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Principles of Energy Justice: Looking at the Environmental and Climate Justice Principles with Energy Justice Approaches

Abstract: This paper examines environmental and climate justice principles with different energy justice approaches to support the literature on energy justice principles. By revealing the unique nature of energy governance and responsiveness of different energy justice approaches with regards to environmental and climate principles, I argue energy justice principles are important to pursue to lay the groundwork for forming quality oriented, measurable standards of energy justice. In a world divided on what just transition means, without principles and standards of energy justice translating normative ideas into actionable information, it will be not possible neither to track the success of projects such as Just Energy Transition Partnerships (JETPs), nor claim any justness in their results.

Keywords: JETPs, energy justice, principles, standardisation.

1 Written under the supervision of Prof. Dr. Markus Lederer

Introduction

In recent years Just Energy Transition Partnerships (JETPs) are forming in between Global North (International Partners Group)[2] and South (South Africa, Senegal, Indonesia and Vietnam).[3] Yet, the world is far from agreeing on what 'just energy transition' means. Is it the same as 'just transition'? What makes a transition a 'just transition' and not 'just a transition'? Where and how does 'energy justice' come into the discussion of justness of energy transitions?

To deal with these complicated questions and aspects in a structural way, this paper focuses on principles. As the next sections will show, we know a) energy justice scholarship is built on to the environmental and climate justice scholarships, and b) in retrospect, the formation of environmental and climate justice principles served in line with the 'justice' goal. However, I argue this may not serve the JETPs and energy justice the same way. Firstly, due to the current state of the global governance of energy, and secondly due to the nature of the notion of 'principle'. The extensive literature from IR shows that the issue of energy governance is closely tied to security and development, especially in the Global South where countries with energy supplies have been exposed to colonial exploitation practices and their remedies. Today, at least in energy governance, there is very little buy in for developed countries' 'kicking away the ladder'[4] style restrictive strategies to be imposed on developing countries. This complicated nature and history is proved by the fact it is not possible to point out one principal actor responsible for global energy governance (Newell et al., 2013). When it comes to the notion of 'principle', in the most simplistic way I use the Oxford definition of 'principle': 'a moral rule or a strong belief that influences your actions' (Oxford, 2024). However, principles by definition and in practice do not refer to process, outcome or their quality

2 Consists of Japan, the USA, Canada, Denmark, France, Germany, Italy, Norway, the EU, and the UK

3 It is reported that negotiations with the Philippines and India are ongoing - although with India coal phase-out stands as an issue still.

4 'Kicking away the ladder' refers to Chang's book with the same title (2001) where they discuss how developed countries put restrictions on developing countries about the same policies which helped them develop in the first place.

which is a fundamental requirement for governing foreign funded partnerships (i.e. JETPs). If there is not a principal actor with a set agenda and the principles are not sufficient then what is an alternative way to govern these just transitions globally?

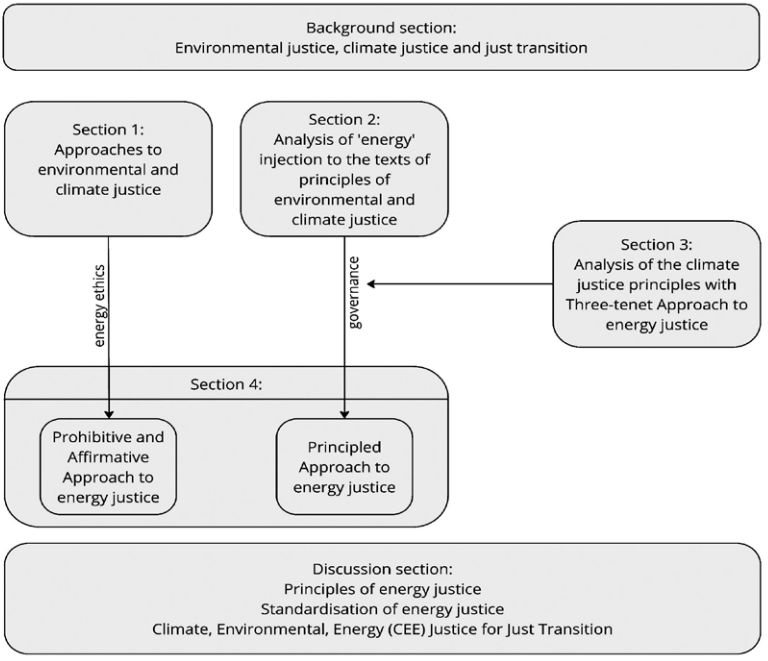
Here I argue that standards can fill this gap. Standards are 'normative ideas about quality to be expected' and they concern 'things, processes and outcomes' (Singer, 1996). However, the process of standardisation is not immune to invested interests of standard setters, historical power dynamics and contestations (Linklater, 2016). Therefore, understanding principles of energy justice can serve as ground-laying for standardisation of energy justice. Following the same thread, this paper focuses on understanding the principles of energy justice to serve the larger literature on energy justice as well as to inspire solutions to essential and pressing policy problems around energy transitions.

