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The River Runs Through It: Naturalising Social Policy and Welfare

Johan Nordensvärd [1,*], Markus Ketola [2] and Frauke Urban [3]

[1] Department of Management and Engineering (IEI), Linköping University, 581 83 Linköping, Sweden
[2] School of Social and Political Science, University of Edinburgh, Edinburgh EH8 9LD, UK
[3] Department of Industrial Economics and Management (INDEK), KTH Royal Institute of Technology (KTH), 100 44 Stockholm, Sweden
* Correspondence: johan.nordensvard@liu.se; Tel.: +46-13-281025

Abstract: This paper reconceptualises social rights through an integration of human welfare and environmental welfare. This is essential if we are making a case for the radical policy changes required to respond to the current environmental crisis, such as maximum living standards and maximum income. As living standards and the demand for social rights increase across the world, this will lead to a concomitant pressure on nature. A maximum living standard based on an ecological footprint is a starting point to think about the need to grant legal rights and resources to nature. Following Polanyi, both humans and the environment are fictitious commodities; we therefore need to rethink our approach to social policy and decommodification to include the environment. This requires approaching social rights from an ecological perspective and breaking the anthropocentric barriers welfare policies create between society and nature. Here, we draw on the work of Michel Serres on 'the natural contract' in order to rethink the content of the social contract and develop an argument in favour of decommodifying nature. Using rivers as legal entities in New Zealand as our example, we illustrate how this theoretical approach could provide the foundations for sustainable eco-social policies in general and maximum living standards in particular.

Keywords: social policy; nature rights; environmental policy; decommodification; indigenous knowledge; welfare

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1. Introduction

In this paper, we aim to make the case for a maximum living standard by rethinking the division between human and environmental welfare. We are motivated by the possibilities of extending the use of social policy concepts and practices to engage more directly with the relationship between human society and the environment. Environmental problems, such as climate change, nature resource depletion, pollution, loss of biodiversity, soil erosion, and water scarcity, are the consequences of industrial development over the last two centuries. This same industrial development has also been the cornerstone of the modern welfare state. Moreover, the consumption patterns of the wealthy, developed countries were recognised as an important factor in environmental degradation as early as the Rio Summit of 1992 [1]. This pattern and the urgent need to reduce the consumption of natural resources were reinforced at the Rio + 20 Summit in 2012 and the Stockholm Summit in 2022, along with the acknowledgement that many emerging economies, such as China, India, South Africa, Mexico, and Brazil, were joining the group of middle-income countries [2]. These concerns of overconsumption and the urgent need to consider them in the context of social policy have also been recognised by the United Nations through its Sustainable Development Goals (SDGs).

We are presented with the twin challenge of wealthy countries consuming far too much of the natural resources while at the same time outsourcing the environmental impact of this consumption to the low- and middle-income countries (LMICs) responsible for the

production of consumer goods [3–5]. The economic development of the middle-income countries associated with these global networks of production and consumption will put further pressure on the environment, as exemplified by the case of China—the world's largest CO_2 emitter, with higher per capita emissions than the European Union [6]. Rising global living standards, coupled with a rapidly growing global population, are therefore strongly associated with the increasingly unsustainable use of natural resources.

The consequences of continued unlimited consumption, particularly in developed countries and emerging economies, poses a global challenge for both social policy and sustainable development. As Jackson argues, "[t]here is no credible, socially-just, ecologically-sustainable scenario of continually growing incomes for a world of nine billion people" [7] (p. 57). When we think about social justice and consumption, we tend to think of how consumption among the rich economies poses an environmental problem and how the impact has been "offshored" to the LMICs who produce the goods and therefore carry the lion's share of the carbon emissions and pollution associated with this consumption. As living standards rise all over the world, and as more countries demand improved social rights, the concomitant pressure on nature will also grow. As Polanyi states, both humans and the environment are fictitious commodities [8]. We therefore need to rethink our notion of social policy, welfare, and decommodification to include the environment. A maximum living standard based on the ecological and water footprint of humans serves as a starting point for thinking about the need to grant legal rights to nature. This involves the transfer of resources to nature based on ecological need, in much the same way as the welfare state transfers resources based on human need.

This in turn requires rethinking our approach to social citizenship and social rights and duties, reconfiguring these from an ecological perspective, and breaking the anthropocentric barriers welfare policies create between society and nature. In order to develop this argument, we need to move beyond the anthropocentric definitions of "citizenship", "welfare", "need", and "social rights" that tend to inform the mainstream social policy debates, because such conceptualisations establish an artificial barrier between society and nature. The "social contract" that legitimises certain social rights and duties is narrowly limited to the relationship between individual citizens and the state, ignoring the broader ecological context such relationships exist in and engage with. By drawing on Serres' [9] work on the natural contract, we develop a framework that incorporates social rights within their ecological context and highlights the complex and interdependent relationships between the rights of nature and the rights of citizens. These rights of citizens and rights of nature are symbiotic, co-exist, and are constantly co-evolving. By recognising the interdependent and reciprocal nature of rights seen through the parallel frameworks of a "social contract" and a "natural contract", we can conceptualise the idea of a maximum living standard.

The goals of this paper are therefore twofold. First, it develops the concept of a maximum human living standard as a way to start breaking the boundaries between nature and our current understanding of social policy. The second part of the paper develops the concept of a "natural contract" as an extension of the social contract, applying the concepts of decommodification and the intrinsic and extrinsic value of nature. We then look at the case of Whanganui river in New Zealand being given legal personhood as a case to further develop this blurring of social policy and environmental policy.

2. Materials and Methods

The methods used in this paper rely on analysis of ecological footprint data, a theory-developing literature review, and a theory-developing case study. In the first instance, we used data on the ecological footprint per capita and the average ecological deficit. These data were sourced from the 2022 National Footprint Accounts. We then triangulated the results with the data found in academic studies on the subject. We use a theory-developing thematic literature review to reconceptualise social policy from an environmental perspective, drawing on Serres' concept of the natural contract as a central theoretical tool, and through our case link this with the indigenous understanding of the environment that

approaches nature and social policy from a more symbiotic perspective. We therefore call this a process of naturalising social policy, using the literature as our material to develop this perspective.

