October 2022

Coalition 2030 submission to consultation on the background paper for Climate Action and Sustainable Development specification

Coalition 2030 Overview

Coalition 2030 is an alliance of civil society organisations working to ensure that Ireland keeps its promise to achieve the Sustainable Development Goals (SDGs), both at home and abroad. Its mission is to transform our world through collaborative partnerships that will free the human race from the tyranny of poverty and want, and to heal and secure our planet. Showing solidarity with those marginalised in society is a key value and organising principle of Coalition 2030, with the goal of 'leaving no-one behind', both in Ireland and throughout the world.

Coalition 2030 exemplifies SDG 17, Partnership for the Goals, as its membership is comprised of civil society organisations from the international development, environmental, domestic equality and anti-poverty sectors, as well as trade unions and academic institutions. The issue-based expertise across the Coalition includes themes such as humanitarian relief, youth rights, disability rights, education, volunteering, health and environmental sustainability, to name but a few. Coalition 2030 engages across all 17 SDGs. Its activities include policy and advocacy, research, education and training, public engagement, and communications.

Coalition 2030 exists primarily to ensure that the Irish government fulfils its commitment made in 2015 to deliver the SDGs by 2030. To this end, Coalition 2030 engages with the Irish public and policy-makers to increase their awareness of and engagement with the SDGs. Given that the SDGs are integrated, interdependent and indivisible, Coalition 2030 advocates for a coherent approach in policy-making underpinned by a whole-of-government approach and strong political leadership. More information can be found on our website[1].

Below we outline our responses to each question. However, underpinning this submission is **a call to the designers to frame this specification with the existing architecture of the SDGs** in order to further increase policy coherence for sustainable development (PCSD).

Q1. Purpose of Leaving Certificate Climate Action and Sustainable Development

Education on climate action and sustainable development at the secondary level is a necessary prerequisite for young people to understand and confront the urgent challenge of climate change. Education and knowledge on climate change will encourage young people to change their personal behaviour and help in building new and creative ways of adapting to a growing global emergency. Furthermore, as younger people will be inheriting this crisis, it is incumbent on the government and relevant stakeholders to ensure that they create an educational environment that builds a culture of caring for the climate and that empowers them to take action. In addition, given the growing evidence of climate anxiety experienced by young people, there is an increasing urgency to make all subjects climate change-related to help young people better manage with the reality of global warming.

---

[1] https://www.ireland2030.org/

Fundamentally, this course should enable students to engage critically with the concept of sustainable development, in order to allow them to generate their own definition of what is required to allow everyone on earth to live a thriving life while we remain within the nine planetary boundaries (Rockström, Steffen et al., 2009).

It is crucial that the concept of sustainable development is not further embedded in the minds of young people as a synonym for climate action. Upon completing this course, students should understand that sustainable development is about society, culture, environment and the economy. On this latter point however, we believe it is incumbent on the designers of this course to ensure that students engage critically with the concept of continuous economic growth. It is important that students do not complete the course believing that a constantly growing economy is a panacea for society's ills, and instead they should learn to critique even the most dominant concepts of sustainable development which continue to promote economic growth. Rather, students should be facilitated to engage with themes such as Wellbeing economies, Doughnut Economics and Post-Growth economics.

It is also imperative that historical analysis is embedded into this course. An engagement with material such as the seminal 1987 Report of the World Commission on Environment and Development: Our Common Future (otherwise known as the 'Brundtland Report') where the concept of sustainable development, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs", was first articulated is very important. Students should be supported to understand how the SDGs came about, including a surfacing of some of the issues with regards to equal participation internationally at the UN. Additionally, a sensitivity to the racist and colonial underpinnings of the current ecological crisis is vital in order to ensure a rounded and intersectional perspective on the solutions to the climate crisis. In this regard we draw your attention to a recently developed handbook from Friends of the Earth, 'Climate Change, Extractivism and Colonialism'[2].

Skills are central to this course, but fostering an understanding of the roots of global poverty and climate justice is at least on an equal footing as the taking action piece, lest action be uninformed. Students must leave the course understanding that climate change is not solely a technical issue; vastly more important is that it is a *political* issue, and a question of power, distribution and voice.

