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The Prohibition of Severe Environmental Destruction as an Ius Cogens Norm

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I. Abstract

This thesis attempts to justify the formation of an environmental ius cogens norm mainly by arguing from two different points of view: The first perspective points bottom-up, identifying fundamental values regionally to then enlarge their scale to the universal ius cogens level. In this context, the focus will lie on fundamental rights theory, specifically on human rights and constitutional law. The second approach is less conventional since it tries to transcend the positivist requirements for an ius cogens norm formation. The main goal will be to argue, from a natural law philosophical starting point, that due to the prior position of nature to our existence, as it is demonstrated by natural sciences, some positivist arguments are not entirely convincing within the environmental ius cogens norm debate. It is therefore a top-down approach, arguing in favour of an obligatory sense for natural protection, or against severe environmental destruction, due to our given, physical reality, not just because of metaphysical aspirations.

Esta tese tenta justificar a formação de uma norma de ius cogens ambiental argumentando principalmente a partir de dois pontos de vista diferentes: A primeira perspetiva aponta de baixo para cima, identificando valores fundamentais a nível regional para depois alargar a sua escala ao nível do ius cogens universal. Neste contexto, o foco será colocada na teoria dos direitos fundamentais, especificamente nos direitos humanos e no direito constitucional. A segunda abordagem é menos convencional, uma vez que tenta transcender os requisitos positivistas para a formação de uma norma ius cogens. O principal objetivo será argumentar, a partir de um ponto de partida filosófico do direito natural, que, devido à posição anterior da natureza na nossa existência, tal como é demonstrado pelas ciências naturais, alguns argumentos positivistas não são inteiramente convincentes no âmbito do debate sobre a norma ambiental ius cogens. Trata-se, portanto, de uma abordagem descendente, que defende um sentido obrigatório para a proteção da natureza ou contra a destruição ambiental grave, devido à nossa realidade física e não apenas devido a aspirações metafísicas.

Keywords: Ius Cogens, Environmental Law, Fundamental Rights, Earth System Science, Capitalism, Sustainability Science, Anthropocene.

Ius Cogens, Direito do Ambiente, Direitos Fundamentais, Ciência do Sistema Terrestre, Capitalismo, Ciência da Sustentabilidade, Antropoceno.

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II. Introduction

Both approaches of this thesis, the top-down one and the bottom-up one, share common ground regarding the wording used by international and national authorities, scholars, courts, law- and policymakers worldwide to underline what could be seen as universal, environmental values. This thesis will interpret these metaphysical statements and at the end conclude that they might be applying older frameworks and ideas of natural law philosophy. Also, the philosophical background behind the contemporary debate on human rights, on human dignity in particular, does not seem to be far removed from the conceptual background of contemporary environmental law. “Holism” appears as a term that unites both legal approaches and gets justified by the holistic understanding of nature by contemporary environmental sciences.

Despite that, it will be necessary to show the difference between these philosophical currents and the facts that define our epoch. The Anthropocene, then, as a term, unifies various disciplines. The law, social sciences, natural sciences, economics, and many more can be found among these disciplines. The task will be to find the right composition of interdisciplinarity, with the right focus leading to a more effective system of global governance, and, for the purpose of this thesis, to a more effective environmental protection. The juridical question of how to regulate such a system will be answered by invoking ius cogens and fundamental rights. The goal is to demonstrate the numerous interconnections between natural law philosophy, contemporary environmental law in its broadest sense, their connection to the Anthropocene,

which is influenced by many different disciplines, to finally reach up again to the ius cogens level.

It might be impossible to identify the countless interconnections related to the topic. Therefore, one priority is to guide the argumentation by the conviction that environmental law, by its nature and definition, especially in a global sense, needs to have a natural scientific background. To define the environment convincingly, it is necessary to understand it and there cannot be a reasonable environmental law that does not integrate physical knowledge about the environment.

To point out the natural scientific approach on ius cogens, it will be put in contrast to the neoliberal system of values that largely prevails around the world, but which will not be able to sustain future needs. The extensive share of neoliberal values has led to a crucial inequality-problem. This brings us back to the human rights debate, in which equality is dealt with as a fundamental pillar besides liberty and dignity.

To build a clear path through this complexity, it is reasonable to start early at the beginning of legal thinking, crossing one communality after the other.

III. From Natural Law to the Anthropocene, a provocative summary

Generally defined, natural law aims at justifying over-positive norms.[1] It is the collection of all fundamental principles that relate to human action and that can be perceived by humans through their own reasoning. A perceived characteristic of natural law norms is that they shall be binding, even if they conflict with positive norms or if there are no positive norms at all applying to the specific case.[2] Theories in natural law philosophy share common ground in negating the universal power of disposition of the state over the law. This comes with the claim that at least the law in its most basic foundations is non-negotiable, or, an originally given reality.[3]

The origins of natural law thinking go back to ancient Greece. For Greek thinking, the eternal order of nature was the base for law and provided the framework for a pre-societal concept of

[1] Seelmann, Demko (2019), p. 158.
[2] Idem, p. 159.
[3] Idem, p. 160.

the human nature. In general, a normative order does not differ drastically from a natural order in Greek natural law thinking. Instead, the idea of nature (physis) had not only a causal but also a final perspective. Accordingly, the order of nature (cosmos) and its goals needed to get identified, to finally extract orders and guidelines for human action.[4] Human reasoning and individuality also played a crucial role in Greek natural law but rather as an organ to perceive the teleology that originated within nature.[5] An opposition between goals of nature and goals of reason barely existed at that time.[6]

That form of natural teleology which was open for human reason got first disrupted by Christian theology, the "C4"[7] for ancient natural law. Suddenly, an "over-positive" authority came into existence which often contradicted the natural order. This has been the case for example in miracles, where the natural order could not get grasped and perceived anymore through human reasoning but could only be seen as a divine intervention.[8] The idea of a timeless cosmos got replaced during religious thinking.[9] A linear sense of existence got established, a sense of achieving the grace of a newly defined, higher metaphysical entity. This linear sense was very different to the course of nature, often demonstrated in a circular form.[10] The compulsiveness of a norm was no longer based on a natural order but on the will of God.[11] This way, the normative started to differ from what simply was. The difference between normativity and existence was established.[12]

Later, the difference between natural law and natural order got underlined by stating the exact contrast to what ancient natural law proposed, namely that the "natural state"[13] was something necessary to overcome, because it was seen as the opposite to the "state of law". In the "natural state", everyone would have the right to do whatsoever, but also and at the same time, would have no right to claim anything.[14] The "natural state" as a "bellum omnium contra omnes", that could only be prevented through societal "contracts",[15] deliberate agreements of individuals,

[4] Aristotle (1981), pp. 8 ff.
[5] Calvão, Campos, Botelho (2021), pp. 31, 32.
[6] Seelmann, Demko (2019), p. 161.
[7] Idem, p. 161.
[8] Seelmann, Demko (2019), p. 161; Calvão, Campos, Botelho (2021), pp. 31, 32.
[9] See: Löwith, Meaning in History (1949), pp. 13 ff.
[10] Seelmann, Demko (2019), p. 161.
[11] Williams (2019), Chap. 5.1.
[12] Seelmann, Demko (2019), p. 162.
[13] Calvão, Campos, Botelho (2021), p. 33.
[14] Hobbes (1651), Leviathan, Chap. 14, p. 116.
[15] Calvão, Campos, Botelho (2021), p. 32.

enabling the ruler to regulate the conduct within society. The motive for such a "exeundum e statu naturae" would be human nature itself, which is understood to be dominated by egoism and fear.[16]

Then, through the influence of Kant, the foundation for rightful doing became self-lawgiving, establishing the autonomy of the reasonable will.[17] The criteria of "what is right" seems, at this moment, completely separated from nature, because firstly, only the reasonable will could establish an abstract norm with universal applicability, and secondly, even the motives to exit the "natural state" have not been natural anymore, but were born out of the formal mode of being reasonable.[18]

All in all, the idea and function of reason in natural law of the modern age differs strongly from how it was in ancient natural law. The use of reason is not anymore to show a pre-existing natural order to humans, but rather to cut off the connection to nature. Only then, minimum requirements could get established to enable people to live together in freedom. In ancient natural law, the given order was the primary. Today, within the more rational sphere of the natural law debate, it is the individual, which, primarily guided by needs, only then slowly emerges into a reasonable subject that originally constitutes order.[19]

This way, natural law got more and more "individualized".[20] How stable can the "new" primary, the reasonable individual be for further natural law philosophy, if itself is a process? Humans are no individuals, solely existing for themselves. They do not enter society, interact with it and develop it further as a "finished" product of an "own" and "original" process. They are, in contrast, historically and during their process of individualization, always and at the same time members of society, of larger and smaller societies, always evolving.[21]

Following from this, is such an individualized natural law not predestined to fail? The enlightened moments of the reasonable human rarely happen within our egoistic and fearful nature.[22] As it will be shown, this seems to be slowly realised by courts all over the world and

[16] Hobbes, (1651), De Cive, Chap. 1, p. 11.
[17] Kant (1794), pp. 75 ff.
[18] Seelmann, Demko (2019), p. 163, 164.
[19] Seelmann, Demko (2019), p. 165, Rn. 14; Calvão, Campos, Botelho (2021), pp. 32, 33.
[20] Hegel (1833), §§ 82 ff., §§ 129 ff.
[21] Seelmann, Demko (2019), p. 224.
[22] Hobbes, (1651), De Cive, Chap. 1, p. 11; Calvão, Campos, Botelho (2021), p. 33.

by constitutional thinkers. They seem to start a transition back to older natural law concepts. Of course, these legal statements are open to everyones' interpretation. However, probably – and this is one of the basic assumptions of this thesis – we are going back to Sieyès who argued that "prior and above the nation, there is only natural law."[23] The question remains, how far are we going back? Of course, we will not suddenly witness the "nature state" in its raw form becoming the "state of law". But at least in international environmental law, a stronger natural law framework is getting developed, to which perhaps new positive norms can be guided. Is the war of all against all not already happening, even after the exit from the "natural state"?