Theory-developing case studies aim to develop or refine particular theoretical concepts by relying on empirical examples (compare [10]). As Gummerson points out, "[b]y digging into complexity the core of a phenomenon can be found and valid and relevant theory based on real world data can be designed" [11] (p. 12). Eisenhardt further argues that theory-developing case studies are "particularly well-suited to new research areas or research areas for which existing theory seems inadequate" [12] (p. 32). By taking the rich literature on how to develop sustainable policies within planetary boundaries together with the case of Whanganui river, we develop our conceptual argument as to how we might think about a redistribution of resources from human societies to the environment. This forms the basis of our theoretical case for uniting the concepts of social policy and environmental policy.

The case studies of the theory development are not representative, and the sample selection of analysed material follows a rather different logic. Such theoretical sampling means that "cases are selected because they are particularly suitable for illuminating and extending relationships and logic among constructs" [10] (p. 27). The case selection does not tend towards comparison in any orthodox sense, as the point lies in illustration. The sample depends on the requirement of the research purpose, research questions, and the overall design of the study [13].

2.1. Defining the Need for a Global Maximum Living Standard for Humans

We begin by defining our welfare needs based on a symbiotic, rather than a parasitic, relationship with the earth. This leads us to a definition of a maximum living standard for humans based on a sustainable use of planetary resources. We use data on the ecological footprint per capita and the averaged ecological deficit per capita for low-income, lower middle-income, higher middle-income, and high-income countries. We plot this against the earth's carrying capacity expressed as the global ecological footprint of 1.6 global hectares per capita (in 2021, decreased from 2.7 per capita in 2010 due to increasing global population). These data are sourced from the National Footprint Accounts, 2022. We triangulated and compared these data with the data published in academic studies. We also used some data from the World Bank, such as carbon emissions per capita for specific countries and GDP per capita. Based on these data, we inferred what this means for a maximum living standard based on ecological dimensions. These findings also resonate strongly with Rockström and colleagues' work on the concept of planetary boundaries for human consumption of the earth's resources [14].

Some planetary boundaries have already been surpassed or are in the process of being surpassed soon due to human activity, for example climate change. Atmospheric CO_2 concentrations of 418 ppm were measured in mid-2022 [15], nearly reaching the recommended limit of 450 ppm to avoid a 1.5–2 degree rise in global temperatures by 2100 [16,17]. The atmospheric CO_2 concentrations, at their highest in 2 million years, have increased by about 40% since pre-industrial times. This is mainly driven by emissions from the combustion of fossil fuels and also partly from land-use changes and deforestation. According to the IPCC, the observed temperature increase was about 1.1 °C between 1880–2020 [16,17]. The level of CO_2 emissions has also been identified as a major factor in ocean acidification [16,17]. Steffen et al. [14] suggest that the planetary boundaries for biodiversity loss together with the biogeochemical flows of nitrogen and phosphorus are also at a high risk of being exceeded. The authors also raise concerns about the rate of land-system changes [14]. These observations also resonate with the adjacent concept of the earth's carrying capacity. This concept refers to the maximum number of people the earth can sustain in the long term and relates to the earth's ability to provide vital resources (such as food production), to withstand resource exploitation and change (such as climatic change), and to recover from shocks (such as pollution) [18,19].

These are not mere theoretical projections about the impact of human activities on the carrying capacity of the earth. The concept of the ecological footprint [20] was created to statistically measure the ecological impact of countries, communities, and individuals on the earth's resources. It accounts for the land, energy, water, forestry, and other natural resources used and the emissions emitted, and it incorporates trade and access to modern technologies. The ecological footprint is expressed in terms of "global hectares" which:

"[A]re intended to reflect the areas of land and sea required to support production and consumption activities and assimilate waste materials. The estimates of global hectares are used for two purposes: 1. to compare the demand pressures imposed by individuals and communities, 2. to determine if the sum of demand pressures is greater than the available supply of the earth's productive and assimilative capacity" [21].

The capacity of our planet to sustain humanity is calculated as 1.6 global hectares per capita [22]. This is challenged by the rise of middle-income countries such as China and India, where the changing consumption patterns of hundreds of millions of people belonging to the new middle classes further increase the global average footprint. The conclusions from this are clear. The difference between the earth's available resources and the resources consumed results in an ecological footprint several times the size of the one earth that we have. Simply speaking, humanity is consuming natural resources as if we had several earths, rather than just one.

2.2. Unequal Use of Resources

However, it is also important to acknowledge the inequities in how these resources are being consumed. We need to consider the fact that rich industrialised countries are running a huge ecological deficit in comparison to poorer countries [22,23]. Vallianatos [24] refers to the ecological imperialism of the Europeans and North Americans when discussing their exploitation of the ecological resources around the world, including in Africa, Asia, and Latin America. He further suggests that the rich countries have not only an ecological footprint, but in fact an "ecocidal" footprint that goes far beyond the ecological resources and ecological services that the earth can sustain [24] (p. 67).

High-income countries have a high ecological footprint at about 6 global hectares per capita. The highest ecological footprint related to consumption can be found in Qatar with 14.3 global hectares per capita, followed by Luxembourg with 13, Bahrain with 8.2 and the United States of America (USA), United Arab Emirates (UEA), and Canada with 8.1 global hectares per capita each. This would require in fact 5.1 to 8.1 earths rather than the one we have [22]. This is clearly unsustainable in the long term. Our analysis indicates that countries that consume within the earth's carrying capacity are mostly low-income countries, lower-income countries, and some higher middle-income countries [22]. Most of the higher income countries are outside of the earth's carrying capacity or outside the global average consumption levels in terms of their ecological footprint, carbon footprint, and water footprint. Figure 1 shows the ecological footprint in global hectares per capita, while Figure 2 shows the ecological deficit in global hectares per capita.

