treatment erases non-human animals' individuality and subjectivity, making them effectively invisible from the perspective of sustainability and, as a corollary, sustainability accounting.

Accordingly, the main purpose of this paper is to consider how to make non-human animals visible in sustainability (and) accounting. Our argumentation towards this end proceeds as follows. First, we justify why non-human animals should be understood as individuals with certain needs and rights. To that end, we review cognate studies from sociology and various streams of philosophy to illustrate how each of these disciplines has begun to shift towards the view that considering at least sentient animals as societal actors with certain political and legal rights is no longer an unrealistic fantasy but a justified course of action that is already emerging in practice. Next, we modify the strong view of sustainability by distinguishing animals from the environment while acknowledging that human beings are one subgroup of the former. Subsequently, building on the two previous steps and our own work (Vinnari & Vinnari, 2021), we propose a framework with measures to account for progress from simple to fundamental animal rights, for both domesticated and wild animals. Finally, we reflect on the practical, societal, and research implications of the proposed framework.

2. Towards animal rights: insights from sociology and philosophy

In the knowledge domain of sociology, a discussion on the status of non-human animals has begun to emerge in the wake of critical evaluations of the nature-society dichotomy (e.g. Latour, 1987). In an early critique, Tovey (2003) reviews classic studies in environmental sociology and finds that in such texts, "animals figure primarily in the form of 'species' or 'biodiversity', or as part of the ecological systems which integrate organisms and habitats" (p. 193). According to her, this leads to two problematic effects: first, when all animals are grouped under the umbrella concept of 'nature', animals utilized for food, science, labor or entertainment are neglected; second, that a focus on species and populations fails to consider individual animals' subjectivity and experiences. Hence, Tovey (2003) argues for the incorporation of domesticated animals into analyses of society and the application of classic notions of critical sociology, such as hierarchy and domination, to conceptualize their unequal relationships to human beings (see also Dillard & Vinnari, 2017). Continuing in this vein, Carter and Charles (2018) claim that a sociology without non-human animals effectively denies the animality of humans, thereby reproducing an artificial view of human exceptionalism which leaves sociology "ill-equipped to deal with the pressing problems of the Anthropocene" (ibid., p. 93). They call on sociologists to define animals as "social actors constitutive of society" (ibid., 93) and examine the multitude of ways in which human-animal relations unfold.

While sociologists argue for a conception of non-human animals as social actors, scholars representing diverse sub-streams of philosophy have begun to probe the moral, political, and legal dimensions of non-human animals' societal status. We have reviewed some of these arguments more thoroughly elsewhere (Vinnari & Vinnari, 2021), but for the sake of the argument a brief review is warranted here as well. To begin from the moral dimension, the views of those

² To put things into perspective, the biomass of farmed animals is already double the human biomass and twenty times the biomass of wild megafauna (Bar-On, Phillips and Milo, 2018), and this development is expected to continue during the next decades.

³ Despite sharing Gray's (2010) concerns regarding the term 'sustainability accounting', we use the latter here to establish an explicit link to the notion of sustainability.

⁴ The earliest visual depiction we have found of the three circles is Barbier (1987). Since then, several other depictions have emerged (see e.g. Lozano, 2008).

⁵ We realize that in some Indigenous ontologies, rocks and rivers may well be considered animate.

philosophers who consider non-human animals to be worthy of moral consideration can be roughly divided into two positions: welfarist and abolitionist (Francione & Garner, 2010). Animal welfare is often associated with the Bentham-inspired views of Singer (1975)⁶, whose key concept is sentience, in other words an individual's capacity to experience the world, to feel pain and pleasure. He argues that sentience provides the basis for the moral equality of all human individuals because it provides us with morally significant interests in how our lives turn out. Since many non-human animals are also sentient, Singer (1975) continues, for the sake of consistency we should extend moral equality to such animals. Being a utilitarian, Singer (1975) approves of humans using other animals as long as their interests are given equal consideration to those of humans, and such use increases overall wellbeing. Many animal welfarists therefore advocate 'compassionate' treatment of non-human animals and 'humane' methods of killing them, although it must be noted that not all welfarists approve of taking animals' lives. At the other end of the continuum, those defending animal rights have presented views which consider it morally wrong to abuse or kill sentient non-human animals (Regan 1985) because the latter are subjects-of-a-life, in other words beings who have desires, beliefs, interests in their own fates and a sense of themselves over time. Because of this subjectivity, sentient animals possess inherent value that is distinct from their instrumental value to human beings, and this in turn implies that they possess the basic right to be treated respectfully. The ultimate goal of animal rights advocates is therefore to radically decrease or abolish all use of non-human animals for food, clothing, science, entertainment, and sports (Francione & Garner, 2010; Aaltola, 2012).

