

Exploring environmental justice in educational research

Background paper

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About JustEd

JustEd is an international comparative mixed methods study that explores the lived experiences of secondary school learners of environmental, epistemic and transitional justice. We produce insight into how learner experiences translate into actions to advance Sustainable Development Goals 13 (Climate Action) and 16 (Peace, Justice and Strong Institutions).

The JustEd study is delivered by researchers at the University of Bath (UK), the University of Bristol (UK), Group for the Analysis of Development (GRADE) (Peru), Gulu University (Uganda) and Tribhuvan University (Nepal). JustEd is funded by the UK government's Grand Challenges Research Fund (GCRF).

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Abstract

This paper outlines the conceptual approach to environmental justice used in the JustEd project. It concentrates on how two approaches – the anthropocentric and the eco-centric approach – conceptualize environmental justice in different terms, and the implications these two approaches hold for education policy and practice globally. It also discusses the shift from environmental education to education for sustainable development and its implications for education policies and contents.

The prevailing approach to the challenge of achieving environmental justice is an anthropocentric one, in which environmental rights are framed primarily in the context of humans' wellbeing. This approach includes perspectives that view our right to access natural resources in a utilitarian perspective, maximizing the total benefit to society (while condoning possible inequalities) and those that emphasize the right to live in healthy ecosystems, centered more on well-being. However, this anthropocentric approach is increasingly challenged by a biocentric or eco-centric perspective, in which the 'right to nature' perspective is replaced by a 'rights of nature' one. This approach is often considered post-humanist in that it decenters human concerns and instead focuses on the inherent rights of non-human subjects (e.g. animals, rivers, forests) (Schlosberg 2007).

Despite recommendations and guidance by international bodies such as UNESCO, most school systems – particularly those in the Global South – give relatively little attention to environmental matters, and environmental justice in particular, in the curriculum. When environmental justice is discussed, the anthropocentric approach is often an unstated foundation to the discussion. To more thoroughly address environmental issues in education, schooling systems are therefore faced with a difficult dilemma between two competing views:

- i) Providing environmental education based on an anthropocentric approach is good enough for the time being, so efforts to that end must be celebrated and reinforced.



ii) Providing environmental education based on an anthropocentric approach is a mistake and not something to celebrate, so the task is to start again, on the basis of an eco- or bio-centered approach.

As a starting point, we share the biocentric approach to environmental justice and in consequence suggest education systems should embrace it, with all what that means in terms of curricula, textbooks, training of teachers and interactions with students and communities. In doing so, we believe in a synergy with efforts to include epistemic justice in the classroom, as in many parts of the world indigenous and rural peoples and cultures at large consider nature as a living entity with their own rights. Nevertheless, we acknowledge that in many experiences the case might be that education systems are still in the early process of incorporating even basic notions of environmental justice. In cases where this process has started with an anthropocentric approach, we will need to find creative ways to strengthen and transform such processes, so as to build on what has been achieved already while shifting the underpinning assumptions and philosophy.

At the national level, the level of incorporation of environmental justice into the education system and the perspective being embraced may vary. Specific recommendations on how to promote this incorporation and the choice for the anthropocentric approach will have to be nationally adapted to each circumstance.

1. Context

We are experiencing simultaneous, interrelated and overlapping dramatic global environmental crises (IPBES 2019), characterized by the violation of the limits of the “safe and fair space for humanity” (Rockström et al. 2009) including loss of biodiversity (Kolbert 2014), changes in land use, climate change, water consumption, nitrogen and phosphorus cycles, acidification of the oceans, chemical pollution, depleting of the ozone layer and aerosol emissions to the atmosphere.

As a result of human actions, we have moved from the Holocene (the 11,000 year-long period in which climate conditions allowed for human life as we know it) to the Anthropocene, a period started with the Industrial Revolution in which human action altered the environment enough to threaten our own existence (Crutzen and Stoermer 2000).