With regard to climate change, Anderson [25,26] observes that a limit of global per capita carbon dioxide emissions at European Union (EU) levels, which at the time of writing stood at 5.2 CO_2/capita [data from 6], could reduce global emissions significantly: "Imagine the Paris 2 °C goal was sacrosanct. A 30% reduction in global emissions could be delivered in under a year, simply by constraining the emissions of that 10% responsible for half of all global CO_2 to the level of a typical European. Clearly such a level is far from impoverished, . . . " [25]. What we need, therefore, is a debate on a maximum living standard, at least for the 10% responsible for half of all global CO_2, and to ensure a more sustainable development pathway for richer segments of society at a global level.

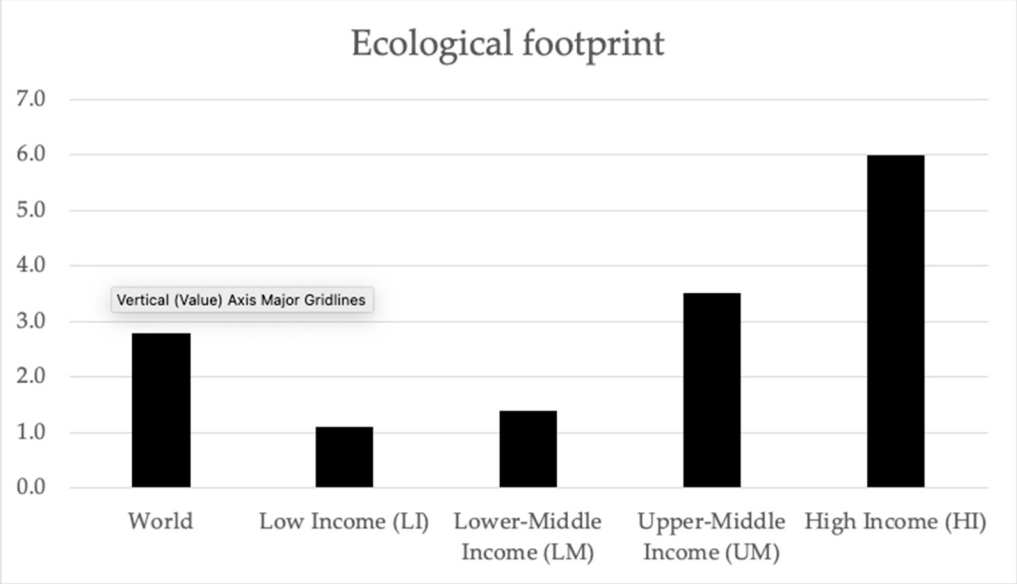

Figure 1. Ecological footprint in global hectares per capita for the world: low-income countries, lower middle-income countries, upper middle-income countries, and high-income countries. National Footprint Accounts 2022.

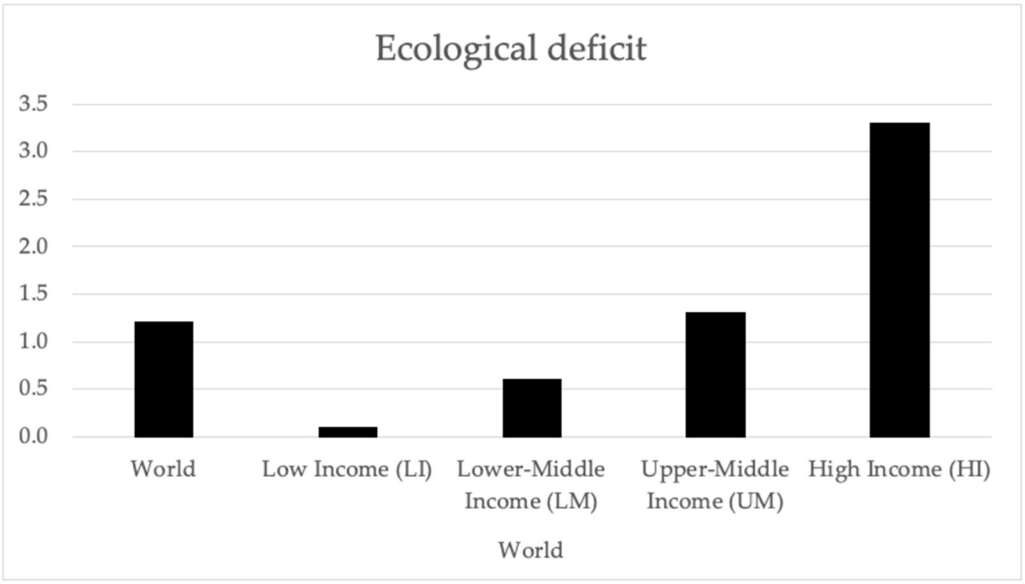

Figure 2. Averaged ecological deficit in global hectares per capita for the world: low-income countries, lower middle-income countries, upper middle-income countries, and high-income countries. Source: National Footprint Accounts 2022.

As the focus in these debates is overtly on ecological limits, the social dimension tends to be neglected. Instead, we need to find a balanced system of sufficient social rights situated between meeting a minimum social need and a maximum living standard. In this paper, we build on the findings by O'Neill et al. [27] to discuss and analyse these options further. If we are ever going to reach a sustainable future, we will have to think of the social rights and wellbeing of both humans and ecosystems. Our next section will lay out the case of naturalising social policy.

2.3. The Need to Naturalise Social Policy

The mainstream approaches to mitigating climate change and overconsumption, as well as reducing social inequality, all share an anthropocentric focus, premised on finding

a balance between reducing the human use of natural resources while also reducing inequality and lifting people out of poverty. For example, the sustainable development discourse is largely based on squaring the triangle of economic growth, environmental protection, and poverty reduction, as if all of these were compatible. In other words, all models still treat the environment primarily as a resource base and social policy as the means to contain our use of these resources within certain limits or to use resources in more equitable and socially just ways. What is missing from this discussion is the argument for naturalising social policy by extending the principles of social policy to nature.