Political philosophers in turn have elaborated a number of intermediate positions between the welfarist and abolitionist views. Donaldson and Kymlicka (2011) for instance characterize three morally relevant categories of non-human animals and propose that each of these groups could be granted political rights based on their relations to human beings. Domesticated animals live among us as they have been bred to be dependent of human beings for food and shelter. Hence, such animals could be conceived of as political agents and, consequently, human beings' co-citizens, whose interests regarding issues that affect them should be actively solicited and taken into consideration in political decision-making. Wild animals, who live outside human societies and do not depend on human beings for survival, could be compared to the citizens of foreign nations, sovereign beings whose lives should not be infringed upon by human beings. The third relevant group according to Donaldson and Kymlicka (2011) is liminal animals, such as city foxes, squirrels, and rats. As these animals live among us and are only indirectly dependent on us (e.g. in the form of food waste), they could be conceptualized as permanent residents without citizenship. The broad implication of Donaldson and Kymlicka (2011) is that moral relevance implies political relevance; hence, our political systems ought to be reconfigured to take animals into account considerably more prominently than is currently the case. Seeds of such development can be already seen for instance in some Nordic countries. In Finland, Prime Minister Marin's government established the (temporary) post of Animal Welfare Ombudsman, an independent authority who liaises with various ministries and committees to promote animal welfare. Sweden in turn has animal welfare bodies on various levels of government, such as the Dialogue Group for Animal Welfare in the Board of Agriculture, which consists of representatives from various stakeholders, including non-governmental organizations (NGOs) focused on animal welfare⁷.

Some scholars have noted that moral rights do not adequately protect non-human animals from human abuse. Hence, they have called for the institutionalization of these moral rights by establishing corresponding legal rights (e.g. Cochrane, 2012). Such calls, among other things, have prompted legal scholars to probe conceptually into questions of animals' legal personhood and legal animal rights. Stucki (2020) for instance has introduced a distinction between 'simple' and 'fundamental' animal rights. Simple animal rights are those that can be derived in several countries from extant animal welfare legislation and therefore such rights are largely imperfect, weak, and easily infringeable. In contrast, fundamental animal rights that are hoped to prevail in the future would be comparable to human rights in that they would imply "the right to life, bodily integrity, liberty and freedom from torture" (Stucki, 2020, 552). Stucki (2020) points out that even if the recognition of fundamental animal rights would not result in immediate societal change, it would help de-normalize certain institutionalized practices (such as producing and consuming meat) and establish new normative boundaries around what is acceptable and what is not. In practical terms, she suggests that such rights would consist of "a minimum core that has to be ensured immediately, coupled with a general prohibition of retrogressive measures, and an obligation to progressively move towards a fuller realization" (Stucki, 2020, 558). These academic developments in the field of law have coincided with the practical emergence of animal rights in various court decisions around the world (Kurki, 2019). To mention but one example, in India two High Courts have conferred personhood to animals, arguing that legal personhood should not be restricted to humans⁸.

From the perspective of sustainability, two key insights emerge from the foregoing, necessarily brief literature review. The first is Carter and Charles' (2018) observation that disregarding non-human animals in analyses of society constitutes a denial of human beings' animality. Although any remaining doubts of our common ancestry with other forms of life were dispelled by the publication of Darwin's *Origin of Species* in 1859, it appears many still find it difficult to relinquish the idea of human exceptionalism. For us, this implies that any definition of sustainability needs to make explicit the fact that *Homo sapiens* is just one species among numerous others. Intentionally or not, this theme has thus far been

⁶ It is useful to note that the debate around animal welfare and animal rights is an old one and has taken different forms during the past centuries (see e.g. Walters & Portmess 1999; Linzey & Clarke, 2014). The most recent wave of this debate can be said to have started from Singer (1975).