To date, global warming and transitions to renewable energy as the desired response are the aspects of the global environmental crisis receiving the most attention. They are the subject of international agreements (Paris, COP 25) and national policies (international Nationally Determined Contributions (iNDC), including an intense debate on the fairness of such transitions. Other issues, such as loss of biodiversity, have received less attention and are the matter of less known international agreements that have less traction, such as the Convention on Biological Diversity (Rio de Janeiro, 1992), which is convening its COP 15th for next May of 2021, in China (UN Environment Programme 2021).

Regarding the energy transition, social actors, non-governmental organizations and even multilateral institutions are increasingly embracing the ‘just transition’ approach. This includes the need for those countries and social sectors that – historically and in contemporary times – account for the greatest proportion of emissions of greenhouse effect gases to assume responsibility for these impacts by leading the managed decline of fossil fuel production and consumption (UNDP 2019). These countries are also expected to fund mitigation and adaptation efforts by less responsible countries and social sectors.

Moreover, there is an emerging debate around the need to speak of not only a ‘just’ but also a ‘popular’ or ‘community based’ energy transition. In contrast to a transition dominated by corporations, in the just and popular and/or community-based approach, the popular sectors would not only receive a fair treatment but would also have agency, lead, and directly participate in the generation of clean and sustainable energies. They would become the key actors in the related decision-making processes (Taller Ecologista y Transnational Institute 2020a, 2020b; Arevalo 2020; Community Power 2018).

2. Conceptual Approaches to Environmental Justice: from the right to nature to the rights of nature

This section describes the two alternative views of environmental justice, including the literature broader theoretical perspectives in which they are situated and the ways they have been applied.

2.1. Anthropocentric approach

The anthropocentric approach represents the dominant understanding of environmental justice in international institutions, governments, activists, the media and political discourses. For this reason, the anthropocentric approach is also often tacit and implied: many may not explicitly identify a viewpoint as based on the anthropocentric approach but may rather view this approach as 'common sense' or the only logical view. In simple terms, the anthropocentric approach is based on the idea that humans are external to nature and that nature is a set of resources to be used by humans. Terms such 'environmental resource management' take this approach as given in the ways they understand the relationship between humans and the environment. A corollary is that rights belong to humans and that nature that has no inherent rights of its own. When considering questions of justice, the relevant considerations all relate to how human subjects are relatively advantaged or disadvantaged in any given scenario.

The anthropocentric approach also entails a perspective of distributional justice. That is, a conceptualization of justice questions relating to the allocation of 'social goods' and the ethics embedded in alternative methods of allocation. By 'social goods' or 'common goods' we refer here to, for example, water and air to which all should have guaranteed access, as opposite to becoming merchandises traded in the market. Now, which goods are social goods, and which are not, is defined differently in each historical period. For example, in many rural societies peasants considered land a social or common good, against the pretensions of various forms of appropriation by the state or private landowners. While land has been commodified in most areas of the world, Indigenous Peoples and rural populations still defend it as a social or common good. Today, in many urban areas lacking universal sanitation services, water is too becoming a commodity. And even in some rural areas, governments and multilateral institutions have promoted water markets independent of land markets (Thobani 1997).

With respect to environmental justice, a distributional approach focuses on the ways that sectors of the population are deprived of access to natural resources, how social modes of production and consumption overuse available resources, and

how the impacts and responsibilities of such overuse differ between countries, economic agents and social sectors. These resources can include not only those directly utilized in production (e.g. land, forests) but also clean water and air and also generally healthy ecosystems (Schlosberg 2007).

Policy agendas taking an anthropocentric approach will often tend to focus on redistribution of resources in order to achieve greater fairness, for example through land reform or water rights. They will also feed resistance to activities that create or exacerbate unfair distributions or have unfair negative impacts, for example oil and mining activities, deforestation for cattle herding, and agroindustrial plantations. Questions of fairness are likely to focus on the differential impacts of environmental ills (e.g. pollution and over-consumption or global warming) on groups who are marginalized economically and politically, as well as the responsibilities of those who are relatively powerful.