This absence is perhaps most obvious in purely market-based approaches. The Stern Review, for example, argues that carbon markets are part of a "pro-growth strategy" [28], which should offer financial returns for investors and create a productive global space for low-carbon technologies. The UNDP has also argued against quotas and bureaucratic controls, proposing that the focus ought to be on adjusting the price system instead [29]. This approach avoids altogether the implementation of curbs on overconsumption and the redistribution of resources from richer groups to poorer groups, let alone taking the natural environment into account as anything more than a resource with a particular value.

The Greenhouse Rights Development Framework (GDRs) in turn advocates for market solutions while relying on states and/or global institutions to regulate that market. It is "[. . .] a method for calculating the share of global obligations toward a global climate response that should be assigned to individual countries, based on quantitative estimates of 'capacity' (broadly, wealth) and 'responsibility' (contribution to climate change)" [30] (p. 1123). In summary, the GDR means that obligations to pay for both climate change mitigation and adaption should fall on those who have the ability to pay and have the most responsibility towards climate change and the emissions of greenhouse gases [31].

Another policy framework that may be appropriate for helping to introduce a maximum living standard based on environmental and social considerations is that of the Steady State Economy (SSE). Herman Daly pointed out in the 1970s that an economy based on growth also meant an "externalisation of environmental costs in growth accounting" and that there was a "systematic underpricing of natural resources to the societal dominance of the other production factors, capital and labour" [32] (p. 9). Daly proposed to reduce economic growth and focus more on having an "economy with constant population and constant stock of capital, maintained by a low rate of throughput that is within the regenerative and assimilative capacities of the ecosystem" [33] (p. 3). There are three key policy tools that need to be in place to transform societies towards an SSE: minimum and maximum limits on income and wealth; an improved tax system; and restrictions on population growth. This, however, is unlikely to happen given the rapid increase in population in many regions of the world.

Green Keynesian approaches go one step further by arguing for a global carbon tax instead of only carbon trading and extend as far as direct regulations and redistribution through a global welfare state [34]. Such an approach does not abolish the market but it regulates it and assumes that nation states at the national and international level will coax the markets and firms to invest in a low-carbon economy and sustainability [35]. There is a preference to finance this through global carbon taxes, a tax on international financial transactions [36], or via payments of the developed countries' carbon debts to developing countries [34]. A major issue is that high green taxes or high carbon taxes can be regressive as lower-income households tend to spend a higher share of their income on energy and transport. The role of social policy is to offset the costs of carbon taxation through investment in low-emission housing and transport, as well as to protect low-income citizens with high carbon consumption [37].

More recently, the concept of the circular economy has gained popularity in science, policy, and society (see, e.g., [38]). A wide range of articles have emerged concerning, for example, issues such as closed-loop supply chain management aimed at analysing how the economy and its products and services can become more circular to save natural resources.

Whilst the above examples are far from an exhaustive account of the existing policy approaches to limiting consumption, they all see the environment as a resource. We need to use this resource less, more wisely, or more fairly, but at the end of the day, it remains just that: a resource. In the sections that follow, we intend to further develop the relationship between the environment and social policy, highlighting the importance of seeing social policy and environment as more intrinsically linked than has previously been the case. Instead, we propose to rethink our entire approach to consumption, social rights, and environmental protection, synthesising social rights and natural rights in order to create a symbiotic rather than a parasitic relationship between humans and their environment. When approached from this perspective, the environment can no longer be seen purely as a resource that social policy engages with; rather, the environment needs to be understood as an integral part of what social policy is about. The rights and obligations social policy is concerned with need to extend beyond the human world, and this is something the existing literature on environmental perspectives on social policy is less focused on.

2.4. Rethinking Consumption and Social Rights

By focusing on the limits to consumption, the article treads on sensitive ground. Social policy is largely focused on the realisation of positive social rights—realising the freedom to do something—rather than negative rights curtailing people's freedom to consume and corporations' freedom to produce and make profits. This in turn is a consequence of the limited scope of social rights, focusing on people's citizenship rights and responsibilities vis-à-vis the state and ignoring the natural world.

Both social liberalism and social democracy have tended to regard social rights, and the welfare activities these engender, as a guarantor of certain minimum living standards. The raison d'être of the welfare state is generally understood in terms of protecting citizens from the most negative effects of free markets, also articulated as decommodification. This arrangement is predicated on the social contract with the state, which confers certain social rights and duties on both parties. As Gough notes, Polanyi's first articulation of decommodification "protected citizens from major social risks and insulated their living standards from dependence on wage payments", and it was the movements that pushed for the acceptances of such ideas that "ultimately created welfare states–citizenship entitlements to common need satisfiers and social benefits mainly provided by public services paid for by taxes and social contributions" [39] (p. 62) [8].

There is a substantial strand of literature that focuses on defining, conceptualising, and understanding the absolute minimum standard of living. Rowntree's pioneering work aimed at developing an empirically grounded definition of such a minimum standard through his research in York in 1899. His work aimed at identifying an absolute minimum living standard, at the level of "physical maintenance" or bare subsistence [40]. Other approaches have studied relative living standards within the context of a given society, focusing on people's behaviour and their perceptions of minimum living standards [41–43]. While an absolute minimum standard implies a generalisable and universal approach, a relative approach requires transcending cultural, political, social, and juridical differences.

As Morris and Deeming observe, "[b]asic human needs are universal, whereas wants are goals that derive from an individual's particular preferences and cultural environment" [44] (p. 443). Doyal and Gough in turn synthesise two different categories of universal basic needs. The first concerns minimum standards of health and wellbeing, such as access to food, water, shelter, clothing, and healthcare. The second category relates to the autonomy of agency that enables individuals to act, make decisions, and take advantage of opportunities within their societies [45]. We might see this as a way to think about the minimum level of consumption required for meeting basic human needs. There are multiple variations of the definitions of these basic resources among scholars, ranging from "primary goods" [45,46], "capabilities" [47,48], and "resources" [49] to "basic goods" [45].