In order to reveal new insights for energy justice principles I raise the questions below:

1. How energy was and is relevant in the establishment of environmental and climate justice principles?
2. How did energy justice scholarship with different conceptualizations respond to the energy questions arising from environmental and climate justice principles?

As illustrated below (Visual 1), the background section will present the birth of the concepts of environmental justice, climate justice and just transition. Section 1 will look at different approaches to environmental and climate justice and the evolution in between (Table 1), then Section 2 will analyse two main texts on environmental and climate justice principles; 17 Principles of Environmental Justice and Bali Principles of Climate Justice with an energy lens (Table 2). Section 3 will introduce Three-tenet approach as the most predominant approach to energy justice and analyse Bali Principles with respect to the different tenets (Table 3). Section 4 will tie different preliminary results from previous sections together with two important approaches to energy justice: prohibitive and affirmative approach and principled approach.

Discussion section will present the findings in response to the questions raised in the introduction and show the limitations of just transition as an alternative solution by elaborating on the principles of just transition. Finally, in the conclusion I will remind the importance of utilising principles in energy justice research while discussing the shortcomings of the paper. I will then conclude with references to the future research.



Visual 1: The structure of the paper

Background

Environmental justice starting in the 1970's initially focused on the uneven distribution of negative environmental externalities. In the US, this literature predominantly focused on environmental racism which reveals how different racial and ethnic groups are disproportionately objected to the health risks. Scholars of

environmental justice took an interest in the intersectionality of race/ethnicity and class (Mohai et al., 2009). Robert Bullard, who is considered the father of environmental justice, worked on 'American apartheid' and called for equal protection of all communities by environmental laws and regulation (Bullard, 1994). This is a valuable analytical lens while inspecting previous and current apartheid states and their colonial approach of using energy access as a stick and blocking most of the population from accessing energy decision making.

Building on the globalisation of environmental justice as a movement, the climate justice movement was born. It is important here to highlight that both concepts are initially highly influenced and shaped by US politics and justice issues there. In the literature, there are various understandings of climate justice in connection with the locality of the movement. While one perspective focuses on understanding the global climate governance and inequalities it causes, another perspective frames the issue around environmental justice by defining climate justice based on the environmental impact over communities caused by climate change (Mohai et al., 2009).

If we follow up on the second perspective; there we see how Hurricane Katrina had an immense role in uniting these two movements (Schlosberg et al., 2014). The US being the largest historical perpetrator of climate change became also the 'victim' of it. The unprecedented proximity between those who benefited from warming the globe and who had to pay the cost of it with their lives and properties suddenly brought climate justice as a focus of attention for environmental groups. Suddenly, the negative externalities went beyond polluting the environment surrounding the production sites and included communities all around the world losing so much to the impact of climate change and often while being subjected to other forms of injustices simultaneously. Then how did this new perspective impact the development of the climate justice principles?