⁷ <https://api.worldanimalprotection.org/country/sweden>

⁸ <https://www.nonhumanrights.org/blog/punjab-haryana-animal-rights/>

disregarded in sustainability discussions, so making it explicit arguably constitutes a fundamental change. The second insight emanating from the foregoing review is that a world where at least sentient non-human animals are considered to have moral, political, and legal rights is already emerging, both in scholars' imaginations and in political assemblies and courtrooms throughout the globe. Thus, categorizing and accounting for animals under the rubric of 'environment' or 'nature' is beginning to seem like an anachronism. Therefore, we perceive a need to make animals a sphere or dimension of their own in the definition of sustainability. Such a move is undertaken in the next section.

3. Making non-human animals explicit in the definition of sustainability

In this section, we present two options for including non-human animals in the definition of sustainability (see Fig. 1). As mentioned earlier, the institutionalized way of defining sustainability is to depict it as three circles (top left corner of Fig. 1). As several critics have noted, this depiction can be called 'weak' sustainability as it is founded on an anthropocentric worldview that over-emphasizes the significance of society and economy at the expense of the environment (Mebratu, 1998; Lozano, 2008). Some have suggested that at least in the context of food production and consumption, it would make sense to complement the definition with a fourth element (top right corner of Fig. 1), namely ethics or animal welfare (Rawles, 2010). However, as can be deduced from the preceding literature review, the inclusion of animal welfare as a separate sphere in the definition of 'weak' sustainability corresponds to the moral philosophical view of welfarism and thus the prevailing practice of granting animals simple rights that are easily infringeable.

An alternative to the traditional definition is the 'strong' view of sustainability, which is underpinned by an ecocentric worldview (bottom left corner in Fig. 1). This systemic depiction emphasizes that the economy is merely a subsystem of society, and that both systems are embedded in, and dependent on, the surrounding natural systems. However, even though this view is non-anthropocentric and as such philosophically closer to our purposes, it too lacks an explicit consideration of non-human animals. What is required is a step corresponding to the inclusion of animal welfare in 'weak' sustainability (i.e. top row of Fig. 1). To that end, we add the layer 'animals' between the environment and humans (bottom right corner of Fig. 1) not only to make non-human animals visible but to highlight that human beings are a type of animal as well⁹.

With non-human animals thus included in the definition of sustainability, we can proceed to the consideration of how to account for progress in the realms of animal welfare and animal rights. Foundations for such a framework will be introduced in the following section.

4. Towards social, environmental and animal accounting

Our framework for accounting for progress in the domains of animal welfare and animal rights is divided into three phases (Table 1). These have been labelled from a legal perspective¹⁰, with the most rudimentary stage labeled 'no rights', followed by Stucki's (2020) 'simple rights', which corresponds broadly to welfarist views, and 'fundamental rights', which resonates mostly with the abolitionist stance. The phases are necessarily overlapping as the situation varies by jurisdiction: some are still in the no rights stage, whereas in others, simple rights can be derived from extant legislation. No jurisdiction has yet recognized the fundamental rights of non-human animals. We have populated the table with some indicators which are currently in use in the phases of no rights or simple rights, and other indicators which we have made up to exemplify how progress from simple rights to fundamental rights could be assessed. Our framework is original in the sense that it considers both wild and domesticated animals as individuals with certain needs and interests despite their numbers; to our knowledge such a combined approach has not been proposed or experimented before. Currently, meat and dairy firms might account for farm animal welfare but not for the impact of their activities on wild animal welfare or rights (e.g. in the form of industrial noise), while forestry companies might account for their impact on wild animal species' habitats but not for their impact on domesticated animals (e.g. through meals consumed in company cafeteria). Another aspect worth noting is that our framework does not include biodiversity indicators. This is because, as mentioned previously, biodiversity is assessed on the level of species and habitats, whereas the perspective we propound considers wild animals as individuals and is therefore concerned about other things than their prevalence or population sizes. Hence, our framework does not overlap with biodiversity accounting but rather complements it.