We encourage the course designers to draw on the popular education framework of 'Head Heart and Hands'. Knowledge, understanding, a value change, and skill development are all important in this course and none should be subordinated to another.

	Strongly	Agree			

---

[2]

https://www.foe.ie/assets/files/pdf/climate_change_extractivism_and_colonialism_-_facilitators_and_learners_handbook.pdf

	agree		Neither agree or disagree	Disagree	Strongly disagree
Developing students' climate literacy	x				
Engaging with the sustainable development goals	x				
Complement the whole school and cross-curricular approaches to ESD	x				
Use learning from a range of disciplines (e.g. science, business and the arts) to solve problems and develop solutions	x				
Developing students' skills to effectively engage with climate action and sustainable development issues	x				
Engaging with local , national and global climate/sustainability issues	x				

In terms of climate literacy, it is important that students learn the scientific foundations of climate change. What's more, they should know where to go to find accurate scientific information (for example, the IPCC and WMO), and should learn how to spot dis and misinformation campaigns. We draw your attention to Year 2 Section 1 of 'New Perspectives' - LCA Social Education Teacher Guide'[3] in this regard.

The SDGs are the only universally agreed blueprint for addressing global poverty, increasing wellbeing and ensuring that plenary boundaries are not overshot. Considering Ireland's significant role as co-chair of the SDG negotiations (along with Kenya), as well as Ireland's dedication to the achievement of the SDGs as demonstrated by the recent launch of its second SDG plan by *eleven* Ministers (including the 3 party leaders), **it would make sense that the SDGs are used as the overarching frame for this course.**

This course by its very nature should be cross-curricular and multidisciplinary. As aforementioned, an engagement with economics as fundamental given the abundance of evidence showcasing the causal links of economic growth and environmental degradation and climate change (Hickel, 2020). An engagement with history and geography is necessary for an

---

[3] https://www.financialjustice.ie/learn/new-perspectives-lca-social-education-teacher-guide/

understanding of how the most dominant ideas in society came to be, such as GDP growth, but also so that students understand how colonisation and the attendant extractivism sparked global inequality which has only become more apparent and entrenched in the last 500 years. This ties into how racist underpinnings facilitated extractivism as 'otherization' was necessary to the economic project (Klein, 2016). Of course, science is linked to this course in the learning of the scientific principles of climate change. The Politics and Society specification would prove very useful to this course, as students could engage with national, regional and international decision-making processes and governance procedures which are deeply relevant to either facilitating or hindering climate action, for example the role of the Eu and the UN.

As for skills, we would like to emphasise the importance of Kolb's learning cycle (Kolb, 2015) which shows how reflection and theorisation are both necessary for ensuring skills-based learning is sufficiently considered. As already mentioned, it is imperative that a focus on skills in this course is matched by at least an equal focus on fostering an *understanding* of the root causes of global poverty and climate change.
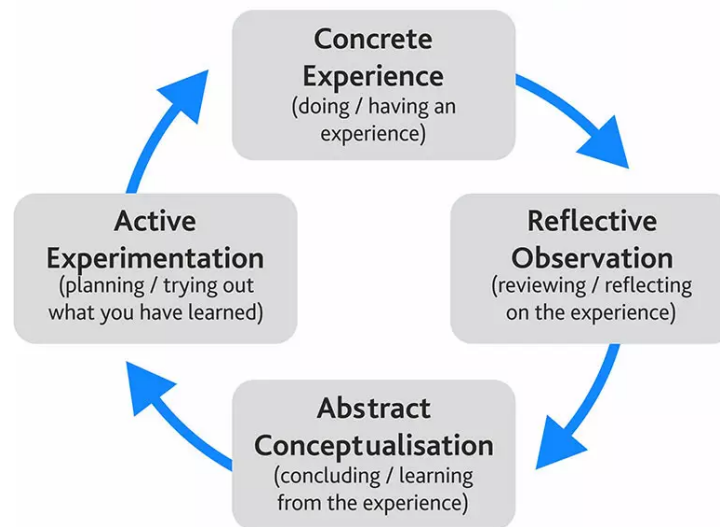
In terms of engaging with local, national and global issues, there are ample examples of groups and initiatives around Ireland that could inspire students, and it's important that they are facilitated to explore these and to assess the impact of these groups and initiatives via metrics in addition to policy change. We understand that making change on a global scale can seem daunting to students (and not only students) and so we would encourage the designers to ensure that this realm is introduced carefully so as not to discourage students. However, we believe that an examination of the negotiations that led to a reduction of the hole in the ozone layer, as well as the global nuclear non proliferation treaty would be apt inclusions which would exemplify the power of multilateral action.