The anthropocentric emphasis on distribution is reflected in many conversations on climate change, global warming and energy transitions, in which the countries and social sectors that have more historical and current responsibility in the causes of climate change should bear the brunt of the effort to rein it (UNDP 2019). This position is evident in the principle of common but differentiated responsibility articulated in the Paris Climate agreement (United Nations 2015) as well as the recently published *The Economic of Biodiversity: The Dasgupta Review*, often considered as an updated counterpart to the new *Stern Review on the Economics of Climate Change* (Dasgupta 2021). In this framework, at the global level these countries and actors should take the lead in reducing or eliminating fossil fuel usage, including leaving fossil fuels underground (i.e. unutilized), and financially and technically assist developing countries in doing the same (Chancel and Piketty 2015). At the national level, this framework also stipulates progressive tax reforms so that those who contribute more to climate change pay more, thereby generating resources for internal mitigation and adaptation strategies (Jakob et al. 2019).

The greater responsibilities of historical contributors to climate change can also be expressed in terms of access to a 'carbon budget', referring to the level of CO₂ emissions required to keep average global temperature changes to less

than 2°C by 2100 (Alcaraz et al. 2018). This approach places greater focus on historical responsibilities and accumulated emissions, yielding significantly different implications for changes to emissions from allocations based on current *per capita* emissions.

Such considerations are present in Caney's (2014) work in which he proposes two basic approaches to climate justice: the burden sharing approach and the harm avoidance approach. The burden sharing approach is underpinned by an individual's responsibility to 'do her fair share' (Caney 2014, 125) in responding to threats of climate change, from which Caney identifies three key principles:

- Those who have more responsibility for creating the climate change should bear a greater share of the burden in addressing it.
- Those who are more able to pay should bear a greater share of the costs involved in addressing climate change.
- Those who benefited more from activities that caused climate change should bear more of a burden in addressing it.

'Burden-sharing' justice therefore delineates that industrialized countries, mainly in the Global North, should bear a greater burden of the costs of addressing climate change, for the reasons that they have had a greater hand in causing climate change (through many decades or centuries of accumulated emissions from fossil fuel consumption), a greater ability to pay (through higher incomes) and have benefitted most (through the development of high-value economic production) over a long period of time.

In contrast, the harm avoidance approach concentrates on the shared interests in avoiding catastrophes that are likely to occur because of climate change. This approach focuses on the urgency of stopping climate change and the shared fate or destiny of citizens in all countries. The emphasis is therefore on ensuring the goal is met, but not necessarily on making those who have benefited the most contribute to the costs of reaching this goal. In this (re)distribution of burden according to benefits is minimized, and instead costs are allocated according to how they may contribute to avoiding harm. Such an approach is relatively favourable to high-income countries with 'post-industrial' economies, i.e. those dependent on service sectors but not on primary

manufacturing, but conversely places significant costs on industrializing countries (e.g. China, India and Brazil) that have high carbon emissions from industrial growth and sit at the 'source' of global supply chains.

However, Caney also points out that the two approaches are not necessarily incompatible, particularly as the harm avoidance imperative entails that those who have an ability to pay contribute to costs, and he ultimately argues for a consideration of both perspectives in discussions of climate justice. He also points to a range of other ethical considerations that should be considered in climate justice, for example impacts on human rights, inequalities, and impacts on the well-being of future generations.

Another key concern in distributive perspectives on climate justice is the differential impact on indigenous communities and minority ethnic groups. In many cases, both the causes and consequences of climate change impact these communities disproportionately. For example, in their drive to accumulate profits, corporations take control of land, water, forests and other resources that were previously seen as a common public good of indigenous communities (Harvey 2004). Similarly, in the United States there is significant evidence of environmental racism in through the placement of chemical processing plants and agricultural industries in historically Black communities (Thomas and Raynes 2020, Hewett 2020, Washington 2019), and the same patterns hold true for indigenous communities elsewhere (International Labour Organization 2017). However, many ethnic and indigenous communities are well-positioned to contribute to responses to climate change and the development of sustainable societies through their historical interaction with local ecosystems and associated knowledge and skills.