As humans today live in a "new (geological) epoch that has been created not by volcanoes or meteorites but by people,"[24] we might have exited the "natural state" differently than it has been philosophically presumed. Even more so, humans do not only seem to have exited the natural state but to have dominated it. "This epoch is called the Anthropocene."[25] Human action reached a level of profoundness and pervasiveness comparable to great natural forces, and finally pushes "the Earth into planetary terra incognita".[26] The Anthropocene stands for a new point in geological time in which the accelerated probability for a mass extinction, comparable to the other known five mass extinctions, exists.[27] To say this less drastically, humanity is a disproportionate driver and the primary determinant for climatic and biospheric change.[28] This being said, the Anthropocene as a scientific term firstly is the "most influential concept" [29] and secondly it is "almost self-evident" [30] for proving a new kind of complexity between social and natural systems, their interrelationships and interactions.[31] This leads to the context of law. There, the Anthropocene is regarded as a constitutional moment in which foundational renegotiations of responsibilities, powers, and rights emerge.[32] The connection to the ius cogens debate can be drawn there, because it is also a constitutional debate, trying to construct universally applicable, constitutional norms in order to integrate them into, or, to put them on top of the international law hierarchy of norms."[33] Ultimately, these foundational renegotiations

[23] Sieyès (1789), p. 12.
[24] Kotzé (2016), p. 257.
[25] Kotzé (2016), p. 257.
[26] Steffen et al. (2007), p. 614.
[27] Barnosky et al. (2011), pp. 51 ff.
[28] Steffen et al. (2020), p. 11.
[29] Ibidem.
[30] Ehlers, Krafft (2006), p. 9.
[31] Ibidem.
[32] Biermann et al. (2012), p. 1307.
[33] Kotzé (2016), p. 259.

will, because the consequences of the Anthropocene will not be open for many different alternatives, lead to equally foundational reorientations of most institutions, national and international, legal, political, and administrative, towards a "planetary stewardship" and a "more effective Earth system governance."[34] The advantage of using the Anthropocene as the underlying concept in that sense is that it unifies environmental issues such as pollution, climate change and biodiversity loss with social issues such as inequality, high consumption, and urbanization in an exceptionally powerful way.[35] Therefore, making use of the Anthropocene, meaning identifying its origins and possible future, leads to a more complete integration of social sciences, sustainability sciences, and natural sciences.[36]

Depending on how far the demonstrated philosophical path would lead current legal thinking back into the past, it would be important to identify the order of nature and natures' goals to then extract guidelines for human action. This is a chance to cross one of the many gaps between law and reality. Because to find out what nature "wants", it is not sufficient to lose oneself in wise words, as it seems to be the case in some spheres of judicial practice. The focus must lie, at least to some extent, on the empirical identification of reality. This can be achieved through the scope of natural sciences, especially and as a new and more effective system of governance would demand, through the science on earth systems and geophysiology.[37] What does natural science say about nature as the "prior condition"[38] to human existence?

IV. Natural Sciences: Climate Change, ESS, Gaia

"Our civilization is going down the path of self-immolation – out of greed, out of stupidity and, above all, out of accident."[39] One does not have to spend too much time on the topic of climate change to come across Hans Joachim Schellnhuber, "the father of the two-degree-goal"[40], who does not hold back with further, similarly drastic words. Rather, he even considers what is already happening today as a collective suicide attempt of mankind.[41] Of course, such statements are not spared from critics and are sometimes called unscientific.[42] Science on climate change alone does not totally reflect physical reality. In fact, there is no expert that is

[34] Biermann et al. (2012), p. 1307.
[35] Steffen et al. (2020), p. 11.
[36] Ibidem.
[37] See: Lovelock (2021), p. 232.
[38] Referring to the wording of court decisions and legal statements cited below.
[39] Schellnhuber (2015), p. 1.
[40] Kixmüller (2018).
[41] Ibidem.
[42] Storch & Krauß (2013).

able to predict the future climate of the world.[43] This is because climate is chaos,[44] and global change in general does not happen within a paradigm of simple cause and effect.[45] Rather, human impact on global change needs to be understood as cascades of multiple effects that stand in complex interrelationships with each other. [46] This situation creates hardly predictable and multidimensional patterns.[47] "Surprises abound."[48] Nevertheless, besides his catastrophic visions, Schellnhuber developed and introduced one major insight to the international discussion: Because of human pressure and the dynamic, co-evolutionary relationship between nature and human civilization, we are going to witness non-linear, potentially rapid, spontaneous, and irreversible shifts within the system that will ultimately lead to severe impairments of human well-being.[49] Severe and immediate changes are going to happen, not slow transitions.[50] Currently, there is no sign that these developments decelerate or reverse. It will be a challenge of unknown dimension for human societies to cope with the consequences.[51]

The – in any case renowned – wake-up call of Schellnhuber's resonates and is used here to start framing the picture of nature's current order. But, as the general opinion often reflects, science on climate change is insufficient for this framing. Somehow, there still is a general impression that many people are not convinced by scientific evidence of this specific field. This may be due to the attacks it witnesses mainly from the rising populist political sphere. Science on climate change often seems too radical to people. In other words, "there appears to be a concealed suspicion about the potential implications on life and environment."[52] Moreover, the future vision of an absolute and guaranteed level of environmental protection is referred to as being a combination of political idealism and scientific naivety.[53] This being said, it must be kept in mind that environmentalism appears unscientific and illiberal primarily because its basic scientific and ethical investigations are often not grasped by critics that come from professional fields far removed from environmental law and environmental sciences.[54] To put

[43] Lovelock (2021), p. 205.
[44] Gleick (1997), "Butterfly Effect".
[45] Ehlers, Krafft (2006), p. 7.
[46] Ibidem.
[47] Ibidem.
[48] Ibidem.
[49] Steffen et al. (2020), p. 6.
[50] Lovelock (2021), p. 228.
[51] Mauser (2006), p. 3.
[52] Neugebauer (2006), p. 27.
[53] Thompson (2003), p. 31.
[54] Kysar (2010), p. 8.; O'Neill (2001), p. 497.

it provocatively, it has usually been the case that well researched scientific hypotheses are not getting respected because they convince their critics, but because "these critics die out".[55]

That the findings of climate research come from scientific spheres far removed from the law is not without consequences. It only underlines the importance of combining law and natural sciences. This is one of the reasons why larger environmental scientific concepts need to be applied here. Although indigenous cultures all around the planet have recognized for thousands of years that life itself and the environmental system appear as a cycle to which humans are an integral part, it began just early in the 20th century that contemporary sciences started looking at the earth in that way.[56] Earth System Science (ESS) was born, and since then aims at identifying the earth's complex and adaptive functions and structures holistically, using concepts fundamental to global change, such as, the Anthropocene, which, as it got already mentioned, combines human dynamics and biophysical processes.[57] That natural sciences need to be integrated in the natural-law-specific, juridical discourse is underlined by the fact that any conference, report or workshop concluded that ESS, by its nature, should be international and interdisciplinary since the phenomena discussed neither respect national nor disciplinary barriers.[58] Especially the latter need to be crossed whenever and wherever necessary to achieve scientific progress and to establish a common understanding, common values and solid knowledge beyond discipline-specific terminologies.[59] Tackling the earth system's complexity can only be successful if cooperation integrates as many fields as possible.[60] No matter how to call these new coalitions, may they be named "problem-oriented interdisciplinarity", "self-reflexive transdisciplinarity", or "goal-oriented multi-disciplinarity", given the urgency of the global situation, reflections about the "if" of that cooperation seem superfluous.[61] It is reasonable to support the international ESS effort since it recognizes and takes the following fundamental and unavoidable fact seriously: „we are no longer "a small world on a big planet" but have become "a big world on a small planet"."[62]

[55] Bardi (2021), p. 9.
[56] Steffen et al. (2020), p. 2.
[57] Steffen et al. (2020), p. 2.
[58] Idem, p. 5.
[59] Mauser (2006), p. 4.
[60] Ehlers, Krafft (2006), p. 8.
[61] Ibidem.
[62] Steffen et al. (2020), p. 13.