Before moving into the next section where I will discuss different approaches to climate and environmental justice, it is

important to make a note of just transition from a chronological perspective. Although the energy justice scholars tend to present energy justice as a new kid in the block after environmental and climate justice movements, I believe this only holds if you omit 'just transition' and only in scholarship where the close ties between energy justice and just transition are sometimes overlooked. Closely related to the growing environmental justice movement in the '70s, the term just transition was coined by Tony Mazzocchi, a trade unionist, who believed the social and environmental concerns should be addressed simultaneously (Leopold, 2007). Therefore, by positioning just transition at the intersection of the social justice trade unions (mainly coal miners) were seeking and the environmental justice, he at least in practice inspired the idea of energy justice. It is only decades later energy justice has been conceptualised and became relevant not only for scholars but also for policy makers partially due to rising concerns of global warming and because of growing movement of climate justice. Later in this paper, after discussing the concepts of environmental, climate and energy justice, I will discuss just transition as a potentially unifying framework with its roots in the soils of solidarity, however showing very little use of that potential.

Section 1

There are several approaches that help us to grasp the main differences between environmental justice and climate justice. Based on Schlosberg and Collin's work, Table 1 presents two different approaches; historical and human rights (Schlosberg et al., 2014 & Bond et al., 2010). Historical approach underlines the weight of historical actions in moving forward. The UNFCCC's 'common but differentiated responsibilities and respective capacities' understanding is based on polluters pay while similarly the 'climate debt' principle is based on 'full compensation and reparations for damage'. In the human rights approach the environmental justice puts emphasis on equality (in receiving protection by environmental regulations and laws) while climate justice focuses on the idea that any outcome

generated by burning fossil fuels is against the fundamental human rights since in many locations around the world people's access to their fundamental rights are worsening as a result of climate change. Furthermore, climate justice underlines the right to development out of poverty before getting any climate debt.[5]

Table 1: Early approaches to laying out intersection between climate justice and environmental justice principles[6]

	Environmental Justice	Climate Justice
Historical approach	Polluters pay	Common but differentiated responsibilities and respective capacities
	Full compensation and reparations for damage	Full compensation and reparations for damage - Climate debt
Human rights approach	Equal right to be protected by environmental regulations and law	Burning fossil fuels is limiting access to fundamental human rights (of vulnerable communities)
		Right to develop out of poverty before gaining any climate debt

Here two bodies of text can help a) translating these different approaches into concrete principles, b) tracing overlaps between

5 To briefly illustrate how complicated this principle is in reality; the available data shows us that rapid decoupling is only achieved partially by some countries in the Global North and for the rest of the world the decoupling will take longer. Then, as soon as the coupling issue is recognized, 'the right to development' becomes 'right to emit.' However, simultaneously, those who decoupled claim to have a right to have mechanisms that establish competitiveness in the markets. The Carbon Border Adjustment Mechanism (CBAM) of the EU is a great example where we observe punishments for those who want to emit their way into European borders. However, technically they should have no problem accessing other markets with their emitting products. Therefore, it is important to say the implementation of these principles in the world of carbon markets and climate negotiations is highly complicated and therefore should be read within a larger context of complexities.

6 Author's own visualisation based on Schlosberg and Collins' "From environmental to climate justice: climate change and the discourse of environmental justice" WIREs Clim Change 2014, 5:359–374. doi: 10.1002/wcc.275

environmental justice and climate justice and presenting the evolution of differences, and c) bringing in an energy lens into the conversation. First body of text is 17 Principles of Environmental Justice published in 1991, the first set of principles set by the First National People of Colour Environmental Leadership Summit as it is the first time such a detailed text on environmental justice came about in the USA (*The Principles of Environmental Justice (EJ)*). The second text is the Bali Principles of Climate Justice, created in 2002 during the Earth Summit (*Bali Principles of Climate Justice | Corpwatch*). This is again the first set of principles agreed by and published to a wide range of audience from an international stage (Schlosberg et al.,2014). The next section will look at these texts and analyse the differences with an energy lens.