One recent approach that synthesises the concept of planetary boundaries and human needs is Raworth's doughnut economics, which identifies a "sweet spot" for human

development located within the planetary boundaries of an environmentally safe existence but high enough to meet universally acceptable standards of social justice. The metaphorical doughnut is therefore bounded on one side by the planetary boundaries for development and by minimum living standards on the other [50]. The upper bounds of the doughnut are consistent with the idea of maximum consumption and, at least implicitly, with the idea of maximum living standards and maximum income.

The main issue with the discussion of social rights in this way is the unhelpful distinction between society and nature. The starting point and end point is the human individual. The overlaps between society and nature have been recognised in debates that consider whether humans should have a right to minimum environmental standards such as clean water and clean air and in climate change adaptation policies that recognise the role environmental changes play in shaping social rights. Some may also observe the value of ecological diversity in discovering new plants for drugs that may be used to cure human disease [51]. However, such discussions and developments occur strictly within the existing anthropocentric policy paradigm and fail in pushing for the necessary paradigm shift [52,53]. This makes it necessary for us to consider an environmental maximum living standard that remains within planetary boundaries and the limits necessary for sustaining life.

Conceptualising such a paradigm shift is at the centre of Michel Serres' natural contract (1995). He problematises the social contract, which "made us leave the state of nature to form society" [9] (p. 34). "The social contract was . . . closed upon itself, leaving the world on the sidelines, and enormous collection of things reduced to the status of passive objects to be appropriated [. . .] Exclusively social, our contract is becoming poisonous for the perpetuation of the species, its global and objective immortality" [9] (p. 36). He sees human existence as a form of parasitism, which takes the form of a one-directional arrow "moving in one direction but not the other, in the exclusive interest of the parasite, which takes everything and give back nothing along this one-way street". We need instead to invent "a double, two-way arrow that seeks to bring flows into balance through exchange or contract" [9] (p. 36). The first step toward achieving such equilibrium is to see that "objects themselves are legal subjects and no longer mere material for appropriation" [9] (p. 37).

These are the building blocks of an inclusive natural contract rather than an exclusive, anthropocentric social contract, based on "symbiosis and reciprocity in which our relationship to things would set aside mastery and possession in favor of admiring attention, reciprocity, contemplation and respect . . . for a symbiont recognizes the host's rights, whereas a parasite–which is what we are now–condemns to death the one he pillages and inhabits" [9] (p. 38).

To drive home the point, Serres compares the politics on land versus those on sea and suggests that the seagoing pact among sailors resembles the natural contract. The proximity of the external environment and its threat to survival guarantees a "nonaggression pact" among seagoers. "The collectivity, if sundered, immediately exposes itself to the destruction of its fragile niche, with no possible recourse or retreat. Its habitat has no supplement [to which it] can retreat . . . . Because it has no leftover space to which to withdraw, the ship provides a model of globality" [9] (p. 40–41). We have no option but to think ecologically. The shift in thinking offered by Serres' natural contract approach is summarized in Table 1 below.

Table 1. Relationship between social contract and natural contract.

Citizenship	Natural Contract	Relationship	Social Contract
Rights	Objects as legal subjects	*The two-way arrow denotes the move away from a parasitic one-way relationship between society and nature, to a two-way reciprocal relationship* ⟷	Disembodied
	Symbiotic		Realised through legal processes
	Based on equilibrium		Individual, via the state
Responsibilities	Towards the greater good of the Earth as an ecological system sustaining life		Towards the greater good of state and society
	Based on reciprocity between symbiont and host		Taxation and rule-based

A maximum living standard would focus on the overconsumption of the national and global economic elites and the upper class and upper middle class, whose behaviour under a natural contract would be deemed more parasitic than the consumption (or non-consumption) of the poor and marginalised. The limits to living standards would be defined in terms of a functioning two-way relationship between society and nature. In his theory of environmental justice, Schlosberg reconciles the two perspectives—social and environmental—by adding a capability perspective to environmental justice. Environmental justice needs to recognise the functioning of the ecological systems themselves and not only those humans who live within or depend on such systems [54]. As Schlosberg sees it, "[w]hen we interrupt, corrupt, or defile the potential functioning of ecological support systems, we do an injustice not only to human beings, but also to all of those non-humans that depend on the integrity of the system for their own functioning" [54] (p. 44). This is another way of looking at the two-way relationship: an environmentally oriented maximum living standard that aims to protect the capabilities and the functioning of the environment.

3. Results

3.1. Rethinking the Contract: Social–Natural Citizenship

Social citizenship and social policy are, as elaborated in the editorial introduction to this special issue, in their very essence anthropocentric, with policy solutions focusing on regulating the impact of human behaviour on nature or addressing the social consequences of environmental changes. Donna Haraway's term "response-ability" awakens us to the consequences of this disconnect between the human and the non-human world: the social world of humans is inextricably interleaved with the environment it inhabits, and only once we recognise this can we devise policies that respond to issues of care and equity at a planetary scale [55]. One way to approach such a synthesis of the natural and the social contract is by first recognising the similarities between human labour and natural resources as "fictitious commodities", before shifting our focus to the parallel process of the partial decommodification of both humans and nature. In this section, we posit a way to rethink our social relationship with the environment by weaving the social policy concept of commodification/decommodification together with our earlier presentation of a natural/social contract. This model can be seen in Figure 3.