Q2. What are your observations on the opportunities for Leaving Certificate Climate Action and Sustainable Development to support the <u>cross-curricular and whole-school approaches</u> to ESD in schools?

Given the extent of the challenge of climate change and implementing the SDGs, there is undoubtedly a need to include the issue of climate change and sustainable development in the syllabus of all relevant curricular subjects at the leaving cert level, particularly reinforcing subjects such as science, mathematics, and business and making them more climate relevant.

Additionally, this specification has the potential to spark change in communities across Ireland if structured appropriately. For example, a project showcase event could be integrated into the assessment, and parents, family members and members of the community could be invited to attend, along with NGOs. An example of how this works in practice is the STAND Ideas Collective. Students could be supported to work with organisations such as the SEAI and Codema to develop initiatives to increase the sustainability of their school, however this comes with a caveat that improving the school's 'carbon footprint' should not, we believe, be the purpose of this course. A novel idea could be to include an element of peer teaching from older students who are taking this course to new students, perhaps at Junior Cycle level.

Q3. What are your observations on the opportunities for Leaving Certificate Climate Action and Sustainable Development to capitalise on the <u>resources and initiatives</u> currently available in the cross-curricular and whole-school ESD space?

There is undoubtedly more space to grow climate-relevant resources to adapt to the current curriculum. Many students tell our members that there is not enough content and resources covering climate change and climate action, that there needs to be more climate-relevant classes and climate workshops in schools and that teachers must be educated on climate issues. Moreover, teachers also point out that they are not given the skills or training to make their classes climate-relevant and are not given adequate time to give their subjects a climate perspective.[4]

There are many resources and initiatives which could aid in the development of this course. For example, students could be supported to go on school tours to learn about the importance of peat bogs, or to learn about the Irish rainforest[5], to wind or solar farms, or to the soon to be developed Common Knowledge[6] centre in the Burren, Co. Clare. Links could also be made with Dublin City University that offer both an undergraduate and Masters in environmental

---

[4] Perspective from Zero Waste Alliance Ireland (ZWAI)
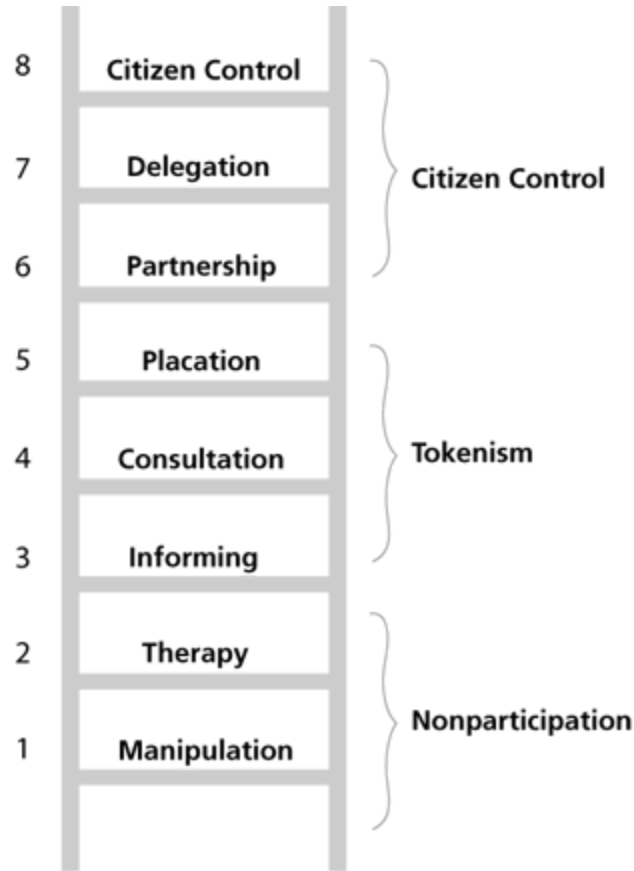[5] https://bearararainforest.com/
[6] https://www.ourcommonknowledge.org/

sustainability and climate change. Moreover, the Climate Ambassador programme would be integrated, or even supported to expand into schools.Furthermore, resources on teaching Sustainable Development have been developed at UCC and NUIG which could be adapted for Leaving Certificate level. There are a range of resources on education for Sustainable Development at national and international level.