Despite all the above, no matter how large and holistic the concept, no one will ever know what nature "wants". We could ask the question: "What does it matter?", "why should we survive?", and rightfully assume that nature will keep existing.[63] As soon as the world gets into a critical state, the development of species will be enforced that guarantees a new and pleasant environment. A shift of government will happen that will be better for life, but not necessarily for us.[64] Afterall, according to some spheres of the debate, the extinction of humankind would be the most effective way of environmental protection.[65] But since this would negate the human-reason-part of natural law, we could also ask what the right thing to do would be, because "unlike legal positivism assumes, law and ethics go ineluctably together, and this should be kept in mind for the faithful realization of justice, at national and international levels."[66]

Life itself stands in some sense in the exact opposite to the second law of thermodynamics stipulating, that everything moves down, to balance and death.[67] In a more scientific language, there is an overarching, natural scientific need to satisfy requirements, which comes by definition with the consumption of the available material and the usable energy.[68] This is timeless reality. But life on the other hand develops to ever more complexity. It is defined by improbability no matter where we look.[69] Life does not want to die.[70]

It was in 1972, when J. Lovelock conceptualized a natural entity containing the totality of living beings within their environment, to which they stand in constant interaction. He theorized a global regulative mechanism generated by the ensemble of actors through homeostatic feedbacks,[71] which basically means that life always tries to achieve balance.[72] He called that concept the "Gaia-Principle,"[73] recognizing the earth as functioning as one single organism.[74] Lovelocks' Gaia generated a new picture of our understanding of the earth, emphasizing natural

[63] Lovelock (2021), p. 228.
[64] Ibidem.
[65] Knight (2020).
[66] ICJ (2012), par. 288.
[67] Lovelock (2021), p. 56.
[68] Voß (2006), p. 155.
[69] Lovelock (2021), p. 56.
[70] Bardi (2021), p. 18.
[71] Steffen et al. (2020), p. 4.
[72] Lovelock (2021), p. 50.
[73] Idem, p. 47.
[74] Steffen et al. (2020), p. 12.

interconnectedness based on geophysics, that transformed our view on the whole planet.[75] The Gaia-principle is a fundamental concept for humans to understand how to interact with the ecosystem of the earth and why we should avoid any damage or destruction.[76] This could lead to the first guidelines for human action. The Gaia-hypothesis has the approach to see the earth as a living thing.[77] That nature itself, or at least larger natural systems or entities have the quality of being a living, legal subject is, as it will be shown, already starting to be recognized by numerous legal authorities.[78] Gaia is, on the natural scientific side of things, the most understandable to everyone, the most complete, and the largest concept of the appearance of life.[79] Such a pragmatic definition of the environment seems to be required. Although the international community tends to see the environment as a very inclusive and broad entity, interestingly, the community does not seek more definitional precision. They do not make clear statements because they do not want to impede themselves in the future with closed definitions to be better able to protect the environment.[80] On the other hand, a broad regulatory framework on environmental protection including and resolving various regulatory difficulties is what the realities of globalization demand.[81] Talking about that vision of a broad regulatory framework, ius cogens play a significant role.

V. Ius Cogens

Ius Cogens norms (IC) have, once established, an erga omnes effect. This means they apply to the international community as a whole, even if a state does not consent.[82] In the scheme of international law, this is already an advantage since usually, states' consent is the only aspect that limits state actions within the international law framework.[83] Another potential of IC lies in the fact that they form an international, moral landscape that floats above the more practical, "normative conflict zone"[84] mostly based on treaties.[85] IC norms take at least a "quasi-constitutional"[86] position at the top of the normative hierarchy in international law.[87] This way,

[75] Idem, p. 4.
[76] Bardi (2021), p. 18.
[77] Lovelock (2021), p. 39.
[78] Referring to the wording of court decisions and legal statements cited below.
[79] Lovelock (2021), p. 76.
[80] Jensen (2005), p. 152.
[81] Kotzé (2016), p. 254.
[82] De Wet (2006), p. 61.
[83] Kotzé (2016), p. 253.
[84] Idem, p. 247.
[85] Ibidem.
[86] Criddle, Fox-Decent (2008), p. 332.
[87] Ibidem.

an indispensable, supposedly universal, moral standard is created which helps evaluating even the most basic state conduct.[88]

The environmental perspective of IC though, is still underdeveloped, because global concern for the environment is a recent development, firstly gaining political attention with the United Nations Conference on the Human Environment in 1972 (Stockholm Conference).[89] International environmental law general still is considered a young discipline experiencing a formative period, as it was also the case for general international law in its early days.[90] There are some approaches aiming at extending the already existing IC to the environmental level instead of trying to conceptualize a new IC norm. These ideas reach from using the prohibition of the aggressive use of force whenever states destroy environmental resources to support their invasion[91] to, although less likely, extending the prohibition of genocide to the term "ecocide", including environmental destruction.[92] More promising, on the other hand, is the approach to get on the IC level through human rights.[93] This leads at some points to an "integrated rights approach" whenever human rights are getting violated by environmental issues, and that situation is then related to "traditional" IC norms.[94] For example, when the South African rural poor suffers from water scarcity and citizens are therefore potentially violated in their right to life, that precarious environmental situation would ultimately lead to a violation of the prohibition of racial discrimination and apartheid constituted by South African law and policies in practice, preventing equal access to water resources.[95] For the specific environmental law perspective that last approach has a bitter taste to it: Such a long and complex chain of violations and argumentation is necessary to protect the environment. Environmental protection should be simpler. The result until now is that there is no IC norm that extends to environmental purposes.[96] It therefore makes sense to go some steps back and try to identify universal values that ultimately lead to the formation of an IC norm, accepting that attaining peremptory status is a question of time.[97]

[88] Kornicker Uhlmann (1998), p. 101.
[89] Kotzé (2016), p. 253.
[90] Weeramantry (1997), p. 93.
[91] Kotzé (2016), p. 261.
[92] Ibidem.
[93] Kotzé (2016), p. 262.
[94] Idem, p. 264.
[95] Idem, pp. 264, 263.
[96] Birnie, Boyle, Redgwell (2009) pp. 109, 110; ICJ (1997), par. 97, the Court accepts the argument favorable to Slovakia that the environmental norms in concern would not have Ius Cogens status.
[97] Kotzé (2016), p. 253.

Universalism is first and foremost a position about value.[98] Due to the strong presence of the assumption that international law and international relations are witnessing a "permanent crisis"[99], it is questionable if there really are universally shared values within the international community and in the field of international law and international relations. This question would instantly face a counter-offensive invoking peremptory norms of general international law. It is difficult to identify new IC and to integrate them into the catalogue of eight norms existing so far.[100] Put differently: "It's a bird, it's a plane, it's jus cogens."[101] They may be shared universally, but nevertheless, there is an important difference between the declaration of sharing those values and the actual respect for them.[102] This recently has led to the conclusion that "the theory of international organizations is outdated, universalist ideas didn't work."[103] We are in need of an alternative. It needs to be aimed at a cultivation of truly universal values starting by an enforcement of smaller-scale fundamental values. It is going to be analysed, whether, since "multilateralism is under a stress-test"[104] and since "international organizations are only as strong as the states behind"[105], it is still reasonable to put so much effort in global solutions instead of focussing on the regional level. Consequently, the conceptual idea is to focus on the development of regional fundamental values, enforce them and enlarge their scale of application further and further, and then ultimately apply them to the universal level.[106] A "bottom-up"[107] approach, working regionally but with an international perspective. Even though the relation between peremptoriness and regionalism seems paradoxical in international law,[108] "the regional approach does not undermine universal peremptory rules; on the contrary, it seems to enrich them,"[109] and "might constitute an intermediate stage for the formation of universal jus cogens."[110]

[98] Boehm (2022), p. 6.
[99] Azeredo Lopes (2022).
[100] Referred to: International Law Commission (2022), Annex.
[101] D'Amato (2010).
[102] See: Azeredo Lopes (2023), 14.03.
[103] Almeida (2023).
[104] Vinhas (2023).
[105] Almeida (2023).
[106] Lima, Marotti (2022), p. 238.
[107] See: Klement (2004).
[108] Lima, Marotti (2022), p. 220.
[109] Idem, p. 238.
[110] Ibidem.