A report from the International Labour Organization (ILO) argues,

Indigenous peoples are affected in distinctive ways by climate change, and also by the policies or actions that are aimed at addressing it. At the same time... as agents of change, indigenous peoples are essential to the success of policies and measures directed towards mitigating and adapting to climate change, and to just transition policies as workers. On the one hand, given the scale and scope of the threats that they face with regard

to climate change – including specific threats to their livelihoods, cultures and ways of life – their situation is different from that of other groups and from that of the poor. On the other hand, indigenous peoples, with their traditional knowledge and occupations, have a unique role to play in climate action, cutting across both climate mitigation and adaptation efforts, and also just transition policies. (ILO 2017)

2.2. The Eco or Biocentric Approach: From the right to nature to the rights of nature

As suggested by the subtitle, while the anthropocentric approach implicitly underpins international agreements and national policies, a competing biocentric approach is emerging. This approach considers the natural world as a subject of justice with its own inherent rights and entitlements, rather than simply a set of resources at human's disposal that must be distributed fairly (Borràs 2016). As of 8 June 2021, the United Nations' *Harmony of Nature* project¹ describes this shift as follows:

The law has seen the beginning of an evolution toward recognition of the inherent rights of Nature to exist, thrive and evolve. This evolving legal approach acknowledges that the traditional environmental regulatory systems ... regard nature as property to be used for human benefit, rather than a rights-bearing partner with which humanity has co-evolved. Rights of Nature is grounded in the recognition that humankind and Nature share a fundamental, non-anthropocentric relationship given our shared existence on this planet, and it creates guidance for actions that respect this relationship. Legal provisions recognizing the Rights of Nature, sometimes referred to as Earth Jurisprudence, include constitutions, national statutes, and local laws. In addition, new policies, guidelines and resolutions are increasingly pointing to the

need for a legal approach that recognizes the rights of the Earth to well-being. Furthermore, educational activities on the rights of Nature are on the increase in the professional and public spheres to advance Earth Jurisprudence worldwide.

This approach is being supported by civil society organizations such as the Global Alliance for the Rights of Nature and the International Union for the Conservation of Nature. The former is a network of more than 130 organizations that collectively advocate for the rights of nature in legal systems around the world,² while the latter has more than 1,000 members (including both governmental and non-governmental organizations) and focuses on conservation.³

In international organizations, the anthropocentric approach remains dominant, with resolutions emphasizing humans' rights to a healthy environment rather than the rights of nature itself.⁴ However, there is some evidence that discourses are changing to also incorporate the rights of nature.⁵

At the national level, there is a short but rapidly growing list of countries in which national and subnational legislation recognizing the rights of nature has been passed.⁶ Some examples include:

Ecuador's 2008 Constitution: Chapter 7 is entitled the Rights of Nature and begins with the declaration that "Nature, or Pacha Mama, where life is reproduced and occurs, has the right to integral respect for its existence and for the maintenance and regeneration of its life cycles, structure, functions and evolutionary processes. (Constitution of the Republic of Ecuador 2008)

Bolivia's 2010 Law of the Rights of Mother Earth, which recognizes the rights of living systems to regenerate and the duty of the state to protect them. (Law of the Rights of Mother Earth 2010)

¹ <http://www.harmonywithnatureun.org/rightsOfNature/>

² <https://therightsofnature.org/>

³ <https://www.iucn.org/>

⁴ <https://www.unep.org/explore-topics/environmental-rights-and-governance/what-we-do/advancing-environmental-rights>

⁵ <https://www.unep.org/news-and-stories/news/green-economy-and-rights-nature-must-be-united-address-urgent-global>

⁶ https://en.wikipedia.org/wiki/Rights_of_nature#:~:text=Rights%20of%20nature%20is%20a,concept%20of%20fundamental%20human%20rights;https://matadornetwork.com/read/countries-legally-recognized-rights-nature/;https://news.globallandscapesforum.org/34164/who-is-applying-rights-of-nature-laws/;http://www.harmonywithnatureun.org/rightsOfNature/;https://www.openglobalrights.org/the-rights-of-nature-gaining-ground/