However we stress that it is equally important to facilitate students to learn about the trades that will be required for the societal transformation to zero emissions, such as solar panel and heat pump installation. We would suggest that links are made between FET colleges and the ETBI.

Q4. What are your observations on the opportunities to enable student voice and action through the development of a specification for Leaving Certificate Climate Action and Sustainable Development?

There is untapped potential to grow a prominent curriculum with a climate focus. There is a growing appetite amongst young people for the need to improve the school curriculum that addresses climate action. Many students feel that the issue of climate action is left exclusively for those who are involved in green school committees and the already environmentally conscious. Therefore, there is a need to normalise the idea of climate action and engagement in environmental sustainability to have a wider appeal. Young people who are already involved in climate action are often unaware of the opportunities to get involved in environmental activities outside of school. Moreover, young people also feel they need to be aware of climate action facilitating their continued professional development in environmentally relevant careers, such as engineering, science, or the NGO sector.

There are many opportunities for student voice and action to be facilitated in this specification. One query at the outset however is, how are students' voices being included at this stage of the consultation? We suggest an engagement with the Ladder of Participation (Arnstein, 1969) on this point, which exemplifies the distinction between students as co-creators and as students who are merely 'engaged' during a process.

8	Citizen Control		
7	Delegation	Citizen Control	
6	Partnership		
5	Placation		
4	Consultation	Tokenism	
3	Informing		
2	Therapy		
1	Manipulation	Nonparticipation	

Arnstein's Ladder (1969)
Degrees of Citizen Participation

As for the specification itself, it could be interesting to include as part of this course, a mini Citizens' Assembly/plebiscite whereby students can experience first hand the power of deliberative democracy. What's more, students could be facilitated to lead on the process of their school's signing of the Future Generations Climate Justice Charter[7]. Alternatively, each class could be tasked with creating a charter during their senior cycle.

Further, it is important that there is a youth-led approach. Students have a say in what they participate in, and what skills/knowledge/attitudes/values they would like to focus on and/or develop, within reason, and while ensuring that there is a focus on examining root causes as well as offering solutions.

Intersectionality (Crenshaw, 2017) is crucial in terms of student voice. Students, like the general population, exist of people with different identities and from different backgrounds. This should be acknowledged, rather than hidden. And rather than space "being given", or certain people "being empowered", this should instead be used to catalyse a conversation on power in

---

[7] See the National Youth Council of Ireland for more information.

decision-making, and extrapolate this locally, nationally, regionally and globally to unpack how certain identities have been systematically marginalised.

Additionally, students should be facilitated to meet and put their views to public representatives. Every school will have at least one local TD, and they will have local councillors. This opportunity should be harnessed.

Q5. To what degree do you think teaching and learning in this subject should enable the following, in relation to climate and sustainability matters?

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
Managing and navigating uncertainty	x				
Addressing 'real life' issues	x				
Progression and continuity from junior cycle	x				
Increased student agency and decision making	x				
Thinking locally and globally	x				
Taking action towards a sustainable future	x				
Knowledge of climate change mitigation and adaptation	x				
Evidence-informed decision making	x				
Knowledge of climate science	x				
Changed behaviours	x				
Inquiry-based problem solving	x				

Shift in attitudes	x				
Involvement of/with the wider community	x				
Engagement with global justice issues	x				

In terms of pedagogies, we encourage the use of a diverse range in order to develop various intelligences, and also to ensure that literacy is not prioritised to the detriment of other skills, as this can exclude certain students. Therefore we recommend that a variety of media can be employed in student based project work, such as art, music and film. Key signature pedagogies cited in the background paper that are to be welcomed include inquiry-based learning, creativity and place-based learning, and we would add to this discussion, debate, socratic questioning, and *visioning*. It is also important that pupil-led research and inquiry is core to this course. We strongly agree with the statement in the background paper that, "A pedagogy of meaningful hope acknowledges the uncertainty of the future, but that in this uncertainty there is space to act". Indeed, it is important to be realistic without unnecessarily scaremongering, and also to be realistic as to what classroom-based activities can achieve. It is a challenging balance to strike, and so examples of student and community led actions can showcase pathways forward.