To identify which values are fundamentally shared within societies, constitutions are a reasonable source for investigation, as well as other fundamental rights, or human rights treaties, and the rulings of highest courts. Talking about constitutions, it can be stated that a constitution is able to define cultural identity, able to preserve its own value and therefore also to preserve the incorporated values to it, across generations.[111] "The constitution is a conversation between generations."[112] Through the ongoing exchange of thoughts and experiences inside society, fundamental values become more present within its collective consciousness.[113] This is ensured by the fact that people align their behaviour with the constitution and tend to identify with it, at least more than with international orders.[114] Also, regional regulations are more accessible to people and comparatively easier to enforce.[115] Consequently, constitutional values are essential for determining the fundamental values of societies, although not every constitutional right is supported by such values.[116]

Taking the environmental perspective, it should be noted that environmental rights can be better protected at the regional level through constitutional law than at the international level. This may be true because nationals tend to identify more with nature within "their" territory.[117] The constitution of Ecuador may be the most evident example for a recognition of the environment as a fundamental value. Articles 71 and 72 of the seventh chapter of the Ecuadorian constitution became famous and inspired legislators and courts around the world to rethink constitutional law.[118] They regulate what humans owe to nature as opposed to what humans may claim from it, they establish the fundamental value of nature's rights as comparable to human rights, and they create judicial processes in which humans can directly represent nature:[119] "All persons, communities, peoples and nations can call upon public authorities to enforce the rights of nature. […]. The State shall give incentives to natural persons and legal entities and to communities to protect nature and to promote respect for all the elements comprising an ecosystem." Above all, the wording of Art. 71/1 of the Ecuadorian constitution is decisive. First, it confers rights of nature per se instead of limiting these rights to specific areas, systems or species when it says: "Nature, or Pacha Mama, where life is reproduced and occurs, has the

[111] Monshipouri (2009), p. 254; May & Daly (2015), p. 24.
[112] Ackerman (2007), p. 1793.
[113] Mathiesen (2005), pp. 235, 236.
[114] Brandl & Bungert (1992), p. 4; May & Daly (2018), p. 3.; see also: Fitzmaurice (2004), p. 40.
[115] May & Daly (2018), p. 15.
[116] See: Monshipouri (2009), p. 254; May & Daly (2015), p. 24.
[117] See: May & Daly (2015), p. 18.
[118] Huneeus (2022), p. 7.
[119] Ibidem.

right to […].” Second, by referring to “integral respect to its existence”, “maintenance and regeneration of its life cycles, structure, functions and evolutionary processes”, it identifies specific rights of nature.[120]

Since 2008, the great potential of this constitutional innovation to lead to fundamental changes has been recognized.[121] It is referred to as marking a paradigm shift in the relationship between humans and the environment.[122] A new, ecocentric, constitutional paradigm, in which nature – as a natural being – would be recognized as a subject of law. Nature as a living subject whose well-being, like that of humans, must always be considered in decisions and political acts.[123] “Sumac kawsay”, an indigenous term which means “in harmony with nature”, now constituted the primordial goal of the state, in which this new understanding is assumed to take a transcendental role in the future social and economic development of the country.[124] Some go as far as to speak of an ontological change since the Ecuadorian constitution would describe a new understanding of the relationship between people and the environment, in which natural entities are even seen as moral beings standing in social exchange with people.[125]

It is not easy not to get carried away by this renowned enthusiasm about the described “non-anthropocentric, legal standard”.[126] This is in some way due to the fact that, during legal education, constitutional guarantees are often placed on a pedestal and the written constitution is celebrated as an instrument to perpetuate society’s most important relationships and rules.[127] However, the reality of the written constitution regularly differs from what it contains. Thus, one can go so far as to say that the written constitution is just an illusion.[128] One should be aware of the Pacha Mama utopia, not because it can fundamentally revolutionize environmental policy on its own – in fact, since 2008, Ecuador’s constitution could not significantly improve climate solutions[129] – but because it moves legal thinking and the philosophical basis for the further development of societies, more in the direction of a better environmental governance,

[120] May & Daly (2018), p. 7; Ecuadorian Constitution, available at: https://www.constituteproject.org/constitution/Ecuador_2021, [last seen 21.01.2024].
[121] May & Daly (2018), p. 7.
[122] Daly (2012), p. 66.
[123] Huneeus (2022), p. 14.
[124] Sentencia N. 0 166-15-Sep-CC, Corte Constitucional del Ecuador (2015), p. 10.
[125] De Castro (2004), p. 465; Huneeus (2022), p. 8.
[126] Prieto (2021).
[127] Bryce (1905), pp. 37-38.
[128] Albert (2021), min. 9, 23, 25.
[129] See: Ritchie and Roser (2021), our-world-in-data; Albert (2021), min. 16:40.

and thus ultimately protects people better.[130] In times of "permanent crisis,"[131] "we need to think in utopias,"[132] and if, despite all the criticism, it can be said that constitutionalism is "ubiquitous"[133], and therefore even very metaphysical constitutions like Ecuador's have a core of reality, even if they are not absolutely true, or cannot be absolutely true,[134] then this real "essence"[135] will persist, will keep on transforming society[136] and, in any case, will have a positive effect in the societal background which can be already seen in the uprising protective movements among younger generations.[137]

There are many national and international court decisions reflecting strong arguments in favour of fundamental rights to nature.[138] Courts around the world are noticing the increasingly drastic climate effects and are increasingly developing a catalogue of environmental rights.[139] Concerning the South American region which, as it will be shown, might be the most promising region for proving acceptance and recognition of at least a regional, environmental IC norm, Colombia's highest courts' rulings are significant, as they recognize the "green perspective"[140] and the ecological nature of the constitution.[141] Also, parts of the Amazon River are understood as legal entities.[142] By pronouncing constitutionalist ideas with all the authority and legitimacy of the state through supreme court decisions, courts have profound influence on the cognitive development within society.[143] (Universal) jurisdiction in cases of serious environmental harm strengthens the constituent power[144] by recognizing humanity as its transnational bearer operating across state boundaries.[145]

[130] Huneeus (2022), p. 2.
[131] Azeredo Lopes (2022).
[132] Roig (2022).
[133] Albert (2010), p. 374.
[134] Albert (2021), min. 43:50.
[135] Albert (2010), p. 377.
[136] Albert (2021), min. 14.
[137] See, Naaraayanan, Sachdeva, Sharma (2020), p. 32; Otto (2023), min. 80.
[138] Mohd Salim v. State of Uttarakhand (2017); Gbemre v. Shell Petroleum Development Company Nigeria Limited and Others (2005); Merryman v. Fingal County Council, High Court of Ireland (2017); Lahore High Court (2015); Supreme Court of Nepal (2015); Karnataka Industrial Areas Development Board v. C. Kenchappa & Ors. A.I.R.; BVerfG (2021); Teitiota Case; ICJ (1997), Weeramantry (1997).
[139] May & Daly (2015), p. 9.
[140] Corte Suprema de Justicia (Colombia), STC4360-2018, p. 27.
[141] Ibidem.
[142] Constitutional Court of Colombia, Judgement T-622/16 (2016), p. 97.
[143] May & Daly (2015), p. 25.
[144] Sieyès (1789), p. 12.
[145] Colon-Rios (2014), p. 155.

Especially remarkable are some aspects of the Inter-American Court of Human Rights Advisory Opinion on the Environment (OC-23/17). Of course, some of these need to be clarified in future cases.[146] Nevertheless, there are some ideas that should get expanded. For instance, when the Court states that "several fundamental rights require, as a necessary *precondition* for their enjoyment, a minimum environmental quality […]"[147], or that the realization of attributes such as dignity, equality and liberty *depend* on an environment that allows them to flourish,[148] or when it states that environmental protection is a "*condition* for a decent life"[149], it indicates seeing environmental values as a prior condition for fundamental values, mostly integrated within Human Rights. Such conceptions can also be found elsewhere. In some cases, environmental protection is referred to be an important component of contemporary human rights doctrine in general because it is a *sine qua non* for numerous human rights such as the right to life.[150] The doctrine sometimes goes further, seeing the destruction of nature as a disregard of the conditions for the existence of the human species and thus as a violation of *all* human rights.[151] However, the exact consequences such a conception would come along with, do not get expanded and remain questionable. Also, the strong underlining of human rights, the seemingly strong connection between human rights and IC will need to get further analysed.

1. Human Rights Approach, Bottom-Up

The Human Rights approach[152] within the constitutionalist paradigm might be the most powerful and broadest legal approach for supporting the formation of IC norms. For that purpose, it is necessary to accept a strong human rights underpinning to the already existing IC norms and furthermore, to accept that human rights issues provoked by environmental concerns overlap with other human rights issues, which all in all broadens the human rights scope.[153] The major human attributes fundamental to human rights, namely equality, dignity, and liberty,[154] depend, as it was already stated, on an environment that allows them to flourish.[155]

[146] Banda (2018), p. 5.
[147] IACHR, OC-23/17, par. 49.
[148] Idem, par. 51.
[149] Idem, par. 109.
[150] Colon-Rios (2014), p. 147.
[151] Acosta (2012), p. 25; Colon-Rios (2014), p. 147.
[152] See: Kotzé (2016), p. 262.
[153] Ibidem.
[154] Ibidem.
[155] IACHR, OC-23/17, par. 51.