Section 2

Looking at these two texts can give a fundamental idea about how energy, and not yet energy justice, came into the conversation. Firstly, Table 2 shows the adoption and evolution of principles from environmental justice (column 1) to climate justice (column 2). To do so, I list the relevant principles that correspond to climate principles in the first column. For instance, while #2 Principle of Environmental Justice corresponds to #19 of the Climate Justice Principle, we see no change in the language and therefore can see clear adaptation of the principle. Secondly, the table shows how the changes between two principles include energy issues. For example, in the fourth line, we see that the principle (#4) has widened from 'protection from nuclear' to suspending nuclear and fossil fuels exploitation as well as the large hydro plants. These changes are highlighted and noted on the third column where specific mentions of 'energy', 'fossil fuel', 'renewable', 'nuclear', 'hydro', and 'just transition' are noted. To ensure no energy related changes are missed, here I apply reverse scan by first reviewing the both texts and then name all related concepts in the third column - as opposed to randomly deciding what should be an important energy concept to look at in the texts.

Table 2: Reading the evolution of energy topic in the texts of 17 Principles of Environmental Justice 1991 and Bali Principles of Climate Justice 2002

17 principles of Environmental Justice 1991	**Bali Principles of Climate Justice 2002**	**Specific mention of 'energy', 'fossil fuel', 'renewable', 'nuclear', 'hydro', 'just transition'**
#1 …the right to be free from ecological destruction.	#1 …the right to be free from climate change, its related impacts and other forms of ecological destruction.	
#2 …public policy be … free from any form of discrimination or bias.	#19 …public policy be … free from any form of discrimination or bias.	
#4 …universal protection from *nuclear testing, extraction, production and disposal of toxic/ hazardous wastes and poisons*	#10 …*moratorium on all new fossil fuel exploration and exploitation*; a moratorium on the construction of new nuclear power plants; the *phase out of the use of nuclear* power worldwide; and a moratorium on the construction of *large hydro* schemes	*Broader scope:* Shift from 'protection from nuclear' negative externalities to *fossil fuel* and *nuclear suspension* and *halting large hydro schemes*
#5 … environmental self-determination of all peoples #7 …right to participate as equal partners at every level of decision-making… #11 … recognize a special legal and natural relationship of Native Peoples… affirming sovereignty and self-determination. #13 …strict enforcement of principles of informed consent	#20 … right to self-determination of Indigenous Peoples #21 …right of indigenous peoples and local communities to participate effectively at every level of decision-making…(and) strict enforcement of principles of prior informed consent	

#6… cessation of the production of all toxins, hazardous wastes, and radioactive materials, and that *all past and current producers* be held strictly accountable to the people for detoxification and the containment at the point of production.	#8 Affirming the principle of ecological debt, Climate Justice demands that *fossil fuel and extractive industries* be held strictly liable for all past and current *life-cycle impacts* relating to the production of *greenhouse gases* and associated local pollutants.	*Directly links fossil fuel* and extractive industries with *greenhouse gases* and pollutants From 'at the point of production' to *taking out the limitation by the proximity* - which can be seen as understanding global scale impact of activities causing climate change From 'all past and current producers' to 'past and current life-cycle impacts' which recognises the future impact of past and current production and brings a *holistic understanding with life-cycle approach*
#8 …right of all workers to a safe and healthy work environment without being forced to choose between an unsafe livelihood and unemployment. It also affirms the right of those who work at home to be free from environmental hazards.	#14 …the *right of all workers employed in extractive, fossil fuel and other greenhouse-gas producing industries* to a safe and healthy work environment without being forced to choose between an unsafe livelihood based on unsustainable production and unemployment.	Direct reference to the *fossil fuel and other GHG producing industries' working conditions.* *Indirect reference to just transition* and its uniting efforts to respect miners' rights and environment simultaneously.
#9 …protects the right of victims of environmental injustice to receive full compensation and reparations…	#9 protects the rights of victims of climate change and associated injustices to receive full compensation, restoration, and reparation for loss of land, livelihood and other damages	