Although behaviour change is important, it is crucial that students understand the root causes of the climate crisis so that they do not feel a defeating sense of guilt or disproportionate responsibility.

Q6. What are your observations on the opportunities which the development of Leaving Certificate Climate Action and Sustainable Development presents for the capacity of teachers to engage with the subject?

The opportunities presented by our secondary schools and the teachers engaging in climate action and sustainable development can have enormous potential to build youth leadership. By creating a culture that revolves around climate education and education for sustainable development, our teachers and particularly our young people who are going to be critical in battling against climate will become more environmentally conscious and emphatic towards environmental sustainability. This encourages them to engage in consistent critical thought about the challenges of global warming and the impacts of human behaviour.

Teachers can learn alongside students via this specification which may appeal to those that are looking for something different than a didactic style of education. Additionally, teachers can be supported to learn, via enhanced CPD, about concepts and skills that are relevant to their life as well as to the lives of their students. They can also be facilitated to connect to other teachers

also teaching this subject, for example in the Irish Schools Sustainability Network, which may help teachers to develop their practice via peer learning.

We would also suggest utilising the wealth of knowledge and experience in the non governmental sector to assist with this training, and to create a formal training relationship between civil society and the second level.

Q7. What are your observations on the challenges which the development of Leaving Certificate Climate Action and Sustainable Development presents for the capacity of teachers to engage with the subject?

With any new subject, there is a tendency for school principals to ask young and enthusiastic part-time teachers (who are perhaps seeking a full-time permanent role and are therefore in less of a position to reject the request) to take on teaching these subjects. We don't feel that this is the right approach, and it needs to be anticipated so that it can be addressed. The introduction of this subject needs to have the full support of the school. The situation must be avoided whereby only the teachers who are new and/or enthusiastic about the subject are given the subject. Any teacher who is interested should be facilitated to teach this subject, and they should be given adequate time to train in advance.

The teacher also may be required to have skills beyond teaching, such as facilitation and project management, especially if the subject is less didactic than is standard, which provides both an opportunity for upskilling but also a challenge in terms of the needs required from the teacher.

Finally, teachers need to understand that they don't need to be experts in all things climate science, sustainable development, policy and activism, and instead they should be supported to learn *with and from* their students.

Q8. What are your observations on the assessment challenges and opportunities offered by the development of this new specification? (Section 4 gives an overview of some approaches used in other jurisdictions pp.12 – 20)

<u>Challenges</u>

There is no doubt that the assessment for this subject needs to be thoroughly considered. Challenges in the future for teaching environmental education and education for sustainable development may include inadequate training for teachers, inadequate resource materials, and

teachers may focus more on the subject content instead of integrating environmental and sustainable development themes within the subject.

Moreover, it is difficult to imagine parts of this subject being appropriate for a written examination, however the learning of climate science could perhaps be submitted to written scrutiny.

Additionally, how might value change be assessed? This is a significant challenge but just because it cannot always be easily measured, does not mean that it doesn't matter. It's crucial that this subject does not end up disregarding the elements that cannot be sufficiently monitored, because indeed they are some of the most important elements of this subject. This is a risk as it is a Leaving Cert subject.

Additionally, climate science is continuously being updated, which means that the course would need to be updated regularly in order to remain accurate.

Finally, consider the situation in which a student fails this course. How would that come about, and what might the implications be for that person's engagement with sustainable development and climate action for the rest of their life? This situation should be avoided, which potentially creates a challenge and pressure for the teacher.

Opportunities

Effort should be rewarded, which can be monitored via engagement in debates, reflection via a reflective journal (which could be in one or a variety of media), and participation in a group project for example.

Students would learn very useful skills for third level, but they could also learn about the importance of trades for a just transition, which is an opportunity to challenge the classism between universities/trades.

Assessment could also be in the form of a project that is presented to the community and local policy makers at an annual showcase event, creating a ripple effect that reaches far beyond the school gates.