It is "scarcely necessary to elaborate",[156] how all human rights can be undermined and impaired through environmental damage.[157] As a response to that, human dignity is used to derive guarantees[158] such as the right to a clean, toxin-free, unpolluted and healthy environment.[159] The intention seems to be to create an indispensable, existential, and universal environmental right that is intrinsically related to human dignity and the general well-being of the population.[160] This human-dignity-approach can be the basis for addressing climate change, even in the absence of other legal means.[161] The reference to human dignity highlights a violation of the rights of human beings due to impairments to the environment and the climate. In addition, the approach illustrates that environmental impairments affect all essential aspects of life.[162]

In the literature on law philosophy, the discussion on human dignity is one of the most relevant discussions.[163] To achieve the goal of a just society and to provide minimum requirements for living within it, for example, the question is if we should not rather place human dignity in the centre of attention instead of elaborating only on a "new" concept of justice.[164] According to the above, such a conception would, since human dignity cannot reasonably be separated from the environment, come with centralized, fundamental and natural values. Consequently, the discussion goes further, elaborating how extensively the concept of human dignity should be understood. An anthropocentric understanding, where humans would, while interacting with nature, only have indirect duties, just insofar as human interests are getting touched,[165] needs to be replaced, since, as it was shown, an anthropocentric worldview cannot sustain future needs. The remaining field of discussion is mainly divided in three positions. Pathocentrism opens the moral society also for non-human creatures, but without protecting "lower"

[156] Weeramantry (1997), pp. 91, 92.
[157] Ibidem.
[158] See: Calvão, Campos, Botelho (2021), p. 132, depending on the underlying hierarchy of norms, human dignity is, as being part of the "princípios jurídicos fundamentais", even more used to derive guarantees. Taking the Portuguese constitution as an example, human dignity "gives birth" to rights, and is placed even above international Ius Cogens. Other constitutions share this perspective. Human dignity is not a Ius Cogens norm, yet it is considered fundamental. Keeping that in mind, it is important to underline that human dignity, as a fundamental principle, does not take part of specific norms in environmental law. Human dignity and environmental law are not comparable. It is rather, stricto sensu, a deductive starting point for the development of environmental law.
[159] Gbemre v. Shell Petroleum Development Company Nigeria Limited and Others (2005), AHRLR 151.
[160] Merryman v. Fingal County Council, High Court of Ireland (2017), Fn. 261.
[161] May (2021), p. 1008.
[162] May & Daly (2018), p. 11.
[163] Seelmann, Demko (2019), p. 244.
[164] Ibidem.
[165] Idem, p. 268.

organisms, meaning organisms without the capacity to conscious experience.[166] Biocentrism sees an organism's mere "liveliness" as sufficient for receiving subject quality, which could be violated through its bare use.[167] All living beings would therefore be considered as moral entities, no matter their hierarchical position between "high" or "low" organisms.[168] Lastly, there is Holism which constitutes the largest circle of moral-society. It is an ethics of unlimited moral recognition in which non-living matter, specific organisms and systems at large come in addition to all individual human and non-human beings.[169]

The legal literature mentioned so far seems to be mainly following holistic approaches. Environmentalism, in general, calls for holistic thinking with the ultimate goal of getting states to protect the environment more uncompromisingly.[170] Because international legal cooperation is designed to meet the demand of being and becoming ever wiser and smarter,[171] holism seems to be the applicable, philosophical framework for the international perspective on human dignity. Environmentalism, with its holistic ideas, can be seen as an innovative pioneer in this regard. In the IC domain, though, there is a problem concerning the regulatory scope because "people are the exclusive regulatory objects of jus cogens norms".[172] Whereas "the environment" as a regulatory object with interests that potentially could get harmed, would also include non-human and non-living entities.[173] This makes it difficult to distribute responsibilities and to identify specific relations between all relevant entities.[174] However, this problem to some extend loses its significance depending on the underlying philosophical approach. Conscious about the "danger"[175] that natural law could become a law of experts in relation to other disciplines, the legal recognition of the potential of non-human consciousness is limited by evidence about the non-human.[176] Therefore, again, the involvement of natural sciences is necessary to answer questions fundamental for developing reasonable, legal approaches in the future.[177]

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[166] Idem, pp. 268, 269.
[167] Idem, p. 269.
[168] Ibidem.
[169] Idem, p. 270.
[170] May & Daly (2016), p. 13.
[171] See: Follesdal (2020), p. 478.
[172] Kotzé (2016), p. 254.
[173] Ibidem.
[174] Ibidem.
[175] Seelmann, Demko (2019), p. 160, in the sense of a deficit in natural laws' legitimacy, if it becomes, or, in the largest sense of the current debate, already is, "expert-law".
[176] Seelmann, Demko (2019), p. 274.
[177] Ibidem.

There are questions that just cannot be answered by normative sciences such as Law and Philosophy.[178] One of these questions would be if the differentiation between "higher" and "lower" organisms is useful, when even humans only are the product of a conglomeration of "lower" animals, meaning micro-organisms,[179] which would critically speak against a pathocentristic perspective. In fact, nowhere on earth exists a clear boundary between living and non-living matter.[180] Therefore, holism should indeed be, specifically within the human rights, or, more precisely, within the human dignity approach, the philosophical basis, because human unity is "not just a dream of enlightenment, but a biophysical certainty."[181]

Besides the human dignity approach, some courts take a similar approach using the right to life as a right integrating human dignity and the right to a clean and healthy environment.[182] To understand the right to life only in terms of a sustaining life is said to be incomplete and erroneous. Rather, all rights necessary for a dignified life as a human being would be integrated in the right to life. To live a dignified life in a polluted environment in which adverse circumstances expose human life to dangers is considered unimaginable.[183] Some go further, stating that the right to a balanced and healthy ecology would not even need to be enshrined in the constitution because it could be assumed that this right has already existed since the dawn of humankind.[184]

The IACHR in particular, which is one of the most powerful human rights courts[185] and important for the development of fundamental values within the South American region, made a decision with some ground-breaking aspects, clearly following a holistic approach. While expressively recognizing that climate change has adverse effects on human rights,[186] the Court considered it to be "important to stress"[187] that the right to a healthy environment should be "autonomous".[188] A right that recognizes the need for protection of different environmental

[178] Ibidem.
[179] See: Lovelock (2021), p. 51.
[180] Lovelock (2021), p. 76.
[181] Karnataka Industrial Areas Development Board v. C. Kenchappa & Ors. A.I.R. 2006, p. 11.
[182] Lahore High Court (2015), p. 5.
[183] Supreme Court of Nepal (2015), p. 46.
[184] Oposa et al. (1993), Fn. 11-12.
[185] Azeredo Lopes (2023).
[186] Banda (2018), p. 5.
[187] IACHR, OC-23/17, par. 62.
[188] Ibidem.

entities as “legal interests in themselves”[189], even without a connection to a certain risk for individuals because of environmental influences (clearly not anthropocentric).[190] The connection to humans is put differently. The Court stated that the protection of nature is necessary because of its “importance to the other living organisms with which we share the planet“[191], not just because of the benefits nature provides (clearly not anthropocentric), nor because of the dangers into which humanity puts itself through further degradation of the environment.[192] The above mentioned tendencies in constitutions and jurisdictions to recognize nature’s legal personality and specific rights to nature are being expressively noted by the Court.[193] Finally, the Court differentiated clearly between the potential for environmental protection which arises from the enforcement of the right to life or the right to personal integrity, and the potential arising from an autonomous right to a healthy environment.[194] Now, environmental protection clearly would have a different content.[195] Even though the Court was carefully referring to the high steps Ecuador and Colombia made in terms of rights to nature, the newly developed right to a healthy environment protects the environment per se.[196]

Furthermore, the IACHR underlines the extraterritorial scope of human rights. If pollution can cross borders, so can jurisdiction.[197] In this sense, the Convention “was designed to protect the human rights of individuals, regardless of their nationality, before their own State or any other State.”[198] The Conventions reasoning would go beyond the concept of national territory and would include multiple ways of applying jurisdiction.[199] Furthermore, taking the perspective of international law, the Court also found that jurisdiction is not linked to territory, referring to the rule of interpretation under Art. 31 of the Vienna Convention.[200] Human rights would be inherent to all legal persons recognized under the applicable human rights treaty.[201] Consequently, the states bound to it would be obliged to avoid transboundary environmental damage able to affect the human rights of individuals outside their territory.[202] If such