#14 …opposes the destructive operations of multi-national corporations.	#6 …opposes the role of transnational corporations in shaping unsustainable production and consumption patterns and lifestyles… #7 …recognition of a principle of ecological debt that industrialized governments and transnational corporations owe the rest of the world…	
#15 …opposes military occupation, repression and exploitation of lands, peoples and cultures, and other life forms.	#24 …*opposes military action, occupation, repression and exploitation* of lands, water, oceans, peoples and cultures, and other life forms, especially as it relates to *the fossil fuel industry's role in this respect*	Includes recognition of *fossil fuel industry's impact on security*
#16 …education of present and future generations which emphasises social and environmental issues…	#25 …the education of present and future generations emphasizes climate, *energy*, social and environmental issues…	Includes *energy alongside with climate as a pressing issue* in which present and next generations should be educated
#17 …personal and consumer choices to consume as little of Mother Earth's resources… (and) reprioritize our lifestyles to ensure the health of the natural world for present and future generations.	#26 …personal and consumer choices to consume as little of Mother Earth's resources, *conserve our need for energy…* (and) while *utilising clean, renewable, low-impact energy*; and ensuring the health of the natural world for present and future generations. #27 …rights of unborn generations to natural resources, a stable climate and a healthy planet	Refers to *energy sufficiency* discussions way ahead of its time while highlighting the limitations of negative externalities of energy usage

	#11 …*clean, renewable, locally* controlled and *low-impact energy resources* in the interest of a sustainable planet for all living things	Referring to *decentralisation* and (one can argue) *democratisation of energy* while highlighting renewable and clean nature of the new energy sources
	#12 …the *right of all people*, including the poor, women, rural and indigenous peoples, to have *access to affordable and sustainable energy*.	Laying the ground for *SDG7 (Sustainable Development Goal)* which is to ''ensure access to affordable, reliable, sustainable and modern energy for all''
	#15 …need for solutions to climate change that do not externalise costs to the environment and communities and are in line with the *principles of a just transition*.	Gives clear reference to *just transition principles*; not to explanation on what those are but to highlight the need to ensure climate change solutions are not counterproductive for just transition

Analysing the references to energy (the third column) may not be sufficient on its own to understand the contemporary conceptualizations of energy justice but it is a necessary first step. Before looking at the larger themes, here it is necessary to talk about nuclear. While we see consistent and growing attention from environmental and climate justice principles (and the movements) towards nuclear energy, in reality we know the same united front does not exist for energy. This is another example referring back to the introduction where I argued the close link between energy and security and development. On top of this important differentiation, first group of themes that comes out from this analysis is drawing links between the fossil fuel industry and a) greenhouse gas emissions, b) security, c) just transition via improving health and safety of the workers, d) global negative externalities it causes rather than solely local ones. Second group of themes rising enriches the understanding of energy governance by introducing a) energy sufficiency, b) life-cycle approach, c) decentralisation and (less directly) democratisation of

energy and d) energy access which would be adapted as SDG 7 later with some adjustments. Later in this paper, Section 4 will reveal close ties between these findings regarding energy governance and principled approach to energy justice by Sovacool. But first, the next section will investigate an earlier and a more dominant approach of energy justice named three-tenet.

Section 3

On top of this historical understanding of energy justice which shows how it is rooted in environmental and climate justice movements and principles, it is crucial to look at the different conceptualizations; mainly the three-tenets approach by McCauley et al. (2013), principled approach by Sovacool et al. (2015), affirmative and prohibitive approach by Jones et al. (2015). In this paper I will mainly focus on the three-tenets approach because it is the first articulation of energy justice in 2013 and still most predominant among all. It focuses on the three tenets of justice; recognitional, distributional and procedural and shortly after the first publications, restorative justice also gains attention and becomes the fourth tenet. Then I will discuss other two approaches in the next chapter as they are also relevant in the pursuit of energy justice principles. In this early period, there is clear reference to tenets of environmental justice developed by Schlosberg et al., used as well in climate justice, clearly, this time with a new object; energy.