New Zealand's 2016 recognition of the rights of the Wanganui River and establishes a body of two members (one representative of the government and one representative of the indigenous populations) to be "the face of the river" who are charged with its "care and wellbeing" as well as maintaining relationships with the local community. (Te Awa Tupua (Whanganui River Claims Settlement) Bill 2016)

Colombia's Constitutional Court ruled in 2016 that the Atrato River has rights, declared that it must be cleaned of mining related pollutants and that pollutive activities must be ended. It similarly orders that a Commission of Guardians of the Atrato River be established to oversee that these mandates are implemented.⁷ A similar case regarding the Amazon Basin was brought in 2018.⁸ In Australia, similar provisions were made with respect to the Yarra River in 2017.⁹

Uganda's National Environment Act of 2019 recognizes 'Nature has the right to exist, persist, maintain and regenerate its vital cycles, structure, functions and its processes in evolution.' (National Environment Act 2019)

In Bangladesh, the Supreme Court has upheld a 2019 decision that establishes that all rivers are living entities with rights as legal persons.¹⁰

Intersection with Epistemic Justice

Within the anthropocentric approach to environmental justice, three key themes are identifiable:

- The loss of access to natural resources through dispossession, depletion and pollution
- The environmental crisis has a disproportionate impact on indigenous, marginalized and ethnic minority communities.
- Contributions of indigenous communities to sustainable lifestyles, particularly through

⁷<https://www.escri-net.org/sites/default/files/caselaw/fallo-corte-suprema-de-justicia-litigio-cambio-climatico.pdf>

⁸<https://www.escri-net.org/sites/default/files/caselaw/fallo-corte-suprema-de-justicia-litigio-cambio-climatico.pdf>

⁹<https://www.water.vic.gov.au/waterways-and-catchments/protecting-the-yarra/yarra-river-protection-act>

knowledge of ecosystems and nature

This third theme directly links to epistemic justice: the recognition that non-western peoples have skills, knowledge, and culture that allow for sustainable relationships with nature and with the ecosystems they inhabit. In this sense, epistemic justice and environmental justice become two sides of the same coin, as ensuring epistemic justice by recognizing, respecting, protecting and fostering this skills, knowledge and culture also promotes environmental justice, both in an anthropometric sense (increasing humans' well-being through more sustainable access to natural resources) and a biocentric approach (recognizing nature a subject with agency and rights) (Raydorodetsky 2011).

Intersection with Transitional Justice

Transitional justice '...refers to the ways countries emerging from periods of conflict and repression address large-scale or systematic human rights violations so numerous and so serious that the normal justice system will not be able to provide an adequate response' (International Center for Transitional Justice 2021).

In many cases, access to natural resources is at the heart of conflict in which different parties dispute, within or between countries, control of strategic resources such as oil or minerals and diamonds (Billon 2006, Ross 2006)¹¹, and there is an open debate on the relations between resource abundance as a source of political authoritarianism.

In consequence, the access to natural resources as a cause of conflict or dictatorship and redistributive reforms as a way to do justice to victims, overcome conflict and reconcile the involved parties may be at the heart of transitional justice diagnosis experiences and recommendations, as in the case of the Colombia Peace Agreement between the Government and FARC, in which Section 1 is devoted to an Integral Rural Reform (Acuerdo Cuerdo final para la Terminacion del Conflicto y la construcción de una PAZ estable y duradera (Final Agreement for the

¹⁰<https://www.centerforenvironmentalrights.org/news/bangladesh-supreme-court-upholds-rights-of-rivers>

¹¹ <https://archive.globalpolicy.org/the-dark-side-of-natural-resources-st.html>

Termination of the Conflict and Building a Stable and Lasting Peace) 2016).¹²

3. Environmental Justice in Formal Education Systems

In 1975, UNESCO and UNEP launched the UNESCO UNEP Environmental Education Program, with a goal of educating citizens of ‘the simple steps [they] might take within [their] means, to manage and control [their] environment’ (UNESCO and UNEP 1975)¹³. The initiative was renewed in the late 1980s and 1990s with the launch of the joint International Strategy for Action in the Field of Environmental Education and Training (UNESCO and UNEP 1987).