To elaborate on the framework, in the no rights phase wild non-human animals are considered to have only instrumental value, in other words they are held as important only because of their usefulness to human beings. Hunting or fishing is legal as long as a regenerative rate of use is maintained, and the relevant information in this case concerns the numbers of animals in 'useful' populations. In the simple rights phase, wild animal use is still legal, but attempts are made to consider the animals' welfare. Progress towards this goal can be assessed for instance by extant welfare indicators for animals kept in captivity or, in a more qualitative vein, organizational narratives of efforts to reduce noise and light pollution or to take animals into consideration in construction design. In the fundamental rights stage, killing of wild non-human animals is

⁹ We realize the slight conceptual inconsistency of portraying the economy and the environment as systems while replacing 'society' with 'humans' and 'animals'. However, we consider it sufficient for the purposes of the present discussion.

¹⁰ In our previous work (Vinnari & Vinnari, 2021) we presented a similar framework based on Donaldson and Kymlicka's (2011) ideas about political rights as our intention in that paper was to develop a framework that especially national governments could use to track progress. The current framework is geared more towards organizational activities and therefore we have developed it on the basis of legal rights.

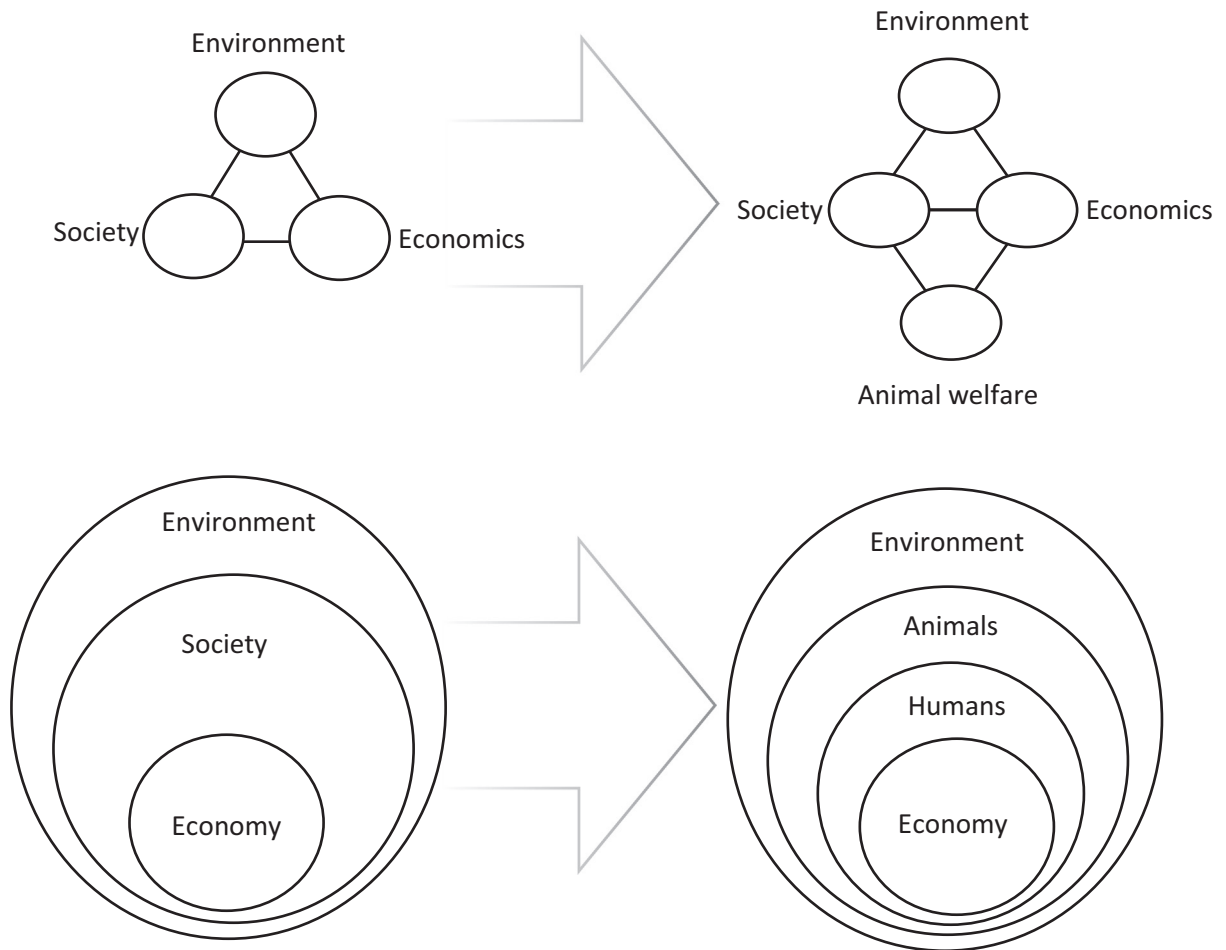


Fig. 1. The inclusion of animals in 'weak' (top row) and 'strong' (bottom row) views on sustainability.