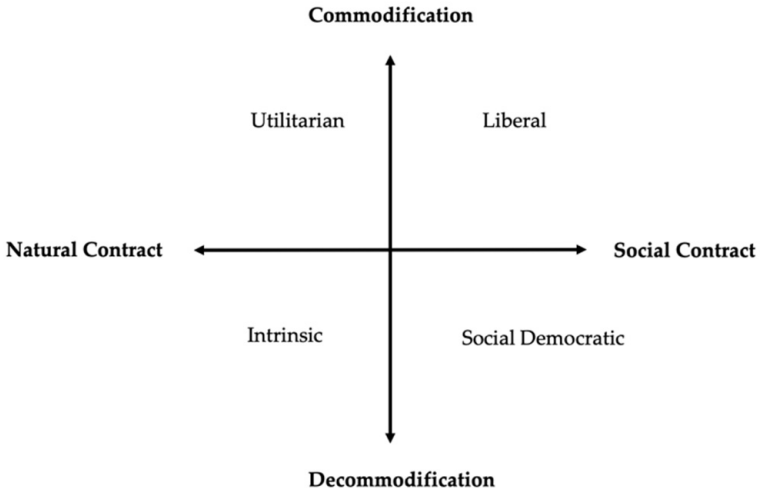

Figure 3. Rethinking liberal/social democratic nexus.

Commodification and the subsequent decommodification are most frequently linked with being a citizen in a welfare state, where they are associated with both duties and rights in relation to the state. Decommodification, as discussed by Polanyi, "protected citizens from major social risks and insulated their living standards from dependence on wage payments" and "the counter-movement that pressed for social reforms lead to the creation of a welfare state dependent on public services paid for by taxes and social contributions" [39] (p. 62). For Polanyi, labour remained a "fictitious commodity" as it is not produced for sale, and it cannot be detached from the rest of a human's life [8].

Polanyi also alluded to the importance of adding the environment to the analysis, seeing two further fictitious commodities as relevant: money and land. He saw land as "another name for nature, which is not produced by man" [8] (p. 72) and argued that the commodification of land, natural resources, and the oceans will generate collective "bads". This will need a collective response from society and a more active role of the state in regulating the land and protecting natural resources from market forces: "[T]he commodity fiction disregarded the fact that leaving the fate of soil and people to the market would be tantamount to annihilating them" [8] (p. 73). In this way, Polanyi opens the debate as to whether nature has a value in and of itself or whether land is merely a utility, with a value only thinkable in relation to money.

The value of nature can therefore be derived from two value systems: intrinsic and extrinsic. If we consider that nature or an eco-system has intrinsic value (e.g., [56,57]), this signifies the recognition of fundamental goodness in the world (e.g., [58–60]). Ecological integrity and the intrinsic value of ecosystems are the cornerstone of conservation ecology and environmental protection policies. These normative values motivate, for example, the work of the Society for Conservation Biology: "There is intrinsic value in the natural diversity of organisms, the complexity of ecological systems, and the resilience created by evolutionary processes" [61]. The intrinsic value of nature can be unclear, as species and ecosystems are not constant entities, while the intrinsic value of one may be in conflict with another [62].

The extrinsic value of nature is related to its benefit for humans [63]. These more utilitarian approaches differ from the intrinsic value school of thought in that they emphasise taking care of the environment for human uses and pleasures. The direct and indirect benefits that humans derive from ecosystems are often referred to as ecosystem goods and services. Some critics argue that the widespread use of these market metaphors to define how nature creates value for humans is leading to the extreme financialisation of nature [64]. There are no objective ways to measure extrinsic value, and such values change in relation to time and space, as well as between different species and across human cultures [62].

The intrinsic value and utilitarian approaches rely on fundamentally different underlying arguments about whether the environment has value in its own right, apart from that assigned to meeting human needs. While the utilitarian approach sees the value of nature largely in extrinsic terms and views nature as worthy of protection because of its value as a resource benefitting human wellbeing, the intrinsic value approach recognises the value of nature independent of humans, the reciprocity between the symbiont (the human) and its host (Earth), and the need for both to be assigned rights as legal subjects.

We see the linkage between the natural contract and the social contract as two interdependent variables that constitute each other, rather than being mutually exclusive. By developing a conceptual framework where basic social citizenship and social rights connect with the intrinsic value of ecosystems, we demonstrate how—and why—environmental policy and social policy should be thought of as a single policy framework. In the rest of the article, we will discuss the case of rivers as legal persons or social citizens and how the transfer of water back to the river and the ecosystem can be understood as welfare state activity spanning both the natural and the social contract. Decommodifying the social–natural contract pivots away from human-centric or eco-centric citizenship to social–natural citizenship that synthesises land, rights, and citizenship. Enabling rivers as legal entities or as social citizens and returning the ownership of the water back to the river—a social transfer from human activities to the river and its ecosystem—is a way of integrating the protection and restoration of ecosystems with social policy. We will develop these concepts using the case of giving rivers in New Zealand rights as legal entities.

3.2. Transfer of Rights to Rivers–Making Rivers Legal Entities

In 2017, the third longest river in New Zealand, Whanganui, became the first river in the world to be given personhood. The decision by New Zealand to re-introduce the river as part of our social world, to give it social rights and a legal personhood is a first step in the reduction in the utilitarian commodification of the river. This development was a crystallization of the broader movement of developing the "rights of nature" [65], while similar discussions are ongoing in other fields (see [66–68]).

Economic and cultural reparations play a key role in the debates concerning the right to (and of) rivers [69], as do traditional rights [70,71], where the cultural and spiritual value of rivers to the "people of the land" (Tangata Whenua) is recognised. As Brierley et al. [72] highlight, the legal processes concerning Whanganui river and the way the river was understood to acquire its rights and be recognised as a legal entity was closely connected with the indigenous knowledge and ways of life of the Māori. Not only was Māori knowledge deemed essential in the "management and monitoring of water and aquatic ecosystems" [72] (p. 1642), but the rights of the river were also understood in relation to maintaining and/or enhancing "the health and mauri (life force) of the waterways themselves, their associated ecosystems, and the people who associate with them" (p. 1642). Taking care of the river means striving for Ora (health, wellbeing) for the river and those who are part of the relational network around the river. The river is a living being and therefore a social citizen within the natural contract: "The river's own needs and rights were given legal protection" but "[i]n expressing and articulating the legal rights of the river as akin to the legal rights of a person, a unique governance arrangement was established in which two guardians have been appointed, one proposed by local kin groups and one proposed by the Crown" (p. 1644). The two guardians need to act in its name and in its interests/rights and administrate Te Korotete—a fund designed to support the health and wellbeing of the river. These guardians are supported by further stakeholders linked to the river [73]. Brierley et al. [72] underscore the extent to which this settlement resembles modern social rights, pointing out that "[u]nder this arrangement, the river was placed in the same legal category as children, or adults who are incapacitated, who require guardians to make decisions for them" (p. 1644).