Finally, as engagement with this subject clearly aligns with the government's goals on climate change and on implementation of Agenda 2030, it would make sense that students are rewarded for engagement with the subject and encouraged to take it up. Perhaps the marking should be lenient in the first years in order to encourage students to engage with the new subject.

Additional comments

Effectively assessing climate action in schools may prove to be a challenge as it depends on how schools and agencies (including community groups, local and national government) integrate students into examinable collaborative projects. Currently, collaboration between student groups, community activists, and government officials is inadequate in Ireland, and this provides an opportunity for improvement.

Developing an assessment for students that involves engaging in projects and hands-on activities related to climate action and sustainable development would be a refreshing change from the existing norm of standardised tests and examinations.

Q9. Please give your observations on the following in relation to coursework assessment components:

Coursework assessments should provide opportunities for students to:

	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
Gather, process and analyse information	x				
Make informed, evidence-based decisions	x				
Communicate, work with and influence others	x				
Engage with real life climate/sustainability issues	x				
Use critical thinking skills	x				
Take informed, independent action	x				
See the world from varying perspectives	x				
Investigate a climate/sustainability issue(s) of their choosing/interest	x				

Additionally, assessments should give students an opportunity to demonstrate their ability to think systemically (i.e., will assess systems thinking), which is a crucial skill in the face of

multifaceted, complex, or so-called 'wicked' crises. Assessments should also inquire as to whether students understand the important role that community plays.

Q10. Do you have other comments that would be relevant to the development of this specification that have not been captured elsewhere?

I would like to provide some feedback on a sentence on page 2, where the text reads: "As the wide-ranging impacts of climate change intensify, crises such as food shortages and human migration increase." It is really important that this course does not contribute to an anti-migrant narrative. In the background paper, "human migration" is listed as a crisis. In fact, much research by migration studies, geography, and sociology scholars has shown that it is very difficult to attribute migration to any one cause, and while climate change can exacerbate existing vulnerabilities which contribute to people's decision to move, referencing climate change as a main cause of migration is misleading (Gemenne, 2011; Boas et al., 2019; Wiegel et al. 2019). The use of the word 'crisis' to refer to human migration unfortunately taps into problematic ideas of climate change causing 'waves' or 'floods' of migrants moving to wealthier countries. This framing is most appealing to those who are politically right-of-centre, and apocalyptic and exclusionary visions of climate migration are being promoted by right-wing and far-right politicians and political groupings across Europe, the US and Australia (Turner and Bailey, 2022). These narratives have also formed part of US and EU exclusionary border policies (Schwartz and Randall, 2003; Miller et al. 2021).

Interestingly, recent research shows that in terms of building public support for climate action policies - such as reducing fossil fuel use - narratives which include migration actually *reduce* support (Dasandi et al., 2022). Positive, global, and inclusive messages about health and the environment, not crisis language, are what tend to build support for climate action. I suggest the curriculum development team might benefit from consultation with an expert on this topic, and/or guidelines which lay out preferred language, for example, human mobility is a preferred term to migration (Baldwin et al., 2019).

This is related to a second important point on population growth. Inevitably this comes up in debates around climate change and sustainable development in general. We urge the designers of this course to engage seriously with this question, not to dismiss it, but rather to use concrete evidence in order to challenge narratives that risk veering into exclusionary and neocolonial realms. We would suggest that teachers are supported to frame this area within an analysis of wealth, power and distribution. Rich and industrialised countries have contributed around 92 percent of excess historical emissions and 37 percent of current emissions, whereas Africa's current emissions stand at just 4 percent (Hickel, 2020). The collective carbon emissions of Somalia, Ethiopia and Kenya is 0.1% of the global total - despite these 3 countries having about 2.5% of the world's population (World Population Review, 2020). The richest 10% of the world's population emit 50% of its emissions (Oxfam, 2020). Simple statistics such as these elucidate

that climate change is not a problem of population - it is a problem of inequality, extreme wealth and 'atmospheric colonisation' (Hickel, 2020).

We also note this phrase used in the background paper, "It sees ESD as an educational process of achieving human development in three areas – _economic_, social, and environmental" [emphasis added]. We strongly encourage the course designers to engage critically with this element of sustainable development and not just say it in passing. Increasingly, it is apparent that continued economic growth in Global North countries is not compatible with remaining within planetary boundaries, one of which is climate change.