prohibited and a large share of the Earth's surface is dedicated to them. Indicators to evaluate progress toward this goal could include decreases in raw materials that are animal-originated or the sourcing of which destroys habitats. In addition, the organization could indicate whether it has a corporate sustainability officer (CSO) dedicated to animal issues and whether its activities are audited by an environmental or animal rights NGO.

As concerns domesticated animals, in the stage of no rights human use of these animals is legal, and they are only considered to have instrumental value measured in terms of the 'output' they 'produce'. In the phase of simple rights, human use of non-human animals is still legal, but attempts are made to consider animal welfare, assessed for instance as the so called five freedoms (Farm Animal Welfare Council, 1979) other welfare indicators. Other conceivable indicators could include investments in animal welfare research or in the genetic diversity of animals. An example of a possible qualitative welfare indicator would be whether the organization's products contain certified animal welfare labels. Finally, in the fundamental rights stage, the killing of farmed animals would be prohibited and their organizational use severely restricted. Progress towards this goal could be assessed with indicators such as R&D investments to reduce animal-originated materials in products and processes or percentage share of plant-based canteen meals. The latter may sound like a utopian goal, but according to anecdotal evidence there are already examples of companies striving towards it for instance by acquiring a certification for being 'vegan friendly' workplaces¹¹.

As should be evident from the foregoing, the lists of indicators in each category are by no means exhaustive but simply examples of aspects that could be considered when accounting for progress in the realms of animal welfare and animal rights. An organization or other entity interested in such accounting might want to consider developing a more fine-grained framework for instance by developing distinct input, output, and process indicators, or a broader array of qualitative indicators. Furthermore, organizations with a high level of ambition might consider adding the category of liminal animals (Donaldson & Kymlicka, 2011), which we have omitted in aiming for a concise presentation.

¹¹ <https://www.israel21c.org/why-israelis-are-leading-the-vegan-revolution/>

Table 1
Accounting for progress from no rights to fundamental rights for non-human animals.

	Short term	Mid-term	Long-term
	Wild Non-Human Animals		
	No rights	Simple rights	Fundamental rights
Description	Human use of wild animals and their habitats is legal. Animal populations can only be utilized at their regenerative rate.	Human use of wild animals is legal, but the suffering inflicted on animals should be minimized. Animal welfare should be considered in some organizational activities (e.g. from the perspective of noise pollution, light pollution or habitat infringement).	Killing of wild animals is illegal. 30–50% of the Earth's surface is reserved for non-human wildlife. Direct and indirect impacts of human activities on non-human animals should be minimized.
Examples of indicators	-Number of animals in "useful" populations	-Reduction in amount of by-catch in commercial fishing -Extant welfare indicators for animals kept in captivity - Narratives of organizational measures taken to abate noise and light pollution and/or to consider animals in construction design	-Decrease in animal-derived raw materials -Decrease in raw materials with detrimental effects on certain species' habitats -Organization has a CSO specializing in animals (yes/no) -Organization audited by environmental/animal rights NGO (yes/no)
	Domesticated Non-Human Animals		
	No rights	Simple rights	Fundamental rights
Description	Human use of non-human animals is legal. Protection of the animals from bodily harm is subject to organizational cost-efficiency considerations.	Human use of non-human animals is legal but subject to welfare considerations.	Killing of non-human animals is illegal. Their use for organizational purposes is severely restricted.
Examples of indicators	-Output (e.g. milk yield, egg production, growth rate) -Number of animals with diseases	-Extant welfare indicators -Organizational investments in animal welfare research (€) -Investments in genetic diversity of animals (€) -Photos and videos from all phases of the production process made available to the public -Organization's products contain certified animal welfare labels (yes/no)	-R&D investments (€) to replace animal-originated raw materials -Number or % share of products in portfolio that do not contain animal originated materials -% share of plant-based canteen meals -Organization's products contain certified vegan labels (yes/no) -Organization has a CSO specializing in animals (yes/no) -Organization audited by environmental/animal rights NGO (yes/no)