[189] Ibidem.
[190] Ibidem.
[191] Ibidem.
[192] Ibidem.
[193] Ibidem.
[194] Idem, par. 63.
[195] Banda (2018), p. 2.
[196] Ibidem.
[197] Banda (2018), p. 1.
[198] IACHR, OC-23/17, par. 41.
[199] Idem, par. 74.
[200] Idem, par. 75, 76.
[201] Idem, par. 75.
[202] Idem, par. 101.

transboundary damage occurs and treaty-based rights are getting affected, a violation would be seen if there was a causal link between an act that originated within the territory of a member state, and the deprivation of human rights of legal persons outside its territory.[203]

Lastly, the Court further developed the duty to prevent transboundary harm: The third key finding of the Court was that the duties to ensure and to respect the rights to life and personal integrity need to be interpreted within the framework of international environmental law.[204] Concretely, the Court developed the duty to prevent environmental harm, underlined the precautionary principle, as well as the necessity to cooperate within the international community, and finally emphasised procedural environmental rights.[205] While the duty to cooperate remains an obligation to exercise in good faith as it was derived by the International Court of Justice,[206] the duty to prevent was developed more precisely. According to it, states are obliged to prevent significant environmental harm through regulation, supervision and monitoring on a structured and scientific basis of any act potentially effecting the environment in a significant way.[207] Furthermore, in order to justify state responsibility, a knowledge element must be attributable to the state, meaning that the state knew about the risk for protected rights or should have known about it, as well as a causal link between the human rights violation and the significant harm to the environment.[208] All in all, states are obliged to respect the precautionary principle, even if there is no scientific certainty about the potential harming event to the environment and are also still obliged to adopt preventive measures against serious or irreversible damages.[209]

Despite all the above and although the judiciary will continue to play an indispensable role in aiming for fundamental environmental rights,[210] it must be kept in mind that no judicial order will be able to solve current environmental problems without political processes running in parallel. Consequently, the best that courts can do is to galvanize the policy makers.[211] Courts

[203] Ibidem.
[204] Idem, par. 115, 116; Banda (2018), p. 4.
[205] Banda (2018), p. 4.
[206] IACHR, OC-23/17, par. 184; ICJ (2010), par. 145.
[207] Banda (2018), p. 4.
[208] IACHR, OC-23/17, par. 120.
[209] Banda (2018), p. 4.
[210] May & Daly (2009), p. 372.
[211] May (2021), p. 1013, apud: May & Daly (2014) Routledge Handbook of International Environmental Law, pp. 603, 615.

must be particularly careful not to interfere with the separation of powers through their call for environmental protection measures.[212]

2. IC confrontation with reality, Top-Down

Fulfilling the requirements for the theoretical and practical establishment of a new IC norm comes with various difficulties. Firstly, such a norm would need to be accepted and recognized by a very large and representative majority of states.[213] This would require evidence for such a wide acceptance and recognition.[214] The international picture of evidence is unclear, if not to say that there is no general universal perspective that environmental protection deserves to be a IC norm.[215] In fact, the world also still lacks an overarching binding treaty that establishes the right to a healthy environment.[216] The Stockholm Declaration was the first international document to recognize what is now understood as the right to a healthy environment.[217] It states: "Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations."[218] However, this document is currently only one part of an environmental protection regime that is primarily composed of international treaties and national particularities which, taken together, appear like a patchwork solution.[219] Nevertheless, speaking in favour of a universal recognition, one could mention the Paris-Agreement which is a binding treaty with 194 members.[220] Lately, the UN agreement on protecting marine biodiversity in international waters is to mention,[221] as well as other agreements, which were important building blocks for those treaties.[222]

In terms of the society, the uprising protective movements among younger generations cannot be overlooked.[223] These are to some extend driven by the existing scientific evidence on climate

[212] Kovalcik & Zuffova-Kuncova (2022).
[213] International Law Commission (2022), conclusion 3, 6, 7.
[214] Idem, conclusion 3, 6, 7, 8, 9.
[215] See: Azeredo Lopes (2023).
[216] May (2021), p. 1001.
[217] Idem, p. 998.
[218] Declaration of the United Nations Conference on the Human Environment, Principle 1, 1972, available at: https://wedocs.unep.org/bitstream/handle/20.500.11822/29567/ELGP1StockD.pdf, [last seen: 14.01.2024].
[219] Sands (2003), p. 11, 12.
[220] See: List of parties to the Paris Agreement and Ratifications, available at: https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en.
[221] See: https://news.un.org/en/story/2023/03/1134157, [last seen: 14.01.2024].
[222] See: IACHR, OC-23/17, par. 52, 134, 176.
[223] See: Naaraayanan, Sachdeva, Sharma (2020), p. 32; Otto (2023), min. 80.

change.[224] On the other hand, there are facts of reality speaking against universal acceptance and recognition. The climate action tracker of most countries is insufficient and reflects the actual adherence to rulings and acts in favour of environmental rights.[225] The sustainable development goals report 2022 identified a historical peak in fossil fuel emissions after the decline due to the Covid-19 pandemic.[226] Referring again to the importance of constitutional values, in 2021, 84 of 193 UN member states explicitly recognized a constitutional right to a healthy environment.[227] At the same time, only courts in India, Pakistan, Sri Lanka, Panama, and Guatemala regularly apply an implicit right to a healthy environment. That means, out of 84 states that theoretically have strong environmental rights in their constitutions, only 6 have a corresponding jurisprudence sufficiently frequented to assume effective protection.[228] In general, many actors are acting against the concept of jus cogens, mainly because of its "fuzziness"[229] and the fear to be bound more easily without consent.[230]

Secondly, the topic of breaches of obligations arising under a peremptory norm of general international law needs to be touched upon. According to the Draft Conclusions of the International Law Commission, such a breach "is serious, if it involves a gross or systematic failure by the responsible state to fulfil that obligation."[231] Regarding the "gross" failure, numerous court decisions could already be used to frame the quality an environmental impact should have to fulfil that requirement. Additionally, the scientific facts mentioned could support or adjust that framing and by combining legal and natural scientific analysis and judgement, a solution could be found. The premiss to that approach would include that highest courts around the world work comparatively, not only navigating their ideas through the statements of international courts, but also through reasonable rulings of other, national authorities.[232] Recourse must be taken to the best solutions of different states, especially in the context of climate change.[233] At least in the field of environmental law, the boundary between the national and international scope is becoming ever narrower[234] since national law increasingly

[224] Schellnhuber (2015), p. 1; Kixmüller (2018).
[225] Available at: https://climateactiontracker.org/, [last seen: 14.01.2024].
[226] SDG Report (2022), p. 52.
[227] May (2021), p. 993.
[228] Idem, p. 997.
[229] Linderfalk (2009), p. 961.
[230] Lima, Marotti (2022), p. 238.
[231] International Law Commission (2022), conclusion 19 No. 3; also: International Law Commission Draft Articles on the Responsibility of States for Internationally Wrongful Acts, 2001, Art. 40.
[232] May & Daly (2015), p. 27.
[233] Ibidem.
[234] Idem, p. 18.

incorporates international environmental and human rights principles.[235] A particular advantage of the comparative approach is that it takes a middle course allowing a general, international overview, while not losing sight of the locality of the specific environmental problem.[236] This is underlined looking at one limitation of the international solution which is that the places where the consequences of climate change and other environmental impacts occur are seen as local problems rather than symptoms of a global disease.[237]

Thirdly, there are the legal consequences of Art. 53, 64 Vienna Convention.[238] Treaties are void, if they conflict with a peremptory norm. "Healing" those violations would only hardly be possible,[239] the parties would get extensively bound and affected in all kinds of different relations,[240] without the possibility to enact reservations.[241] Having said this, it is important to bear in mind that the existing peremptory norms are generally related to the context of war and aggression. It is, for instance, comparatively easy to agree on broad economic treaties without conflicting with these norms. But if one would think of a new peremptory norm of environmental protection, agreeing on economic treaties without conflicting with Art. 53, 64 VCLT would be much more difficult because such an environmental IC norm would be wider and would stand in diametral contrast to humanities current approach of operating within reality.[242]

Lastly, the legal regime on State Responsibility needs to be considered. "Any State is entitled to invoke the responsibility of another State for a breach of a peremptory norm of general international law (jus cogens), in accordance with the rules on responsibility of States for internationally wrongful acts."[243] One of the main problems to face in this regard, but especially in the context of climate change, is the requirement of attribution. To apply state responsibility, conduct violating international law must be attributable to a state.[244] No matter what kind of

[235] Idem, p. 19.
[236] Idem, p. 29.
[237] Idem, p. 17.
[238] Also: International Law Commission (2022), conclusion 10.
[239] Idem, conclusion 11.
[240] Idem, conclusion 12.
[241] Idem, conclusion 13.
[242] See: climate action tracker, available at: https://climateactiontracker.org/, [last seen: 14.01.2024]; SDG Report (2022); Schellnhuber (2015); De Castro (2023); Herrmann (2022); to reflect the broad, neoliberal and capitalist worldview of our society as the opposite of what the environmentalist discussion demands.
[243] International Law Commission (2022), conclusion 17; also: Art. 40, 42, 48 Draft Articles on the Responsibility of States for Internationally Wrongful Acts, 2001.
[244] Sassòli (2002), pp. 404 f.

specific element of attribution one tries to think of, developing a causal link is the overarching requirement for it.[245] As already underlined, climate is chaos.[246] A certain causal link is unlikely to get established, especially if we are dealing with international climate disasters, because a natural disaster is unlikely to be with certainty attributable to one or a few states. Probably, many of the climate problems we are going to face would need to be attributed to the entire international community. Counterintuitively, that is also a reason why the regional approach makes more sense. It would be easier to look at national climate problems and attribute them to the state in which the disaster arises. But even then, attribution will be a hard element to establish. It is likely that, even if the disaster arises nationally, it can be linked to climate effects far away, with no obvious relation to the concerned state.[247] Therefore, the rules for defining the requirements of that causality would need to be very specific.