Some might see this as a compromise between a Western concept of citizenship and nature on one side and a more holistic spiritual view of the relational entanglement of

humans with the land where the land is the determining part. Social policy will therefore need to go further to include the environment and look towards the ethical relations of care and reciprocity [74] and the holistic concepts of "a good life", where humans and the environment will thrive [75,76]. Citizenship, social policy, and welfare are in their core anthropocentric concepts. At the same time, the human species is part of nature and shares in nature's fate. Human wellbeing will become impossible if our ecosystems cease to function, and by the same token, social policy that cannot care for nature becomes a pointless exercise in human vanity as the earth heats up and the ecosystems fade away.

4. Discussion

4.1. Maximum Human Living Standard and Transfer of Rights and Resources Back to Nature

The case of Whanganui river demonstrates the intersections of the ecological and the social in our discussion of rights and citizenship and their implications with regard to how to conceptualise social policy in ways that take account of these intersections. As Gough's recent contribution highlights, the calls for such a synthesis of the "social" and "ecological" in our thinking about social policy are growing in volume [77]. However, despite an increasing acknowledgement that these intersections matter, these debates continue to frame the underpinning social contract largely in human terms. For example, the thought-provoking intervention from Minouche Shafik on developing a "new social contract" [78], reflects on the "environmental inheritance" of future generations in terms of the rapidly declining "natural capital" (as opposed to "produced capital" or "human capital") they will be left with. Two aspects of this mode of thinking are worth highlighting in particular. First, the new social contract remains a purely social contract, concerning the relationships between humans, where the natural environment is the crucial context for human wellbeing. Second, the intersections with ecology remain at best at aggregate level, where natural capital functions as shorthand for the collective of plants, animals, and other aspects of the natural environment that matter for human wellbeing. The other valuable insights of Shafik's argument notwithstanding, from an environmental perspective it remains far removed from the case of Whanganui river and its potential to rethink social rights from an ecological standpoint.

The idea of limits, defined by needs of the environment, is not new to social policy [79]. Gough has applied his concept of human need [45] to incorporate ceilings of income, consumption, and labour in order to think not only of how society meets social needs, but also to recognise sufficiency and impose certain limits. As Gough argues, "[t]o achieve fair recomposition means distinguishing the 'necessitousness' of consumer goods and services–whether they are essential, desirable or excessive–alongside their environmental impact", and we need to distinguish between necessities that meet core social needs, conventional goods that secure good life and wellbeing, and luxuries that are superfluous and unproductive [77] (p. 8). It is an approach that helps us identify upper and lower boundaries, as foreshadowed by Raworth's doughnut model discussed earlier [50]. For Gough, these limits are three-fold and concern (1) income and wealth in excess of that required for human flourishing; (2) consumption of high-carbon luxuries; and (3) labour that hinders provision and is unproductive. Despite the lucidity of a conceptual argument in support of maximum living standards, operationalising such ideas can be highly contentious, with numerous competing perspectives and claims blurring the debate. Gough's strategy here is to look towards citizen assemblies as an example of how we can develop collective, and therefore democratically legitimate, responses to such thorny questions. Although no panacea, citizen assemblies may provide a meaningful means of practical action on climate change-related issues. Our strategy is to attempt to break away from the anthropocentric blinkers of the social contract debate by returning to the idea of a natural contract based on a symbiotic, rather than a parasitic, relationship with nature and in so doing recognise the intrinsic value of ecosystems by conferring them social rights.

4.2. Intrinsic Value/Natural Contract

New Zealand's pioneering development of the political and social understanding of rivers draws on indigenous Māori understandings of the world (Te Ao Māori), where humans are not distinguished as separate entities but form a small part of a relational network (Whakapapa), where all life has the same origin from the earth and sky [73]. Humans have a kin-based relationship with not just other life forms but with everything, the earth, the universe (Te Taiao) [80]. They are part of everything, and therefore, humans are not "of the land" but seen rather "as the land" [81] (p. 285). The Maori language frames people, sky, rivers, and ancestors as a coherent whole [73], which finds expression, for example, in the description of rivers as networks of plants, animals, land, water, and people that are intertwined in an ongoing co-evolution [82]. The foundation of making a river a legal entity with rights lies in a religious framing that sees ecosystems as living entities. "Through [maori] creation beliefs, the river is a living being, an ancestor with its own life force, authority and prestige, and sacredness" [81] (p. 287). To treat a river as an ancestral force that needs to be recognized and protected requires humans to step in and protect its interests through understanding the reciprocity where the need to care for the land and the need to care for people are intertwined [70].

For these reasons, social policy and environmental policy should not be seen as separate policy fields but as one reciprocal policy system. One of the practical issues is of course the fact that the river lacks human agency and needs to be represented through symbolic guardianship (kaitiakitanga), with deep respect for the ancestral linkages that position people as part of landscapes and ecosystems [83]. Any governance arrangement needs to protect both the health and wellbeing of the river and the people that depend on the river [84] (p. 29). But why stop here? Welfare for humans without welfare for the river is useless as they are intertwined. The same will go for the decommodification of humans; this will be meaningless if it is not countered with a decommodification of the environment. Social transfers will be meaningless if they exclude transferring resources back and forth between ecosystems and species.