Later, as the UN bodies aligned around the Millennium Development Goals and later around the Sustainable Development Goals, UNESCO shifted from ‘environmental education’ to ‘sustainable development’. In 2005 the United Nations launched the United Nations Decade of Education for Sustainable Development. Later, at the 2012 United Nations Conference on Sustainable Development – Rio+20, member states pledged to promote Education for Sustainable Development beyond the end of the Decade. In 2014, building on such agreements one year on, UNESCO approved the Roadmap for Implementing the Global Action Programme on Education for Sustainable Development, which was launched at the World Conference on Education for Sustainable Development in Aichi-Nagoya, Japan. The conference approved the Aichi-Nagoya Declaration on Education for Sustainable Development (UNESCO 2014), which recognized the achievements of the Decade of Education for Sustainable Development and called for further efforts in this area and leadership by UNESCO.

The UNESCO Global Action Programme on Education for Sustainable Development claimed that education for sustainable development (ESD)

empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society, for present and future generations, while

respecting cultural diversity. It is about lifelong learning, and is an integral part of quality education. ESD is holistic and transformational education, which addresses learning content and outcomes, pedagogy and the learning environment. It achieves its purpose by transforming society. (2018, 2)

This shift from environmental education to education for sustainable development has been harshly criticized. Jickling and Wals, for example,

question globalizing trends based on a vague and problematic concept such as sustainable development. They also see a downside to the homogenizing tendencies of these global policy movements and take offence at prescriptive constructions such as ‘education for sustainable development’ that reduce the conceptual space for self-determination, autonomy, and alternative ways of thinking. (2008)

3.1. Questioning the role of education in ensuring climate justice

For any education system to benefit current and future generations, it should be epistemically just, inclusive, and hinged on a common philosophy. Environmental education, also called eco-pedagogy needs to examine how environmental education is epistemically just, for example by including indigenous knowledge in both formal and non-formal environmental education (Breunig 2013, Haluza-Delay 2013). It is unjust to think education is only education when it is formal. This would be epistemic injustice. Other aspects of epistemic injustice in environmental education are outlined below.

Selective or intentional exclusion of environmental discussions that are deemed politically or ideologically sensitive to authorities is already being practiced by some states/nations. For example, the role of capitalism in creating social classes and environmental hazards due to its ambitious production methods has been downplayed by authorities and multinationals who want to control the narrative (Sze 2000). Unfortunately,

¹²
https://www.cancilleria.gov.co/sites/default/files/cartilla_abcdelacuerdofinal2.pdf;

<https://www.jep.gov.co/Documents/Acuerdo%20Final/Acuerdo%20Final%20Firmado.pdf>

¹³ We have edited gender-biased pronouns (he/his) from the original text.

these are among the biggest funders of education.

Pedagogical methodologies may promote aspects of injustice in education, and specifically in environmental education. The 'banking system' of education as coined by Freire is one of the injustices inflicted upon learners; where learners are viewed by teachers as empty objects devoid of [environmental] knowledge, and the teacher ready to fill them [often with limited and abstractions of world views] packaged as knowledge (Freire 1970). To remedy this injustice, pedagogies that promote experiential learning that liberate the learner's mind must be undertaken as text-book content will only be used to augment the lived experiences. This eliminates the disconnect between the academic and the real-life experiences, thereby making education a driver of environmental awareness and consciousness among the schooled citizens. Peloso explains that by tapping into the living literacy of the students through experiential education, abstract notions of environmental justice become integrated into their lived experiences (2020).

4. Conclusion

A shift from what Stevis and Felli refer to as anthropocentrism to ecocentrism should be initiated by education systems, where humanity and nature are viewed as part of the same ontological totality (2020). For example, Sze (2000) points out that race, indigeneity, poverty, and environmental inequality are linked in what he refers to as a toxic brew and these may be brought to the fore through, and neutralized by just education systems.

Environmental education should promote what Haluza-Delay (2013) calls recognitional justice, that is, injustices related to the misrecognition or devaluing of particular social forms and cultural worldviews. The philosophy of education should ideally have the cultural component of the society at its centre since the environment and natural resources are cultural appraisals.

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