References

Arnstein, Sherry R. "A Ladder of Citizen Participation." *Journal of the American Institute of Planners*, vol. 35, no. 4, 1969, pp. 216–224., https://doi.org/10.1080/01944366908977225.

Baldwin, Andrew, Christiane Fröhlich, and Delf Rothe. 'From Climate Migration to Anthropocene Mobilities: Shifting the Debate'. *Mobilities* 14, no. 3 (4 May 2019): 289–97. https://doi.org/10.1080/17450101.2019.1620510.

Boas, Ingrid, Carol Farbotko, Helen Adams, Harald Sterly, Simon Bush, Kees van der Geest, Hanne Wiegel, et al. 'Climate Migration Myths'. *Nature Climate Change* 9, no. 12 (December 2019): 901–3. https://doi.org/10.1038/s41558-019-0633-3.

"Carbon Emissions of Richest 1 Percent More than Double the Emissions of the Poorest Half of Humanity." *Oxfam International*, 23 Sept. 2020, https://www.oxfam.org/en/press-releases/carbon-emissions-richest-1-percent-more-double-emissions-poorest-half-humanity.

Crenshaw, Kimberlé. "Kimberlé Crenshaw on Intersectionality, More than Two Decades Later." *Columbia Law School*, 2017, https://www.law.columbia.edu/news/archive/kimberle-crenshaw-intersectionality-more-two-decades-later.

Dasandi, Niheer, Hilary Graham, David Hudson, Slava Jankin, Jennifer vanHeerde-Hudson, and Nick Watts. 'Positive, Global, and Health or Environment Framing Bolsters Public Support for Climate Policies'. *Communications Earth & Environment* 3, no. 1 (20 October 2022): 1–9. https://doi.org/10.1038/s43247-022-00571-x.

Gemenne, François. 'Why the Numbers Don't Add up: A Review of Estimates and Predictions of People Displaced by Environmental Changes'. *Global Environmental Change*, Migration and Global Environmental Change – Review of Drivers of Migration, 21 (1 December 2011): S41–49. https://doi.org/10.1016/j.gloenvcha.2011.09.005.

"Greenhouse Gas Emissions by Country 2022." *Greenhouse Gas Emissions by Country 2022*, 2022, https://worldpopulationreview.com/country-rankings/greenhouse-gas-emissions-by-country.

Hickel, Jason. *Less Is More: How Degrowth Will Save the World*. Heinemann, 2020.

Hickel, Jason. "Quantifying National Responsibility for Climate Breakdown: An Equality-Based Attribution Approach for Carbon Dioxide Emissions in Excess of the Planetary Boundary." *The Lancet Planetary Health*, vol. 4, no. 9, 2020, https://doi.org/10.1016/s2542-5196(20)30196-0.

Klein, Naomi. "Naomi Klein · Let Them Drown · LRB 1 June 2016." *London Review of Books*, London Review of Books, 2 June 2016, https://www.lrb.co.uk/the-paper/v38/n11/naomi-klein/let-them-drown.

Kolb, David A. *Experiential Learning: Experience as the Source of Learning and Development*. Pearson Education Ltd, 2015.

Miller, Todd, Nick Buxton and Mark Akkerman. 'Global Climate Wall | Transnational Institute'. (2021) Accessed 10 October 2022. https://www.tni.org/en/publication/global-climate-wall.

Rockström, J., Steffen, W., Noone, K. *et al.* A safe operating space for humanity. *Nature* 461, 472–475 (2009). https://doi.org/10.1038/461472a

Schwartz, Peter, and Doug Randall. 'An Abrupt Climate Change Scenario and Its Implications for United States National Security': Fort Belvoir, VA: Defense Technical Information Center, 1 October 2003. https://doi.org/10.21236/ADA469325.

Turner, Joe, and Dan Bailey. '"Ecobordering": Casting Immigration Control as Environmental Protection'. *Environmental Politics* 31, no. 1 (2 January 2022): 110–31. https://doi.org/10.1080/09644016.2021.1916197.

Wiegel, Hanne, Ingrid Boas, and Jeroen Warner. 'A Mobilities Perspective on Migration in the Context of Environmental Change'. *WIREs Climate Change* 10, no. 6 (2019): e610. https://doi.org/10.1002/wcc.610.