In light of these difficulties, the natural law philosophy and natural scientific framing, as well as the interdisciplinary effort in combination with the powerful examples of Pacha Mama and Gaia, the following idea is provided: The requirements for a new formation of IC do not exist without reason. Instead, they have been intensively negotiated. But at the same time, Art. 53 or 64 VCLT do not specifically stipulate which norms have peremptory status.[248] The VCLT in general is silent on criteria that could be used for determining the existence of a IC norm.[249] Therefore, the VCLT contains certain openness for the development of IC, may their origins be public order, state consent, or natural law.[250] As it has been made clear already, the intention here is that the natural law should and could play a stronger role in identifying an environmental IC norm. International consent, acceptance and recognition, on the other hand, could and should play a secondary role. At least, it should be emphasized that the forms of evidence for an IC formation through acceptance and recognition are unlimited and are therefore open for interdisciplinary approaches.[251] Because, as it is rather obvious in today's world, the credibility of a declared share of values, the credibility of international statements, of agreements and disagreements, may not be as given as we always made ourselves believe and it might not be as powerful in international relations as we thought it would be.

[245] See: Draft Articles on State Responsibility, Commentaries (2001), pp. 39, 65, 92, 93, 95.
[246] Gleick (1997), "Butterfly Effect".
[247] Ibidem; Voigt (2008), pp. 15-17.
[248] Kotzé (2016), p. 243.
[249] Ibidem.
[250] Criddle, Fox-Decent (2008), p. 338.
[251] International Law Commission, (2022), conclusion 3, 6, 7, 8, 9.

This conclusion is not new in the field of jus cogens. Even the existing norms are not being respected.[252] There needs to be a different approach to reality. Another approach could be to just consider such statements as being true. One could naively accept the fiction that international actors mean what they say. However, such an approach would be very open for pessimistic attacks and realist arguments, especially in the domain of environmental protection.[253] In other domains, the value of international statements and their effect on international relations is surely stronger.[254] Still, in the environmental law domain, an alternative seems necessary. One of the major standpoints of natural law is that some law is given by a higher, metaphysical order. An order that is just a given reality. A matter of fact.[255] Around the world, not only constitutions but also courts use a wording that reaches a level of metaphysical reasoning that makes it seem like they would aim at revolutionizing basic concepts.

The given law framework, though, does not allow the actual implementation of their aspirations. As it was shown, the earth could and should, at least natural-scientifically, indeed be seen as one single organism, as a living subject. Evidence[256] (scientific evidence on ESS, CC, etc.) must play an important role for any fundamental value that is supposed to reflect reality. This is, of course, even more the case for an environmental, fundamental value. To measure fundamental values supporting the existing IC norms in a natural scientific way would indeed not be that easy. How do you measure the intrinsic need for humans to self-determinate? How do you measure an intrinsic need for humans to prohibit genocide, torture, or slavery? Scientifically proving the intrinsic connection to nature is, thanks to the mentioned fields, easier, if not, obvious. We tend to forget about the "Co-evolutionary" relationship between nature and human civilization.[257] That relationship got legally established by conceptualizing Pacha Mama. What we owe to nature[258] indicates important and necessary guidelines for humans, after the important step of legally identifying the order of nature has been taken.[259]

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[252] See: Azeredo Lopes (2023), 14.03.
[253] Compare the mentioned difference between the results shown by: climate action tracker, available at: https://climateactiontracker.org/, [last seen: 14.01.2024]; SDG Report (2022); Schellnhuber (2015); De Castro (2023); Herrmann (2022), and the aspirations stated in international agreements on environmental protection.
[254] Just analyzing the way how a discussion on international relations is getting initiated in the public arena. It always begins with the analysis and interpretation of the specific statement of a particular, international actor.
[255] Seelmann, Demko (2019), p. 160.
[256] Schellnhuber (2015), p. 1 [translated by the author]; Kixmüller (2018).
[257] Steffen et al. (2020), p. 6.
[258] Huneeus (2022), p. 7; Ecuadorian Constitution, available at: https://www.constituteproject.org/constitution/Ecuador_2021.
[259] See: Seelmann, Demko (2019), p. 160, 161.

This finally showed, what a fundamental value of nature concretely could look like. A "common understanding beyond disciplinary terminologies"[260] created by integrating as many disciplinary fields as possible regarding environmental issues, as it is here the case for law, philosophy, social and natural sciences, will create an adequate and common value. Too often, these terminologies prevent important knowledge from being shared on a large scale. This may be at least one reason for the already mentioned lack of precision by the international community in defining the environment. It is a definition difficult to communicate and to implement but also obvious, or rather natural, at the same time. Ultimately, "if you can think about something which is attached to something else without thinking about what it is attached to, then you have what is called a legal mind."[261] It is the original sin of lawyers that we tend to forget the origins of the origin of law. If lawyers could, on the other hand, recognize their nature as humans, it would lead them to consider formal positivist requirements of, in the case of IC, acceptance and recognition, as less important.

Summarizing the above, the claim is that an environmental IC norm could exist, not primarily because of any statement or a conglomeration of such, nor because of any kind of new aspirational and revolutionary law, but as a matter of fact. Nature as a fundamental value because of a given, unquestionable, physical reality in combination with the acceptance of a need for the priority of natural law in today's legal thinking and in the face of our huge environmental problem.

To better point out the importance of that explicit reality, it makes sense to demonstrate what kind of prevailing, fundamental value prevents strong environmental values from flourishing. "Environmental Constitutionalism"[262], to be successful in its broad and ultimate sense, would have to significantly and immediately change the anthropocentric, individualistic, and instrumentalist programme of our liberal worldview. Some scholars consider the neoliberal enlightenment ethos that still prevails today as a major obstacle to solving primarily acute environmental problems and to achieving cosmopolitan, intergenerational and interspecies justice.[263] This is reflected by the following picture of justice in today's world:

[260] Mauser (2006), p. 4.
[261] Graber (2019), p. 90.
[262] May & Daly (2019), p. 7; May & Daly (2015), p. 10, apud: May & Daly (2014) Routledge Handbook of International Environmental Law, pp. 603-616.
[263] Kysar (2010), p. 2.

“Every day, inequality contributes to the death of at least 21300 people, which is one person every couple of seconds. Every 4 seconds, one person dies because of hunger. 252 men have more wealth than 1 billion women and girls in Africa and Latin America combined. Since 1995, 1% captured 20 times more wealth than the bottom 50% of the world population. About 3.4 million more black Americans were alive today if there were no inequality in terms of life expectancy between black and white Americans. 20 of the richest billionaires are estimated to produce 80000 times more carbon emission than the billion poorest people. The wealthiest 1% produce more emissions than the poorest 50%. The 10 richest men in the world own more than the poorest 3.4 billion people. If the 10 richest billionaires sat on their wealth in US-Dollar bills, they would reach almost halfway to the moon. If the richest men spent 1 billion dollars each day, it would take them 414 years to spend their combined wealth.”[264]

Globally, inequalities cannot be understood as only concerning the abysmal difference between rich and poor because even the richest suffer from inequality.[265] It must rather be understood as a larger systemic problem, negatively influencing most parts of society since it hinders growth, health, wealth, a society’s adaptive capacity to challenges and crisis, and thus all in all a society’s capacity to develop in a sustainable manner.[266] Inequality, not just economically, is one of the biggest problems of our time.[267] Nevertheless, we keep on praising and worshipping our capitalist, neoliberal program. Surely, capitalism has done good to many societies. Capitalism brought wealth, health and education to many people. If capitalists would have understood capitalism in the way it was intended and invented,[268] the system would have worked even better.[269] Capitalism as an economic theory has by its nature not the purpose to exploit other people’s lives. The inequality-problem is rather driven by the wrongful interpretation of capitalism by the main capitalist actors. Capitalism allowed and allows inequality to grow because we chose and choose inequality to grow.[270] “Inequality has never been by chance, but by choice.”[271]

[264] Guedes de Oliveira (2022).
[265] Ibidem.
[266] Ibidem.
[267] Baraggia et al. (2019), p. IV.
[268] Herrmann (2022).
[269] Markovits (2022).
[270] Guedes de Oliveira (2022).
[271] Ibidem.