Here, instead of repeating the literature on how tenets of energy justice evolved from tenets of environmental and climate justice, I will build on the previous section on principles and illustrate the link between principles and conceptualizations. An important contribution of this analysis is to exemplify the interconnectedness of different tenets which recently was described as a weak point of the three-tenet approach (for energy justice) by Wood (2023).[7] I argue, if we start our analysis by looking at how

[7] Wood's article inspires the initiation of the matrix analysis I conducted above. In their article, Wood explains the overlaps between the three tenets which brings authentic clarity

a single principle may refer to multiple tenets of justice, it brings tenets closer by enriching our understanding of the overlapping questions, issues and overall causality. It therefore brings more clarity to the tenet approach. For instance, instead of putting the indigenous people (recognitional) and their right to consent (procedural) in different boxes under different tenets, I bring them together to highlight the fact that it is not a coincidence that indigenous people are the ones that are not asked for consent. This also shows why analysing principles matter; in one sentence they can bring causality, history and reality to the table.

For this section, I use Bali Principles for four reasons; 1) as presented in the section above they are more comprehensive as they build on environmental principles, 2) as shown in the previous analysis, energy is mentioned more in the climate justice principles as it is perceived as a more relevant contemporary issue, 3) due to their scope they reflect on global issues and not necessarily only of USA's and 4) as clearly stated above there is no 'the energy justice principles' transcribed and agreed upon to use instead here. It is important to highlight that in these two cases of environmental and climate justice, the grassroot movement, often entangled with research, pushed forward for the establishment of the principles. However, for energy justice, the same does not apply. There is neither a strong grassroot presence for energy justice nor a set of principles published and accepted as widely as others yet. From observation, the impact is rather in the opposite direction; energy justice scholarship has been discussing the principles without the bottom-up push from the people specifically for energy justice.

The table below shows the outcome of the analysing the principles by following Jenkins et al. (2016)'s "what (distributional), who (recognitional), how (procedural)" questioning to see if there is a corresponding answer for the first three tenets. For the restorative, I look for references to 'the ecological debt', 'restoration', 'compensation', 'reparation', or 'common but differentiated

to the interconnectedness of the approach. They build on from the original work of Gordon Walker on environmental justice.

responsibilities. Here, in line with the previous analysis, I apply reverse scan by first reviewing the text and then name all related concepts around restorative justice. If there is an answer or reference; it is noted following the logic of:

#principle(x axis, y axis).

The Y axis is underlined for the convenience of the reader in this table to prevent confusion caused by other comas in the cell. For instance, if we look at the principle #12 (x: +3, y: -2): ''Climate Justice affirms the right of all people, including the poor, women, rural and indigenous peoples, to have access to affordable and sustainable energy'' (*Bali Principles of Climate Justice | Corpwatch*, n.d.). First, it refers to 'who' (the right of all people, including the poor, women, rural and indigenous peoples) and then continues to refer to 'what' (**access to affordable and sustainable energy**). Then, accordingly and while respecting the order of appearance, this principle (#12) placed on the (recognitional, distributional) cell.

Before looking at the results, I will discuss several limitations of the analysis as they are also linked to the results.

1. By limiting the analysis with 4 tenets, I had to disregard an important principle referring to intergenerational justice such as principle *#27 'Climate Justice affirms the rights of unborn generations to natural resources, a stable climate and a healthy planet.'* By proving this limitation, the analysis also shows the limitation of three-tenet (and updated version of four-tenet) approach.
2. There are principles that only refer to one tenet 'strongly'. For the simple understanding of the analysis and to keep analysis relevant, I only show the ones with strong indications for one tenet. For instance, principle #15 '*Climate Justice affirms the need for solutions to climate change that do not externalise costs to the environment and communities and are in line with the principles of a just transition'* is placed on (distributional, distributional) cell because of the reference given to externalisation of cost

Table 3: The matrix of tenets where the tenets are used as lenses to look at the Bali Principles