5. Concluding discussion

We began this discussion with the observation that non-human animals are largely invisible in contemporary societies because of a problematic ontology that leaves domesticated animals hovering between society and nature while grouping wild animals with their habitats and inanimate things. We then illustrated how thinking in sociology and philosophy is progressing towards a view of animals as individuals with moral, political and legal rights, and suggested that animal rights are already "on the horizon", to borrow *Stucki's (2020)* lovely expression. Subsequently, we revised the 'strong' view of sustainability to depict animals as individuals embedded in the natural environment and human beings as a subgroup of animals. We then developed a framework that conceptualizes the transition from no rights via simple rights to fundamental rights for non-human animals, including indicators for tracking progress towards these goals. In this brief concluding section, we reflect on the implications of our proposal for both practice and research.

To begin with practical and societal implications, we envisage the framework to be a useful tool to be further developed and applied by regulators, social movements, NGOs, and frontrunner companies. Social movements for instance could apply the framework when constructing silent, shadow or counter-accounts (*Thomson, Dey & Russell, 2015*) of organizational activities related to non-human animals (see e.g. *Vinnari & Laine, 2017; Laine & Vinnari, 2017*). As the impacts of the meat and dairy industry on animals have already been established - albeit not exhaustively, it might be interesting to investigate other types of companies or public sector organizations that generate more indirect impacts on non-human animals. This would also offer opportunities for a fruitful collaboration between such organizations and accounting scholars interested in the topic. Regulatory authorities seeking to hold organizations accountable through mandatory reporting could take the framework as a starting point in devising a reporting template, while environmental or animal rights NGOs auditing company activities could use it as a basis for creating a checklist to structure their work. Companies might be inspired by the framework to investigate hitherto unexplored elements of their production, such as the amount

of less easily detectable animal-derived materials in their product portfolio. Subsequent serious attempts to replace or dispose of such materials could be envisaged to result in reputational benefits and competitive advantage, which in turn could potentially lead to the diffusion of animal accounting to other organizations.

In terms of scholarly implications, one idea worth pondering is how the inclusion of animals in sustainability affects the field of teaching and research known as 'social and environmental accounting'. We hope to have persuasively argued that it is not conceptually coherent to address animals as part of the environment, and neither are they part of human society. Does this imply the need to change the designation of the field into 'social, environmental and animal accounting'? We leave it to the scholarly community to debate and discuss this question.

As concerns avenues for future research, the ideas proposed herein constitute a paradox that could be subjected to critical scrutiny¹². On the one hand, accounting for animal rights can be seen as a benevolent attempt to take the interests of non-human animals as a starting point for developing dialogical accountability and accounting systems (see e.g. Dillard & Vinnari, 2019). On the other hand, it could also be perceived as an act of symbolic violence as the animals might fall prey to the well-established, harmful consequences of accounting, such as quantification, commensuration, and marketization (Porter, 1992; Espeland & Stevens, 1998; Miller & Power, 2013). Could accounting for animal rights end up as a managerial tool, reproducing the status quo instead of challenging it? A second research avenue pertains to accounting itself: how does it change as a result of yet again expanding at the margins (Miller, 1998) to include non-human animals? A third theme to be further examined relates to the notion of visibility, which could be theorized in a more nuanced fashion than we have even attempted to do here.

In broad terms, our proposal speaks to the critique of the nature-society dichotomy. As is evident from the foregoing, we heartily agree with the calls to abolish any structures that uphold an artificial view of human exceptionalism and replace them with the metaphor of a collective inhabited by both human and non-human beings. Paraphrasing Latour (2005, p. 259), we maintain that a burning desire to have non-human animals welcomed and given shelter in our collective is not only legitimate but the only scientific and political cause worth living for¹³.

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¹² We thank Daniel Martinez for posing these questions to us.

¹³ The original passage where Latour (2005) discusses social scientists' wish to have a 'political edge' reads as follows: "... the burning desire to have the new entities detected, welcomed, and given shelter is not only legitimate, it's probably the only scientific and political cause worth living for." (Latour, 2005, p. 259)

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