Capitalism as a global order, and thus as a universally shared value, or at least as a system strongly influencing fundamental values, has a fundamental connection to the environment,[272] since it faces two major limitations: First, the resource-limitation. There is not enough energy, not enough water, not enough raw materials, not enough rare earth metals, and so forth. Second, the environmental limitation. There is not enough soil for harvest, not enough space to establish the so called "green growth" with renewable energies, even not enough space in space for our satellites.[273] Capitalism theoretically needs infinite growth to sustain itself, but oversees the physical limitations to that, apart from the challenge climate change already poses to our survival.[274] Although it would be favourable to see capitalism transform itself and continue as the applicable system despite the practical endlessness of the environment,[275] capitalism in fact does not allow itself to change fundamentally.[276] Also, capitalists cannot change capitalism because their enterprises would collapse under the logic of a shrinking economy.[277] Therefore, the question is whether we leave capitalism in an ordered manner or if the system will collapse in chaos[278] because the age of growth is over.[279] The intergenerational, interspecies, cosmopolitan approach of environmentalism should not be understood as a violation of the liberal tradition but as a further development of it.[280] Rather, it would be illiberal in the best sense of the term not to allow cultural and social reorientation. Liberal societies should never consider themselves complete but should always examine whether they can ensure even more participation.[281] Liberal constitutions, on the other hand, should always try to raise the collective self-awareness of society, to make people strive to improve the current solutions at all times.[282]

Science on sustainability is at least one powerful response to the limited understanding of nature-society interactions and focuses on providing a better general understanding of these interactions which is urgently needed.[283] Also in that field, interdisciplinary efforts are

[272] Matos Fernandes (2022).
[273] Guedes de Oliveira (2022).
[274] Herrmann (2022).
[275] Guedes de Oliveira (2022).
[276] Herrmann (2022).
[277] Ibidem.
[278] Ibidem.
[279] Markovits (2022).
[280] Kysar (2010), p. 8.
[281] Kysar (2010), p. 9.
[282] Idem, p. 10.
[283] Jäger (2006), p. 20.

necessary to find sufficient answers to ecological and social issues in particular regions.[284] Sustainability sciences try to combine analyses of complex self-organizing systems (Gaia, Earth System), irreversible impacts to them (Anthropocene) and the ways in which different social actors react to that reality (here: Law),[285] especially integrating and focusing on traditional and indigenous knowledge (Pacha Mama, and scientific-historical background of ESS) to address sustainability issues,[286] which is why it seems to be so far the most complete approach.[287] Or, more clearly, "there is no alternative to sustainable development as the long term strategy for coping with the consequences of Global Change".[288] Should that form of sustainability be society's "new contract"?[289] In conformity with that, the sustainable development goals replaced the Millennium Development Goals in international policy spheres. They embed the earlier human-centric perspective on development into a broader earth system framework.[290] The agreements that emerged consequently to these developments indicate universal consent to sustainability, although conceptions of sustainability vary between circumstances and regions,[291] and, as mentioned, the 2022 SDG Report's results have been rather ironical.[292] Sometimes, as it is for example stated in the Rio Declarations, the defined concept of sustainability appears contradictory since it embraces further economic development and less use of natural resources at the same time.[293] The Brundtland Commission found a more open definition of sustainable development as a "development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs".[294] Very often, the concept of sustainable development is broadly defined so that it can be used by many different actors for many different purposes.[295] The danger is that sustainability becomes "a mere buzz-word."[296]

Any more tangible approach of sustainability would need to take the laws of nature into account.[297] This brings us back to Gaia, the science on earth systems, and to the second law of

[284] Ibidem.
[285] Ibidem.
[286] Idem, p. 22.
[287] Idem, p. 20.
[288] Mauser (2006), p. 3.
[289] Jäger (2006), p. 22.
[290] Steffen et al. (2020), p. 13.
[291] Jäger (2006), p. 19.
[292] SDG Report (2022), p. 52.
[293] Voß (2006), p. 155.
[294] Voß (2006), p. 155.
[295] Ibidem.
[296] Ibidem.
[297] Ibidem.

thermodynamics. That is, "thermodynamically speaking, life necessarily produces entropy by degrading workable energy and available material and requires a permanent input of these constituencies."[298] Knowing that our life currently requires too much of that permanent input, a concept of sustainability that could actually be implemented broadly would need to be very strict. All in all, the combination of capitalism as we live it, the deficits of human nature[299] and the undoubtably reasonable goal of sustainability have been vividly captured by Kofi Annan when he wrote: "Freedom from want, freedom from fear, and the freedom of future generations to sustain their lives on this planet."[300]

At the end, what does it mean to be human?[301] Some approaches to that question are rather biophysical as humans are considered embodied beings and therefore exposed to all kinds of environmental influences, whether social or natural.[302] The meaning of life could be explained "in a minute" by stating that human beings existed only reacting on positive or negative stimuli.[303] This constantly reactive position already makes humans vulnerable.[304] Consequently, "there is no position of either invulnerability or independence,"[305] rather, all there is to enforce is resilience in order to empower people to respond to life.[306] The contemporary, liberal and alone standing legal subject therefore seems to be incapable of reflecting the human condition.[307] As a result, "environmental law will need to proceed beyond weighing the rights and obligations of parties within a closed compartment of individual State self-interest, unrelated to the global concerns of humanity as a whole."[308]

VI. Conclusion

In our "fluid world"[309], everything is highly interconnected, and, as some say, if "everything is interconnected, then everything becomes an environmental problem."[310] The above-mentioned decisions, rulings, and so forth, contemplate such "interconnections"[311], "transcendental", or

[298] Idem, p. 156.
[299] Hobbes, (1651), De Cive, Chap. 1, p. 11.
[300] Jäger (2006), p. 19.
[301] Albertson Fineman (2019), p. 20.
[302] Idem, p. 21.
[303] Harari (2020).
[304] See: Albertson Fineman (2019), p. 23.
[305] Albertson Fineman (2019), p. 26.
[306] Palha (2023).
[307] Albertson Fineman (2019), pp. 18, 19.
[308] Weeramantry (1997), p. 118.
[309] Vinhas (2023).
[310] Bodansky (2010), pp. 10-11.
[311] See: IACHR, OC-23/17, par. 2, 49, 51, 54, 66.

"intrinsic"[312] values in the context of rights to nature and environmental protection. Yet, it is difficult to understand all these interconnections and even more difficult to implement them. Their implementation would bring their status as metaphysically aspirations floating above reality to an end. If everything is interconnected and one idea theoretically needs to contain everything, that idea becomes more complex and thus less practical.

All the above tried to shed light on various interconnections between different fields, knowing about the impossibility to identify all interconnections within the framework of that thesis. The reflections on natural law philosophy showed one possible understanding of the path that led us to the Anthropocene, our current epoch, and at the same time tried to recall older, foundational, philosophical ideas, that could underline contemporary approaches in environmental law. The Anthropocene, which clearly demands a more effective earth system governance to deal with global change, has been used as a general starting point for combining law (IC, Human Rights, Constitutional Law), social sciences (Capitalism, Sustainability Science), and natural sciences (ESS, Gaia) into one general picture to show that nature and life should and could indeed, across all these fields, be seen and understood, as a cycle, as ancient natural law already proposed. The law then needs to combine all these perspectives. It needs to answer the question of how to regulate that system of governance. This can be done effectively by invoking the highest possible set of norms.

Besides all this, the bitter taste remains: "Only when universal fundamental values are at stake is there the possibility of jus cogens."[313] Will it be necessary for the environmental chaos to come upon us before we can accept that nature in fact incorporates universal fundamental values? How is it possible to combine the order of nature with the chaos currently carried out by our environment? Or is cosmos in fact the order of chaos? The end of this thesis leaves some uncertainties, after heaving attempted to creatively build a path that better combines law and reality. Recognizing the confusing trajectory of that path, meaning the disorder that might have been appeared at some point, the difficulty of the task became clearer. Now, the validity of the following statements at least became more accessible, if not certain. After all, "natural life itself and its well-being seem to appear as humanity's last historical task".[314] Keeping this in mind,

[312] Idem, par. 217.
[313] Lima, Marotti (2022), p. 228.
[314] Agamben (2004), p. 76.; Kysar (2010), p. 11.

and in light of the profound need for more wisdom in the world, it remains to trust that "the owl of Minerva, takes its flight only when the shades of night are gathering."[315]

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