	Distributional	**Recognitional**
Distributional	#15 (solutions to climate change that do not externalise costs to the environment and communities)	#12 (right of all people, including the poor, women, rural and indigenous peoples, have access to affordable and sustainable energy)
Recognitional		#14 (the right of all workers employed in extractive, fossil fuel and other greenhouse-gas producing industries to a safe and healthy work environment) #22 (need for solutions that address women's rights) #23 (the right of youth as equal partners in the movement to address climate change)
Procedural		#3 (indigenous peoples and affected communities, represent and speak for themselves) #5 (particularly affected communities, play a leading role in national and international processes to address climate change) #20 (recognizes the right to self-determination of Indigenous Peoples, self-determination) #21 (affirms the right of indigenous peoples and local communities, participate effectively at every level of decision-making and asked for consent)
Restorative		#9 (rights of victims of climate change, receive full compensation, restoration, and reparation)

Procedural	Restorative
#6 (role of transnational corporations …influencing national and international decision-making) #19 (public policy be…free from any form of discrimination or bias)	
#4 (democratically accountable to their people, common but differentiated responsibilities)	#7 (principle of ecological debt that industrialised governments and transnational corporations owe) #8 (principle of ecological debt…fossil fuel and extractive industries be held strictly liable)

(what) and lack of specific mention of which communities (who) and lack of the mechanism (how). However, there is no fixed definition of 'what strong is' for this analysis and this therefore stands as a limitation.

3. The matrix relies on only two dimensions and therefore can be limited in showing a spectrum of connection with the third and fourth tenets. Therefore, I welcome any future work that can establish itself in the three and even four-dimensional world.

One interesting outcome of this analysis is to see how the distributional aspect is underemphasized in the text of climate justice principles by being the least mentioned tenet with only two strong mentions. This does not match with what is out there in the literature of energy justice which is often criticised for being too distribution oriented. This then signals the important gap between climate justice principles and energy justice scholarship by 1) illustrating the tangible nature of energy commodities, different than climate or environment, which supports initial claim made in the introduction regarding the complex nature of energy governance, 2) strengthening the pro-standards argument as standards concern the distribution of social goods (i.e. energy) therefore important instrument of governance (Bursch, 2011) for distribution of energy. Following these results, the next section will build on the governance aspect and introduce two remaining frameworks for energy justice.

Section 4

Built on an extensive model of application of energy justice onto energy problems, Sovacool et al. presents eight principles of energy justice; availability, affordability, due process, good governance, sustainability, intergenerational equity, intragenerational equity and responsibility (Sovacool et al., 2015). This principled approach is widely responsive to the issues of energy governance and distribution. However, when in 2017, Heffron and McCauley combined Sovacool's principles with 1) three-tenets of energy justice,

2) cosmopolitan justice across the energy life cycle (system) and 3) restorative justice throughout the model, they also present the most mature framework to this date (Heffron et al.,2017). This new conceptualisation also corresponds to this paper where the analysis showed that there was 1) lack of intergenerational justice, and lack of emphasis on distributional justice (Section 1 and 2) and, 2) lack of attention to concepts rising from the climate justice principles (Section 2); energy sufficiency, life-cycle approach, decentralisation and democratisation of energy, and energy access.

Table 4: Revisiting Table 1 with now energy justice column focusing on the prohibitive and affirmative principles

	Environmental Justice	Climate Justice	Energy Justice
Human rights approach	Equal right to be protected by environmental regulations and law	Burning fossil fuels is limiting access to fundamental human rights (of vulnerable communities)	The Prohibitive Principle: 'energy systems must be designed and constructed in such a way that they do not unduly interfere with the ability of any person to acquire those basic goods to which he or she is justly entitled' (Jones et al., 2015)
		Right to develop out of poverty before gaining any climate debt	The Affirmative Principle: 'if any of the basic goods to which every person is justly entitled can only be secured by means of energy services, then in that case there is also a derivative right to the energy service' (Jones et al., 2015, p. 165)

The final important framework as shown in Table 4 brings the influence of ethics on energy justice by producing the prohibitive and affirmative principles. They are placed next to the human rights approach from Section 1; not to claim strong similarities with environmental and climate justice but to show how energy justice has taken a step further in defining its principles.