4.3. Utilitarian/Natural Contract

A modern, Western conception of social citizenship and social policy leads us to segment nature into particular uses, which could range from timber for tables to experiencing nature as a product of tourism. We define everything around us as part of a segmented sequence of user value that could be ignored or be adapted into some form of environmental protection. The foundation for this social citizenship is utility, defined though the eyes of humans and for the benefit of humans. When Europeans arrived in Aotearoa (New Zealand), they transformed rivers into a mere utility that could be exploited without limit [84] and introduced Western concepts of individual ownership and private property [73,82]. The consequences were fatal for whole ecosystems. Individual property rights and utilitarian approaches to land ownership were where negative vegetation and wetlands made way to extensive livestock farming and where rivers served primarily as sewage systems [84]. Human command and control management led to the implementation of large hydropower installations, irrigation projects, and artificial stopbanks and reshaped rivers and river ecosystems in New Zealand [85,86]. We can see that the Western understanding of the social has separated the river from a site of relational networks and an ancestral living being to become nothing more than a mere utility for human welfare and consumption. This stands in stark contrast with traditional indigenous understanding of human–nature relationships. "Indigenous peoples are key stakeholders in such partnerships and come to share their lived and rich experiences from their deep intergenerational relationship with nature. Sustainability is very much a part of Indigenous governance" [87] (p. 157).

5. Conclusions: The River as a Social Citizen

The environmental paradox at the heart of social policy, that meeting social needs through the current economic system also means that welfare systems are highly dependent

on economic growth, is well known. In such a system, development towards global equality cannot be decoupled from the negative externalities that are detrimental to nature. As Latour documents, at the time of the Paris Agreement the signatories penned down their national plans for future social development. It soon became clear that the resources needed to meet these aspirations were equal to those of four earths [88]. The ideas of "sustainable welfare" and "sustainable development" respond to this dilemma, attempting to contain the consumption incentivised by welfare systems within the planetary boundaries while also meeting basic social needs [50]. The realisation of such goals has been articulated under rubrics such as the "right to development"—the constant process of economic, social, cultural, and political progress towards improved wellbeing [89]. Whilst this moves beyond the purely consumption-based approaches to development that focuses on the ability of individuals to purchase the necessary commodities to meet basic needs, nature here remains the extrinsic, utilitarian context within which the human right to development is to be realised. As some of us have argued elsewhere, the highly complex policy context of climate change means that no single individual can fully comprehend all the issues at stake. In such situations, we rely on the stories we fashion about policy problems in order to make sense of them [90]. We therefore need to develop a fundamentally new story to tell about social policy and development that internalises nature.

The story of "nature as extrinsic to development" is also largely true of the SDGs. The 17 goals and 169 targets aim primarily at climate change mitigation, where attainment of a given target through business-as-usual approaches would harm nature, or creating more resilient human communities by adapting the way we inhabit the planet [91]. The SDGs aim at the sustainable use of natural resources for the benefit of humanity, thus adopting a rather narrow understanding of the "nature's contributions to people" (NCP) [92]. In other words, it continues to prioritise a stocks-and-flows perception of the relationship between people and nature, where ecosystems are understood as stocks of natural capital to be used sustainably or preserved because they are deemed valuable [93].

Seeing nature as an extrinsic resource at the service of humankind resonates with the way rights tend to be seen in the context of social policy. Social citizenship and the development of social rights that granted people a modicum of welfare and social security offers protection against commodification and negative market outcomes, such as unemployment [94]. In Marshall's seminal view of social citizenship, citizens were "first and foremost private individuals and consumers whose freedom of choice had to be protected against government interference" [36] (p. 280). The development of social citizenship in the direction of social democratic decommodification has connected the right to welfare with the right to consume. To remedy this, a substantial rethinking of the welfare state, along with a radical revision of the economic systems that underpin it, is required [95].

Instead, we could think of social citizenship within a broader ecosystem of welfare that includes social as well as natural rights and duties and that extends beyond the wellbeing of humans. We depict such a scenario in Figure 3, where we conceptualise decommodification in relation to both the social and the natural worlds. The case of Whanganui river exemplifies how to think about wellbeing in the context of broader welfare ecosystems that extend beyond humans and narrow the distance between the social and the environment. This way of thinking about the natural contract can be incorporated with more traditional, indigenous perspectives on the social contract and social citizenship, culminating in a set of mutual rights that develop ways of living with rivers. This can be also thought in myriad contexts beyond rivers, be they mountains, beaches, coral reefs, or greenbelts. Seen this way, the relationship between social policy and environmental policy becomes clearer as the implicit ecological dimension of social policy is exposed. We can see in New Zealand how the ideas of social policy can be applied to a river where we transfer resources to nature. An active welfare should therefore not just transfer resources from wealthy people to poor people but also transfer resources towards nature and ecosystems. We can therefore expand our understanding of social transfers to include transfers to nature.

This opens up avenues for seeing social policy as environmental policy, and vice versa. The connections between social security and nature are not tangential but real, concrete, and integral to recognising the full architecture of welfare systems. The right to consume, the cornerstone of modern social citizenship, can be thought of as the right to live a life congruent with the natural contract, that is, sustainable and respectful of the symbiotic relationship between humans and nature [96].

Where to go from here? The discussion concerning the efforts to give legal rights to aspects of nature, has largely focused on protecting natural ecosystems by granting them legal personhood along with commensurate rights. This perspective sees ecosystems such as rivers and forests as living beings. However, such a legal perspective is focused on individual rights and responsibilities, which misses out on the important relational and symbiotic aspects of the natural contract we have highlighted in this article. If we are to further develop our understanding of wellbeing at a planetary scale, it is important to shift our focus from individuals to processes.

This suggests a bigger research aim of broadening our understanding of what citizenship is—citizenship itself needs to be disconnected from a narrow Western understanding of liberal rights and duties that have been granted to citizens [97] and re-thought in relation to communities with rights and duties as something inherent to our species and its relationship with nature. We create social communities as a way to function, and we narrate these communities, rights, and duties in ways that help make sense of ourselves, nature, and the universe. As the editorial to this special issue argues [79], social citizenship should not be an exclusive human endeavour but needs, in theory and practice, to include nature and ecosystems as we all share a social space. Therefore, future research will have to start integrating environmental and social policy in a more extensive and deep way.

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