With three most prominent approaches presented; three-tenet, principled, and prohibitive and affirmative, and discussed with respect to previous analysis of environmental and climate principles, I will finally discuss in the next section what this means for guiding questions of this paper.

Discussion section

With respect to questions raised in the introduction on 1) the relevancy of energy issues in the environmental and climate justice principles, and 2) different conceptualization of energy justice in response to that, analysis in this paper shows:

1. Energy is problematized in climate justice principles beyond nuclear energy and its negative externalities
2. Either modified or inspired by environmental and climate justice scholarships, energy justice researchers continue producing meaningful, reflective approaches to the issues of energy transitions
3. These approaches however have neither inspired by grassroot energy justice movement nor evolved to principle and/or standard setting in a mainstream sense

Regarding the last point, the empirical analysis of why, and the future projections on energy justice principles and standardisation is beyond the scope of this paper. However, in order to highlight the necessity of future work on principles of energy justice I will discuss just transition as non-sufficient alternative solutions.

Despite being coined decades before energy justice, just transition has become a buzzword for a variety of actors to hide the vagueness of their statements, policies and action plans. The most prominent proof of this can be traced with the help of principles. ILO presents its guiding principles for just transition which highlights labour front (*Guidelines for a Just Transition towards Environmentally Sustainable Economies and Societies for All | International Labour Organization*, 2016); while through the Alliance for Just Energy Transformation with WWF, KPMG, EDF, ITUC; UNDP publishes 8 core principles of a just energy transformation with vague statements such as 'Be centred on climate justice' (*The Alliance for a Just Energy Transformation*, n.d.). Asia-Pacific Economic Cooperation (APEC) publishes their 'Non-Binding Just Energy Transition Principles' with general statements such as 'Promote healthy lives and well-being for all' (*Non-Binding Just Energy Transition Princi-*

ples for Apec Cooperation | Chair's Statement of the 13th Apec Energy Ministerial Meeting, n.d.). On the other side of the ocean in the US, Climate Justice Alliance presents 'Buen Vivir' (*Just Transition - Climate Justice Alliance*, n.d.) as a principle for Just Transition. It is important to remind those who would claim this is due to different needs; principles are not supposed to be a menu of needs but representatives of morality and here, Table 4 where I presented a right-based approach, becomes even more informing.

A new just transition approach built on Climate, Environmental and Energy Justice as Heffron et al. calls for, is necessary to get rid of all the vagueness presented above (Heffron, 2018). Furthermore, calls for re-politicising the just transition concept in academia stay valid (Jenkins et al., 2020). However, it is important to highlight that neither is possible without the comprehensive understanding of principles of energy justice in and beyond academia.

Conclusion

The commonalities in our understanding of energy justice have a growing material impact in all corners of the world now more than ever due to funds being poured into Just Energy Transition Partnership and similar projects. While it is the interest of scholars to conceptualise these commonalities into frameworks, it is equally important to translate these frameworks into actionable information for our common future. In the scope of this paper I looked at the principles - as a ground-laying step for measurable, quality-focused standards- to understand how our normative ideas can be transcribed as principles.

Furthermore, this paper by looking at the environmental and climate justice principles with an energy lens revealed the relevancy of energy justice scholarship through different approaches. However, it should be interpreted carefully as this paper only focuses on two texts of principles and three main approaches of energy justice. The results are fragile against different sets of principles and approaches. Tracing processes around 1991 and 2002 to understand how these principles came to life is beyond

the scope of this paper. However, what this paper argues is that energy governance is complex and dominated by interests and injustices, therefore it is a crucial first step to draw connections between environment, climate and energy justice scholarships within the context of principles. An important contribution of the paper is the cross examination of principles and approaches by bringing in different texts from environmental and climate justice and several approaches from energy justice scholarship.

JETPs and similar projects that are presented with a normative goal of justness require intense empirical attention from researchers as well as more conceptual clarity on energy justice. Therefore, the future research should focus on the principle and standard setting processes for energy justice with reflection on power, ideas, and values of not only those from Global North but also Global South.

Literature

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